

Newland Sierra Project

Late Comment Letters

SEPTEMBER 2018

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LL-1

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September 25, 2017

Maggie Soffel
Land Use/Environmental Planner
5510 Overland Avenue, Suite 310
San Diego, CA 92123

Re: San Diego County Draft Climate Action Plan

Dear Ms. Soffel:

We represent the Golden Door Properties LLC (the “Golden Door”), an award-winning spa and resort that opened in 1958. This historic haven is situated on approximately 600 acres on the south side of Deer Springs Road in northern San Diego County (“North County”). It was the highest rated establishment in *Travel and Leisure*’s recent list of world’s best destination spas. Its property encompasses a peaceful array of hiking trails, luxurious spa amenities, tranquil Japanese gardens, and a bamboo forest. Agricultural cultivation on the property includes avocado groves and fresh vegetable gardens as well as citrus and olive trees.

The Golden Door is committed to environmental stewardship and sustainability. It uses sustainable and bio-intensive agriculture practices and has eliminated guests’ use of plastic water bottles. The owners are not seeking to expand the Golden Door, but are seeking to further enhance the Golden Door according to guiding principles, including the extensive sustainable agriculture on the surrounding acres. Reducing greenhouse gas (“GHG”) emissions to combat the threat of global climate change is an important issue for the Golden Door.

As such, we appreciate the opportunity to participate in the Climate Action Plan (“CAP”) process and provide input on the County’s efforts to reduce GHG emissions. The Golden Door is particularly concerned about GHG emissions from the proposed Newland “Sierra” Project (the “Newland Project”), a revised Merriam Mountains project on property located near Deer Springs Road. The Newland Project would implement urban residential density in a rural area of the unincorporated County, far from job and urban centers and from transit infrastructure. This unplanned development would contradict modern planning principles and the County’s General Plan and would result in long single-occupant vehicle trips causing significant GHG emissions in contrast to the County’s stated goal in the CAP. We submit the following comments on the draft CAP and draft Supplemental Environmental Impact Report (“DSEIR”).

I. THE COUNTY SHOULD HALT PROCESSING PROJECTS UNTIL THE CAP IS COMPLETED

As an initial matter, the County should cease processing and approving projects until the CAP is completed. While the CAP provides avenues for General Plan Amendments not already considered within the CAP and considers pending projects within its cumulative impacts analysis, the CAP is in draft form and is subject to revisions following the public comment process.

In particular, the County should refrain from processing the Newland Project prior to the adoption of the CAP, as doing so may result in impermissible tiering. We are concerned that the Newland Project may be attempting to tier off the CAP prior to its approval. An environmental impact report (“EIR”) may not tier off of an incomplete or future environmental document. (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 440.) Newland’s proposed “net zero” mitigation measures—in its draft EIR published in June—do not meet the requirements of the CAP’s offset mitigation measures as currently drafted. Further, the CAP’s offset measures may be revised to provide stronger environmental protection prior to approval. As such, the Newland Project should not be allowed to tier off of the unapproved CAP, and the County should refrain from processing the Newland Project until the CAP is completed.

The Newland Project purports to be “net zero” but does not provide adequate assurances that its offsets will actually achieve the required emissions reductions. The Golden Door provided more fulsome comments on the Newland Project’s draft EIR and its various deficiencies in its August 14, 2017 comment letter on the Newland Project’s draft EIR.

In particular, the CAP’s offset mitigation measures provides geographic priorities for GHG offset projects, beginning with: “1) project design features/on-site reduction measures; 2) off-site within the unincorporated areas of the County of San Diego; 3) off-site within the County of San Diego; 4) off-site within the State of California; 5) off-site within the United States; and 6) off-site internationally.” (DSEIR at p. 2.7-37.) The Newland draft EIR provides a list of priorities for projects, including a “true up” provision for its operational GHG emissions offset requirement. The Newland EIR’s “true up” provision allows the County’s Planning & Development Services (“PDS”) Director to, after Project approval and without additional public input, decrease the volume of operational emissions that Newland is required to offset. This “true up” provision renders the Newland Project’s offset mitigation measure illusory.

In contrast, the CAP does not contain any such illusory “true up” provision. The Newland Project should not be allowed to bypass more stringent offset requirements in the CAP simply by being approved prior to the adoption of the CAP. Such an approach would be improper here, where the CAP is required mitigation for the County’s General Plan EIR from 2011. (*Lincoln Place Tenants Assn. v. City of Los Angeles* (2007) 155 Cal.App.4th 425, 445 [mitigation measures must be implemented, not “merely adopted and then neglected or disregarded”].) Sprawl projects, such as the Newland Project, that cause significant GHG emissions from long automobile trips in contrast to modern planning principles, should not be allowed to bypass any GHG reduction measures in the CAP simply by seeking approval

subsequent to the time in which the County set the requirement for the CAP but prior to actual approval almost seven years later.

The offset requirements and assurances in the CAP provide more certainty of achieving GHG emissions reductions than in Newland's flawed "net zero" approach. Thus, the County should abstain from processing the Newland Project until the CAP is completed.

II. GHG REDUCTIONS SHOULD BE PRIORITIZED WITHIN THE COUNTY

The County's General Plan prioritizes GHG emissions reductions within San Diego County. In 2011, following approximately ten years of substantial input from numerous stakeholders and citizen groups, the County approved an update to its General Plan. (San Diego County General Plan at pp. 1-2.) In the EIR for the General Plan, the County concluded that the GHG and climate change impacts from the County's operations and from community sources were "potentially significant"—that without mitigation the County would fail to comply with AB 32, which requires the State to lower its GHG emissions to 1990 levels by 2020. As a result, the General Plan EIR included mitigation measures for GHG and climate change impacts, including the adoption of a CAP. (San Diego County General Plan, Mitigation Measure CC-1.2.) The CAP, therefore, was intended to mitigate impacts from GHG emissions *within San Diego County*. In addition, Goal COS-20 of the General Plan prioritizes "[r]eduction of *local* GHG emissions contributing to climate change that meet or exceed requirements of the Global Warming Solutions Act of 2006." (Emphasis added.)

The CAP provides the following 2020 and 2030 adjusted reduction targets and 2050 goal for emissions *in the County*: two percent below 2014 levels by 2020; 40% below 2014 levels by 2030; and 77 percent below 2014 levels by 2050. (CAP at 2-11.) "[T]o meet the 2030 target and 2050 goal, the County will need to achieve a reduction of 897,237 MTCO₂e by 2030 and 2,253,066 MTCO₂e by 2050 beyond legislative-adjusted projections. To close the emissions gap shown in Figure 2.3, this CAP proposes 11 strategies and 29 measures that the County would implement to reduce GHG emissions." (CAP at 2-14.)

The State of California has set an example for all other jurisdictions by making bold commitments to reduce greenhouse gas emissions. The County has explicitly made commitments to reduce emissions in the County consistent with its share of reductions needed for the State to achieve its goals. However, we note that the County has not demonstrated substantial evidence to support the availability of offsets within the County. While the language in the CAP states that the County will fund and implement investment projects, there is no evidence or assurance to suggest that the County is making the investment. Allowing payment for offsets to occur outside of the County is akin to the medieval payment for indulgences. A one-time payment should not absolve emitters for their GHG emissions that occur within the County. The County made a promise to reduce emissions within the County; it should uphold that promise for the benefit of its residents who expect a local reduction in GHGs and copollutants based on the County's plans. There must be some assurance that offset projects will occur within the project site or the County. While we understand each project is unique, the County should incorporate a standard into its offset priorities to promote GHG reductions within the County; otherwise project proponents may be incentivized to devote all or almost all of the

resources to offsets occurring outside of the County. The County should consider at least the following methods for ensuring a certain level of offsets occur within the County in addition to any others that would promote offsets within the County:

- A bright-line percentage requirement for offsets to occur within San Diego County, or if this is deemed infeasible, a proportionate dollar amount or fee paid to facilitate GHG emissions reductions within the County;
- A bonus structure similar to a density bonus approach, that allows greater use of offsets for projects located in infill areas or close to existing transit;
- A more regimented set of findings describing the infeasibility of on-site offsets or offsets within the County that the County must make for a proposed project before it is allowed to use offsets outside of the County;
- A requirement that each project must specifically identify available offsets that the project will use within the County prior to approval; or
- A requirement that each project must meet a defined, impartial criteria, such as LEED Platinum.

III. THE CAP MUST PROVIDE ASSURANCES FOR OFFSETS

Regardless of where offsets occur, the County must provide assurances that the offset projects will achieve their projected reductions. The CAP provides, “[a]fter adoption, the CAP will continue to be maintained by the County Department of Planning & Development Services (PDS). Key staff in PDS, with active participation and assistance from the Sustainability Task Force, will facilitate and oversee implementation, monitoring, and reporting on the progress of each measure.” (CAP at 5-2.) It is unclear if such monitoring extends to the offsets, or how the County staff will be able to monitor offset projects that may occur on the other side of the world. In addition, it is unclear if the County has any mechanism to enforce offsets in other jurisdictions; therefore, it is unclear if the mitigation is actually enforceable. The CAP should provide detailed information on how the County will ensure monitoring and reporting of the mitigation projects funded by offsets, as mere funding by itself does not equate to mitigation. (See *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692.)

Moreover, the CAP should ensure that the County is able to meet its 2050 emissions reduction goals that extend to 2050. (CAP at 1-2.) While the CAP maintains that it “demonstrates how the County will achieve GHG emissions targets for 2020 and 2030, and demonstrate progress to 2050,” (CAP at 1-13) it is unclear how the 2050 target will be met if General Plan Amendments approved in the near future only provide mitigation assurances to 2048 (assuming approval of the CAP in 2018). The Appendix B to the DSEIR provides:

Adherence to the protocols listed in this Appendix, as well as any additional protocols subject to the same standards as the protocols

herein, ensures that the carbon reductions generated by CAP Measure T-4.1 are real, permanent, quantifiable, verifiable, and enforceable. Carbon offset registries require projects to comply with approved protocols using rigorous, standardized review processes. The protocols contain rules and procedures governing the retirement or cancellation of carbon offsets. Protocols and processes ensure that offsets retired from County direct investment projects pursuant to CAP Measure T-4.1 and listed on an offset registry satisfy the environmental integrity criteria established by the offset protocols. Carbon offsets achieved through implementation of Measure T-4.1 must be complete and retired before the County can take reduction credits. A registry will ensure that carbon offsets are retired in perpetuity.

(Appendix B at p. i.)

The County should provide similar assurances for General Plan Amendments approved using offsets. The CAP prioritizes “local projects that would offset carbon emissions within the unincorporated county.” (Strategy T-4, DSEIR at p. 2.7-17.) The County must ensure General Plan Amendments are held to the same standards as the County’s own offset projects. Moreover, the County should consider whether and how to ensure mitigation for General Plan Amendment offset projects is continued beyond the 30-year out year. If there are no assurances that the offset projects will continue beyond their specified expiration date or for the full term of the County’s planning period specified in the proposed CAP then, the County is not accurately calculating what the projects’ overall GHG impacts will be for the full term of the County’s planning period specified in the CAP. If the offset projects are no longer operational after their prescribed term or potential expiration date, then the County should carefully consider whether it is still accurate for the County to assume that the GHG emissions from the offset projects can be counted as part of any project’s overall reduction in GHG emissions during the County’s full planning period specified in the CAP.

As such, the County should consider whether to provide assurances that funding for offset mitigation projects will continue, lest the County experience a significant spike in GHG emissions once the funding for offset projects has concluded and they are no longer operational. (See *Cleveland National Forest v. San Diego Assn. of Governments* (2017) 3 Cal.5th 497, 514 [an EIR must adequately describe the nature and magnitude of the adverse effect].) In any event, if the County is proposing to allow offset projects which expire or may no longer be enforceable before the end of the County’s planning period used in the CAP, then the potential increases when these offset project may “expire” should be counted in the County’s overall numerical calculations in the CAP including expected GHG increases due to expiring offset agreements. As the Court of Appeal stated in *Sierra Club v. County of San Diego* (2015) 231 Cal.App.4th 1152, 1170: “Quantifying GHG reduction measures is not synonymous with implementing them. Whether a measure is effective requires not just quantification, but also an assessment of the likelihood of implementation.” Likewise, if offsets counted on by the CAP as a GHG reduction measure are likely or possibly going to expire before the end of the CAP’s planning

period in 2050, or shortly thereafter, this should be disclosed to the public, since it is relevant to whether the mitigation measure will be implemented for the full planning period.

IV. GHG INVENTORY AND REDUCTION STRATEGIES

A. GHG Inventory

The CAP's business as usual projections include "[g]rowth from General Plan Amendments "GPAs" adopted since adoption of the 2011 General Plan Update are also included in the projections." (CAP at 2-7.) "The GHG emissions inventory for the CAP does not include emissions attributable to proposed GPAs that would increase density/intensity above what is allowed in the General Plan. Even though there were GPAs that were adopted between 2011 (adoption of 2011 General Plan Update) and 2014 (inventory baseline year), none of these GPAs were constructed by 2014 and; therefore, their GHG emissions are not included in the 2014 inventory. The 2014 inventory is based on emissions-generating activities that existed on the ground in 2014." (CAP at 2-14.)

The Draft SEIR's Mitigation Measure GHG-1 applies to all future General Plan Amendments, including those discussed in the cumulative impacts section. The County maintains that with the inclusion of this mitigation measure, all future GPAs will not interfere with the County's reduction targets or 2050 goal. (CAP at 2-14.) The County thus concludes that "General Plan Amendments would, therefore, comply with the threshold of significance, which is consistency with the CAP." (CAP at 2-14.) However, there is not enough information presented in the DSEIR or CAP to ascertain the veracity of this conclusion. A project-by-project breakdown of emissions from each project appears to be missing from the CAP and DSEIR.

B. Transportation Reductions

The County concludes that it "has limited options under its control for implementing transportation-based strategies," despite acknowledging that on-road transportation is the largest source of GHG emissions in the County. (CAP at 3-3.) The County should ensure future projects are located in infill locations close to existing transit, in addition to exploring additional methods of implementing transportation-based strategies to reduce the County's reliance on single-occupant vehicles. The CAP provides strategies to reduce VMTs, and notes that the General Plan provides "a framework to accommodate future development in an efficient and sustainable manner that is compatible with the character of unincorporated communities and the protection of valuable and sensitive natural resources. In accommodating growth, the County focuses on the provision of diverse housing choices while protecting the established character of existing urban and rural neighborhoods." (CAP at 3-9.)

Further, Strategy T-1 provides, "This strategy focuses on preserving open space and agricultural lands, and focusing density in the county villages. By not developing housing in the more remote areas, the county will avoid GHG emissions from transportation and energy use associated with conveyance of water and solid waste services. Reductions in Vehicle Miles Traveled (VMT) resulting from this strategy will also improve air quality through reduced

vehicle emissions and contribute to public health improvements by creating opportunities for active transportation choices.” (CAP at 3-9.)

The County should ensure such strategies are appropriately implemented in all pending and future projects. In particular, the County should not allow the Newland Project, which would add over 28,000 daily trips in an area located far from existing transit, to move forward before the CAP is approved. This contravenes the CAP’s stated strategies and risks thwarting the CAP’s comprehensive approach. If the County allows the Newland Project to progress prior to adoption of the CAP, the County enables the Newland Project to avoid the CAP’s goal of “preserving open space and agricultural lands” by developing on a parcel currently zoned for a much lower level of density—primarily RL-20—than the project currently proposes.

The CAP should also include requirements that land use decisions support smart growth development near existing infrastructure and transit and placing housing near jobs in order decrease GHG emissions from long automobile trips. One potential tool to support this approach would be to require General Plan Amendment projects to be consistent with the land use patterns used by SANDAG to general its Regional Transportation Plan and Sustainable Communities Strategy, which is intended reduce GHG emissions by linking land use and transportation planning pursuant to SB 375.

C. Acquire Open Space Conservation Land

The CAP provides:

Acquisition of land by the County under the MSCP would reduce GHG emissions through preservation of land which can otherwise be developed. GHG emissions reductions are realized from reductions in transportation, energy use, waste, and water consumption. Preservation of these lands also helps protect watersheds, improve water quality, and preserves vegetation, which provides carbon sequestration benefits. Reductions for this measure are quantified based on the reduced development potential associated with preservation of lands. Future acquisitions beyond those targeted in this measure will reduce GHG emissions in the county, the benefit of which will be reflected in the County’s biennial GHG inventory updates.

(CAP at 3-10.)

Additional details for this measure are required. For instance, how will the County calculate the reductions from this measure, but allow GPAs such as the Newland Project to move forward? Further, will the County count implementation of the North County MSCP as a potential reduction? If so, would this include a developed Newland Project? Doing so may amount to de facto project approval for the Newland Project prior to the completion of the environmental process, as the MSCP is currently in draft form. Further, the NC MSCP has not been approved and is not scheduled to go before the Board of Supervisors for a decision for

several more years. The NC MSCP must also be approved by the State and Federal Wildlife Agencies before taking effect. It is improper for the CAP to take credit for emissions reductions to be achieved by a plan or program that has not been approved. (*Vineyard Area Citizens for Responsible Growth, Inc.*, *supra*, 40 Cal.4th at 440.)

We thank you for your time and attention to our comments. Please do not hesitate to contact us should you have any questions or comments.

Best regards,

Christopher W. Garrett

Christopher W. Garrett
of LATHAM & WATKINS LLP

cc: Kathy Van Ness, Golden Door
Mark Slovick, County Planning and Development Services
Ashley Smith, County Planning and Development Services
William W. Witt, Office of County Counsel
Claudia Silva, Office of County Counsel
Dan Silver, Endangered Habitats League
Stephanie Saathoff, Clay Co.
Denise Price, Clay Co.
Andrew Yancey, Latham & Watkins

LL-2

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VIA EMAIL AND FEDERAL EXPRESS

November 21, 2017

Ashley Smith, Planning Manager
County of San Diego
Planning and Development Services
5510 Overland Avenue, Suite 310
San Diego, CA 92123

Re: Problems with the Newland Sierra Cumulative Impacts Analysis

Dear Ms. Smith:

As you know, we represent Golden Door Properties, LLC (“Golden Door”) concerning the proposed Newland Sierra Project (“Project”). We write to inform you of errors and omissions in the cumulative impacts analysis in the Draft Environmental Impact Report (“DEIR”) for the Newland Sierra Project. We hope that by writing to you now regarding these issues, County staff will have sufficient time to respond to our concerns and make necessary changes to the County’s EIR for the project.

In conjunction with several professional consultants, we have reviewed the Newland Project’s DEIR. The Golden Door and its consultants provided comments on the DEIR by the August 14, 2017 deadline set by the County, which allowed the public 60 days to review and comment on the more than 21,000 page DEIR that the County took nearly two-and-a-half years to prepare. We had hoped to send this letter after the County provided members of the public with the documents withheld by the County staff and the County’s consultant, but the County has continued to delay resolving that matter.

Data gaps in the DEIR and the DEIR’s vague and obfuscatory language limited our efforts to fully understand the details of the DEIR and provide meaningful feedback. The County also refused to provide the necessary explanatory technical information used to make significance determinations. As we have explained previously, the DEIR’s structure and over-reliance on appendices makes the document’s analysis and the basis for such analysis impossible to decipher.

The County staff have refused to provide essential information requested by the public to help understand the DEIR’s analysis. This refusal led to months-long fight by the County and Newland’s consultant to withhold key air quality files. As part of this conflict, the County staff attempted to outsource its public disclosure obligation to a third-party private consultant. The

third-party consultant then threatened to sue anyone who requested the information for potential “misuse” of their “proprietary” data. This required the Golden Door to file litigation seeking access to the County’s public records. As of this date, the County has still refused to provide a satisfactory resolution of the matter - though we are hopeful to reach a settlement.

Without adequate data, and without protection from threats of lawsuits by the County’s and the developer’s consultants, our professional consultants were unable to provide a peer review of the methodology used and the conclusions reached in the Draft EIR. They were also unable to review the data that was used as inputs in these models, including the full list of the data used to construct the information on potential cumulative projects that could lead to cumulative impacts.

Despite the County staff’s refusal to provide this basic information under the Public Records Act, we have attempted to use other means to identify the errors and omissions in the DEIR’s cumulative impacts analysis. As described below, it appears to us that the County staff failed to include all of the necessary projects in this analysis as required by CEQA. This exacerbates the DEIR’s flaws as an informational document. In addition, the DEIR’s vague and confusing construction makes it difficult to determine the full scale of prejudice resulting from these errors and omissions. It is possible that when the documents that the County has withheld under the Public Records Act are released to us and other members of the public, under an agreement which assures that no one faces a threat of lawsuits by the County or third party consultants, we or other members of the public may discover additional errors in the cumulative impacts analysis.

Below is a discussion of the errors we have been able to identify, based on the limited data the County has provided to the public. Because of these errors, the County staff must make corrections in a revised document and provide a new comment period under CEQA, so that members of the public can analyze the data and provide comments on the findings related to that data.

I. THE NEWLAND DEIR OMITTS IDENTIFIABLE CUMULATIVE PROJECTS AND MAKES OTHER ERRORS

It does not appear that the Draft EIR has taken into consideration the cumulative impacts of the Williams Riviera Project, the Safari Highlands Project, the Pala Casino Hotel expansion, or the San Marcos Highlands Project. These projects are detailed below:

1. The Williams Riviera Project (**Attachment 1**) located in Valley Center is a 98 acre mixed-use project that includes 214 apartment units, 376 single-family homes, and 108,000 square feet of commercial space.
2. The Safari Highlands Project (**Attachment 2**) located on 1,098 acres in the unincorporated area east of Rancho San Pasqual near the City of Escondido and the San Diego Zoo Safari Park would include 550 single-family homes with supporting commercial areas and recreational amenities.

3. The Pala Casino Resort Expansion (**Attachment 3**) is located on the Pala Indian Reservation off Highway 76 and will include a new 348-room hotel, a new 12,000 square foot gaming floor, and a complete remodel of the existing 100,000 square foot casino area.
4. The San Marcos Highlands Project (**Attachment 4**) is located on 265.8 acres north of Santa Fe Hills in the City of San Marcos and unincorporated County and will include 189 clustered single-family residential lots.

In addition to the projects above, we note that there are no projects in the City of Escondido listed in Table 1-10 or shown on Figure 1-46 of the DEIR. We have attached a list of projects that are under construction, recently approved, and under consideration by the City of Escondido (**Attachment 5**). Some of these projects are quite large and would likely have the potential to add significant traffic to area roadways, including at least some additional traffic on Interstate 15. This additional traffic will add the predicted ambient air quality impacts from cumulative projects. The DEIR must be revised to include new information on these increased cumulative impacts on the roadways and freeways and air quality.

When the DEIR is revised so that these traffic and air quality impacts are added from these missing projects to the cumulative projects analysis, the DEIR must be recirculated for a new public comment period. Even a small increase in traffic on Interstate 15, for example, will be a substantial worsening of the already identified cumulative significant adverse impact on traffic. Under the California Environmental Quality Act (“CEQA”), the addition of information showing a substantial worsening of an already identified impact, such as cumulative traffic or cumulative air quality impacts, requires recirculation of the DEIR as noted below.

It appears that the County did request that the Safari Highlands project be evaluated for cumulative impacts in the Newland Sierra DEIR. However, inexplicably, the Safari Highlands project does not appear in the list of cumulative projects on Table 1-10. In an October 8, 2015 email exchange provided to the Golden Door by the County of San Diego between Darin Neufeld, Project Planning Manager for the County’s Department of Planning and Land Use, and Brian Grover, the EIR writer for the Newland Sierra Project for Dudek and Associates, Mr. Neufeld makes clear that Safari Highlands should be evaluated in the cumulative impacts section (**Attachment 6**). In the email, (subject line “Newland Cumulative – Safari Highlands Ranch”) Mr. Neufeld says, “Brian, please make sure this project is evaluated in cumulative.” The Notice of Preparation of an EIR for Safari Highlands is attached to the email with a description of the project. Mr. Grover requests a copy of the application for the project, but Mr. Neufeld states that he does not have a copy of the application. Despite the fact that the County requested that the Safari Highlands project be included in the cumulative impacts analysis and consultants for Newland Sierra were informed of the specifics of the project, it does not appear that this project was included in the cumulative impacts analysis.

The DEIR was written in a manner to be “strategically vague” in its description of some projects while being hyper-specific in others, so that the public was not informed of which projects were included or excluded, and the size and nature of each project that was included in the cumulative impact analysis. For example, Table 1-10 is so specific as to some projects that it

includes a specific description of a 1,056 square foot kennel for 40 dogs and cats (project 113), but gives no information about project 109 describing it as “North and South of Valley Center Road between Miller Road and Cole Grade Road.” In addition, as we noted above, Table 1-10 also completely ignores at least 95 projects in the City of Escondido¹, including the Escondido Country Club Project, which includes 392 new homes.

These errors and omissions cause the DEIR to fail as an informational document. The extent of additional errors and omissions in the DEIR’s cumulative project inputs is unknown since the County has failed to release documents that could provide further information on the inputs used in the computer models used to generate the amounts of traffic and air quality impacts. It is not reasonable to expect the public to cross-reference the vague descriptions in Table 1-10 with publicly available information to determine the potential impacts from the 199 cumulative projects listed in Table 1-10. It is also unreasonable to burden the public with searching for all cumulative projects omitted from the DEIR. Additional errors and omissions may exist and the public will remain in the dark about such cumulative projects unless and until the County complies with its obligation to provide a full list of cumulative projects and incorporates them into its cumulative impacts analysis.

II. ERRORS AND OMISSIONS IN THE CUMULATIVE PROJECT INPUTS PREJUDICE PUBLIC REVIEW AND SIGNIFICANT CONCLUSIONS

The cumulative projects discussed above will put significant amounts of traffic onto the adjacent County circulation system with accompanying air and GHG emissions. They may also affect wildlife connectivity and preserve design under the North County Multiple Species Conservation Plan, as well as consistency with SANDAG’s Regional Transportation Program/Sustainable Communities Strategy for vehicle miles traveled and GHG emissions. Other potential impact areas affected include water supply availability, fire evacuation routes, and growth inducement.

Beyond a determination of whether the full breadth of cumulative projects were included, without full access to the technical data underlying analysis of various impacts it is impossible to determine the time horizon under which the listed projects were considered or the scope of those projects that were analyzed. It is also impossible to peer review whether the projects in Table 1-10 were actually included in the cumulative impacts analysis. The County’s position of not providing an understandable and accessible DEIR and not releasing pertinent technical data denies the public an opportunity to check the analysis. Instead the DEIR takes a “trust us” approach, and assumes facts without divulging the substantial evidence to support them. Even if a project is listed in Table 1-10, additional cross-checking is required to determine if such project was actually included in the cumulative impacts analysis for specific environmental impacts.

For example, the Lilac Hills Ranch Project which is listed in Table 1-10 as project 171. Although the project is listed on Table 1-10, we lack important information to understand how it was considered in the cumulative impacts analysis. The Lilac Hills Ranch Project is a General Plan Amendment like Newland Sierra. The baseline for any cumulative impacts analysis is the

¹ See Pending Projects at: <https://www.escondido.org/planning.aspx>.

existing General Plan land uses, so any change to the baseline for a General Plan Amendment must be changed in the model to accommodate the potential new project when assessing cumulative impacts. In the case of Lilac Hills Ranch, the baseline SANDAG model would need to have been adjusted to include impacts from this project, because the SANDAG model is based on the County General Plan which does not include the Lilac Hills Ranch Project—and similarly does not include the Newland Project.

It is difficult to understand how the addition of this very large project requiring a General Plan Amendment has impacted the baseline model. For example, Dawn Wilson of STC Traffic, Inc., noted in her comment letter that while the Lilac Hills Ranch is included in the cumulative projects table in the traffic study for the Newland DEIR, the analysis differs from the analysis the County provided as part of the Lilac Hills Ranch EIR. The County staff has an obligation to explain the discrepancies between two separate County documents. It appears that there are substantial discrepancies between the cumulative projects analyzed for each project. The County must revise the Newland DEIR to explain these discrepancies, and provide an accurate, detailed, and complete list of all the projects in the region that would further worsen the identified significant air quality and traffic impacts.

In addition, there is a temporal component to determining when cumulative impacts will occur that cannot be understood without the technical data. The traffic study looks at the near-term and horizon year impacts, and may also look at interim phasing to determine when certain road and intersection mitigation will be required. Therefore, there is a significant difference in the modeling, and determination of when infrastructure would be needed if Lilac Hills Ranch—or any other cumulative project—is projected to start construction in 2020 versus 2050. Without an understanding of the technical inputs and amendments to the baseline traffic model it is not possible to fully understand if the DEIR adequately evaluates the cumulative impacts of the Lilac Hills Ranch among other cumulative projects.

In addition, the scope of a project used to amend a baseline model could determine the difference between a *significant* or *insignificant* impact. Even when General Plan land uses are applied within a baseline model they sometimes need to be altered to reflect an actual project moving forward. There is a significant range of development allowed in the General Plan that can generate vastly different numbers of units and commercial square footage, and therefore different impacts to areas such as traffic, air quality and GHG generation are possible. The County has considerable information about the number of units or total square footage being proposed in areas where a range is possible, and those specifics should be applied in the cumulative impacts analysis.

III. REVISION OF THE EIR IS REQUIRED TO ADDRESS THE CONCERNS RAISED BY THE COURT OF APPEAL AND THE GHG AND VMT MITIGATION MEASURES TO BE IMPLEMENTED BY THE COUNTY THAT WERE ADOPTED BY SANDAG

The Court of Appeal's recent opinion in *Cleveland National Forest Foundation v. San Diego Association of Governments*, Case No. D063288 filed on November 16, 2017, (attached hereto as **Attachment 7**). On page 17-18, the court stated that SANDAG's own EIR for its 2010

RTP/SCS included mitigation measures related to land use planning and land use decisions that SANDAG expected that the “County of San Diego” and “San Diego region cities” would undertake to implement SANDAG’s overall plan for GHG reductions. The court also stated that SANDAG adopted a mitigation measure that agencies in the San Diego region would “require the use of best available control technology to reduce greenhouse gas emissions during the construction and operations of projects.” (*Id.* at p. 18.)

The County’s Draft EIR for the Newland Project fails to consider these mitigation measures adopted by SANDAG, and the role that was specified by SANDAG for the County in their implementation by SANDAG’s EIR that was reviewed by the Court of Appeal. The County should withdraw the current Draft EIR for Newland and add a discussion of how the Newland Project complies with these mitigation measures. Among other things, the County has not required the Newland Project to require the use of “best available control technology” (“BACT”) for GHG emissions. Instead, the County has allowed Newland to “offset” its way out of meeting these BACT requirements. This new discussion of SANDAG’s specified mitigation measures will be a significant new analysis that should be recirculated for a new public review period.

Additionally, the *Cleveland National Forest Foundation* court recognized the importance of considering transit-oriented developments to reduce GHG emissions impacts for an EIR to be adequate as an informational document::

Missing from the EIR is what CEQA requires: a discussion of mitigation alternatives that could both substantially lessen the transportation plan’s significant greenhouse gas emissions impacts and feasibly be implemented. A few examples of potential alternatives identified in the Climate Action Strategy include supporting the planning and development of smart growth areas through transportation investments and other funding decisions; offering incentives for transit-oriented developments in smart growth areas; coordinating the funding of low carbon transportation with smart growth development; and encouraging parking management measures that promote walking and transit use in smart growth areas. Given the absence of any discussion of such mitigation alternatives, we conclude there is not substantial evidence to support SANDAG’s determination the EIR adequately addressed mitigation for the transportation plan’s greenhouse gas emissions impacts. The error is prejudicial because it precluded informed public participation and decisionmaking.

(Slip Opinion at pp. 21-22.)

The County’s Draft EIR for Newland also fails to include a discussion of these same mitigation alternatives, and fails to analyze whether the Newland Project will be consistent or inconsistent with SANDAG’s and the County’s smart growth policies. It may be that the County staff will ultimately decide that these smart growth policies are irrelevant, and instead conclude

that Newland will be allowed to purchase out of County or out of state offsets instead of complying with these smart growth policies. (We hope that the County staff will not make that decision, of course.) However, as the *Cleveland National Forest Foundation* court notes, the EIR must include a discussion of these policies in order to be adequate as an informational document under CEQA.

IV. RECIRCULATION OF THE DEIR IS REQUIRED

The CEQA requires that a project's EIR fulfill the basic informational purpose of disclosing and evaluating environmental impacts for the public and decision makers. This includes cumulative impacts. As discussed above, the Golden Door has identified multiple projects that should have been—but were not—included in the Newland DEIR's cumulative impacts analysis. These projects necessarily add to the already identified significant adverse impacts in the DEIR. In addition, there may be additional projects omitted or errors involving the included cumulative projects. The County must revise the EIR to include all appropriate cumulative projects.

This revision necessarily requires recirculation of the DEIR for public review and comment. CEQA requires a lead agency to recirculate a draft EIR under the following circumstances:

- (1) A new significant environmental impact would result from the project or from a new mitigation measure proposed to be implemented.
- (2) *A substantial increase in the severity of an environmental impact would result* unless mitigation measures are adopted that reduce the impact to a level of insignificance.
- (3) A feasible project alternative or mitigation measure considerably different from others previously analyzed would clearly lessen the significant environmental impacts of the project, but the project's proponents decline to adopt it.
- (4) The draft EIR was so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.

(14 Cal. Code Regs. § 15088.5(a) [emphasis added]; see also *Laurel Heights Improvement Assn. v. Regents of University of California* (1993) 6 Cal.4th 1112, 1120.)

Here, inclusion of additional cumulative projects would necessarily result in new or more severe impacts. The DEIR has already identified impacts that are considered significant and unavoidable, including for air quality and traffic. Additional cumulative projects would necessarily add to air quality and traffic impacts. (See *Kings Cty. Farm Bureau v City of*

Hanford (1990) 221 Cal.App.3d 692, 718-721 [requiring cumulative impacts analysis to rely on collective significance rather than the “ratio” of additional impacts].)

In addition, providing important information that was omitted from a DEIR triggers recirculation. (*Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 95 [recirculation may be required where initial document omits important information].)

V. CONCLUSION

Based on the foregoing, we request that the County revise the Newland DEIR’s cumulative projects list to include all known projects that could contribute to the Project’s cumulative impacts, clearly disclose which cumulative projects are analyzed for which impacts, and when such projects are assumed to be built out in whole or in part, provide the additional data requested by members of the public, and recirculate the DEIR in full for an additional comment period.

We also believe the County should carefully consider whether the requested technical data - which the County has withheld for several months - should be made available to the public during this additional public comment period on the DEIR.

We thank you for your time and attention to this matter. We ask that you include this letter and your response in the administrative record for the Newland Sierra Project. Please do not hesitate to contact us should you have any questions or comments.

Best regards,

Christopher W. Garrett

Christopher W. Garrett
of LATHAM & WATKINS LLP

cc: Dan Silver, Endangered Habitats League
Jan Chatten Brown, Counsel for the Sierra Club
Kathy Van Ness, Golden Door
Mark Slovic, County Planning and Development Services
William W. Witt, Office of County Counsel
Claudia Silva, Office of County Counsel
Stephanie Saathoff, Clay Co.
Denise Price, Clay Co.
Andrew Yancey, Latham & Watkins

ATTACHMENT 1



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Williams Riviera Ranch Estates

Cole Grade Road and Valley Center Road, Valley Center, CA, United States

[THE OFFERING](#)

[INVESTMENT HIGHLIGHTS](#)

[PROPERTY DESCRIPTION](#)

[PROJECT TIMELINE](#)

[PHOTOS](#)

[MAP](#)



±98.3 Acre Mixed-Use Development Opportunity

CBRE, Inc. is pleased to present for sale Williams Riviera Ranch Estates, an exceptional ±98.3 acre mixed-use development opportunity in north San Diego County, California.

Proposed to build 214 apartment units, 376 single-family homes and approximately 108,000 net rentable square feet of commercial space, Williams Riviera Ranch Estates is well diversified to fit the needs of the market and provide a "live, work, and play" lifestyle in a desirable Southern California location.

The development plan includes an attractive mix of multifamily for-rent product, attached for-sale and rental cluster-style homes, and detached for-sale single family residences. Ample open space provides ±17 acres of recreation area and horse trails, along with a common area recreation center. Entitlements are currently being

processed in San Diego County and construction on the first phase commercial portion is expected to begin in mid-2018; the residential entitlements are expected by May 2020.

Williams Riviera Ranch Estates offers the unique opportunity to significantly enhance the community of Valley Center and the overall north San Diego and Southern Riverside Counties. The development will provide housing and commercial support services to a community that is poised to realize its potential as an appealing market in proximity to major employment centers. Area employers, including three local casinos employing ±5,400 employees provide significant demand for residential housing.

OFFERS DUE 5:00PM (PACIFIC) NOVEMBER 3, 2017



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Williams Riviera Ranch Estates

Cole Grade Road and Valley Center Road, Valley Center, CA, United States

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Investment Highlights

Unique, One of a Kind Opportunity

This irreplaceable property has been designated by San Diego County as the "Town Center" in Valley Center. Due to a variety of restrictions in other areas of Valley Center, Williams Riviera Ranch Estates is the only site that supports a high-density development. The Property is located at the intersection of Valley Center Road and Cole Grade Road, the only available site in the market that supports a mixed-use project. S/F Project Monument

Live, Work, and Play

The Williams Riviera Ranch Estates development will introduce a completely different walkable master planned community to this market with a "live, work, and play" concept. Schools and community services like the post office and library/community center are already established and in proximity. Valley Center residents currently either patronize small, local businesses or drive to areas such as Escondido where the closest major grocery store is a 20-minute drive away. When completed, onsite community recreational amenities, social activities, and a destination dining/shopping center will attract new buyers to the area while providing much needed retail support for existing residents of Valley Center. The mixed-use component of Williams Riviera Ranch Estates is envisioned to include locally-owned restaurants, boutique shops, a neighborhood grocery store, a drug store, social gathering and event spaces, and office space.

Marketability

The Williams Riviera Ranch Estates Master Plan will offer diverse product types in five distinct neighborhoods, maximizing the marketability and the absorption of these new homes. The current site is planned for a variety of multifamily residential product and cluster-style homes along with the development of 186 single family homes ranging from smaller alley loaded single family detached 3,088 square foot lots to 12,000 square foot lots. These lot sizes are much smaller than typical in area, but are now allowed under updated planning and infrastructure regulations. With a walkable master plan and high home prices closer in, this project will create opportunities to pull buyers seeking an alternative lower cost option without enduring the daily commute to/from metropolitan San Diego and South Riverside County. The size of the master development will serve to create a sense of community with a strong neighborhood feel.

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Williams Riviera Ranch Estates

Cole Grade Road and Valley Center Road, Valley Center, CA, United States

THE OFFERING	INVESTMENT HIGHLIGHTS	PROPERTY DESCRIPTION	PROJECT TIMELINE
PHOTOS	MAP		



PROPERTY DETAILS

APN

188-230-06 188-231-11
 188-230-45 188-231-13
 188-230-46 188-231-30

SIZE

- 98.3 gross acres
- 57 acres buildable
- 17 acres recreation, public streets, setbacks, horse trails horse trails, parks and parking
- 1 acre Leasing building, recreation center

PRODUCT MIX

- 214 Apartment (for rent) Units - average unit size of 1,314 square feet
- 258 Unit Attached SFR Cluster Home Development - average unit size 1,757
- 118 Unit Detached SFR Development - average unit size 3,393
- 108,000 square feet commercial/retail shopping center

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UTILITIES

ACCESS

Approximately 3 years ago, the main highway – Valley Center Road, (which fronts on the commercial development), was rebuilt and altered from a winding two-lane highway to a straighter four-lane highway with a partly landscaped median. That highway (Valley Center Road) now connects Valley Center to the City of Escondido (which is about 9 miles to the south of Valley Center), and additional road improvements from Valley Center Road, which terminates in Escondido and continues to Highway I-15, have now made Valley Center an approximate 35-minute commute to the high employment centers of the City of San Diego and its northern environs.

SEWER

The Valley Center Municipal Water District, (“VCMWD”), after 4 years of planning, expects to complete construction of a new sewer plant in about the second quarter of 2017, (called the Phase 2 sewer plant), capable of sewerage about 1,095 dwelling units or equivalent sewer and/or needs of commercial buildings.

The Williams Riviera Ranch Estates and 120 residential units will have its sewer needs satisfied by the Phase 2 Sewer Plant. Williams Riviera Ranch Estates has received final approvals from the Valley Center Planning Committees and expects to receive entitlements from the County of San Diego by August 2017. Additionally, the Valley Center Municipal Water District is presently planning for a Phase 3 Sewer Plant capable of sewerage another 1,200 dwelling units or equivalent sewer needs of new residential and commercial developments, estimated completion date of about mid-2020, which is adequate timing to sewer the Subject's remaining approximate 300 to approximately 450 residential units. The above sewer plants will provide sewer service to Williams Riviera Ranch Estates residential and commercial property as well as other properties along Valley Center Road. This development opportunity is primarily, due to new sewer availability and new high-density residential zoning, which never existed before.

GAS & ELECTRIC

The project would be serviced by San Diego Gas & Electric



Williams Riviera Ranch Estates

Cole Grade Road and Valley Center Road, Valley Center, CA, United States

- THE OFFERING
- INVESTMENT HIGHLIGHTS
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- PHOTOS
- MAP



PROJECT TIMELINE

COMMERCIAL TOWNE CENTER

- Pre-Leasing of Commercial – Underway – Received Signed LOI
- Final County approval of technical studies – Nov / Dec 2017
- Improvement Plans and CDs – Nov 2017 - Jan 2018
- Receive Grading Permits – May 2018
- Start Construction on Commercial Site – May/June 2018
- Close on Sales for Pad Sites – Aug/Sept 2018
- Receive Building Permits – July 2018
- Phase 1 Construction – July 2018 – Feb 2019
- 1st Certificates of Occupancies – Feb/Mar 2019

RESIDENTIAL COMMUNITY

- Master Site Plan Design – Complete
- Pre-App Consultation with County – Nov 2017
- Submittal of Specific Plan/Entitlement Application Package – March 2018
- Approval of Specific Plan & Tentative Maps – Dec 2019/Jan 2020
- Improvement Plans and CDs – Complete Docs Feb 2020
- Approval of Grading Permit – May 2020
- Start Construction of Grading & Backbone Improvements – May 2020
- Deliver Super Pads & Close on Sales of Builder Tracts, Phase 1 – Oct/Nov 2020
- Deliver Super Pads & Close on Sales of Builder Tracts, Phase 2 – April 2021

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1ST APARTMENT RENTAL SITE

- Site Plan & Conceptual Architecture Design – Complete
- Submittal of Entitlement Application Package – Nov 2017
- Create Separate Legal Lot for 1st Apartment Site – Dec 2017
- Approval of Entitlements – Nov 2018
- Improvement Plans and CDs – Oct 2018 – Dec 2018
- Approval of Grading Permit / Start Site Construction – March 2019
- Receive Building Permits / Start Construction of Apartments – June/July 2019
- Start Pre-Leasing of Apartments – Jan 2020
- Final Certificate of Occupancy – July 2020

2ND APARTMENT RENTAL SITE

- Site Plan & Conceptual Architecture Design – Complete
- Approval of Entitlements – Jan 2020
- Improvement Plans and CDs – Nov 2019 - Feb 2020
- Approval of Grading Permit / Start Site Construction – May 2020
- Receive Building Permits / Start Construction of Apartments – Sept/Oct 2020
- Start Pre-Leasing of Apartments – March 2021
- Final Certificate of Occupancy – Oct 2021

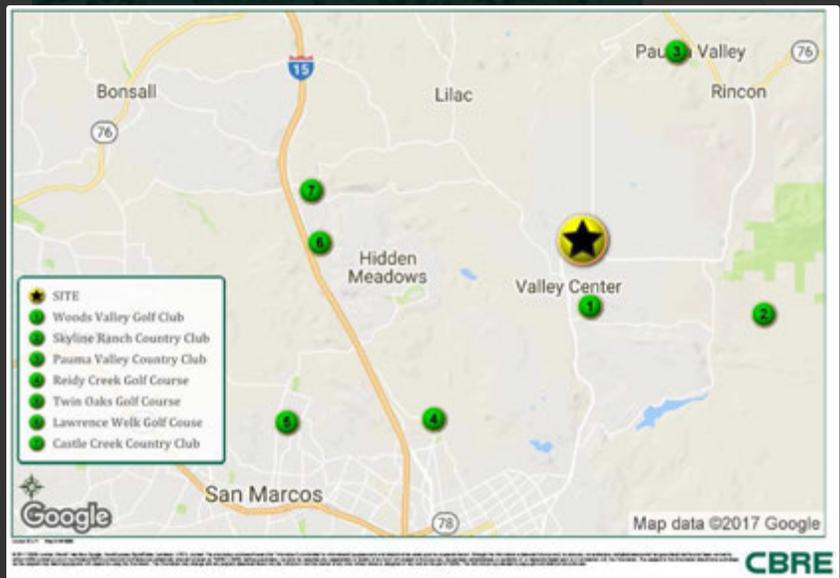


Image 13 of 13



ATTACHMENT 2

[City Attorney](#)[City Clerk's Office](#)[City Manager](#)[City Treasurer](#)[Community Development](#)[Community Services](#)[Engineering Services](#)[Finance](#)[Fire](#)[Human Resources](#)[Information Systems](#)[Police](#)[Public Works](#)[Utilities](#)[City Facilities](#)

Safari Highlands Ranch Specific Plan

Project/Study Overview:

The proposed Safari Highlands Ranch (SRH) is located on 1,098 acres of vacant land east of Rancho San Pasqual, northeast of the Rancho Vistamonte Community and just north of the San Diego Zoo Safari Park in unincorporated San Diego County. The project site is within General Plan Specific Plan Area (SPA) #4. The proposed project consists of 550 single-family residences, a "Village Core," open space and trail amenities, and other associated amenities.

You can learn more about the Project on this webpage; and review the anticipated schedule [here](#).

How is the City Reviewing the Application:

Escondido plans and regulates the use of land to protect the public health, safety and general welfare of our community. Because the use of land is regulated, the City must review all projects against this policy and regulatory framework before any buildings can be constructed. City staff is currently reviewing submittal items and processing other relevant application material in accordance with all relevant local, state, and federal laws.

An Initial Study was prepared for the project in accordance with Section 15063 of the CEQA Guidelines. Based on the results of the Initial Study, an EIR has been prepared to address potential direct, indirect, and long-term cumulative impacts. The draft EIR has been released for public review and comment.

What is Needed from the Public:

On Monday, October 16, 2017 the City announced the release of a draft EIR for public review and comment. In order to provide sufficient time for public review, the review period has been set for 52 days, ending on December 7, 2017. A direct link to the document can be found [here](#). City staff encourages you to learn more about the project, review the project's anticipated environmental consequences, and to let us know what you think.

To learn more about the planning process, the current status of the Project, or to offer input, please contact Contract Planner, John Helmer at jhelmer@escondido.org or 760-839-4543.

Application Information and Material:

- [Specific Plan, Tentative Map, Landscaping Plans, Illustrations](#)
- [Technical Studies and Reports](#)
- [Project Schedule, Notices, Meetings, and Updates](#)
- [Environmental Impact Report](#)



Safari Highlands Ranch Specific Plan Project Description (Revised October 2016)

Parent File Number: SUB15-0019; Sub-Project Files: PHG15-0023, PHG15-0024, PHG15-0025 and ENV15-0009

APNs: 240-270-33; 242-010-2, 36, 37 & 38; 241-060-03

Project Components

The proposed Safari Highlands Ranch (SRH) is located on 1,098 acres of vacant land east of Rancho San Pasqual, northeast of the Rancho Vistamonte Community and just north of the San Diego Zoo Safari Park in unincorporated San Diego County. The project site is within General Plan Specific Plan Area (SPA) #4. The proposed project consists of the following:

1. 550 single-family residences on lots ranging from approximately 8,000 square feet to over 200,000 square feet clustered into seven neighborhoods. Average lot size range among the different neighborhoods from 16,000 square feet to 66,000 square feet.
2. A “Village Core” providing a new 1.9-acre, three bay fire station site, over 9 miles of soft surface meandering trails and associated public parking, a five-acre private recreation center, with pools a fitness facility, community gathering areas, and other associated amenities.
3. Safari Highlands Ranch Road, a new primary access road intersecting at Rockwood Road between Old Ranch Road and Vistamonte Avenue.
4. An internal private street system with street rights of way varying from 49 feet wide with travel lanes, parking and walkways to 82 feet wide with a median, travel lanes, bike lanes and walkways.
5. Approximately 8.3 acres of recreational parks and trails and 769 acres of resource, wildlife corridors, open space and conservation easement areas (totaling approximately 70 percent of the site).
6. Water utilities would include connection to the City of Escondido water system, pumps to boost water to an on-site 80 foot diameter water tank, and an internal water distribution system that would use both pumps, reducing stations, and gravity feed.
7. Extension and connection to the City of Escondido recycled water system for common area irrigation.
8. A stormwater system that includes hydro-modification management practices including the use of biofilters and the use of both retention and detention basins
9. A multi-modal transportation system that emphasizes the integration of vehicular, bicycle, and pedestrian traffic throughout the project.
10. Various off-site improvements including the following:
 - Reconstruction and improvements to Rockwood Road’s intersection with the proposed SHR Road;
 - Improvements along Rockwood Road between Cloverdale Road and San Pasqual Union School to maintain the existing level of service on Rockwood Road;
 - Intersection of Rockwood Road/Cloverdale Road. Install traffic signal and restripe westbound approach to provide one left-turn and one shared left-turn lane.

- Restripe southbound Cloverdale Road to provide an additional receiving lane from Rockwood Road left turning movements;
- Provide a median on Rockwood Road between Cloverdale and San Pasqual Union School to maintain a Level of Service (LOS) B;
 - Intersection of San Pasqual Valley Road (SR 78)/Citrus Avenue. Install new signal and restripe southbound approach to provide one left hand and one right hand turn lane;
 - Intersection of San Pasqual Valley Road (SR 78)/Cloverdale Road San Pasqual Road. Restripe eastbound approach of San Pasqual Valley road to provide dual left-turn lanes (within existing ROW). Restripe northbound section of Cloverdale Road north of the intersection to provide approximate 650 foot long plus a 150-foot transition lane (within existing ROW);
 - Segment of Felicita Road/17th Avenue from Escondido Boulevard to San Pasqual Valley Road (SR 78). Stripe a new eastbound turn pocket at Lendee Drive and extend the two-way left turn lane eastward to the City of Escondido/San Diego County boundary;
 - Two gated emergency access roads: a 2.4 mile road to the northwest connecting to Stonebridge Road and a one mile road to the south connecting to Zoo Road;
 - Gas, electric, cable, and phone system connections at Rockwood Road to existing infrastructure operated by San Diego Gas and Electric, Times Warner Cable, and AT&T;
 - Improvements to the Eagle Crest Golf Course including replacing the existing temporary clubhouse with a new 4,000 square foot permanent clubhouse with restaurant, reconstruction of hole #14, extension of SHR Road and miscellaneous other golf course improvements (all by separate permit).

Seven phases of development are proposed, corresponding to the seven neighborhoods being created. Public facilities and services and phase development would be coordinated so that services are available and ready to serve the residences as need arises.

Project Entitlements/Approvals

The proposed Project consists of the following entitlements and agency approvals, which would be processed concurrently unless noted:

1. Update of the City of Escondido's Sphere of Influence (SOI) to include SHR (SPA #4) as well as other properties as determined by the City to be appropriate to be included as part of a larger SOI update and municipal services review (LAFCO);
2. A Development Agreement to allow residential lots of less than one acre in size and to authorize an increase in the General Plan "maximum theoretical yield" of 284 dwelling units . The applicants request to add an additional 266 dwelling units totaling 550 dwelling units. This increase in density would be in exchange for on-site and/or off site community benefits above and beyond the project's impacts as

- permitted in the General Plan for SPA #4. This request is within the maximum permissible density allowable for the site pursuant to SPA #4.
3. Adoption of a Specific Plan text and map providing development and design standards for the SHR site involving 550 units and other proposed features, community benefits and amenities (i.e. trails, recreational, fire station, landscaping, private pockets parks, open space, and other associated amenities);
 4. Tentative Subdivision Map creating a total of 591 lots consisting of: 550 residential lots; 13 open space lots; 15 Home Owners' Association lots; eight (8) private street lots; one (1) public facilities lots; one (1) fire station lot; one (1) recreation area HOA lot;
 5. Amendment to the Escondido General Plan Circulation Element designating other proposed primary and emergency access route(s) accessing the site;
 6. Amendment to General Plan SPA #3 map (Rancho San Pasqual) to designate Safari Highlands Ranch Road (as described in #5 above) through the Eagle Crest Golf Course fairway between Old Ranch Road and Vistamonte Avenue in the southern portion of SPA #3 in an alignment currently designated as "Emergency Access Road".
 7. Pre-zoning of the SHR property to the category of Specific Plan (S-P) Zone, consistent with the City's General Plan SPA designation;
 8. Annexation of the SHR property and the Beacon-Sun Ranch (underlying property for Emergency Access route to the North) into the City of Escondido corporate limits and into the City's membership of the Metropolitan Water District. Other properties considered in the SOI update may be included in a larger annexation, but such annexations are not a precondition of the SHR project. (LAFCO);
 9. Detachment from the County Communications District (LAFCO);
 10. Detachment from CSA No.113, San Pasqual Fire Protection District (LAFCO);
 11. Optional detachment of a portion of the Specific Plan from the Valley Center-Pauma Unified School District and subsequently reorganize into the San Pasqual Union School District and the Escondido Union High School District.
 12. Requests for multiple grading exemptions: 118 interior lot grading-exempted cut slopes ranging up to 106 feet at 1.5:1 inclination and 220 interior grading exempted fill slopes ranging up to 135 feet at 2:1 inclination.
 13. Standard Urban Storm Water Mitigation Plan
 14. Certification of a Final Environmental Impact Report
 15. The project also seeks associated permits and agreements from agencies including:
 - Agreements with San Diego County and both the US and California Departments of Fish and Wildlife to reassign the Multiple Species Conservation Plan (MSCP), previously approved for the southern approximately one-half area of SPA #4, from San Diego County to the City of Escondido and permits for project related habitat loss.
 - Adoption of a habitat plan management plan for northern portion of project site located outside of adopted MSCP area.
 - Water quality permits from the Army Corps of Engineers and the Regional Water Quality Control Board.

Completion of SOI update and annexations/detachments (items #1, 9, 10 and 11 above) would take place through the San Diego Local Agency Formation Commission (LAFCO) after EIR certification and Project approval by the City Council. LAFCO approval of SOI update and annexations/detachments are necessary for project development to proceed.

Technical Reports/Studies

The following reports, studies and documents have been submitted with the project application:

1. Revised Safari Highlands Ranch Specific Plan, November 2016. This document describes all aspects of the proposed Specific Plan, outlines design and development standards, and provides numerous illustrations of the proposed plan, proposed residences and structures, roadway sections and alignments, landscaping, photos and photo simulations.
2. Revised Biological Technical Report, October 2016, Althouse and Meade, Inc.
3. Revised Archaeological/Historic Study for the Safari Highlands Ranch Project, August 2016, Brian F. Smith and Associates.
4. Geologic Reconnaissance, June 2015, Geocon Incorporated.
5. Revised Traffic Impact Analysis, October 2016, LLG Engineers
6. Revised Stormwater Quality Management Plan, October 2016, Hunsaker and Associates
7. Revised Wastewater Report, October 2016, Dexter Wilson Engineering
8. Revised Potable Water and Recycled Water Report, October 2016, Dexter Wilson Engineering
9. Revised Drainage Study, September 2016, Hunsaker and Associates
10. Slope Analysis and Map, March 2014, Omega Engineering
11. Draft Sample Development Agreement between City of Escondido and multiple parties
12. Zone Change/Prezone Written Statement of Facts
13. Revised Tentative Map (24 pages), October 2016, Hunsaker and Associates
14. Landscape Concept Maps (25 pages), July 2015, McCullough Landscape Architecture. Inc.
15. Updated Preliminary Title Report, October 2016, First American Title Company
16. Grant Deed, March 2015
17. Agreement to Grant Easement for Emergency Access Road, April 2015
18. Memorandum of Agreement to Grant Easement (golf course property), January 2015

ATTACHMENT 3



Valley ROADRUNNER

Hometown Newspaper of Valley Center, Pauma Valley, Pala, Palomar Mountain & North Escondido

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Pala breaks ground on \$170 million expansion

news desk | on October 19, 2017



Pala Tribal Chairman Robert Smith drives an excavator through a brick kiosk building to make way for the new expansion.

Officials of Pala Casino Spa & Resort Tuesday held a groundbreaking ceremony to honor the commencement of the resort's \$170 million expansion and renovation project.

Pala Band of Mission Indians Chairman Robert Smith provided the keynote address at the groundbreaking ceremony, which took place at the outdoor resort pool area. To officially break ground, Smith drove an excavator through a 15'x 17' brick kiosk building. The groundbreaking was followed by food and refreshments indoors at Pala's CAVE Lounge.

"Our ability to exponentially expand and refresh Pala Casino Spa & Resort is a true testament to, not only the growth of Pala, but also to the thriving economy and the continued strength of the gaming industry in California," Smith said. "This is a significant milestone for our Tribe and we look forward to continuing to exceed the expectations of our loyal patrons."

The renovation and expansion will include the addition of a new 348-room hotel tower. The resort's existing hotel tower also will be completely remodeled. When complete, Pala will boast 853 rooms including 104 unique suites and 749 deluxe rooms with dramatic views of the resort's multi-pool and entertainment complex, event lawn and Palomar Mountain. To accommodate more hotel guests, the hotel parking structure will be expanded by adding 420 additional spaces.

The conversion of the existing resort pool into a multi-pool and entertainment resort complex will offer guests the opportunity to enjoy four pools, two whirlpools, a new poolside bar, a new poolside restaurant and various outdoor lounge spaces complete with fireplaces for evening cocktails.

Pala's gaming area also will be expanded by 12,000 square feet. Within that expanded casino space, 500 new slot machines, several new table games and a new casino bar and lounge will be introduced. The interior of the entire 100,000-square-foot casino will be remodeled.

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Pala's food promenade will be converted into a restaurant complex offering a wide variety of food options in a variety of settings. The restaurants will include casual café dining, Asian dining, a premium sushi restaurant and a sports bar restaurant offering live entertainment and dancing every Friday and Saturday night. The new restaurants will complement Pala's signature Choices the Buffet, Oak Room Steakhouse, the eclectic underground wine cave with its new California-casual restaurant, Bar-Meets-Grill, which will open in January 2018.

During the ceremony, Bill Bembenek, Pala's chief executive officer, California State Assemblywoman Lorena Gonzalez-Fletcher, Assemblyman Randy Voepel and Assemblywoman Marie Waldron also provided remarks.

"I am proud to have played even a bit part in this important event for the Pala Band of Mission Indians, the State of California, and the local economy by authoring Assembly Bill 629 to ratify the tribal gaming compact that made today's groundbreaking a reality," said Gonzalez-Fletcher. "This legislation was overwhelmingly supported by representatives from around California because of Pala's commitment to the economic self-sufficiency of its people and to the surrounding community."

"Pala has been a great neighbor to the surrounding communities in our district," said Waldron. "The casino and resort employs thousands of our residents and has had a tremendous impact on the economic prosperity of the Tribe's members. Under the leadership of Chairman Smith, Pala has been a vast economic driver in my district and the surrounding areas. Our region is a better place because of your efforts."

Pala's renovation and expansion project will create 400 construction jobs and, once complete, add over 200 jobs to Pala's current team of 2,000 employees.

Construction is officially underway and will be completed in phases. The first phase will be completed in spring of 2018 and the final phase in late 2019.

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The construction company selected for the renovation and expansion is Level 10 Construction with headquarters in San Francisco, CA, and offices in Sunnyvale and San Diego, CA. The architect is Klai Juba Wald of Las Vegas, NV. The contributing architect is Marks Architects of San Diego, CA.

“We are very excited to engage in our third major expansion since our introduction to the Southern California gaming and hospitality market more than 16 years ago. As in the past, we expect elements of this expansion and upgrade to be unique to our property and to set new resort standards,” Bembenek said. “This significant expansion project will complement our already luxurious resort offerings while providing our patrons with new world-class amenities.”

For more information on Pala Casino Spa & Resort, visit: www.palacasino.com.

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[Valley View Casino & Hotel announces casino expansion project](#)

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ATTACHMENT 4

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San Marcos Highlands

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San Marcos Highlands Project

Project Number: P13-0009 (SP 13-001, TSM 13-001, CUP 13-010, ROZ 14-001, PZ 14-001, GPA 15-002, EIR 15-001)

Project Location: North of Santa Fe Hills at the northern terminus of North Las Posas Road

Project Applicant: Farouk Kubba, Vista San Marcos Ltd.



Project Description

The applicant has proposed a Specific Plan Amendment and Tentative Subdivision Map for 189 clustered single-family residential lots and open space on 265.8 acres located at the northern end of Las Posas Road within the San Marcos Highlands Specific Plan Area, and an additional 27.5 acres of open space contiguous on adjacent properties to the northwest.

The project also proposes annexation of approximately 124.7 acres from the County of San Diego to the City of San Marcos. This action will require approval by the Local Agency Formation Commission (LAFCO) as well as for water, sewer, and fire district boundary adjustments. A pre-zone from County Zoning (A-70) to Specific Plan Area will be required for a 9.7-acre portion of the project site currently in the County.

Additionally, a Ridgeline Development Permit that would allow a portion of the proposed subdivision to be developed in accordance with the Ridgeline Overlay Zone and a Conditional Use Permit for temporary use of a rock crusher(s) during grading operations have been requested. The project includes a General Plan Amendment to modify the acreage and description for the future Buena Neighborhood Park (the project's proposed Park "C") in the

Highlands

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Parks, Recreation, and Community Health Element of the General Plan to be consistent with the adopted 1990 Parks Master Plan.

An extension of North Las Posas Road to Buena Creek Road is *not* proposed as part of this project. The narrow strip of property extending up to Buena Creek Road (as shown on the vicinity map) will be preserved habitat as part of the 210.8 acres of conservation open space for the project.

The City of San Marcos Planning Commission held a public hearing on 9/6/16 and recommended approval (7-0 vote) to City Council the San Marcos Highlands project and associated Final EIR. Subsequently, the final decision regarding the project and certification of the Final EIR will be determined by City Council. The City Council hearing date is scheduled for Tuesday, November 15, 2016 at 6:00 pm in the City Council Chambers. [Notice of Public Hearing, 11/15/16, City Council.](#)
[\(Note: There is a typographical error regarding the City Clerk's phone number. The correct number is 760-744-1050\).](#)

An [Environmental Impact Report \(EIR\)](#) has been prepared for the proposed project. For all EIR documents, please see the [Environmental Review](#) page.

[Project Proposal Documents](#) *(Due to large file sizes, document download may be delayed.)*

189-Lot Subdivision Map

- [Sheet 1](#)
- [Sheet 2](#)
- [Sheet 3](#)
- [Sheet 4](#)
- [Sheet 5](#)
- [Sheet 6](#)
- [Sheet 7](#)

Visual Simulations

- [View from Aqueduct](#)
- [View from Ardilla Way](#)
- [View from Avenida Leon](#)
- [View from Foothill Park](#)
- [View from Proposed Park C](#)
- [View from Robinhood Lane](#)

[Open Space Exhibit](#)

[Landscape Exhibit](#)

[Rock Crusher Location Exhibit](#)

[Ridgeline Exhibit](#)

To learn more about the proposed San Marcos Highlands project background and review past public notices, environmental review documents and workshops, navigate to the desired information located on the left toolbar. For additional information, please contact City Associate Planner Norm Pedersen at (760) 744-1050 ext. 3236 or PlanningDivision@san-marcos.net.

Free viewers are required for some of the attached documents.



They can be downloaded by clicking on the icons below.



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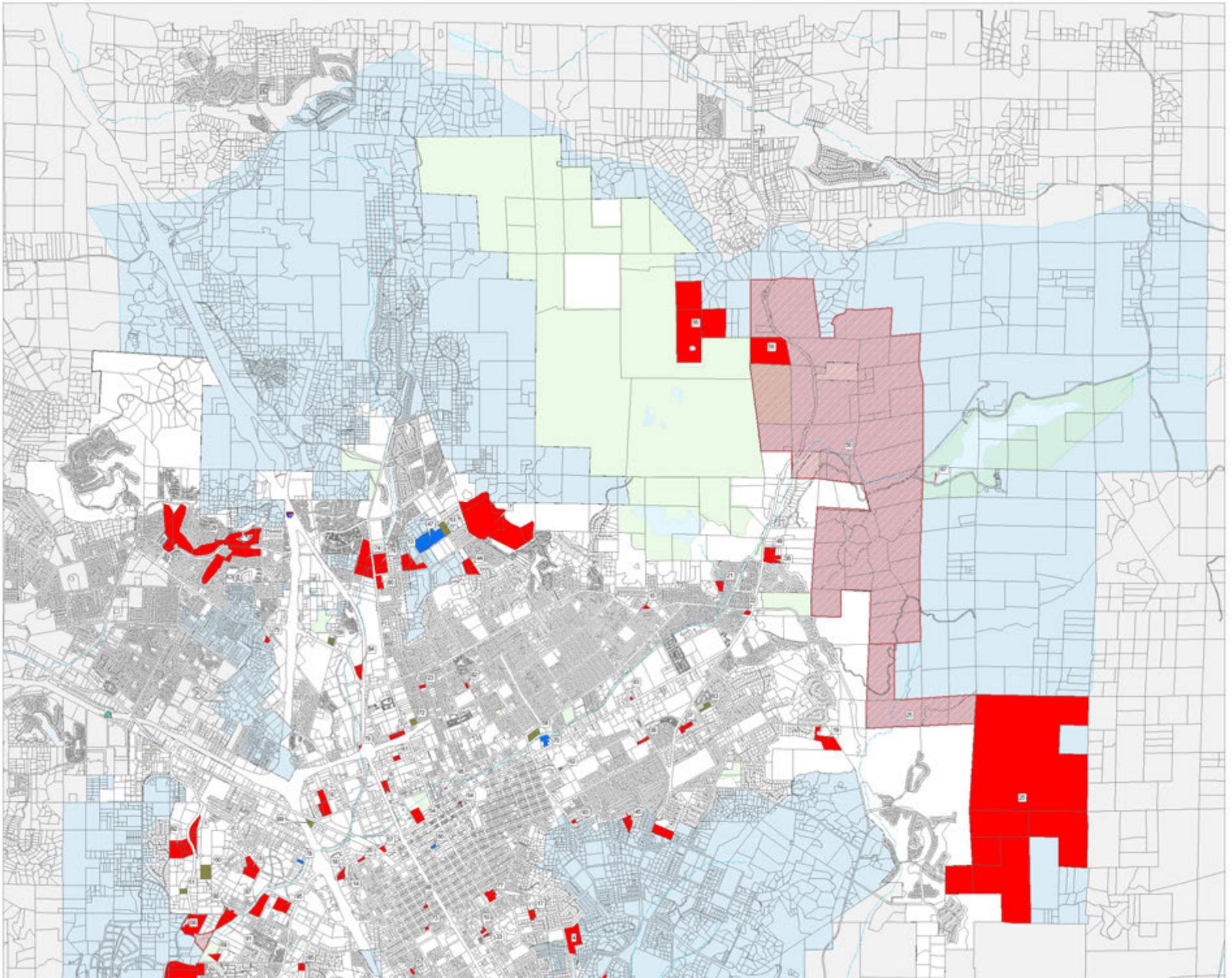
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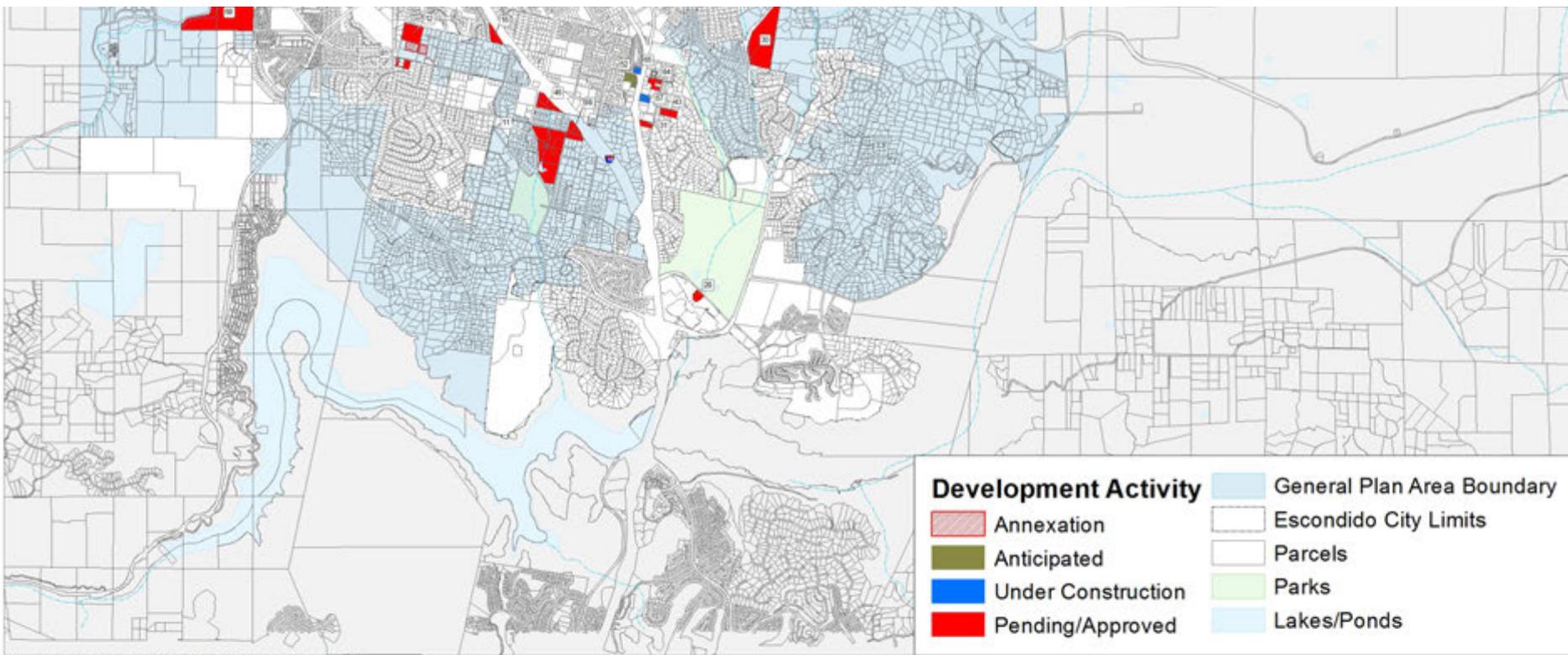
[SITE MAP](#)

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ATTACHMENT 5





Source: Escondido GIS, Sandag GIS

January 2017



Major Development Activity January 2017

Development Map

S:\GIS\Projects\CityManager\Development\MajorActivity.mxd

Major Development Project Processing

Feb-17

MAP LEGEND NUMBER	PROJECT	PROJECT DESCRIPTION	ENTITLEMENT STATUS
1	ADM15-0106 - ERTC Medical Office (EAST)	74,400 SF Medical Office	Approved 11-3-15. Extension of time for ERTC development agreement approved 11-4-15.
2	PHG14-0035 - Westminster Student Housing	72 student housing units on 18.07 ac. Campus	Approved 11-10-15.
3	ADM13-0127 - Centerpointe	43,681 SF grocery store and 3,200 SF drive-through	Approved 12-9-15.
4	PHG14-0030 - Emmanuel Faith	Phased expansion of campus to add 191,813 SF on 17.6 ac. site	Approved.
5	SUB13-0008 - 15th	4 SFR lots on 0.95 ac.	Approved.
6	SUB15-0002 - Latitude II	112 condominium units on 3.44 ac.	CC approved 8-19-15.
7	Tract 932 - Hidden Valley Ranch	179 SFR lots on 111.54 ac.	Approved.
8	PHG15-0010 - EDI CUP	Expansion of Materials Recovery Facility	Approved 8-25-15.
9	PHG14-0032 - Ford/Hyundai dealership	2 new showrooms + wash/detail building	Approved. In Plan Check.
10	PHG14-0020 - Veterans Village	48 new units (54 total) + 1,500 SF commercial on 1.8 ac.	Approved. In Plan Check.
11	SUB13-0002 - Oak Creek	65 SFR lots on 41.39 ac.	Approved. LAFCO approved annexation 10/05/15.
12	SUB13-0007 - Amanda Estates	21 SFR lots on 11.2 ac.	Approved. LAFCO approved annexation on 8/3/15.
13	SUB14-0002 - Zenner	40 SFR lots on 13.97 ac.	Approved. In Plan Check.
14	PHG14-0022 - La Terraza Office Building/Parking Lot	36,614 SF office	Approved. In Plan Check.
15	TPM 2006-08 - E. Mission	3 SFR lots on 0.88 ac.	Approved.
16	Tract 877 - Bernardo	13 SFR lots on 0.9 ac.	Revising map for stormwater.

17	Tract 848 - Idaho Ave	9 SFR lots on 3.55 ac.	Approved
18	2007-18-PD - Springhill Suites (La Terraza Hotel)	105-room hotel	Approved. In Plan Check
19	SUB 08-0030 - Reed Rd	4 SFR lots on 14.37 ac.	Approved - no recent action.
20	TPM 2004-16 - Tulip	3 SFR on 1.03 ac.	Approved.
21	Tract 951 - Jacks Creek	12 SFR lots on 3.31 ac.	Approved .
22	SUB13-0005 - El Norte (Tract 895)	6 SFR lots on 1.15 ac.	Approved.
23	SUB09-0005 - 1221 N. Gamble St.	3 SFR lots on 0.64 ac.	Approved.
24	Tract 934 - 1207 N. Gamble St.	5 SFR lots on 1.19 ac.	Final Map to CC 11-18-15 to approve for recordation.
25	SUB15-0019 - Safari Highlands	Specific Plan for 550 SFR lots on 1,100 ac.	Submitted; under review.
28	PHG15-0026 - Westfield Theater	Multi-plex theater	BEZ- CC approved 11-4-15.
29	Escondido Country Club - The Villages	392 SFR, recreational amenities, and urban farm	Submitted; under review.
30	SUB15-0002 - Wohlford, 661 Bear Valley Pkwy	55 SFR lots on 40.9 ac.	Submitted; under review.
31	SUB14-0018 - Kaen	65 townhomes on 2.29 ac.	Incomplete; MND anticipated. Revised plans submitted 11-16-15.
33	PHG15-0009 - Solutions for Change Housing	33 affordable units & 1,120 SF commercial	PC approved 10-13-15.
36	Tract 933/TM SUB14-0010 - Moser	16 SFR lots on 6.4 ac. (revised submittal)	Submitted for Substantial Conformance review.
37	Tract 878 - Lion Valley	11 SFR lots on 2.3 ac.	Unsubmitted substantial conformance.
38	Tract 890 - Midway Dr.	10 SFR lots on 2.3 ac.	Approved. Extension of time filed.
43	TM SUB13-0001 Cranston	6 SFR lots on 7.41 ac.	Approved - pursue zone chg only.
44	Tract 929 - Hubbard	12 SFR lots on 8.92 ac.	Approved.
45	Tract 895 - Boyle	8 SFR lots on 5.42 ac.	Approved. Extension of time filed.
46	PHG15-0016 Wismer - Felicita Hotels	140-unit hotel, 80-unit extended stay hotel, 120-bed assisted living facility and gas station on 6.9 ac.	Incomplete; may require EIR. In redesign.

47	Pradera - Tracts 889 & 894, SUB13-0003, SUB13-0010, SUB13-0011	70 SFR lots on 21.3 ac.	Grading underway.
49	Tract 956 - Silva	13 SFR lots on 4.19 ac.	Approved; development agreement expired.
50	SUB09-0002 Harmony Grove Specific Plan (Dentt/Ray)	Industrial subdivision	Incomplete.
51	ADM15-0123 ERTC Kidney Dialysis Center	12,000 SF Medical office and dialysis center	Submitted; under review.
52	Del Prado- North & South (Woody's site); SUB 15-0023 & SUB15-0022	Mixed-use residential - 113 units	Approved.
53	Baker Conway (formerly Tract 928)	14 SFR lots on 3.91 ac.	Not yet submitted
54	Hotel (Downtown)	Hotel	Submitted; under review
56	Sager Ranch Specific Plan & Annexation	Residential subdivision and density transfer	Not yet submitted. EIR anticipated.
57	Integral Communities	Mixed-use residential - 126 units	Approved. 10-12-16.
58	MFRO	Water treatment facility	Not yet submitted.
59	Jungman Specific Plan	Mixed use: 20,000 SF office & 36 condominiums	Not yet submitted.
60	ADM12-0014 - Stone Brewery Hotel	99-room boutique hotel	On hold at applicant's request.
61	Self-storage facility (220 W. Mission)	Self Storage Units	Approved.
62	LaCaze (Grand Ave)	Mixed-use	Not yet submitted.
63	TM 220 S. Citrus	9 SFR lots	Not yet submitted.
64	ADM15-0121 (Valley/Ivy)	Mixed-use 2,378 SF retail + 20 apartment units	Submitted; under review.
65	PHG12-0015 - Talk of the Town	4,156 SF Restaurant and Carwash	Approved. Under construction.
66	2007-11-SP/PD/DA - City Plaza	9,356 SF commercial + 56 residential units	Foreclosure/under construction.
67	SUB13-0009 - Zak/2412 S. Escondido Blvd.	76 condominium units on 2.53 ac.	Under construction.
68	Wismer TM, Johnston Rd.	Annexation and SFR subdivision	Preapplication meeting held; no submittal.
69	PHG15-0018 - HARRF Collections Facility	3 new maintenance buildings (14,875 SF)	Approved.

70	ADM 14-0013 - Trafalgar Square	Shopping center renovation + new grocery store	Approved.
71	ADM13-0176 - Taco Bell	New regional office and restaurant renovation	Grading underway.
72	PHG15-0002 - Escondido Sports/Banquet Facility	Convert gym to banquet hall	Approved 10-27-15.
73	PHG14-0019 - Redwood Terrace	Convert daycare facility to 24-hour memory care center	Approved.
74	PHG13-0010 - Meadowbrook	66 unit senior apartments	Approved; building permits issued.
75	PHG15-0011 - Champine Manor, Tobacco Rd.	Expand existing residential care facility from 6 to 12 beds	Under review for completeness. Denied non-conforming use request. OK for applicant to submit a CUP.
76	PHG15-0001 - Calvin Christian	New 15,515SF auditorium	Approved.
77	PHG10-0023 - St. Mary's Parish Center	New 18,400 SF parish center	Approved - under construction.
78	ADM14-0043 - 130 N. Hale - Southland Paving	3,509 SF office, 1,717 wash bay & 6,991 maintenance shop	Approved.
79	TPM 2003-07 - W. Lincoln	4 units on 0.45 ac.	Approved.
80	PHG14-0021 - United Reformed Church	New 12,243 SF sanctuary & 5,250 SF classroom building	Approved.
81	VOID		No submittal.
82	TPM 2006-06 Farr Ave	4 SFR lots on 0.93 ac.	Approved - no recent action.
83	SUB15-0005 - Birch	3 SFR lots on 0.95 ac.	Submitted; under review.
84	Tract 900 - Self storage PD	4 SFR lots on 1.38 ac. & 1 commercial lot on 1.82 ac.	TM approved. PD expired; not yet resubmitted.
85	Self Realization Fellowship Expansion		Submitted; under review.
86			
87	ENV13-0005 - Lake Wohlford Dam Reconstruction	Dam reconstruction	DEIR underway.
88	Sav-A-Lot Food Market	Convert building to new grocery store (14,000 SF)	Approved.
89	Talone's Landscape Headquarters		Anticipated.
90	PHG 16-0012 Innovative Industrial	98,500 SF industrial	Approved.
91	PHG 15-0042 Victory Industrial	91,000 SF Industrial	Approved.
92	ADM 16-0101 Office Condos		Approved.

93	PHG 15-0041 OAAI	Mini-Market expansion	Submitted; under review.
94	PHG 16-0017 Starbucks	2,200 SF drive through	Approved.
95	PHG15-0028 Home Depot	Clean Energy Saver	Submitted; under review.

ATTACHMENT 6

Williams, Clifton (SD)

From: Neufeld, Darin
Sent: Thursday, October 08, 2015 10:59 AM
To: Brian Grover
Subject: RE: Newland Cumulative-Safari Highlands Ranch

Brian,

No County applications...these are other jurisdiction projects. I'll look for the San Marcos Highlands interjurisdictional notice.

Why did you miss the Facebook/Google tour? It was great.

Darin

Darin Neufeld, AICP | Planning Manager | Project Planning
COUNTY OF SAN DIEGO | Planning & Development Services
5510 Overland Avenue | Suite 310 | San Diego | CA | 92123
T. 858.694-3455 | F. 858.694.3373 | MAIN 858.694.2960
PDS Website <http://www.sdcounty.ca.gov/pds/index.html>

From: Brian Grover [mailto:bgrover@dudek.com]
Sent: Thursday, October 08, 2015 10:57 AM
To: Neufeld, Darin
Subject: RE: Newland Cumulative-Safari Highlands Ranch

Darin,

Do you have applications in for both of those projects? If so, could you send along the relevant information? I recall you sending along San Marcos Highlands but if you could resend that would be great.

Thanks,

Brian

From: Neufeld, Darin [mailto:Darin.Neufeld@sdcounty.ca.gov]
Sent: Thursday, October 08, 2015 9:18 AM
To: Brian Grover
Cc: Slovick, Mark; Smith, Ashley
Subject: Newland Cumulative-Safari Highlands Ranch

Brian,

Please make sure this project is evaluated in cumulative. I believe I also forwarded San Marcos Highlands, or you already have that included. Just confirming...

Thanks!

Darin

**Interjurisdictional Notice
September 17, 2015**

Comments
due to PDS

NOTICE OF PREPARATION OF AN EIR

SAFARI HIGHLANDS RANCH

LEAD AGENCY: City of Escondido

Project Location: 23360 Old Wagon Road, Escondido, San Diego County, California. The proposed project is located on 1 ,098 acres of vacant land east of Rancho San Pasqual, northeast of the Rancho Vista Monte Community and just north of the San Diego Zoo Safari Park in unincorporated San Diego County. The project site is within the City's General Plan Specific Plan Area (SPA) #4.

Project Description:

- 10/7/15
1. 550 single-family residences on lots ranging from approximately *City of Escondido* 8,000 square feet to over 200,000 square feet clustered into seven neighborhoods. Average lot size range among the different neighborhoods from 16,000 square feet to 66,000 square feet.
 2. A "Village Core" providing a new 2.6-acre, three bay fire station site, a five-acre public park and trails, private recreation center, small convenience retail store and community gathering areas.
 3. Safari Highlands Ranch Road, a new primary access road intersecting at Rockwood Road between Old Ranch Road and Vista Monte Avenue.
 4. An internal private street system with street rights of way varying from 49 feet wide with travel lanes, parking and walkways to 82 feet wide with a median, travel lanes, bike lanes and walkways.
 5. Approximately 14 acres of recreational parks and trails and 784 acres of resource, wildlife corridors, open space and conservation easement areas (totaling approximately 69.6 percent of the site).
 6. An on-site satellite sewage treatment facility (also referred to as a water factory) providing reclaimed water consistent with Title 22 requirements for a portion of the project's common landscaped

and open areas irrigation. Remaining solids would be discharged into the City sewer system via a new connection in Rockwood Road.

7. Water utilities would include connection to the City of Escondido water system, pumps to boost water to an on-site 80 foot diameter water tank, and an internal water distribution system that would use both pumps, reducing stations, and gravity feed.

8. A storm water system that includes hydro-modification management practices including the use of bio filters and the use of both retention and detention basins.

9. A multi-modal transportation system that emphasizes the integration of vehicular, bicycle and pedestrian traffic throughout the project.

10. Various off-site improvements including the following:

- Reconstruction and improvements to Rockwood Road's intersection with the proposed SHR Road;
- Improvements along Rockwood Road between Cloverdale Road and San Pasqual Union School to enhance the school's student pick up and drop off locations;
- Intersection of Rockwood Road/Cloverdale Road. Install traffic signal and restripe westbound approach to provide one left-turn and one shared left-turn lane.

Restripe southbound Cloverdale Road to provide an additional receiving lane from Rockwood Road left turning movements;

- Restripe Rockwood Road between Cloverdale and San Pasqual Union School to provide additional westbound lane;
- Intersection of San Pasqual Valley Road (SR 78)/Citrus Avenue. Install new signal and restripe southbound approach to provide one left hand and one right hand turn lane;
- Intersection of San Pasqual Valley Road (SR 78)/Cloverdale Road San Pasqual Road. Widen eastbound approach of San Pasqual Valley road to provide dual left turn lanes. Widen northbound section of Cloverdale Road north of the intersection to provide approximate 650 foot long plus a 150-foot transition lane;
- Segment of Felicita Road/17th Avenue from Escondido Boulevard to San Pasqual Valley Road (SR 78). Stripe a new eastbound turn pocket at Lendee Drive and extend the two-way left turn lane eastward to the City of Escondido/San Diego County boundary;
- Two gated emergency access roads: a 2.4 mile road to the northwest connecting to Stonebridge Road and a one mile road to the south connecting to Zoo Road;

- Gas, electric, cable, and phone system connections at Rockwood Road to existing infrastructure operated by San Diego Gas and Electric, Times Warner Cable, and AT&T;
- Improvements to the Eagle Crest Golf Course including replacing the existing temporary clubhouse with a new 4,000 square foot permanent clubhouse with restaurant, reconstruction of hole #14, extension of SHR Road and miscellaneous other golf course improvements (all by separate permit).

Seven phases of development are proposed, corresponding to the seven neighborhoods being created. Public facilities and services and phase development would be coordinated so that services are available and ready to serve the residences as need arises.

Web Link: An electronic version of this notice is posted on the City's website, along with additional project information including the Specific Plan document and technical studies, at:

<http://www.escondido.org/safarihighlands-ranch-specific-plan.aspx>

ATTACHMENT 7

CERTIFIED FOR PUBLICATION

COURT OF APPEAL, FOURTH APPELLATE DISTRICT

DIVISION ONE

STATE OF CALIFORNIA

CLEVELAND NATIONAL FOREST FOUNDATION et al., Plaintiffs and Appellants, v. SAN DIEGO ASSOCIATION OF GOVERNMENTS et al., Defendants and Appellants; THE PEOPLE, Intervenor and Appellant.	D063288 (Super. Ct. No. 37-2011-00101593- CU-TT-CTL)
CREED-21 et al., Plaintiffs and Appellants, v. SAN DIEGO ASSOCIATION OF GOVERNMENTS et al., Defendants and Appellants; THE PEOPLE, Intervenor and Appellant.	(Super. Ct. No. 37-2011-00101660- CU-TT-CTL) ORDER MODIFYING OPINION AND DENYING REHEARING NO CHANGE IN JUDGMENT

THE COURT:

It is ordered that the majority opinion filed on November 24, 2014, be modified as follows:

1. On page 18, line 2 of footnote 8, after the words "explained the Guideline," the words "which supplanted any earlier, informal technical advice from the Governor's Office of Planning and Research" are added." Footnote 8 now reads:

Indeed, in its statement of reasons for adopting the Guideline, the Natural Resources Agency explained the Guideline, which supplanted any earlier, informal technical advice from the Governor's Office of Planning and Research, "reflects the existing CEQA principle that there is no iron-clad definition of 'significance.' [Citations.] Accordingly, lead agencies must use their best efforts to investigate and disclose all that they reasonably can regarding a project's potential adverse impacts." (California Natural Resources Agency, Final Statement of Reasons for Regulatory Action (Dec. 2009) p. 20 < http://resources.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf > (as of Nov. 21, 2014).)

Justice Benke's dissenting opinion, filed November 24, 2014, is modified as follows:

1. On page 8, in the last sentence of the first full paragraph, the words "should be a" are deleted and the word "is" is added following the word "determination." The sentence shall now read:

To the extent thresholds of significance *other* than the three expressly provided in subdivision (b) apply, that determination is made by an agency in the proper exercise of its discretion.

2. On page 8, after the first full paragraph ending with the words "exercise of its discretion," the following paragraph is added:

In its petition for rehearing, SANDAG contends that the Natural Resources Agency (NRA) has specifically forgone any recommendation for use of the Executive Order as a CEQA standard in Guidelines section 15064.4, which SANDAG notes was specifically developed at the direction of the Legislature to guide analysis of GHG impacts. (Petn. for reh., pp. 4-5.) The history of Guidelines section 15064.4 is significant. Following issuance of the Executive Order, in June of 2008, the Governor's Office of Planning and Research (OPR) issued a detailed 20-page technical advisory (<<http://opr.ca.gov/ceqa/pdfs/june08-ceqa.pdf>> [as of Dec. 2014]; hereafter Advisory.) Noting that many public agencies were striving to determine the appropriate means by which to evaluate and mitigate the impacts of proposed projects on climate change, the Advisory set forth directions and step-by-step guidance aimed at assisting practitioners and lead agencies. The Advisory expressly recognizes that the most difficult part of climate change analysis is the determination of significance. (Advisory, p. 4.) The Governor's office thus stated, "To this end, OPR has asked [C]ARB technical staff to recommend a method for setting thresholds which will

encourage consistency and uniformity in the CEQA analysis of GHG emissions throughout the state. Until such time as state guidance is available on thresholds of significance for GHG emissions, we recommend the following approach to your CEQA analysis." (Advisory, pp. 4, 8-9.) In its "Recommended Approach," the Advisory is clear: It is *lead agencies* that are charged with selecting and implementing significance thresholds. (Advisory pp. 5-7.) Important to our purposes, in the selecting and implementing of significance thresholds, the Advisory gives no authority to the courts and claims no such power for the Governor. At the conclusion of the Advisory, the Governor's office states its intent is to deliver a package of CEQA Guidelines amendments to the Resources Agency by July 1, 2009. (Advisory, p. 9.) As a result of the Advisory, in March of 2010, Guidelines section 15064.4 was passed. It fully implements the intent and language of the Advisory, which nullifies my colleagues' expansive interpretation of the Executive Order.

3. On page 8, in the paragraph beginning with "It is apparent," the words "history and" are added to the second sentence, so that it now reads:

Despite the clear history and language of Guidelines section 15064.4, subdivision (b) and the obvious intent of that section, the majority asserts a right to determine that a gubernatorial policy statement, which does not qualify as a threshold of significance, is to be included among the "other factors" and then *orders* SANDAG on remand to develop an undefined "consistency analysis" between the lead agency's plan and the policy statement.

4. On page 14, in the second sentence of the first full paragraph, the words "Office of Planning and Research (OPR)" are replaced with "OPR" and the words "Natural Resources Agency (NRA)" are replaced with "NRA," so that the sentence now reads:

SB 97 directed the OPR to prepare and submit to the NRA "guidelines for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions . . . including, but not limited to, effects associated with transportation or energy consumption."

There is no change in the judgment.

San Diego Association of Governments et al.'s petition for rehearing is denied.

McConnell, P. J.

CERTIFIED FOR PUBLICATION

COURT OF APPEAL, FOURTH APPELLATE DISTRICT

DIVISION ONE

STATE OF CALIFORNIA

CLEVELAND NATIONAL FOREST
FOUNDATION et al.,
Plaintiffs and Appellants,

v.

SAN DIEGO ASSOCIATION OF
GOVERNMENTS et al.,
Defendants and Appellants;
THE PEOPLE,
Intervenor and Appellant.

D063288

(Super. Ct. No. 37-2011-00101593-
CU-TT-CTL)

CREED-21 et al.,
Plaintiffs and Appellants,

v.

SAN DIEGO ASSOCIATION OF
GOVERNMENTS et al.,
Defendants and Appellants;
THE PEOPLE,
Intervenor and Appellant.

(Super. Ct. No. 37-2011-00101660-
CU-TT-CTL)

APPEAL from a judgment of the Superior Court of San Diego County,

Timothy B. Taylor, Judge. Judgment modified and affirmed.

The Sohagi Law Group, Margaret M. Sohagi, Philip A. Seymour; and Julie D. Wiley for Defendants and Appellants San Diego Association of Governments et al.

Kamala D. Harris, Attorney General, Timothy R. Patterson and Janill L. Richards, Deputy Attorneys General, for Intervenor and Appellant.

Shute, Mihaly & Weinberger, Rachel B. Hooper, Amy J. Bricker, Erin B. Chalmers; Daniel P. Selmi; Coast Law Group, Marco Gonzalez; Kevin P. Bundy; and Cory J. Briggs for Plaintiffs and Appellants Cleveland National Forest et al.

INTRODUCTION

After the San Diego Association of Governments (SANDAG) certified an environmental impact report (EIR) for its 2050 Regional Transportation Plan/Sustainable Communities Strategy (transportation plan), CREED-21 and Affordable Housing Coalition of San Diego filed a petition for writ of mandate challenging the EIR's adequacy under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.).¹ Cleveland National Forest Foundation and the Center for Biological Diversity filed a similar petition, in which Sierra Club and the People later joined.

The superior court granted the petitions in part, finding the EIR failed to carry out its role as an informational document because it did not analyze the inconsistency

¹ Further statutory references are also to the Public Resources Code unless otherwise stated.

between the state's policy goals reflected in Executive Order S-3-05 (Executive Order) and the transportation plan's greenhouse gas emissions impacts after 2020. The court also found the EIR failed to adequately address mitigation measures for the transportation plan's greenhouse gas emissions impacts. Given these findings, the court declined to decide any of the other challenges raised in the petitions.

SANDAG appeals, contending the EIR complied with CEQA in both respects. Cleveland National Forest Foundation and Sierra Club (collectively, Cleveland) cross-appeal, contending the EIR further violated CEQA by failing to analyze a reasonable range of project alternatives, failing to adequately analyze and mitigate the transportation plan's air quality impacts, and understating the transportation plan's impacts on agricultural lands. The People separately cross-appeal, contending the EIR further violated CEQA by failing to adequately analyze and mitigate the transportation plan's impacts from particulate matter pollution. We conclude the EIR failed to comply with CEQA in all identified respects. We, therefore, modify the judgment to incorporate our decision on the cross-appeals and affirm. In doing so, we are upholding the right of the public and our public officials to be well informed about the potential environmental consequences of their planning decisions, which CEQA requires and the public deserves, before approving long-term plans that may have irreversible environmental impacts.

DISCUSSION

I

A

General Role of an EIR

"The Legislature has made clear that an EIR is 'an informational document' and that '[t]he purpose of an environmental impact report is to provide public agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment; to list ways in which the significant effects of such a project might be minimized; and to indicate alternatives to such a project.' " (*Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 391 (*Laurel Heights*); Guidelines, § 15002.)² "The EIR is the primary means of achieving . . . the policy of this state to 'take all action necessary to protect, rehabilitate, and enhance the environmental quality of the state.' [Citation.] The EIR is therefore 'the heart of CEQA.' [Citations.] An EIR is an 'environmental "alarm bell" whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return.' [Citations.] The EIR is also intended 'to demonstrate to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its action.' [Citations.] Because the EIR must

² All references to Guidelines are to the CEQA Guidelines, which are located in title 14 of the California Code of Regulations beginning at section 15000. "In interpreting CEQA, we accord the Guidelines great weight except where they are clearly unauthorized or erroneous." (*Neighbors for Smart Rail v. Exposition Metro Line Construction Authority* (2013) 57 Cal.4th 439, 448, fn. 4 (*Smart Rail*).

be certified or rejected by public officials, it is a document of accountability. If CEQA is scrupulously followed, the public will know the basis on which its responsible officials either approve or reject environmentally significant action, and the public, being duly informed, can respond accordingly to action with which it disagrees. [Citations.] The EIR process protects not only the environment but also informed self-government."

(Laurel Heights, supra, 47 Cal.3d at p. 392.)

B

Role of a Program EIR

The EIR at issue in this case is a program EIR. A "program EIR" is "an EIR which may be prepared on a series of actions that can be characterized as one large project" and are related in specified ways. (Guidelines, § 15168, subd. (a); *Town of Atherton v. California High-Speed Rail Authority* (2014) 228 Cal.App.4th 314, 343 (*Atherton*)). The use of a program EIR can: "(1) Provide an occasion for a more exhaustive consideration of effects and alternatives than would be practical in an EIR on an individual action, [¶] (2) Ensure consideration of cumulative impacts that might be slighted in a case-by-case analysis, [¶] (3) Avoid duplicative reconsideration of basic policy considerations, [¶] (4) Allow the lead agency to consider broad policy alternatives and program wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts, [and] [¶] (5) Allow reduction in paperwork." (Guidelines, § 15168, subd. (b); *Atherton, supra*, at pp. 343-344.)

"[W]here an agency prepares a 'program EIR' for a broad policy document . . . , Guidelines section 15168, subdivision (c)(2) allows agencies to limit future environmental review for later activities that are found to be 'within the scope' of the program EIR." (*Latinos Unidos de Napa v. City of Napa* (2013) 221 Cal.App.4th 192, 196; accord, *Citizens Against Airport Pollution v. City of San Jose* (2014) 227 Cal.App.4th 788, 801-802.) Further environmental review for such activities is required only where "(a) Substantial changes are proposed in the project which will require major revisions of the [EIR]. [¶] (b) Substantial changes occur with respect to the circumstances under which the project is being undertaken which will require major revisions in the [EIR]. [¶] (c) New information, which was not known or could not have been known at the time the [EIR] was certified as complete, becomes available." (§ 21166; *May v. City of Milpitas* (2013) 217 Cal.App.4th 1307, 1325-1326; accord, *Citizens Against Airport Pollution v. City of San Jose, supra*, at p. 802.)

Because of these limitations, once an EIR is finally approved, a court generally cannot compel an agency to perform further environmental review for any known or knowable information about the project's impacts omitted from the EIR. (*Citizens Against Airport Pollution v. City of San Jose, supra*, 227 Cal.App.4th at pp. 807-808; *Citizens for Responsible Equitable Environmental Development v. City of San Diego* (2011) 196 Cal.App.4th 515, 531-532.) A court also generally cannot compel an agency to perform further environmental review if new regulations or guidelines for evaluating the project's impacts are adopted in the future. (*Concerned Dublin Citizens v. City of*

Dublin (2013) 214 Cal.App.4th 1301, 1320; *Fort Mojave Indian Tribe v. Department of Health Services* (1995) 38 Cal.App.4th 1574, 1605.)

Hence, "[d]esignating an EIR as a program EIR . . . does not by itself decrease the level of analysis otherwise required in the EIR. 'All EIR's must cover the same general content. [Citations.] The level of specificity of an EIR is determined by the nature of the project and the "rule of reason" [citation], rather than any semantic label accorded to the EIR.' " (*Friends of Mammoth v. Town of Mammoth Lakes Redevelopment Agency* (2000) 82 Cal.App.4th 511, 533.) Consequently, in considering a challenge to a program EIR, "it is unconstructive to ask whether the EIR provided 'project-level' as opposed to 'program-level' detail and analysis. Instead, we focus on whether the EIR provided 'decision makers with sufficient analysis to intelligently consider the environmental consequences of [the] project.' " (*Citizens for a Sustainable Treasure Island v. City and County of San Francisco* (2014) 227 Cal.App.4th 1036, 1052.)

*Standard of Review in CEQA Cases*³

"[I]n a CEQA case, as in other mandamus cases, [our review] is the same as the trial court's: [we review] the agency's action, not the trial court's decision; in that sense [our review] is de novo. (*Vineyard, supra*, 40 Cal.4th at p. 427.) However, our inquiry extends " 'only to whether there was a prejudicial abuse of discretion.' ([§ 21168.5].)" (*Vineyard*, at p. 426.)

"[A]n agency may abuse its discretion under CEQA either by failing to proceed in the manner CEQA provides or by reaching factual conclusions unsupported by substantial evidence. (§ 21168.5.) Judicial review of these two types of error differs significantly: While we determine de novo whether the agency has employed the correct procedures, 'scrupulously enforc[ing] all legislatively mandated CEQA requirements' [citation], we accord greater deference to the agency's substantive factual conclusions." (*Vineyard, supra*, 40 Cal.4th at p. 435.) "In evaluating an EIR for CEQA compliance, then, [we] must adjust [our] scrutiny to the nature of the alleged defect, depending on whether the claim is predominantly one of improper procedure or a dispute over the facts.

³ The California Supreme Court is currently reviewing the standard and scope of judicial review under CEQA. (*Sierra Club v. County of Fresno* (2014) 226 Cal.App.4th 704 [172 Cal.Rptr.3d 271], review granted Oct. 1, 2014, S219783.) Pending further guidance, we endeavor to apply the review dichotomy most recently articulated by the Supreme Court. (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 426-427, 435 (*Vineyard*); accord, *Save Tara v. City of West Hollywood* (2008) 45 Cal.4th 116, 131; *In re Bay-Delta etc.* (2008) 43 Cal.4th 1143, 1161-1162 (*Bay-Delta*); *Ebbetts Pass Forest Watch v. California Dept. of Forestry & Fire Protection* (2008) 43 Cal.4th 936, 944.)

For example, where an agency failed to require an applicant to provide certain information mandated by CEQA and to include that information in its environmental analysis, . . . the agency 'failed to proceed in the manner prescribed by CEQA.' [Citations.] In contrast, in a factual dispute over 'whether adverse effects have been mitigated or could be better mitigated' [citation], the agency's conclusion would be reviewed only for substantial evidence." (*Ibid.*)

II

Appeal

A

Background

1

In 2005 then Governor Arnold Schwarzenegger issued the Executive Order establishing greenhouse gas emissions reduction targets for California. Specifically, the Executive Order required reduction of greenhouse gas emissions to 2000 levels by 2010, to 1990 levels by 2020, and to 80 percent below 1990 levels by 2050.⁴

⁴ "[A]n executive order is generally regarded as 'a formal written directive of the Governor.'" (75 Ops.Cal.Atty.Gen. 263 (1992).) The Executive Order provided in relevant part: "I, ARNOLD SCHWARZENEGGER, Governor of the State of California, by virtue of the power invested in me by the Constitution and statutes of the State of California, do hereby order effective immediately That the following greenhouse gas emission reduction targets are hereby established for California: by 2010, reduce [greenhouse gas] emissions to 2000 levels; by 2020, reduce [greenhouse gas] emissions to 1990 levels; by 2050, reduce [greenhouse gas] emissions to 80 percent below 1990 levels" (<http://gov.ca.gov/news.php?id=1861> [as of Nov. 21, 2014].)

The Legislature subsequently enacted the California Global Warming Solutions Act of 2006 (Health & Saf. Code, § 38500 et seq.), referred to by the parties as Assembly Bill No. 32 (AB 32). Among its provisions, AB 32 tasked the California Air Resources Board (CARB) with determining the state's 1990 greenhouse gas emissions level and approving an equivalent emissions level to be achieved by 2020. (Health & Saf. Code, § 38550.)

The Legislature intended for the emissions limit to "continue in existence and be used to maintain and continue reductions in emissions of greenhouse gases beyond 2020." (Health & Saf. Code, § 38551, subd. (b).) The Legislature also intended for the emissions limit to work in concert with other environmental protection laws, expressly stating AB 32 does not "relieve any person, entity, or public agency of compliance with other applicable federal, state, or local laws or regulations, including state air and water quality requirements, and other requirements for protecting public health or the environment." (Health & Saf. Code, § 38592, subd. (b).) The Legislature further intended for "the Climate Action Team established by the Governor to coordinate the efforts set forth under [the Executive Order] continue its role in coordinating overall climate policy." (Health & Saf. Code, § 38501, subd. (i).) Thus, the Legislature, through AB 32, effectively endorsed the Executive Order and its overarching goal of ongoing greenhouse gas emissions reductions as state climate policy. (See, e.g., *Professional Engineers in California Government v. Schwarzenegger* (2010) 50 Cal.4th 989, 1000, 1043-1044, 1051 [subsequent legislative endorsement operates to ratify and validate provisions in Executive Order].)

Bolstering this conclusion, the Legislature also enacted the Sustainable Communities and Climate Protection Act of 2008 (Stats. 2008, ch. 728; Stats. 2009, ch. 354, § 5), referred to by the parties as Senate Bill No. 375 (SB 375). In enacting SB 375, the Legislature found automobiles and light trucks are responsible for 30 percent of the state's greenhouse gas emissions. (Stats. 2008, ch. 728, § 1, subd. (a).) Accordingly, SB 375 directed CARB to develop regional greenhouse gas emission reduction targets for automobiles and light trucks for 2020 and 2035. (Gov. Code, § 65080, subd. (b)(2)(A).) The targets established by CARB for the San Diego region require a 7 percent per capita reduction in carbon dioxide emissions by 2020 and a 13 percent per capita reduction by 2035 (compared to a 2005 baseline).⁵ CARB must update these targets every eight years until 2050, and may update the targets every four years based on changing factors. (Gov. Code, § 65080, subd. (b)(2)(A)(iv).)

2

The transportation plan, which SANDAG must prepare every four years (23 U.S.C. § 134, subd. (c); Gov. Code, § 65080, subs. (a) & (d)), "serves as the long-range plan designed to coordinate and manage future regional transportation improvements, services, and programs among the various agencies operating within the San Diego region." In enacting SB 375, the Legislature found the state's emissions reductions goals cannot be met without improved land use and transportation policy. Consequently, SB 375 (Gov. Code, § 65080, subd. (b)(2)(B)) mandates the transportation

⁵ The transportation plan meets these limited scope targets (see part II.C.1, *post*).

plan include a sustainable communities strategy to, as the EIR states, "guide the San Diego region toward a more sustainable future by integrating land use, housing, and transportation planning to create more sustainable, walkable, transit-oriented, compact development patterns and communities that meet [CARB's greenhouse gas] emissions targets for passenger cars and light-duty trucks." Once the sustainable communities strategy is approved, some transit priority projects consistent with the strategy are exempt from CEQA requirements. Other transit priority projects, residential projects, and mixed-use projects consistent with the strategy are subject to streamlined CEQA requirements. (§§ 21155-21155.4, 21159.28; Guidelines, § 15183.3.)

B

Greenhouse Gas Emissions Impacts Analysis

The EIR acknowledged the transportation plan's implementation would lead to an overall increase in greenhouse gas emissions levels; however, the EIR did not analyze whether this consequence conflicted with the Executive Order, or would impair or impede the achievement of the Executive Order's goals. As it did in the EIR and below, SANDAG contends on appeal its decision to omit an analysis of the transportation plan's consistency with the Executive Order (consistency analysis) did not violate CEQA because CEQA does not require such a consistency analysis. Whether the EIR's analysis complies with CEQA depends on whether the analysis reflects a reasonable, good faith effort to disclose and evaluate the transportation plan's greenhouse gas emissions impacts. We review the sufficiency of the analysis in light of what is reasonably foreseeable. (Guidelines, § 15151; *City of Maywood v. Los Angeles Unified School Dist.*

(2012) 208 Cal.App.4th 362, 386 (*City of Maywood*); *City of Long Beach v. Los Angeles Unified School Dist.* (2009) 176 Cal.App.4th 889, 897-898 (*City of Long Beach*.) As the focus of SANDAG's contention is whether the EIR's analysis was reasonable and not whether the EIR violated a specific statute or regulation, the contention presents a predominately factual question and our review is for substantial evidence. (*Vineyard, supra*, 40 Cal.4th at p. 435.)

Substantial evidence for CEQA purposes is "enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached." (Guidelines, § 15384, subd. (a).) Substantial evidence includes "facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts." (*Id.*, subd. (b).) It does not include argument, speculation, unsubstantiated opinion or narrative, clearly erroneous or inaccurate evidence, or evidence of social or economic impacts which do not contribute to or are not caused by physical impacts on the environment. (*Id.*, subd. (a).)

"In reviewing for substantial evidence, [we] 'may not set aside an agency's approval of an EIR on the ground that an opposite conclusion would have been equally or more reasonable,' for, on factual questions, our task 'is not to weigh conflicting evidence and determine who has the better argument.' " (*Vineyard, supra*, 40 Cal.4th at p. 435; *Laurel Heights, supra*, 47 Cal.3d at p. 393.) Rather, we must resolve any reasonable doubts and any conflicts in the evidence in favor of the agency's findings and decision. (*Laurel Heights*, at p. 393; *Citizens for Responsible Equitable Environmental Development v. City of San Diego, supra*, 196 Cal.App.4th at pp. 522-523.)

In this case, SANDAG's decision to omit an analysis of the transportation plan's consistency with the Executive Order did not reflect a reasonable, good faith effort at full disclosure and is not supported by substantial evidence because SANDAG's decision ignored the Executive Order's role in shaping state climate policy. The Executive Order underpins all of the state's current efforts to reduce greenhouse gas emissions. As SANDAG itself noted in its Climate Action Strategy, the Executive Order's 2050 emissions reduction goal "is based on the scientifically-supported level of emissions reduction needed to avoid significant disruption of the climate and *is used as the long-term driver for state climate change policy development.*" (Italics added.)

Indeed, the Executive Order led directly to the enactment of AB 32, which validated and ratified the Executive Order's overarching goal of ongoing emissions reductions, recognized the Governor's Climate Action Team as the coordinator of the state's overall climate policy, and tasked CARB with establishing overall emissions reduction targets for 2020 and beyond. The Executive Order also led directly to the enactment of SB 375, which tasked CARB with establishing regional automobile and light truck emissions reduction targets for 2020 and 2035. CARB is required to revisit these targets every eight years through 2050, or sooner if warranted by changing circumstances. (Gov. Code, § 65080, subd. (b)(2)(A)(iv).) Thus, the Executive Order, with the Legislature's unqualified endorsement, will continue to underpin the state's efforts to reduce greenhouse gas emissions throughout the life of the transportation plan. The EIR's failure to analyze the transportation plan's consistency with the Executive Order, or more particularly with the Executive Order's overarching goal of ongoing

greenhouse gas emissions reductions, was therefore a failure to analyze the transportation plan's consistency with state climate policy. As evidence in the record indicates the transportation plan would actually be inconsistent with state climate policy over the long term, the omission deprived the public and decision makers of relevant information about the transportation plan's environmental consequences. The omission was prejudicial because it precluded informed decisionmaking and public participation. (*Smart Rail, supra*, 57 Cal.4th at p. 463; *City of Long Beach, supra*, 176 Cal.App.4th at p. 898.)

SANDAG contends the EIR cannot analyze the transportation plan's consistency with the Executive Order because there is no statute or regulation translating the Executive Order's goals into comparable, scientifically based emissions reduction targets. However, we do not agree the lack of such targets precludes the EIR from performing a meaningful consistency analysis in this instance. "Drafting an EIR . . . necessarily involves some degree of forecasting. While foreseeing the unforeseeable is not possible, an agency must use its best efforts to find out and disclose all that it reasonably can." (Guidelines, § 15144.) Although SANDAG may not know precisely what future emissions reduction targets the transportation plan will be required to meet, it knows from the information in its own Climate Action Strategy the theoretical emissions reduction targets necessary for the region to meet its share of the Executive Order's goals. It also knows state climate policy, as reflected in the Executive Order and AB 32, requires a continual *decrease* in the state's greenhouse gas emissions and the transportation plan after 2020 produces a continual *increase* in greenhouse gas emissions. With this knowledge, SANDAG could have reasonably analyzed whether the

transportation plan was consistent with, or whether it would impair or impede, state climate policy.⁶

SANDAG's attempts to disavow its responsibility for performing this analysis are unavailing. The Legislature specifically found reducing greenhouse gas emissions cannot be accomplished without improved land use and transportation policy. Accordingly, the transportation plan plays both a necessary and important role in achieving state climate policy. By failing to adequately inform the public and decision makers the transportation plan is inconsistent with state climate policy, the EIR deterred the decision makers from devising and considering changes to favorably alter the trajectory of the transportation plan's post-2020 greenhouse gas emissions. When the decision makers are inevitably faced with post-2020 requirements aligned with state climate policy, their task of complying with these requirements will be more difficult and some opportunities for compliance may be lost. As SANDAG explained in its Climate Action Strategy, "Once in place, land use patterns and transportation infrastructure typically remain part of the built environment and influence travel behavior and greenhouse gas emissions for several decades, perhaps longer." In this regard, the EIR falls far short of being "an

⁶ We do not intend to suggest the transportation plan must achieve the Executive Order's 2050 goal or any other specific numerical goal. Our concern is with the EIR's failure to recognize, much less analyze and attempt to mitigate, the conflict between the transportation plan's long-term greenhouse gas emissions increase and the state climate policy goal, reflected in the Executive Order, of long-term emissions reductions. In fact, the EIR does not even discuss the transportation plan's failure to maintain emissions reductions after 2020, which is AB 32's minimum expectation. (See Health & Saf. Code, § 38551, subd. (b).)

'environmental "alarm bell" whose purpose it is to alert the public and its responsible officials to environmental changes before they have reach ecological points of no return.' " (*Laurel Heights, supra*, 47 Cal.3d at p. 392.) It also falls far short of " 'demonstrat[ing] to an apprehensive citizenry that the agency has, in fact, analyzed and considered the ecological implications of its actions.' " (*Ibid.*)

We are likewise unpersuaded by SANDAG's assertion the EIR's analysis of the transportation plan's greenhouse gas emissions impacts fully complies with CEQA because it utilized significance thresholds specified in Guidelines section 15064.4, subdivision (b).⁷ This Guideline states in relevant part: "A lead agency should consider the following factors, *among others*, when assessing the significance of impacts from greenhouse gas emissions on the environment: [¶] (1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting[.] [¶] (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project. [¶] (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution

⁷ "A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant." (Guidelines, § 15064.7.)

of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project."

(Guidelines, § 15064.4, subd. (b), italics added.)

Although this Guideline specifies three means of determining whether a project's greenhouse gas emissions impacts are significant, the "among others" qualifying language indicates these means are not exclusive.⁸ Moreover, "the fact that a particular environmental effect meets a particular threshold cannot be used as an automatic determinant that the effect is or is not significant . . . a threshold of significance cannot be applied in a way that would foreclose the consideration of other substantial evidence tending to show the environmental effect to which the threshold relates might be significant." (*Protect The Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th 1099, 1109 (*Amador*)). Consequently, the use of the Guideline's thresholds does not necessarily equate to compliance with CEQA, particularly where, as here, the failure to consider the transportation plan's consistency with the state climate policy of ongoing emissions reductions reflected in the Executive Order frustrates the state climate policy and renders the EIR fundamentally misleading.

⁸ Indeed, in its statement of reasons for adopting the Guideline, the Natural Resources Agency explained the Guideline "reflects the existing CEQA principle that there is no iron-clad definition of 'significance.' [Citations.] Accordingly, lead agencies must use their best efforts to investigate and disclose all that they reasonably can regarding a project's potential adverse impacts." (California Natural Resources Agency, Final Statement of Reasons for Regulatory Action (Dec. 2009) p. 20 < http://resources.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf > (as of Nov. 21, 2014).)

We are also unpersuaded by SANDAG's assertion it was not required to analyze the transportation plan's consistency with the state climate policy reflected in the Executive Order because SANDAG has broad discretion to select the criteria it uses to determine the significance of the transportation plan's impacts. While we agree SANDAG has such discretion (*North Coast Rivers Alliance v. Marin Municipal Water Dist. Bd. of Directors* (2013) 216 Cal.App.4th 614, 624), SANDAG abuses its discretion if it exercises it in a manner that causes an EIR's analysis to be misleading or without informational value. (See *Smart Rail, supra*, 57 Cal.4th at pp. 445, 457.) "A lead agency cannot avoid finding a potentially significant effect on the environment by rotely applying standards of significance that do not address that potential effect." (*Rominger v. County of Colusa* (2014) 229 Cal.App.4th 690, 717, citing *Amador, supra*, 116 Cal.App.4th at p. 1111.)

By disregarding the Executive Order's overarching goal of ongoing emissions reductions, the EIR's analysis of the transportation plan's greenhouse gas emissions makes it falsely appear as if the transportation plan is furthering state climate policy when, in fact, the trajectory of the transportation plan's post-2020 emissions directly contravenes it. "[O]mitting material necessary to informed decisionmaking and informed public participation" subverts the purposes of CEQA and "precludes both identification of potential environmental consequences arising from the project and also thoughtful analysis of the sufficiency of measures to mitigate those consequences." (*Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645, 658.) Such an omission is particularly troubling where, as here, the project under review involves long-term,

planned expenditures of billions of taxpayer dollars. No one can reasonably suggest it would be prudent to go forward with planned expenditures of this magnitude before the public and decision makers have been provided with all reasonably available information bearing on the project's impacts to the health, safety, and welfare of the region's inhabitants. We, therefore, conclude SANDAG prejudicially abused its discretion by omitting from the EIR an analysis of the transportation plan's consistency with the state climate policy, reflected in the Executive Order, of continual greenhouse gas emissions reductions.⁹

C

Mitigation of Greenhouse Gas Emissions Impacts

1

Although the EIR did not analyze the transportation plan's consistency with the state climate policy reflected in the Executive Order, the EIR nevertheless, analyzed the transportation plan's greenhouse gas emissions impacts against three significance thresholds for each of the planning years 2020, 2035, and 2050. Under the first

⁹ Our decision will not necessarily stop any project encompassed within the transportation plan. (See *Preserve Wild Santee v. City of Santee* (2012) 210 Cal.App.4th 260, 286-289.) Our decision also will not procedurally or substantively expand CEQA requirements in violation of section 21083.1 because the EIR is required to analyze the transportation plan's potential "to degrade the quality of the environment, curtail the range of the environment, *or to achieve short-term, to the disadvantage of long-term, environmental goals.*" (§ 21083, subd. (b)(1), italics added; Guidelines, § 15065, subd. (a)(2), (c).) Rather, our decision is consistent with the intent CEQA "be interpreted to afford the fullest possible protection to the environment within the reasonable scope of the statutory language. (Guidelines, § 15003, subd. (f).)

threshold, the EIR posited the transportation plan's impacts would be significant if the transportation plan's implementation were to increase greenhouse gas emissions compared to existing, or 2010, conditions. Under the second threshold, the EIR posited the transportation plan's impacts would be significant if the transportation plan's implementation conflicted with CARB's regional automobile and light truck emissions reductions targets. Under the third threshold, the EIR stated the transportation plan's impacts would be significant if the transportation plan's implementation conflicted with either CARB's Climate Change Scoping Plan (Scoping Plan) or SANDAG's own Climate Action Strategy.¹⁰

The EIR concluded the transportation plan's greenhouse gas emissions impacts would be significant under the first significance threshold for the 2035 and 2050 planning years because the emissions would be higher in those planning years than in 2010. The EIR concluded the greenhouse gas emissions impacts would be less than significant in all other respects analyzed.¹¹

¹⁰ The Scoping Plan is CARB's roadmap for achieving greenhouse gas emissions reductions. The Climate Action Strategy is SANDAG's guide for addressing climate change. The Climate Action Strategy emphasizes the areas where the greatest impact can be made at the local level, including transportation infrastructure.

¹¹ The People and Cleveland have not challenged these conclusions and their propriety is not before us. Nonetheless, regarding the third significance threshold, we note the Climate Action Strategy expresses far stronger views than the transportation plan on the steps necessary to achieve the state's long-term greenhouse gas emissions reductions goals. For example, the Climate Action Strategy maintains achieving the goals "will require fundamental changes in policy, technology, and behavior" and "[b]y 2030, the region must have met and gone below the 1990 [emissions] level and be well on its way to doing its share for achieving the 2050 greenhouse gas reduction level."

To mitigate the significant greenhouse gas emissions impacts found under the first threshold, the EIR identified three mitigation measures it deemed feasible.¹² The first mitigation measure required SANDAG to update its future regional comprehensive plans, regional transportation plans, and sustainable communities plans to incorporate policies and measures leading to reduced greenhouse gas emissions. The second mitigation measure encouraged the San Diego region cities and the County of San Diego (County) to adopt and implement climate action plans for reducing greenhouse gas emissions to a level the particular city or the County determined would not be cumulatively considerable. The second mitigation measure also identified various provisions the plans should include and stated SANDAG would assist in the preparation of the plans and other climate strategies through the continued implementation of its own Climate Action Strategy and Energy Roadmap Program.¹³ The third mitigation measure stated SANDAG would and other agencies should require the use of best available control technology to reduce greenhouse gas emissions during the construction and operation of projects.

¹² " 'Feasible' means capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors." (Guidelines, § 15364.)

¹³ According to the record, the Energy Roadmap Program "identifies energy-saving measures that can be integrated into local planning and permitting processes, ordinances, outreach and education efforts, and municipal operations."

According to the EIR, these mitigation measures encourage reduction in greenhouse gas emissions, but they do not provide a mechanism guaranteeing such reductions. Consequently, the EIR concluded the significant impacts found under the first threshold would remain significant and unavoidable.

The EIR also considered and rejected three other mitigation measures deemed infeasible. These mitigation measures were: (1) requiring all vehicles driven within the region to be zero-emission vehicles or to be powered by renewable energy; (2) requiring all future construction to be net-zero energy use; and (3) requiring all future construction activity to include only equipment retrofitted to significantly reduce greenhouse gas emissions.

3

SANDAG contends the EIR adequately addressed mitigation for the transportation plan's significant greenhouse gas emissions impacts. Given our conclusion in part II.B, *ante*, this challenge is at least partially moot as the additional analysis necessary to properly address the transportation plan's consistency with the state climate policy reflected in the Executive Order will likely require revisions to related sections of the EIR, including the EIR's discussion of mitigation measures. (*Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 91 [once a lead agency recognizes an impact is significant, the agency must describe, evaluate, and adopt

feasible mitigation measures to mitigate or avoid the impact].)¹⁴ We, nonetheless, briefly address SANDAG's contention. As this contention is predominately factual, our review is for substantial evidence. (*Vineyard, supra*, 40 Cal.4th at p. 435.)

a

"The core of an EIR is the mitigation and alternatives sections." (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564; *Watsonville Pilots Assn. v. City of Watsonville* (2010) 183 Cal.App.4th 1059, 1089.) "Section 21002 requires agencies to adopt feasible mitigation measures to substantially lessen or avoid otherwise significant adverse environmental impacts. [¶] The CEQA guidelines state that to be legally adequate mitigation measures must be capable of: '(a) Avoiding the impact altogether by not taking a certain action or parts of an action. (b) Minimizing impacts by limiting the degree or magnitude of the action and its implementation. (c) Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment. (d) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.' [Citation.]

"For each significant effect, the EIR must identify specific mitigation measures; where several potential mitigation measures are available, each should be discussed separately, and the reasons for choosing one over the others should be stated. If the

¹⁴ We do not express any view on precisely how SANDAG must remedy the analytical deficiencies identified in this opinion as we recognize a court may direct SANDAG to comply with CEQA, but a court may not direct SANDAG to exercise its discretion in a particular fashion or to produce a particular result. (§ 21168.9, subd. (c); *Schellinger Brothers v. City of Sebastopol* (2009) 179 Cal.App.4th 1245, 1266.)

inclusion of a mitigation measure would itself create new significant effects, these too, must be discussed, though in less detail than required for those caused by the project itself." (*Sacramento Old City Assn. v. City Council* (1991) 229 Cal.App.3d 1011, 1027.)

For significant greenhouse gas emissions effects, feasible mitigation measures may include: "(1) Measures in an existing plan or mitigation program for the reduction of emissions that are required as part of the lead agency's decision; [¶] (2) Reductions in emissions resulting from a project through implementation of project features, project design, or other measures . . . ; [¶] (3) Off-site measures, including offsets that are not otherwise required, to mitigate a project's emissions; [¶] (4) Measures that sequester greenhouse gases; [¶] [and] (5) In the case of the adoption of a plan, such as a general plan, long range development plan, or plans for the reduction of greenhouse gas emissions, mitigation may include the identification of specific measures that may be implemented on a project-by-project basis. Mitigation may also include the incorporation of specific measures or policies found in an adopted ordinance or regulation that reduces the cumulative effect of emissions." (Guidelines, § 15126.4, subd. (c).)

b

At one extreme, the EIR in this case considered and deemed feasible three measures requiring little to no effort to implement and assuring little to no concrete steps toward emissions reduction. In addition, according to the EIR, many of the suggestions contained in these measures have already been incorporated into the transportation plan and, by implication, the transportation plan's emissions estimates. "A 'mitigation measure' is a suggestion or change that would reduce or minimize significant adverse

impacts on the environment caused by the project as proposed." (*Lincoln Place Tenants Association v. City of Los Angeles* (2007) 155 Cal.App.4th 425, 445.) A mitigation measure is not part of the project. (*Lotus v. Department of Transportation, supra*, 223 Cal.App.4th at p. 656 & fn. 8.) Thus, it is questionable whether these measures even qualify as mitigation measures.

At the other extreme, the EIR considered and deemed infeasible three particularly onerous measures. Each of the measures would be difficult, if not impossible, to enforce and each requires implementation resources not readily available. Unrealistic mitigation measures, similar to unrealistic project alternatives, do not contribute to a useful CEQA analysis. (See *Watsonville Pilots Assn. v. City of Watsonville, supra*, 183 Cal.App.4th at p. 1089; 1 Kostka & Zischke, Practice Under the Cal. Environmental Quality Act (Cont.Ed.Bar 2014) § 15.10, pp. 15-16.) As none of these measures had any probability of implementation, their inclusion in the EIR was illusory.

Missing from the EIR is what CEQA requires: a discussion of mitigation alternatives that could both substantially lessen the transportation plan's significant greenhouse gas emissions impacts and feasibly be implemented. (*Lincoln Place Tenants Association v. City of Los Angeles, supra*, 155 Cal.App.4th at p. 445.) A few examples of potential alternatives identified in the Climate Action Strategy include: supporting the planning and development of smart growth areas through transportation investments and other funding decisions; offering incentives for transit-oriented developments in smart growth areas; coordinating the funding of low carbon transportation with smart growth development; and encouraging parking management measures that promote walking and

transit use in smart growth areas. Given the absence of any discussion of such mitigation alternatives, we conclude there is not substantial evidence to support SANDAG's determination the EIR adequately addressed mitigation for the transportation plan's greenhouse gas emissions impacts. The error is prejudicial because it precluded informed public participation and decisionmaking. (§ 21005, subd. (a); *City of Maywood, supra*, 208 Cal.App.4th at p. 386.)

III

Cross-Appeals

A

Forfeiture

The People's and Cleveland's pleadings and briefs below challenged many aspects of the EIR in addition to the EIR's analysis and mitigation of greenhouse gas emissions impacts. In its tentative ruling, the superior court acknowledged the other challenges, but determined it could resolve the case solely on the greenhouse gas emissions impacts analysis and mitigation issues and, consequently, it did not need to address the other challenges. The People and Cleveland through their cross-appeals now seek rulings from this court on many of the other challenges. SANDAG contends they forfeited these challenges by failing to attempt to obtain rulings on them below.

Even if SANDAG's contention were correct, the application of the forfeiture rule is not automatic and we may excuse forfeiture in cases presenting "an important legal issue." (*In re S.B.* (2004) 32 Cal.4th 1287, 1293.) We are persuaded the legal issues raised in the cross-appeals are sufficiently important we should exercise our discretion to

excuse any forfeiture. Moreover, we are mindful of the Legislature's intent "that any court, which finds, or, in the process of reviewing a previous court finding, finds, that a public agency has taken an action without compliance with [CEQA], shall specifically address each of the alleged grounds for noncompliance." (§ 21005, subd. (c).)

B

Project Alternatives

1

The EIR analyzed seven project alternatives. They were:

1. A no project alternative, which assumed the transportation plan would not be adopted and only transportation improvements under construction or development would be built (Alternative 1);
2. A modified funding strategy alternative, which deleted some highway improvements, delayed other highway improvements, added some transit projects, advanced other transit projects, and increased some transit service frequencies (Alternative 2a);
3. The same modified funding strategy alternative coupled with a modified "smart growth" land use pattern, which assumed added infill and redevelopment to increase residential development density in urban and town center areas and increased employment within job centers (Alternative 2b);
4. A transit emphasis alternative, which advanced the development of some transit projects, but did not add any new transit projects (Alternative 3a);

5. The same transit emphasis alternative, but assuming the modified smart growth land use pattern (Alternative 3b);
6. An alternative implementing the transportation plan's transportation network, but assuming the modified smart growth land use pattern (Alternative 4); and
7. A slow growth alternative, which assumed the application of regulations and/or economic disincentives to slow population and employment and delayed the complete implementation of the transportation plan by five years (Alternative 5).

2

Cleveland contends the EIR fails to comply with CEQA because the EIR did not analyze a reasonable range of project alternatives. As the focus of this contention is whether the analysis was reasonable and not whether it occurred, the contention presents a predominately factual question and our review is for substantial evidence. (*Vineyard, supra*, 40 Cal.4th at p. 435.)

"CEQA requires that an EIR, in addition to analyzing the environmental effects of a proposed project, also consider and analyze project alternatives that would reduce adverse environmental impacts. [Citations.] The [Guidelines] state that an EIR must 'describe a range of reasonable alternatives to the project . . . which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project' [Citation.] An EIR need not consider every conceivable alternative to a project or alternatives that are infeasible. [Citations.]

[¶] . . . [¶]

" 'There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.' [Citation.] The rule of reason 'requires the EIR to set forth only those alternatives necessary to permit a reasoned choice' and to 'examine in detail only the ones that the lead agency determines could feasibly attain most of the basic objectives of the project.' [Citations.] An EIR does not have to consider alternatives 'whose effect cannot be reasonably ascertained and whose implementation is remote and speculative.' " (*Bay-Delta, supra*, 43 Cal.4th at p. 1163, fn. omitted.) A court will uphold the selection of project alternatives unless the challenger demonstrates " 'that the alternatives are manifestly unreasonable and that they do not contribute to a reasonable range of alternatives.' " (*California Native Plant Society v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 988.)

In this case, the EIR's discussion of project alternatives is deficient because it does not discuss an alternative which could significantly reduce total vehicle miles traveled. Although Alternatives 3a and 3b are labeled "transit emphasis" alternatives, the labeling is a misnomer. These alternatives mainly advance certain rapid bus projects, but leave the planned rail and trolley projects largely unchanged. In addition, these alternatives do not provide any new transit projects or significant service increases. In fact, the "transit emphasis" alternatives include fewer transit projects than some of the other non-"transit-emphasis" alternatives.

The omission of an alternative which could significantly reduce total vehicle miles traveled is inexplicable given SANDAG's acknowledgment in its Climate Action Strategy that the state's efforts to reduce greenhouse gas emissions from on-road

transportation will not succeed if the amount of driving, or vehicle miles traveled, is not significantly reduced. The Climate Action Strategy explained, "Lowering vehicle miles traveled means providing high-quality opportunities to make trips by alternative means to driving alone such as walking, bicycling, ridesharing, and public transit, and by shortening vehicle trips that are made. This can be accomplished through improved land use and transportation planning and related measures, policies and investments that increase the options people have when they travel." Accordingly, the Climate Action Strategy recommended policy measures to increase and prioritize funding and system investments for public transit and transit operations, increase the level of service on existing routes and provide new public transit service through expanded investments, and improve the performance of public transit with infrastructure upgrades. Given these recommendations, their purpose, and their source, it is reasonable to expect at least one project alternative to have been focused primarily on significantly reducing vehicle trips.

Instead, it appears the project alternatives focused primarily on congestion relief. The Climate Action Strategy provides evidentiary support for the consideration of congestion relief alternatives as it notes, "Eliminating or reducing congestion can lead to more efficient travel conditions for vehicles and greenhouse gas savings." However, the transportation plan is a long-term plan and congestion relief is not necessarily an effective long-term strategy. As the Climate Action Strategy explains, "Measures to relieve congestion also may induce additional vehicle travel during uncongested periods, particularly over the long-term, which can partially or fully offset the greenhouse gas reductions achieved in the short-term from congestion relief. Induced demand

(sometimes called the rebound effect) in transportation refers to the increase in travel that can occur when the level of service on a roadway or other facility improves. Travelers sometimes respond to faster travel times and decreased costs of travel by traveling more, resulting in increased vehicle miles traveled." (Fns. omitted.) Given the acknowledged long-term drawbacks of congestion relief alternatives, there is not substantial evidence to support the EIR's exclusion of an alternative focused primarily on significantly reducing vehicle trips. The error is prejudicial because it precluded informed public participation and decisionmaking. (§ 21005, subd. (a); *City of Maywood, supra*, 208 Cal.App.4th at p. 386.)

C

Air Quality Impacts

1

Eleven air quality monitoring stations throughout the region measure ambient air pollutant concentrations to determine whether the region's air quality meets federal and state standards. The region does not meet the state standards for emissions of respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less (PM₁₀) and fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less (PM_{2.5}).¹⁵ The EIR forecasted the daily tonnage of on-road mobile emissions of PM₁₀ and PM_{2.5} from the transportation plan's transportation network

¹⁵ According to the EIR, "respirable" means the particulate matter can "avoid many of the human respiratory system defense mechanisms and enter deeply into the lung."

improvements would steadily and substantially increase from 2010 to 2050. The EIR did not forecast whether there would be any increase in these emissions from regional growth or land use changes associated with the transportation plan. Instead, the EIR indicated such forecasting would be done during the next tier of environmental review.

Five of the region's air quality monitoring stations also sample toxic air contaminants (TACs), which are contaminants known or suspected to cause cancer or serious health problems, but for which there are no federal or state ambient air quality standards. State law also requires facilities to report any emissions of TACs in order to quantify the amount released, the location of the release, the concentrations to which the public is exposed, and the resulting potential health risk. (Health & Saf. Code, § 44300 et seq.) In 2009, annual emissions of TACs in the region were estimated to be more than 64.9 million pounds.

According to the EIR, exposure to TACs can cause cancer and other serious health problems. This is especially true of exposure to diesel particulate matter, which is respirable (see fn. 15, *ante*). The EIR further explained, "The carcinogenic potential of TACs is a particular public health concern because many scientists currently believe that there is no 'safe' level of exposure to carcinogens. Any exposure to a carcinogen poses some risk of contracting cancer."

One of the thresholds the EIR used to determine the significance of the transportation plan's air quality impacts was whether sensitive receptors would be exposed to substantial pollutant concentrations. For purposes of this threshold, "sensitive

receptors" included children, the elderly, and communities already experiencing high levels of air pollution and related diseases.

As to PM₁₀ and PM_{2.5} emissions, the EIR indicated sensitive receptors could be significantly impacted if they were located near congested intersections. As to TACs, the EIR indicated TACs emitted from highway vehicles and nonroad equipment tend to impact those closest to the emission sources. The EIR explained, "[a] growing body of scientific evidence shows that living or going to school near roadways with heavy traffic volumes is associated with a number of adverse effects. These include increased respiratory symptoms, increased risk of heart and lung disease, and elevated mortality rates."

Although the EIR recognized regional growth and land use changes associated with the transportation plan had the potential to expose sensitive receptors to substantial localized pollutant concentrations, the EIR stated the level of exposure could not and would not be determined until the next tier of environmental review when facility designs of individual projects became available. The EIR made identical statements regarding proposed transportation improvements associated with the transportation plan.

The EIR summarized several studies linking proximity to heavily traveled roads and freeways to harmful health effects to children. The EIR also noted CARB had estimated the region's health risk from diesel particulate matter in 2000 was 720 excess cancer cases per million and had recommended sensitive land uses not be sited within 500 feet of a freeway, urban roads with 100,000 vehicles per day, and rural roads with 50,000 vehicles per day.

Cleveland contends the EIR's air quality impacts analysis violates CEQA because the EIR's description of existing conditions does not adequately depict the public's existing exposure to TACs. Cleveland contends the existing conditions description also fails to identify the approximate number and location of sensitive receptors near planned transportation projects. SANDAG, however, asserts its existing conditions description is sufficiently detailed for a program level EIR. As these contentions focus on the reasonableness of the EIR's analysis, they present predominately factual questions and our review is for substantial evidence. (*Vineyard, supra*, 40 Cal.4th at p. 435; accord, *Smart Rail, supra*, 57 Cal.4th at pp. 447-449; *Communities for a Better Environment v. South Coast Air Quality Management Dist.* (2010) 48 Cal.4th 310, 328.)

To fulfill its information disclosure function, "an EIR must delineate environmental conditions prevailing absent the project, defining a baseline against which predicted effects can be described and quantified." (*Smart Rail, supra*, 57 Cal.4th at p. 447; see *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4th 931, 953 [without an adequate baseline description, "analysis of impacts, mitigation measures and project alternatives becomes impossible"]; Guidelines, § 15125, subd. (a).)¹⁶ If the description of the environmental setting "is inaccurate, incomplete or

¹⁶ Guidelines section 15125, subdivision (a), provides: "An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and

misleading, the EIR does not comply with CEQA. [Citation.] "Without accurate and complete information pertaining to the setting of the project and surrounding uses, it cannot be found that the [EIR] adequately investigated and discussed the environmental impacts of the development project." ' ' " (*Clover Valley Foundation v. City of Rocklin* (2011) 197 Cal.App.4th 200, 219.)

In this case, for TACs exposures, the record shows there was available data from monitoring stations and mandatory reports with which SANDAG could have developed a reasoned estimate of the region's existing TACs exposures. Likewise, for sensitive receptors, the record shows SANDAG has data showing current population and land use patterns and current transportation infrastructure from which it could have developed a reasoned estimate of the number and location of sensitive receptors adjacent to highways and heavily traveled roadways.

The fact more precise information may be available during the next tier of environmental review does not excuse SANDAG from providing what information it reasonably can now. (Guidelines, § 15144.) Moreover, if known impacts are not analyzed and addressed in a program EIR, they may potentially escape analysis in a later tier EIR. (§ 21166; *Citizens Against Airport Pollution v. City of San Jose, supra*, 227 Cal.App.4th at pp. 807-808; *Concerned Dublin Citizens v. City of Dublin, supra*, 214 Cal.App.4th at p. 1320; *Citizens for Responsible Equitable Environmental Development v. City of San Diego, supra*, 196 Cal.App.4th at pp. 531-532; *Fort Mojave Indian Tribe v.*

regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant."

Department of Health Services, supra, 38 Cal.App.4th at p. 1605.) We, therefore, conclude there is not substantial evidence to support SANDAG's determination it could not reasonably provide additional baseline information in the EIR about TACs exposures and the location of sensitive receptors. The error is prejudicial because it precluded informed public participation and decisionmaking. (§ 21005, subd. (a); *City of Maywood, supra*, 208 Cal.App.4th at p. 386.)

3

Both the People and Cleveland contend the EIR's analysis of air quality impacts fails to comply with CEQA because it fails to correlate the transportation plan's adverse air quality impacts to resulting adverse health impacts. SANDAG again contends its disclosure efforts are adequate for the program level of environmental review and producing additional information at this level is infeasible. As with the parties' other contention, this contention is predominantly factual and our review is for substantial evidence. (*Vineyard, supra*, 40 Cal.4th at p. 435.)

"Guidelines section 15126.2, subdivision (a) requires an EIR to discuss, inter alia, 'health and safety problems caused by the physical changes' that the proposed project will precipitate." (*Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1219 (*Bakersfield Citizens*)). Accordingly, an EIR must identify and analyze the adverse health impacts likely to result from the project's air quality impacts. (*Id.*, at p. 1220; *Berkeley Keep Jets Over the Bay Com. v. Board of Port Comrs.*, *supra*, 91 Cal.App.4th at pp. 1367-1371.)

Here, the EIR identified in a general manner the adverse health impacts that might result from the transportation plan's air quality impacts. However, the EIR failed to correlate the additional tons of annual transportation plan-related emissions to anticipated adverse health impacts from the emissions. Although the public and decision makers might infer from the EIR the transportation plan will make air quality and human health worse, at least in some respects for some people, this is not sufficient information to understand the adverse impact. (*Bakersfield Citizens, supra*, 124 Cal.App.4th at p. 1220 [EIR analysis of air quality impacts deficient where public would have no idea of the health consequences of increased air pollution].)

While SANDAG contends it is not feasible to provide more definite information at this juncture, we have not located nor has SANDAG identified any evidence in the record supporting this contention. Instead, SANDAG impermissibly relies solely on its own bald assertions of infeasibility contained in the EIR. (*City of Maywood, supra*, 208 Cal.App.4th at p. 385 [an EIR must contain facts and analysis, not just the agency's bare conclusions].) Certainly, we recognize there are limitations to the precision of a program-level analysis. SANDAG is nonetheless obliged to disclose what it reasonably can about the correlation, it has not done so, and there is not substantial evidence showing it could not do so. The error is prejudicial because it precluded informed public

participation and decisionmaking.¹⁷ (§ 21005, subd. (a); *City of Maywood, supra*, at p. 386.)

4

a

To mitigate the transportation plan's air quality impacts, the EIR identified the following mitigation measures:

1. Local jurisdictions should incorporate into their land use decisions certain measures recommended by the California Attorney General for reducing greenhouse gas emissions.

2. At the next tier of environmental review, SANDAG will and other implementing agencies should incorporate certain dust control measures into project specifications for transportation network improvements.

3. At the next tier of environmental review, SANDAG will and other implementing agencies should require any heavy duty off-road vehicles used to construct transportation network improvements to utilize all feasible measures to reduce specified emissions to a less than significant level.

4. At the next tier of environmental review, SANDAG will and other implementing agencies should evaluate potential impacts from carbon monoxide, PM₁₀

¹⁷ Given this conclusion and its bases, we need not decide the People's conditional motion for judicial notice of examples of correlative information contained in comparable EIRs from other jurisdictions.

and PM_{2.5} emissions and their health risks and, if required, add one or more recommended mitigation measures to reduce the emissions.

The EIR further concluded these were the only mitigation measures available at the program-level of environmental review.

b

Both the People and Cleveland contend these measures, except for the second, violate CEQA because they improperly defer mitigation of the transportation plan's significant air quality impacts. SANDAG once more counters these measures are adequate for the program level of environmental review.

This issue, like the issue involving the mitigation of greenhouse gas emissions impacts, is at least partially moot given our conclusion in parts III.C.2 & 3, *ante*, as the additional analysis necessary to correct the noted deficiencies will likely require revisions to related sections of the EIR, including the discussion of mitigation measures.

(*Communities for a Better Environment v. City of Richmond*, *supra*, 184 Cal.App.4th at p. 91.) However, we briefly address the People's and Cleveland's contentions. As these contentions are predominantly factual, our review is for substantial evidence. (*Vineyard*, *supra*, 40 Cal.4th at p. 435.)

"An EIR shall describe feasible measures which could minimize significant adverse impacts. (Guidelines, § 15126.4, subd. (a)(1).) An EIR may not defer the formulation of mitigation measures to a future time, but mitigation measures may specify performance standards which would mitigate the project's significant effects and may be accomplished in more than one specified way. (*Id.*, subd. (a)(1)(B).)

"Thus, ' " 'for [the] kinds of impacts for which mitigation is known to be feasible, but where practical considerations prohibit devising such measures early in the planning process (e.g., at the general plan amendment or rezone stage), the agency can commit itself to eventually devising measures that will satisfy specific performance criteria articulated at the time of project approval. Where future action to carry a project forward is contingent on devising means to satisfy such criteria, the agency should be able to rely on its commitment as evidence that significant impacts will in fact be mitigated.' " ' [Citation.] Conversely, ' "[i]mpermissible deferral of mitigation measures occurs when an EIR puts off analysis or orders a report without either setting standards or demonstrating how the impact can be mitigated in the manner described in the EIR." ' " (*Preserve Wild Santee v. City of Santee* (2012) 210 Cal.App.4th 260, 280-281.)

In this case, with one exception, the EIR defers the analysis of appropriate mitigation measures. It also fails to set performance standards and commit SANDAG to complying with them. Although SANDAG contends no other mitigation is feasible at the program level of environmental review, we have not located nor has SANDAG pointed to any evidence in the record supporting this contention. Accordingly, we conclude there is not substantial evidence to support SANDAG's determination the EIR adequately addressed mitigation for the transportation plan's air quality impacts. The error is prejudicial because it precluded informed public participation and decisionmaking. (§ 21005, subd. (a); *City of Maywood, supra*, 208 Cal.App.4th at p. 386.)

D

Agricultural Impacts

1

The EIR evaluated the transportation plan's agricultural impacts under two significance thresholds. Under the first threshold, the EIR evaluated the impacts to land designated prime farmland, unique farmland or farmland of statewide significance under the California Resources Agency's Farmland Mapping and Monitoring Program.¹⁸ The EIR concluded implementation of the transportation plan would result in the conversion of 3,485.09 acres of such farmland by 2050.

Under the second threshold, the EIR evaluated impacts to all land with existing agricultural uses regardless of classification, lands subject to Williamson Act contracts, and lands designated under the California Farmland Conservancy Program Act.¹⁹ The EIR concluded implementation of the transportation plan would result in the conversion

¹⁸ According to the EIR, the Farmland Mapping and Monitoring Program is used to identify agricultural resources of 10-acres or more. "Farmlands are classified according to soil factors, including available water holding capacity, temperature regime, acidity, depth to the water table, electrical conductivity, flooding potential, erosion hazard, permeability, rock content, and rooting depth. The best quality land is identified as Prime Farmland and Farmland of Statewide Importance."

¹⁹ According to the EIR, "the Williamson Act [Gov. Code, § 51200 et seq.] enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments that are much lower than normal because they are based upon farming and open space uses as opposed to full market value."

The California Farmland Conservancy Program Act (§ 10200 et seq.) encourages "the long-term, private stewardship of agricultural lands through the voluntary use of agricultural conservation easements."

of 7,023.07 acres of such land by 2050. The conclusion was based on data from the Farmland Mapping and Monitoring Program augmented with data from SANDAG's own geographic information system.

2

a

Cleveland contends the EIR violates CEQA by understating the transportation plan's growth-induced impacts on agricultural lands. As this contention is predominantly factual, our review is for substantial evidence. (*Vineyard, supra*, 40 Cal.4th at p. 435.)

As we have previously indicated, when reviewing the adequacy of an EIR's disclosures, we are chiefly concerned with whether the EIR reasonably fulfills its function of facilitating informed decisionmaking. An analysis which understates the severity of a project's impacts "impedes meaningful public discussion and skews the decisionmaker's perspective concerning the environmental consequences of the project, the necessity for mitigation measures, and the appropriateness of the project approval." (*Citizens to Pres. the Ojai v. County of Ventura* (1985) 176 Cal.App.3d 421, 431.)

In this case, both of the data sets used to analyze the transportation plan's agricultural impacts have important limitations. The Farmland Mapping and Monitoring Program does not capture information for farmland under 10 acres. In addition, according to SANDAG, its own geographic information system's inventory of agricultural land may not include any agricultural lands that went into production after the mid-1990s. The combined effect of these limitations is that there is not substantial evidence to show the EIR's analysis accounted for impacts to farmland of less than 10

acres put into production within the last 20 years. The error necessarily prejudiced informed public participation and decisionmaking because 68 percent of the farmland in the County is between one and nine acres, with the average farm size being four acres. (§ 21005, subd. (a); *City of Maywood, supra*, 208 Cal.App.4th at p. 386.)

While SANDAG correctly points out CEQA permits the use of data from the Farmland Mapping and Monitoring Program to analyze a project's agricultural impacts (Guidelines, Exhibit G), CEQA does not mandate the use of such data nor does it insulate an EIR from further scrutiny if the EIR relies on the data. Moreover, because the transportation plan included the sustainable communities strategy, SANDAG was required by statute to "gather and consider the best practically available scientific information regarding resource areas and farmland in the region" (Gov. Code, § 65080, subd. (b)(2)(B)(v).) By choosing a methodology with known data gaps, SANDAG produced unreliable estimates of the amount of existing farmland and, consequently, unreliable estimates of the transportation plan's impacts to existing farmland. Accordingly, SANDAG failed to comply with its statutory obligation as well as CEQA's information disclosure requirements.

b

Finally, in addition to Cleveland's general contention that the EIR understated the transportation plan's agricultural impacts, Cleveland raises two specific contentions: (1) the EIR failed to disclose and analyze the transportation plan's impacts to small farms; and (2) the EIR's discussion of impacts to agricultural land from growth inaccurately assumed land converted to a rural residential designation would remain farmland.

SANDAG counters Cleveland is precluded under section 21177, subdivision (a), from raising these two specific contentions because Cleveland never exhausted its administrative remedies as to them.²⁰ Except to the extent the specific contentions are subsumed within the general contention, we agree.

"A CEQA challenge is not preserved 'unless the alleged grounds for noncompliance with [CEQA] were presented to the public agency orally or in writing by any person during the public comment period provided by this division or prior to the close of the public hearing' [Citation.] 'Exhaustion of administrative remedies is a jurisdictional prerequisite to maintenance of a CEQA action.' [Citation.]

" 'To advance the exhaustion doctrine's purpose "[t]he 'exact issue' must have been presented to the administrative agency" [Citation.] While " 'less specificity is required to preserve an issue for appeal in an administrative proceeding than in a judicial proceeding' because, . . . parties in such proceedings generally are not represented by counsel . . . ' [citation]" [citation], "generalized environmental comments at public hearings," "relatively . . . bland and general references to environmental matters" [citation], or "isolated and unelaborated comment[s]" [citation] will not suffice. The same is true for " '[g]eneral objections to project approval' [Citations.]" [Citation.]

²⁰ Section 21177, subdivision (a), provides: "An action or proceeding shall not be brought pursuant to Section 21167 unless the alleged grounds for noncompliance with this division were presented to the public agency orally or in writing by any person during the public comment period provided by this division or prior to the close of the public hearing on the project before the issuance of the notice of determination."

" [T]he objections must be sufficiently specific so that the agency has the opportunity to evaluate and respond to them.' " ' [Citation.]

" ' "The petitioner bears the burden of demonstrating that the issues raised in the judicial proceeding were first raised at the administrative level. [Citation.]" [Citation.] An appellate court employs a de novo standard of review when determining whether the exhaustion of administrative remedies doctrine applies.' " (*Citizens for Responsible Equitable Environmental Development v. City of San Diego, supra*, 196 Cal.App.4th at p. 527.)

Cleveland has not met its burden in this case. Before SANDAG approved the EIR, Cleveland submitted a letter commenting on the EIR's analysis of agricultural impacts from growth as follows: "[T]he [EIR] states that approximately 10,500^[21] acres of agricultural land will be impacted due to regional growth and land use change by the year 2050. [Citations.] The [EIR] also acknowledges that its regional growth projections are based on current planning assumptions for San Diego County and the jurisdictions therein. [Citation.] However, the EIR for the County's current General Plan update, which by definition reflects current planning assumptions (as of 2011), shows that the General Plan expects 55,963 acres of agricultural land to convert to non-agricultural uses by the year 2030. [Citation.] Even though they account for conditions expected to exist 20 years sooner, these impacts are more than five times greater than the impacts identified in the [transportation plan's EIR].

²¹ This figure apparently represents the combined total of the impacts identified under both significance thresholds (see part III.D.1, *ante*).

"It is not clear how the [EIR] could use current planning assumptions for growth and determine that there will be only 10,500 acres of agricultural land impacted, when the current plans on which it bases its assumptions assume there will be more than five times as many acres impacted. SANDAG must explain if there is a basis for this discrepancy. Without any such explanation, the [EIR] appears to severely underestimate the amount of agricultural land that will be impacted, in contravention of CEQA. [¶] In sum, the [EIR's] failure to accurately account for impacts to agricultural land renders it inadequate as a matter of law."

Even read liberally, Cleveland's comment letter did not fairly apprise SANDAG that Cleveland had specific concerns about the EIR's handling of impacts to small farms and lands redesignated rural residential. Instead, Cleveland's comment letter focused on the discrepancy between SANDAG's estimate of overall growth-induced impacts and the County's estimate of overall growth-induced impacts. Cleveland cites to no other place in the record where any other person or organization raised specific concerns about the EIR's handling of impacts to small farms and lands designated rural residential. Consequently, Cleveland has not demonstrated exhaustion of administrative remedies as to these concerns.

DISPOSITION

The matter is remanded to the superior court with directions to modify the judgment and writ of mandate to incorporate our decision on the cross-appeals. The judgment is affirmed as so modified. The People and Cleveland are awarded their appeal and cross-appeal costs.

McCONNELL, P. J.

I CONCUR:

IRION, J.

BENKE, J., Dissenting.

My colleagues and I have vastly different views on the extent to which this court can and should control environmental review of the planning decisions of a regional transportation agency such as the San Diego Association of Governments (SANDAG). Where the majority, as a result of the alleged inadequacy of the environmental impact report's (EIR) analysis of greenhouse gas (GHG) impacts, would strike down the EIR implementing SANDAG's regional transportation plan (RTP) calling for investment of about \$214 billion over the next several decades in the San Diego region, I would not. Where the majority purports to enforce the California Environmental Quality Act (CEQA) and its Guidelines,¹ I believe my colleagues weaken and confuse the law. Thus, although I conclude that substantial evidence supports the finding SANDAG's GHG impacts analysis is CEQA-compliant, I preface that substantial evidence analysis with the following observations and concerns.

In order to understand the full impact of my colleagues' decision regarding the adequacy of SANDAG's assessment of the GHG impacts of the project, it is first necessary to define a "threshold of significance." CEQA requires "[a]ll public agencies . . . adopt by ordinance, resolution, rule, or regulation, objectives, criteria, and procedures for the evaluation of projects and the preparation of environmental impact reports." (Pub. Resources Code, § 21082.)² Such "objectives, criteria, and procedures" are also known

¹ Citations to "Guidelines" refer to California Code of Regulations, title 14, section 15000 et seq., which are the guidelines for the application of CEQA. (Cal. Code Regs., tit. 14, §§ 15000, 15001.)

² All further statutory citations refer to the Public Resources Code unless otherwise indicated.

as "thresholds of significance" and are used by an agency as a benchmark in determining the significance of environmental effects of a project. (Guidelines, § 15064.7, subd. (a).) A threshold of significance for GHG impacts *may* be accompanied by a plan to achieve the reduction or mitigation of GHG emissions, but the plan *must* be adopted through a public review process. (Guidelines, § 15064.4, subd. (b)(3).)

Executive Order No. S-3-05, signed in 2005 by then Governor Arnold Schwarzenegger (Executive Order), does not unilaterally qualify as a threshold of significance. To reach this conclusion, one need go no further than our Supreme Court's opinion of *Professional Engineers in California Government v. Schwarzenegger* (2010) 50 Cal.4th 989 (*Professional Engineers*). In *Professional Engineers*, the court concluded that an executive order, which attempted to implement a mandatory furlough program during our state's fiscal crisis, had no foundation in the state constitution or existing statutes. In particular, the court noted "the Governor fails to cite any judicial decision or other supporting authority holding or suggesting that the power under the California Constitution to establish or revise the terms and conditions of state employment, even in a fiscal emergency, resides in the Governor (or any other executive officer or entity) rather than in the Legislature. To the contrary, the following is well established: (1) Under the California Constitution it is *the Legislature*, rather than the Governor, that generally possesses the ultimate authority to establish or revise the terms and conditions of state employment through legislative enactments, and (2) any authority that the Governor or an executive branch entity . . . is entitled to exercise in this area emanates from the Legislature's delegation of a portion of its legislative authority to such executive officials or entities through statutory enactments." (*Id.* at p. 1015.)

The court in *Professional Engineers* likewise rejected the Governor's argument that his power to impose a mandatory work furlough program through an executive order was supported by statutes, including several specific statutory provisions. Among the factors noted contrary to this position, the court recognized that "the Legislature has demonstrated a special interest in retaining . . . [the] ultimate control over the salary and wages of such employees." (*Professional Engineers, supra*, 50 Cal.4th at p. 1024.) The court held that the mandatory furlough program was valid *only* because the Legislature, "through the exercise of its own legislative prerogative," independently adopted the program. (*Id.* at p. 1047.)

Similarly, the Executive Order at issue in this case, which includes *statewide* GHG reduction targets for 2020, 2035 and 2050, was at its inception merely a broad policy statement of goals issued by the Governor. Like the order at issue in *Professional Engineers*, it too does not have an identifiable foundation in the constitutional power of the Governor or in statutory law.

The majority cites no judicial decision or other supporting authority holding or even suggesting that the power to establish thresholds of significance, qualitative or quantitative, resides in the Governor rather than in the Legislature. Nor is there any authority supporting the view that the Legislature has delegated to the Governor any power to enact or establish thresholds of significance, including with respect to GHG at issue in this case.

To the contrary, as I discuss, the Legislature has clearly demonstrated it intends to retain ultimate control over the regulation of environmental planning. It has vested in the California Air Resources Board (CARB) the responsibility for coordinating efforts to

attain and maintain ambient air quality standards, to conduct research into the causes of and solution to air pollution, and systematically attack the serious problem caused by motor vehicles. (Health & Saf. Code, § 39003.) It also has limited by statute the ability of courts to add substantive or procedural requirements to CEQA provisions. (Pub. Resources Code, § 21083.)

The majority is either unable or unwilling to expressly declare its position on whether the Executive Order is a threshold of significance as that term is employed in CEQA analysis. I sympathize with their apparent uneasiness. If the majority declares the Executive Order *is* a threshold of significance, it is faced with the reality that the Executive Order simply does not meet the requirements necessary to have attained that status. If it expressly acknowledges that the Executive Order is *not* a threshold of significance, then it must also acknowledge that SANDAG is quite correct that it was not required to employ it as a CEQA measuring stick in assessing compliance.

My colleagues attempt to avoid the dilemma altogether. They offer that the *policy* underlying the Executive Order is of such overarching importance that it *must* be included within the significance factors listed in Guidelines section 15064.4, subdivision (b), and, therefore, SANDAG was *required* to consider that policy in what they euphemistically refer to as a "consistency analysis" involving the GHG impacts of its project and the Executive Order. Because SANDAG failed to provide such a policy analysis in its EIR, my colleagues conclude SANDAG abused its discretion. By this exercise in linguistics, the majority in contravention of *Professional Engineers* has elevated the Executive Order to the status of a threshold of significance without ever having to expressly declare they are doing so. Its action is judicial fiat, pure and simple.

The majority seeks support for its new formulation of the law by noting that important legislation has sprung from the Executive Order, and they offer that the Executive Order will continue to be the springboard for legislative action. Relying on *Professional Engineers*, the majority also concludes the policy underlying the Executive Order has been "ratified" by subsequent legislation. (Maj. opn. *ante*, at p. 14.) If, by this reasoning, the majority implies that subsequent environmental legislation somehow bestowed on the Executive Order a power it did not have, I believe it is mistaken. As *Profession Engineers* recognizes, our Legislature acts independently. As I discuss, the fact that the Legislature has enacted environmental legislation in recognition of the Executive Order's goals does not bestow on the Executive Order any more power than it had before the Legislature acted.

Moreover, although the Legislature has exercised its own independent prerogative by tasking CARB with adopting regional GHG reduction targets for 2020 and 2035, it has not done so for 2050. As I also discuss, the Legislature is currently considering a comprehensive and complex plan for 2050 that tasks the CARB to establish regional targets. It is possible the Legislature may alter the Executive Order's 2050 goals or reject them altogether. Using the majority's own logic, the Legislature has not ratified the Executive Order's qualitative or quantitative goals for 2050.

It is true, of course, that *qualitative* thresholds of significance are acceptable in assessing significance. (See Guidelines, § 15064.7, subd. (a).) However, qualitatively addressing the policy and sciences underlying the Executive Order—if this in fact is what the majority means by a "consistency analysis"—adds little if any meaning to the discussion of the significance of GHG impacts. SANDAG considered in its EIR the

important public policy of GHG emissions reduction in implementing its project. It acknowledged the Executive Order and its goals. It concluded the 2050 goal in that order was not at this time applicable. The purpose of remand is therefore unclear to me if the majority merely requires additional, undefined consideration of the qualitative aspects of the Executive Order.

Quantitatively speaking, as noted, SANDAG in its EIR considered, but did not use, the 2050 GHG reduction targets set forth in the Executive Order. Until the Legislature independently acts and tasks the CARB with adopting regional 2050 GHG emissions reduction targets, SANDAG in my view was not required to consider in its EIR the broad 2050 statewide goals set forth in the Executive Order. (See *Professional Engineers, supra*, 50 Cal.4th at p. 1047.)

The majority states that it is not requiring SANDAG's project to "*achieve* the Executive Order's 2050 goal or any other specific numerical goal" in undertaking the now-required "consistency analysis." (Maj. opn. *ante*, at p. 15, fn. 6.) This comes as little surprise, inasmuch as an EIR is merely an "informational document." (See Guidelines, § 15003, subd. (i).)

Nonetheless, whether qualitative or quantitative, it is not clear to me how, in assessing the significance of GHG impacts of the project—including for 2050—a lead agency is supposed to adopt from the Executive Order *regional* GHG emissions reduction targets. The majority appears to answer this question by stating SANDAG can determine its "share" of GHG emissions reduction responsibility from theoretical targets. With respect to SANDAG's share of responsibility, it is important to emphasize what the majority has not acknowledged: SANDAG is responsible only for its "*fair share*" when

assessing significance. Establishing an agency's "*fair share*" is a complex and science-based process. It begins by recognizing that the level of GHG emissions is a statewide problem encompassing a diverse array of emitters. Included in the array is not only transportation but also, for example, land use and development, agriculture, electricity generation, forestry, and industrial sectors. The analysis of GHG impacts thus involves emissions across sectors both within SANDAG's planning discretion (i.e., transportation and land use) and outside SANDAG's planning discretion (i.e., heavy industry). SANDAG is not empowered or equipped to offer and use analyses in statewide sectors over which it has no control.

The point is SANDAG, unlike the CARB, is a *regional* and not a state agency. Without a model addressing *regional* GHG emissions reduction targets between 2035 and 2050, it is impossible for SANDAG in its RTP to conduct a "consistency analysis" for these years of study.

As the lack of substance in the now-required "consistency analysis" attests, there is little to say except that, in the world of GHG emissions, "more of them are bad and less is good." It is a reasonable conclusion here that the SANDAG Board of Directors, comprised of locally elected officials from San Diego County and the 18 cities in the region, are already well aware of this. The EIR in any event recognizes the important policy goal of reducing GHG emissions.

As I discuss, there is legislation currently pending tasking the CARB with setting state and regional targets for 2050. This pending legislation further demonstrates my point that the Legislature has not yet independently adopted the Executive Order's 2050 statewide GHG emissions reduction goals. Once the CARB sets these regional targets,

which incidentally, may be different than the Executive Order's statewide goal, SANDAG and the other 18 metropolitan planning agencies (MPO's) throughout the state can then use them to determine their "*fair share*" of GHG emissions in analyzing the significance of GHG impacts of their projects. I fear the majority's demand that SANDAG "do more" *now* based on mere policy goals and/or theoretical targets, and without providing any guidance as to what more should be done, will in effect require SANDAG to set unilaterally 2050 regional GHG reduction targets in order to try to satisfy, somehow, the majority's "consistency analysis." In doing so, it may take action that ultimately conflicts with requirements set by CARB.

Perhaps the most profound harm arising from the majority's finesse of CEQA is the lasting damage it does to Guidelines section 15064.4. This section gives a lead agency substantial discretion to determine both the amount of GHG emissions from a project and whether such emissions are significant. Subdivision (b) of Guidelines section 15064.4 in particular states that in assessing GHG impacts, the lead agency *should* consider three factors, *among others*. One such factor expressly gives a *lead agency* the discretion to determine the thresholds of significance that should apply to its project in determining significance. (Guidelines, § 15064.4, subd. (b)(2).) To the extent thresholds of significance *other* than the three expressly provided in subdivision (b) apply, that should be a determination made by an agency in the proper exercise of its discretion.

It is apparent to me that identifying and selecting thresholds of significance is not a judicial function. Despite the clear language of Guidelines section 15064.4, subdivision (b) and the obvious intent of that section, the majority asserts a right to determine that a gubernatorial policy statement, which does not qualify as a threshold of significance, is to

be included among the "other factors" and then *orders* SANDAG on remand to develop an undefined "consistency analysis" between the lead agency's plan and the policy statement.

This insinuation of judicial power into the environmental planning process and usurping of legislative prerogative is breathtaking. Now we, the courts, without institutional planning expertise or knowledge, get to tell a lead agency what it must use as a threshold of significance. As a consequence of not being prescient enough to know what a court might select, the EIR's of projects such as this RTP, which, as noted, calls for investment of about \$214 billion in the San Diego region over the next few decades, are invalidated and sent back to the lead agency to anticipate what we, the court, might next decide is or has become of such critical policy significance that the agency must use it as a threshold of significance. There is no legal support for our action, which strips lead agencies of the discretion vested in them by the Legislature and reposes that discretion in the courts. To be clear, I do not believe our action expands Guidelines section 15064.4; instead, I believe it destroys the integrity of that section. (See Maj. opn. *ante*, at p. 20, fn. 9.)

The mischief caused by the majority would not be confined to the SANDAG region. The majority would have each of our states' six appellate districts, and multiple divisions within many of them, instructing the 18 MPO's regarding whether a "consistency analysis" is required based on, for example, the Executive Order, and, if so, what it should contain. It does not take much energy to foresee the permutations possible as each MPO receives judicial instruction. Chaos in environmental planning comes to mind.

The Legislature, in its wisdom, has foreseen the kind of damage we do today, and it has taken steps to forbid such judicial interference. First, the Legislature vested one agency, CARB, with creating the targets and metrics in assessing, and ultimately reducing, GHG emissions regionally and statewide. (Health & Saf. Code, § 39003.) Second, it has, in CEQA itself, expressly prevented courts from selecting what "other factors" an agency should consider in assessing significance of GHG impacts.

Indeed, section 21083.1 provides the legislative intent underlying CEQA and the interpretation of its statutes and guidelines by our courts: "It is the intent of the Legislature that courts, consistent with generally accepted rules of statutory interpretation, shall not interpret this division or the state guidelines adopted pursuant to Section 21083 in a manner which imposes procedural or substantive requirements beyond those explicitly stated in this division or in the state guidelines." Judicial imposition of significance thresholds does precisely what the statute prohibits.

As I discuss in more detail *post*, I conclude substantial evidence in the record shows SANDAG made a good faith and reasonable effort to analyze in its EIR the GHG impacts of its project. In its 39-page GHG impacts analysis, SANDAG, as noted, analyzed the targets set by the CARB for 2020 and 2035 under three thresholds of significance, in compliance with Guidelines section 15064.4. I thus would *reverse* the trial court's order finding SANDAG's GHG impacts analysis of the project was inadequate, including because SANDAG did not address the 2050 GHG *statewide* reduction goals set forth in the Executive Order.

As to the cross-appeal, because the trial court declined to reach those issues and because the majority in any event is remanding the matter with respect to the EIR's

treatment of GHG impacts and mitigation measures of the project, I would defer the issues raised in the cross-appeal to the trial court for consideration in the first instance. I do, however, note that our instructions on remand include what appears to be a directive that SANDAG consider further analysis of mass transportation. This directive, coupled with the vague requirement of a "consistency analysis," leaves me with an uncomfortable feeling that some might believe that, in sending this case back, we are *sub rosa* directing SANDAG to shift the emphasis in its plan to mass transportation. If that is a direction in which we inadvertently venture, I would only comment that it is not a journey we are empowered or equipped to undertake.

DISCUSSION

I

GHG Impacts

A. *Regulation of GHG by the CARB*

On June 1, 2005, at the United Nations World Environment Day in San Francisco, Governor Schwarzenegger signed the Executive Order in front of hundreds of international leaders. The Governor told his invited guests, which included mayors from more than 70 cities from around the world, that the "debate" over global warming from GHG emissions was "over." (Marshall, *Schwarzenegger Issues Plan to Reduce Greenhouse Gases* (June 2, 2005) N.Y. Times <http://www.nytimes.com/2005/06/02/national/02arnold.html?_r=0> [as of November 2014].)

The Executive Order established the following *statewide* reduction targets for greenhouse gas emissions: by 2010, to 2000 levels; by 2020, to 1990 levels; and by 2050, to 80 percent below 1990 levels. It also directed the California Environmental Protection

Agency (Cal-EPA) to develop strategies to meet these targets. In response, the "Climate Action Team," comprised of representatives from various agencies and commissions including the Cal-EPA and the CARB, was created. (See *Rialto Citizens for Responsible Growth v. City of Rialto* (2012) 208 Cal.App.4th 899, 938; see also Comment, *Quantifying an Uncertain Future: The Demands of the California Environmental Quality Act and the Challenge of Climate Change Analysis* (2012) McGeorge L.Rev. 1065, 1068-1069.)

Although the Executive Order provided the "power" for its issuance was derived from "the Constitution and statutes of the State of California," that order did *not* identify any article, section and/or statute as the source of this alleged authority. In any event, as noted, I do not believe our Constitution, including article V, vested the Governor with the authority to singlehandedly issue and enforce the Executive Order. (See, i.e., *Professional Engineers, supra*, 50 Cal.4th at p. 1015 [rejecting the argument the governor had the unilateral authority to implement a mandatory furlough program].) I also do not believe that our Legislature expressly granted that authority to the Governor. (See *id.* at p. 1000.) Therefore, I believe the GHG statewide emission reduction targets set forth in the Executive Order are nothing more than mere policy recommendations unless and until our Legislature independently acts to adopt such targets, which, as I explain, it has done for 2020 and 2035, but not for 2050. (See *ibid.*)

The Executive Order was by no means the first attempt in our state to address GHG emissions. In 2002, our Legislature passed a law regulating GHG vehicle emissions. (See Stats. 2002, ch. 200, enacting Assem. Bill No. 1493 (2001-2002 Reg. Sess.) (AB 1493).) Under this law, the CARB was required to develop and adopt, by

January 1, 2005, "regulations that achieve the maximum feasible and cost-effective reduction of greenhouse gas emissions from motor vehicles." (Health & Saf. Code, § 43018.5, subd. (a).) In enacting this law, our Legislature noted that the "control and reduction of emissions of greenhouse gases are critical to slow the effects of global warming." (Stats. 2002, ch. 200, § 1(c).) Thus, AB 1493 shows that our state policy of reducing GHG emissions did *not* originate with the 2005 Executive Order, as the majority appears to suggest, but rather was in existence before the Executive Order was issued.³

The California Global Warming Solutions Act of 2006 (Health & Saf. Code, § 38500 et seq., added by Stats. 2006, ch. 488, § 1, enacting Assem. Bill No. 32 (AB 32)) implemented the 2020 reduction target set forth in the Executive Order. (See Health & Saf. Code, § 38550; see also *Rialto Citizens for Responsible Growth v. City of Rialto*, *supra*, 208 Cal.App.4th at p. 939.) AB 32 directed the CARB to develop a "scoping plan . . . for achieving the maximum technologically feasible and cost-effective reductions in greenhouse gas emissions from sources or categories of sources of greenhouse gases" (Health & Saf. Code, § 38561, subd. (a); see Health & Saf. Code, § 38562, subd. (a) [requiring the CARB to "adopt greenhouse gas emission limits and emission reduction measures by regulation . . . to become operative beginning on January 1, 2012"]; see also *Association of Irrigated Residents v. State Air Resources Bd.* (2012) 206 Cal.App.4th 1487, 1490 [noting AB 32 designated the CARB as "the state agency

³ Our Legislature as early as 1975 tasked the CARB with the responsibility of "coordinating efforts to attain and maintain ambient air quality standards, to conduct research into the causes of and solution to air pollution, and to systematically attack the serious problem caused by motor vehicles, which is the major source of air pollution in many areas of the state." (Health & Saf. Code, § 39003.)

charged with monitoring and regulating sources of emissions of greenhouse gases that cause global warming in order to reduce emissions of greenhouse gases' . . . and imposes numerous directives and timelines on the [CARB]".)

To assist an agency in its analysis of GHG emissions in CEQA review, our Legislature in 2007 enacted, among other provisions, section 21083.05 (added by Stats. 2007, ch. 185, § 1, enacting Sen. Bill No. 97 (SB 97)).⁴ SB 97 directed the Office of Planning and Research (OPR) to prepare and submit to the Natural Resources Agency (NRA) "guidelines for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions . . . including, but not limited to, effects associated with transportation or energy consumption." (Former § 21083.05, subd. (a).) SB 97 further provided that the OPR and NRA "shall periodically update the guidelines to incorporate new information or criteria" established by the CARB pursuant to AB 32. (*Id.*, subd. (c).)

The NRA adopted regulations on the significance of GHG emissions for CEQA, which were then incorporated into the CEQA Guidelines including, as perhaps most relevant here, Guidelines section 15064.4, discussed *post*.⁵

In 2008, our Legislature passed the Sustainable Communities and Climate Protection Act of 2008 (Sen. Bill No. 375 (2007-2008 Reg. Sess.)). As the majority recognizes, SB 375 supports the state's climate action goals to reduce GHG emissions through coordinated transportation and land use planning. Under SB 375, the CARB—

⁴ SB 97 was amended effective January 1, 2013. (Stats. 2012, ch. 548, § 5.)

⁵ "In interpreting CEQA, we accord the Guidelines great weight except where they are clearly unauthorized or erroneous." (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 428, fn. 5.)

once again—was directed to provide each region by no later than September 30, 2010 with GHG emission "reduction targets for the automobile and light truck sector for 2020 and 2035, respectively." (Gov. Code, § 65080, subd. (b)(2)(A).) Once these targets were established by the CARB, each of the state's MPO's was required to prepare under Government Code former section 65080, subdivision (b)(2) a "sustainable communities strategy" (SCS) as part of the MPO's RTP. (See Gov. Code, former § 65080, subd. (b)(2).)⁶

In developing the SCS, SB 375 required each MPO to "conduct at least two informational meetings . . . within the region for members of the board of supervisors and city councils" on the SCS. (Gov. Code, § 65080, subd. (b)(2)(E).) The purpose of the meetings was to "discuss the [SCS] . . . , including the key land use and planning assumptions to the members of the board of supervisors and the city council members in that county and to solicit and consider their input and recommendations." The SCS, if and when implemented, would allow the MPO to reach the GHG reduction targets established by the CARB. If those targets were unmet, the MPO would be required to prepare an alternative planning strategy to the SCS. (Gov. Code, § 65080, subd. (b)(2)(E).)

As *the* agency responsible for "target-setting" GHG emissions reductions, the CARB in 2010 created reduction targets for SANDAG's MPO region for 2020 and 2035.

⁶ Government Code section 65080 was amended effective January 1, 2010 (Stats. 2009, ch. 354, § 1) and again effective January 1, 2011 (Stats. 2010, ch. 328, § 95). The requirement of an SCS as part of an MPO's RTP remains in the current version of Government Code section 65080, subdivision (b).

SANDAG used these targets in addressing in its EIR the GHG impacts of the project. However, as SANDAG properly recognized in its EIR impact analysis, the CARB has not yet set 2050 GHG emissions reduction targets for the MPO's. As noted and as I discuss, there is legislation currently pending, Assembly Bill No. 2050 (AB 2050), that would require the CARB to do so.⁷

Thus, our Legislature has recognized the strong public policy of GHG emissions reductions in our state and has fully occupied this enormously complex field by delegating the "target-setting responsibility" of such reductions to the CARB through a series of comprehensive legislative enactments, including in AB 32, SB 97 and SB 375.⁸

⁷ According to a recent summary prepared by the Senate Appropriations Committee, AB 2050 would amend SB 32 by requiring "the California Air Resources Board (CARB) to develop greenhouse gas (GHG) emissions reductions goals for 2050, including intermediate goals, and to perform a number of analyses of the strategies that would be required to reach those goals" for purposes of the next scoping plan update. (Sen. Appropriations. Com., analysis of Assem. Bill No. 2050 (2013-2014 Reg. Sess.) p. 1.)

⁸ This list is not exhaustive. For example, in 2010 legislation was enacted requiring the Department of Transportation to update the federally mandated California Transportation Plan (CTP) by December 31, 2015 and every five years thereafter. (Gov. Code, §§ 65070, subd. (a) & 65071.) The CTP requires identification of a "statewide integrated multimodal transportation system" that includes among other requirements the incorporation of all SCS and/or alternate planning strategies required by SB 375. (Gov. Code, § 65072.2) "In developing the [CTP] . . . , the department shall address how the state will achieve maximum feasible emissions reductions in order to attain a statewide reduction of [GHG] emissions to 1990 levels by 2020 as required by [AB 32] and 80 percent below 1990 levels by 2050." (*Ibid.*) The CTP must include: "(a) A policy element that describes the state's transportation policies and system performance objectives. These policies and objectives shall be consistent with legislative intent described in Sections 14000, 14000.5, 14000.6, and 65088. [¶] (b) A strategies element that shall incorporate the broad system concepts and strategies synthesized from the adopted regional transportation plans prepared pursuant to Section 65080. The California Transportation Plan shall not be project specific. [¶] (c) A recommendation element that includes economic forecasts and recommendations to the Legislature and the Governor to

The CARB in response has then set reduction targets for each of the 18 MPO's in our state.

Against this backdrop, I disagree with the majority's conclusion that SANDAG acted unreasonably in refusing to engage in a "consistency analysis" using the Executive Order as a CEQA measuring stick when assessing the GHG impacts of its regional project. (See *Professional Engineers, supra*, 50 Cal.4th at p. 1000.) Instead, in my view, the record contains more than sufficient evidence showing SANDAG acted in good faith and properly exercised its broad discretion under Guidelines section 15064.4 in assessing the significance of GHG impacts of the project.

achieve the plan's broad system concepts, strategies, and performance objectives." (*Id.*, § 65072.) The Legislature in the CTP directly (*id.*, § 14000.6, subd. (b)) and indirectly (*id.*, § 65072.2) referenced the Executive Order and its goal of reducing GHG emissions to 80 percent of 1990 levels by 2050. However, as noted, the Legislature has not yet tasked the CARB to set 2050 GHG regional reduction targets for the MPO's.

B. *Guidelines Section 15064.4*⁹

As noted, CEQA requires that public agencies "adopt by ordinance, resolution, rule, or regulation" criteria for the evaluation of a project and the preparation of an EIR that are consistent with the statutory provisions of CEQA and its Guidelines. (§ 21082.)

Section 21083, subdivision (a) directs the OPR to "prepare and develop proposed guidelines" for implementation by a public agency. Subdivision (b) of that statute states the "guidelines shall specifically include criteria for public agencies to follow in determining whether or not a proposed project may have a 'significant effect on the environment.'" As noted *ante*, section 21083.5 was added by SB 97 to require the OPR to

⁹ Guideline section 15064.4 provides: "(a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion to determine, in the context of a particular project, whether to: [¶] (1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model or methodology it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or [¶] (2) Rely on a qualitative analysis or performance based standards. [¶] (b) A lead agency should consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment: [¶] (1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting; [¶] (2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project. [¶] (3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project."

prepare specific guidelines dealing with CEQA review of GHG.

Adopted after passage of SB 97, Guidelines section 15064.4, subdivision (a) requires a lead agency to make a "good-faith effort" to determine the GHG emissions of a project. In making this determination, a lead agency has the discretion to "[u]se a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use" (Guidelines, § 15064.4, subd. (a)(1)) and/or to "[r]ely on a qualitative analysis or performance based standards" (*id.*, subd. (a)(2)). After choosing a methodology and selecting significance thresholds, the lead agency next is required under Guidelines section 15064.4 to assess the "significance of impacts" of GHG emissions. (*Id.*, subd. (b).)

In assessing the significance of GHG impacts of a given project, Guidelines section 15064.4 states a lead agency "should" consider among others the following factors: (1) the extent to which the project may increase or reduce GHG "as compared to the existing environmental setting"; (2) whether the project's GHG emissions "exceed a threshold of significance that the *lead agency determines* applies to the project"; and (3) the extent to which the project "complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation" of GHG. (Guidelines, § 15064.4, subd. (b)(1), (2) & (3), italics added.) Subdivision (b)(3) of Guidelines section 15064.4 further provides that "[s]uch requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions."

Guidelines section 15064.4 thus "confirms that lead agencies retain the discretion to determine the significance of greenhouse gas emissions and should "make a good-faith

effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of [GHG] emissions resulting from a project." [Citation.]' [Citations.]" (*Citizens Against Airport Pollution v. City of San Jose* (2014) 227 Cal.App.4th 788, 807.)

I therefore disagree with the majority's interpretation of Guidelines section 15064.4: although subdivision (b) of this section clearly states the factors listed in subdivisions (1), (2) and (3) are not exhaustive, that does not ipso facto mean the courts may require an agency to consider additional "factors" (i.e., the Executive Order) in evaluating the GHG impacts of a project, as the majority has done here. In my view, the majority's reading of Guidelines section 15064.4 usurps the broad discretion afforded an agency in analyzing significance and improperly puts courts in charge of determining whether benchmarks other than those expressly provided in subdivisions (1), (2) and (3) must be considered by an agency when undertaking such an analysis.

Here, as I have noted, the EIR used three separate GHG analyses utilizing two of the specific significance criteria authorized by Guidelines section 15064.4. GHG-1, the first analysis, is an "existing conditions" baseline analysis authorized by subdivision (b)(1) of Guidelines section 15064.4.¹⁰ Under this analysis, any increase of GHG emissions over existing conditions (i.e., 2010) was deemed to be a significant impact.

¹⁰ I note the existing environmental setting "normally constitute[s] the baseline physical conditions by which a lead agency determines whether an impact is significant." (Guidelines, § 15125, subd. (a); see *Neighbors for Smart Rail v. Exposition Metro Line Construction Authority* (2013) 57 Cal.4th 439, 445 [holding that "[w]hile an agency has the discretion under some circumstances to omit environmental analysis of impacts on existing conditions and instead use only a baseline of projected future conditions, existing conditions 'will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant'"].)

The GHG-1 analysis concluded that, although regional GHG emissions would decrease under the project from existing levels until after 2020, they would increase above existing levels by 2035 and increase still further by 2050, largely as a result of population increase and development. The EIR therefore determined the GHG impacts in 2020 would be a less than significant impact but would be significant in 2035 and 2050.

The second analysis, GHG-2, used the GHG reduction targets set forth in SB 375 as a significance criteria. GHG-2 used a narrower range of GHG emissions than GHG-1. GHG-2's approach, in my view, was also fully consistent with Guidelines section 15064.4.

Under SB 375, as I have noted, the CARB prepared regional GHG emission reduction targets, compared to 2005 emissions, for cars and light trucks for 2020 and 2035 for each of the state's MPO's. In response, each of the MPO's, including SANDAG, prepared an SCS as part of its RTP to "reduce GHGs by better aligning transportation, land use, and housing. For SANDAG, the targets are to reduce per capita CO₂ emissions 7 percent below 2005 levels by 2020 and 13 percent below 2005 levels by 2035. Because CARB has not developed a target for 2050, no analysis is provided for that year."

Using this significance criteria, the EIR concluded the project would have less than a significant impact because the project met SB 375's goals, as set by the CARB, for lowered per capital vehicle-related GHG emissions in 2020 and 2035.

The third GHG impact analysis, GHG-3, analyzed whether regional GHG emissions (from both transportation and land use/growth) would conflict with (1) the scoping plan adopted by the CARB pursuant to AB 32, which plan functions as a roadmap to achieve GHG reductions in our state, and (2) SANDAG's own adopted

Climate Action Strategy (CAS), which was created in 2010 under a partnership with the California Energy Commission "as a guide for SANDAG and local governments and policymakers in addressing climate change."

Because the scoping plan time horizon was limited to 2020, the EIR's analysis of whether or not the project under GHG-3 would have a significant impact with respect to GHG was limited to 2020, and no analysis was presented for 2035 and 2050. Although recognizing 2035 and 2050 emission reduction targets for GHG's were established in the Executive Order, the EIR in my view properly concluded the order was not a "plan" adopted through a public review process as required in subdivision (b)(3) of Guidelines section 15064.4. The EIR, however, analyzed transportation and land use/growth in 2035 and 2050 expected as a result of implementation of the project, with respect to the CAS.

The EIR analysis concluded that with respect to transportation, the estimated emissions from transportation in 2020 would be less than required by AB 32 and would constitute a less than significant impact under this threshold. The EIR also concluded that the project would not impede the CAS and its policy of promoting the reduction of vehicle miles traveled and minimization of GHG in transportation, inasmuch as the project also sought to reduce GHG emissions in transportation through a series of projects. Therefore, for transportation, the EIR found the implementation of the project would constitute a less than significant impact under the CAS threshold for 2020, 2035 and 2050.

With respect to land use/growth, the EIR analysis concluded in GHG-3 that emissions of GHG in 2020 were expected to exceed the scoping plan reduction goals. However, it noted several other measures included in the scoping plan were not yet

adopted or implemented, including "cap-and-trade," and, therefore, were not included in the GHG reduction calculations. Because the RTP was itself consistent with its role in the overall scoping plan strategy, SANDAG concluded for land use/growth that for 2020 the impact would be less than significant under this threshold. The EIR further provided for 2020, 2035 and 2050, implementation of the project would not impede the CAS but in fact would promote it and the goals of increasing energy efficiency and reducing energy consumption and, therefore, would constitute a less than significant impact.

C. Substantial Evidence Supports the Finding SANDAG's Assessment of Significance of GHG Impacts in its EIR Satisfied CEQA

Unlike my colleagues, I do not believe SANDAG's failure to discuss the project's consistency with the Executive Order shows a lack of a "good-faith effort" to assess in the EIR the GHG impacts of the project.¹¹ Rather, in my view, there is abundant evidence in the record showing that SANDAG made a "good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions [in the SANDAG MPO region] resulting from [the] project" (Guidelines, § 15064.4, subd. (a)); and that it properly assessed the significance of these emissions under applicable thresholds (*id.*, subd. (b)), including those adopted by the CARB (through enabling legislation) for 2020 and 2035. (See *Citizens for Responsible Equitable Environmental Development v. City of Chula Vista* (2011) 197 Cal.App.4th 327, 335-336 (*City of Chula Vista*).)

¹¹ In finding an alleged lack of evidence in the record of a reasonable, good-faith effort by SANDAG to assess the GHG impacts, the majority, in my view, is in effect applying an independent standard of review, and its contention otherwise is one of form over substance. (Maj. opn. *ante*, at p. 14.)

Moreover, the record also contains substantial evidence showing SANDAG properly exercised its discretion when it decided not to use the Executive Order's 2050 statewide emission reduction target as a CEQA measuring stick for its regional plan. *North Coast Rivers Alliance v. Marin Municipal Water Dist. Board of Directors* (2013) 216 Cal.App.4th 614 (*North Coast*) informs my view on this issue.

There, the petitioners contended an EIR for a project to build a sea-water desalination plant approved by a local water district was deficient because, among other reasons, it contained an inadequate analysis of GHG emissions. Although the trial court rejected this argument, it nonetheless found the EIR lacked substantial evidence to support the water district's conclusion the plant's GHG emissions were not cumulatively considerable. (*North Coast, supra*, 216 Cal.App.4th at p. 650.)

In reversing, the court concluded the EIR's use of AB 32, and its requirement that the CARB "adopt regulations that would require the reporting and verification of statewide GHG emissions and limit statewide GHG emissions to 1990 levels by 2020," was acceptable as a threshold of significance, inasmuch as the EIR properly noted "no CEQA thresholds of significance have been established for GHG[]." (*North Coast, supra*, 216 Cal.App.4th at p. 651.) The court also concluded the EIR used as a threshold a program voluntarily adopted by Marin County, which the water district joined, where GHG emissions would be reduced to 15 percent below 1990 levels by 2020. (*Ibid.*)

The *North Coast* court then reviewed the EIR in light of these thresholds, which focused primarily on energy consumption for plant operations. (*North Coast, supra*, 216 Cal.App.4th at p. 652.) In concluding the EIR's analysis "more than satisfied the requirements of CEQA" (*id.* at p. 652), the court recognized that the petitioners'

disagreement with the district's significance conclusion for GHG impacts was insufficient under CEQA because a ""reviewing court 'may not set aside an agency's approval of an EIR on the ground that an opposite conclusion would have been equally or more reasonable,' for, on factual questions, [the court's] 'task is not to weigh conflicting evidence and determine who has the better argument.'"" (*Id.* at p. 653.)

Similarly, this court in *City of Chula Vista* rejected the petitioner's contention the lead agency (i.e., the city) was required to use three other well-recognized potential thresholds of significance, instead of the goals set forth in AB 32, in analyzing the GHG impacts of a store replacement project. Citing to then-newly enacted Guidelines section 15064.4, this court concluded that this regulation "confirms that lead agencies retain the discretion to determine the significance of greenhouse gas emissions." (*City of Chula Vista, supra*, 197 Cal.App.4th at p. 336.) This court also concluded the lead agency "properly exercised its discretion to utilize compliance with [AB 32] as the threshold" and, as such, *rejected* the petitioner's contention the lead agency erred by not applying different thresholds. (*Ibid.*; see *Citizens Against Airport Pollution v. City of San Jose, supra*, 227 Cal.App.4th at p. 807 [recognizing that Guidelines, § 15064.4 gives a lead agency discretion to determine the significance of GHG emissions based to the extent possible on available scientific and factual data].)

North Coast and *City of Chula Vista*, in my view, provide guidance in the instant case and support the conclusion that SANDAG properly exercised its discretion under Guidelines section 15064.4, subdivision (b)(1), (2) and (3), including when it used the regional target numbers established by the CARB (developed in response to AB 32 and SB 375) in analyzing the impacts of GHG of the project. (See *Citizens for a Sustainable*

Treasure Island v. City and County of San Francisco (2014) 227 Cal.App.4th 1036, 1060-1061 [noting the "core principle" that an EIR is not required to engage in "speculative analysis," and, thus, a lead agency is not required to "'forsee[] the unforeseeable,'" "predict[] the unpredictable or quantify[] the unquantifiable"] (*Treasure Island*.) *North Coast* and *City of Chula Vista* also support the conclusion that, subject to the requirements of Guidelines section 15064.4, lead agencies and not the courts have the discretion to determine the benchmarks to be used for determining the GHG impacts of a project.

Indeed, as I previously noted, there is legislation currently pending, Assembly Bill No. 2050 (AB 2050), that among other purposes would delegate to the CARB the authority to set specific GHG emission reduction targets for the MPO's, including in the SANDAG region, but in this instance, the targets would be for 2050. Regardless of whether AB 2050 ultimately passes, the bill is significant because it shows our Legislature has not yet acted to set 2050 reduction targets (through the CARB). AB 2050 also demonstrates, yet again, the intent of the Legislature to fully occupy the field of regulating GHG emissions in our state. I believe the majority ignores this intent by requiring SANDAG, based on a strained interpretation of Guidelines section 15064.4, to do a "consistency analysis" using the Executive Order as a CEQA measuring stick. I also believe doing so has far-reaching, negative consequences.

By imposing a requirement on SANDAG that does not exist under CEQA, including in the applicable GHG Guidelines, the majority is contravening section 21083.1, as I have already discussed. In addition, as I have noted, the regulation of GHG emissions is better left to our Legislature and government agencies like the CARB in

what is clearly an area that "involves numerous highly technical and novel scientific, technical and economic issues" that will span many decades. (*Association of Irrigated Residents v. State Air Resources Bd.*, *supra*, 206 Cal.App.4th at pp. 1502, 1505 [noting the CARB has been "assigned the responsibility of designating and overseeing the implementation of measures" to achieve the "challenging" goals of reducing GHG emissions in our state].)

The complexity of the issues addressed by SANDAG's RTP, the first of its kind to be approved in this state, cannot be overstated. The sheer volume of the record in this case pays homage to the difficult issues facing a lead agency like SANDAG in preparing a RTP with an SCS component, where transportation planning and land use are linked to regional GHG emissions reduction goals for the next several decades. In contrast, judges "have neither the resources nor scientific expertise to engage in such analysis." (*Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47 Cal.3d 376, 393.)

Until our Legislature directs the CARB to set regional goals for 2050, I do not believe SANDAG was required to use the Executive Order and/or its 2050 GHG statewide reduction goal as a threshold to assess the significance of the GHG impacts of the project. (See *Treasure Island*, *supra*, 227 Cal.App.4th at p. 1054 [refusing to "fault" an EIR for a project to redevelop a former naval station into a new, mixed-use community because there were many project features that were subject to future revision, and, thus, the EIR "cannot be faulted for not providing detail that, due to the nature of the [p]roject, simply does not now exist"].)

Finally, the majority in my view is unnecessarily interfering with SANDAG's program EIR and tiering, which frustrates the goal of good planning: "Where a lead agency is using the tiering process in connection with an EIR for a large-scale planning approval, such as a general plan or component thereof . . . , the development of detailed, site-specific information may not be feasible but can be deferred, in many instances, until such time as the lead agency prepares a future environmental document in connection with a project of a more limited geographic scale, as long as deferral does not prevent adequate identification of significant effects of the planning approval at hand."

(Guidelines, § 15152, subd. (c).)

Our high court in *In re Bay-Delta etc.* (2008) 43 Cal.4th 1143 rejected a challenge to a program EIR on the basis it lacked sufficient detail regarding water sources to implement a project to restore the ecological health and improve the management of the Bay-Delta region. In so doing, the court noted that the Bay-Delta project was a "broad, general, multiobjective, policy-setting, geographically dispersed" plan (*id.* at p 1171); that at the first-tier program level, the "environmental effects of obtaining water from potential sources may be analyzed in general terms, without the level of detail appropriate for second-tier, site-specific review" (*id.* at p. 1169); that the advantage of a program EIR is it allows a lead agency "to consider broad policy alternatives and program wide mitigation measures at an early time when the agency has greater flexibility to deal with basic problems or cumulative impacts" (*ibid.*, citing Guidelines, § 15168, subd. (b)(4)); and that because the Bay-Delta project "is to be implemented over a 30-year period[,] . . . [i]t is therefore impracticable to foresee with certainty specific sources of water and their impacts" (*id.* at p. 1172).

Much like the Bay-Delta project, the project here is a "broad, general, multiobjective, policy-setting" plan. (See *In re Bay-Delta etc., supra*, 43 Cal.4th at p. 1171.) As such, I believe substantial evidence in the record shows SANDAG in its EIR engaged in a "good-faith effort" to analyze the GHG impacts of the project for purposes of the first-tier stage of what is clearly a long-term planning process that will be implemented over decades, "with the understanding that additional detail will be forthcoming when specific second-tier projects are under consideration." (See *id.* at p. 1172; see also *Rio Vista Farm Bureau Center v. County of Solano* (1992) 5 Cal.App.4th 351, 372 [upholding program EIR against a challenge it was vague and insufficiently described potential future facilities of a county's hazardous waste management plan because the plan, much like SANDAG's project at issue here, served only as an "assessment and overview, with any separate future projects, when identified, to be accompanied by additional EIR's"].)

According to SANDAG, implementation of the project will involve "literally hundreds of individual freeway, highway, local road, public transit, bikeway and other transportation projects, as well as ongoing development of various mitigation, planning and transportation management programs." In addition, many of these projects will occur 10, 20 or 30 years into the future and will be carried out by others including local governments and/or agencies, where baseline conditions may have substantially changed and after the project itself will have gone through multiple mandatory updates on a four-year cycle as currently required under Government Code section 65080, subdivision (d).

Because most, if not all, of these individual future transportation projects and/or land use decisions will be subject to its own project-level review under CEQA, and

because, in any event, SANDAG's EIR considered the public policy of GHG emission reduction and the CARB has not yet established 2050 GHG reduction target numbers for the SANDAG MPO region, I believe there is absolutely no reason to send the EIR back to the trial court for further consideration of GHG impacts utilizing the Executive Order as a threshold. Rather, I believe this is a waste of precious resources and will amount to "endless rounds of revision and recirculation of EIR's" that the Legislature did not intend. (See *Laurel Heights Improvement Assn. v. Regents of University of California* (1993) 6 Cal.4th 1112, 1132; see also Guidelines, § 15151 [stating that the "sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible" and that "courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure" in analyzing the adequacy of an EIR]; *Treasure Island, supra*, 227 Cal.App.4th at p. 1061 [noting it "has long been recognized that premature attempts to evaluate effects that are uncertain to occur or whose severity cannot reliably be measured is 'a needlessly wasteful drain of the public fisc'"].)

In sum, I conclude there is substantial evidence in the record showing SANDAG acted reasonably and in good faith when it addressed the GHG impacts of its project and properly exercised its discretion under Guidelines section 15064.4. I thus would reverse the trial court order finding SANDAG's GHG impacts analysis insufficient under CEQA.

II

Mitigation Measures

Initially, because I conclude the EIR adequately addressed the GHG impacts of the project, unlike the majority I do not deem moot (or partially moot) (Maj. opn. *ante*, at p. 23) SANDAG's contention that the EIR also adequately addressed mitigation measures

for the project's significant GHG impacts. Also unlike the majority, I conclude the EIR adequately considered reasonable mitigation measures for GHG impacts.

A. Additional Background

As noted, the EIR under the "existing conditions" baseline, GHG-1, concluded that the GHG impacts in 2020 would be a less than significant impact but would be significant in 2035 and 2050. Based on this analysis, the EIR proposed three mitigation measures to reduce impacts related to GHG emissions to less than significant levels.

The first mitigation measure, GHG-A, provided: "SANDAG shall update future Regional Comprehensive Plans and Regional Transportation Plans/Sustainable Community Plans to incorporate policies and measures that lead to reduced GHG emissions. Such policies and measures may be derived from the General Plans, local jurisdictions' Climate Action Plans, and other adopted policies and plans of its member agencies that include GHG mitigation and adaptation measures or other sources."

The second, GHG-B, encouraged the "San Diego region cities and the County government" to "adopt and implement Climate Actions Plans" (CAP's) and other climate strategies by: a) quantifying GHG emissions, "both existing and projected over a specified time period, resulting from activities within their respective jurisdictions"; b) establishing a "level . . . below which the contribution to GHG emissions from activities covered by the plan would not be cumulatively considerable"; c) identifying and analyzing GHG emissions "resulting for specific actions . . . anticipated within their respective jurisdictions"; d) specifying measures, "including performance standards, that . . . if implemented on a project-by-project basis, would collectively achieve the specified emissions level"; e) establishing a mechanism to monitor the "progress toward achieving

that level" of specified emissions and requiring an amendment if such levels are not achieved; and f) adopting such plans "in a public process following environmental review."

GHG-B further provided that, when appropriate, CAP's should "incorporate planning and land use measures from the California Attorney General's latest list of example policies to address climate change at both the plan and project level." At the plan level, GHG-B identified various policies to be considered and, if appropriate, implemented, from the website of the California Attorney General providing examples to address climate change, including "[s]mart growth, jobs/housing balance, transit-oriented development, and infill development through land use designations, incentives and fees, zoning, and public-private partnerships"; "[c]reate transit, bicycle, and pedestrian connections through planning, funding, development requirements, incentives and regional cooperation, and create disincentives for auto use"; [and] "[e]nergy and water-efficient buildings and landscaping through ordinances, development fees . . . and other implementing tools."

GHG-B also identified project-specific mitigation measures available on the website that, if appropriate, should be implemented at the plan level in a CAP's planning and land use measures, including adopting a "comprehensive parking policy" that encourages use of alternate transportation and discourages use of private vehicles; building or funding a "major transit stop within or near development"; providing public transit incentives, such as free or low-cost monthly transit passes to the public; incorporating bicycle lanes and routes into new development; and requiring facilities and amenities for non-motorized transportation, such as secure bicycle parking.

SANDAG in connection with GHG-B stated it would assist local governments in preparing CAP's and other climate strategies plans through implementation of its own CAS, which, as noted, was created in 2010 "as a guide for SANDAG and local governments and policymakers in addressing climate change." The CAS "provides a toolbox of land use, transportation, and related policy measures and investments that help implement the 2050 RTP/SCS [i.e., the project] through reducing GHG emissions. Policy measures also are identified for buildings and energy use, protecting transportation and energy infrastructure from climate impacts, and to help SANDAG and local jurisdictions reduce GHGs from their operations."

The third mitigation measure discussed in the EIR, GHG-C, provided SANDAG and local governments should require "Best Available Control Technology" (BACT) in constructing and operating projects.

SANDAG also considered additional mitigation measures that were found to be infeasible. One such measure was requiring all vehicles in the San Diego region to be either zero-emission vehicles or to be powered by renewable energy. SANDAG found this measure infeasible because of the "rate of turnover of vehicles on the roadway" and because of the limited number of such vehicles available. Another measure found to be infeasible was requiring all future construction to be net-zero energy use. Although renewable energy is available and is an option for a portion of a project's energy needs, SANDAG concluded it was infeasible for all projects to have net-zero emissions (i.e., hospitals).

Finally, SANDAG also found infeasible the requirement that all future construction activity include only "retrofitted equipment." Because certain equipment

does not have "retrofit components," SANDAG concluded this mitigation measure was infeasible.

SANDAG in the EIR noted that implementation of mitigation measures GHG-A through GHG-C "would reduce GHG emissions through adoption of measures and policies that encourage GHG emissions reduction in regional plans, adoption of Climate Action Plans by member agencies, and using BACT during construction and operation of implemented projects." Because of the growth in population, housing, and employment, the EIR concluded implementation of the project "would result in an increase in GHG emissions" and, as such, even with the mitigation measures, GHG-1, the existing conditions baseline, "would remain a significant and unavoidable impact in 2035 and 2050."

B. Governing Law and Analysis

It is axiomatic that an EIR must describe feasible measures that could minimize significant adverse impacts. (Guidelines, § 15126.4, subd. (a)(1).) Feasible means "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors." (*Id.*, § 15364.)

However, a lead agency may find that "particular economic, social, or other considerations make the alternatives and mitigation measures infeasible and that particular project benefits outweigh the adverse environmental effects. (Pub. Resources Code, § 21081, subds. (a)(3), (b); Guidelines, § 15091, subd. (a)(3).) Specifically, an agency cannot approve a project that will have significant environmental effects unless it finds as to each significant effect, based on substantial evidence in the administrative

record, that (1) mitigation measures required in or incorporated into the project will avoid or substantially lessen the significant effect; (2) those measures are within the jurisdiction of another public agency and have been adopted, or can and should be adopted, by that agency; or (3) specific economic, legal, social, technological, or other considerations make the mitigation measures or alternatives identified in the EIR infeasible, and specific overriding economic, legal, social, technological, or other benefits outweigh the significant environmental effects. (Pub. Resources Code, §§ 21081, 21081.5; Guidelines, § 15091, subds. (a), (b).)" (*Federation of Hillside & Canyon Assns. v. City of Los Angeles* (2004) 126 Cal.App.4th 1180, 1198; see *South County Citizens for Smart Growth v. County of Nevada* (2013) 221 Cal.App.4th 316, 336 [noting that "'CEQA requires the appropriate public agency 'to find, based on substantial evidence, that the mitigation measures are 'required in, or incorporated into, the project'; or that the measures are the responsibility of another agency and have been, or can and should be, adopted by the other agency; or that mitigation is infeasible and overriding considerations outweigh the significant environmental effects'"].)

Claims concerning the feasibility or effectiveness of mitigation measures are reviewed for substantial evidence, which is defined as "enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached." (*Mira Mar Mobile Community v. City of Oceanside* (2004) 119 Cal.App.4th 477, 486.) In reviewing an agency's decision for substantial evidence, courts "must indulge all reasonable inferences from the evidence that would support the agency's determinations and resolve all conflicts in the evidence in favor of the agency's decision." (*California Native Plant*

Society v. City of Santa Cruz (2009) 177 Cal.App.4th 957, 985.) This standard of review flows from the fact that an "agency has the discretion to resolve factual issues and to make policy decisions." (*Save Our Peninsula Committee v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 120.)

""As with all substantial evidence challenges, an appellant challenging an EIR for insufficient evidence must lay out the evidence favorable to the other side and show why it is lacking. Failure to do so is fatal. A reviewing court will not independently review the record to make up for appellant's failure to carry his [or her] burden."" (*Pfeiffer v. City of Sunnyvale City Council* (2011) 200 Cal.App.4th 1552, 1572.)

Here, I conclude petitioners have not met their burden of showing the mitigation measures for GHG emissions described by SANDAG in its program EIR were inadequate. As noted, the EIR discussed three separate mitigation measures in connection with impact analysis GHG-1. Each such measure complies with Guidelines section 15126.4, subdivision (c)(5), which was adopted in response to SB 97 and which provides the GHG mitigation measures proposed in connection with adoption of a long-range plan, such as the instant project, "may include the identification of specific measures that may be implemented on a project-by-project basis."¹²

¹² Subdivision (c) of Guideline section 15126.4 provides in part: "[L]ead agencies shall consider feasible means, supported by substantial evidence and subject to monitoring or reporting, of mitigating the significant effects of greenhouse gas emissions. Measures to mitigate the significant effects of greenhouse gas emissions may include, among others: [¶] (1) Measures in an existing plan or mitigation program for the reduction of emissions that are required as part of the lead agency's decision; [¶] (2) Reductions in emissions resulting from a project through implementation of project features, project design, or other measures, such as those described in Appendix F; [¶] (3) Off-site measures, including offsets that are not otherwise required, to mitigate a project's emissions; [¶] (4) Measures that sequester greenhouse gases; [¶] (5) In the case of the

Moreover, the record shows SANDAG considered additional mitigation measures to reduce GHG emissions and found them infeasible. (See *Clover Valley Foundation v. City of Rocklin* (2011) 197 Cal.App.4th 200, 245 [noting that CEQA does not require "an EIR to explain why certain mitigation measures are infeasible"]; see also *Cherry Valley Pass Acres & Neighbors v. City of Beaumont* (2010) 190 Cal.App.4th 316, 351 [noting CEQA does not require an EIR to analyze in detail mitigation measures deemed infeasible].)

At the conclusion of the CEQA review process, the record shows SANDAG adopted both the mitigation measures within its power to implement and a mitigation monitoring program (MMRP) for compliance. (See §§ 21081 & 21081.6.) The mitigation measures and MMRP confirm SANDAG's commitment to implementing GHG mitigation measures described in the EIR.

I do not agree with petitioners that the mitigation measures were insufficiently unenforceable because, particularly with respect to GHG-A and GHG-B, they depended on the cooperation of multiple other agencies. As noted, CEQA allows a lead agency to approve or carry out a project with potential adverse impacts if "[c]hanges or alterations have been . . . incorporated into[] the project" and "[t]hose changes or alterations are within the responsibility and jurisdiction of another public agency and have been, or can and should be, adopted by that other agency." (§ 21081, subd. (a)(1) & (2).)

adoption of a plan, such as a general plan, long range development plan, or plans for the reduction of greenhouse gas emissions, mitigation may include the identification of specific measures that may be implemented on a project-by-project basis. Mitigation may also include the incorporation of specific measures or policies found in an adopted ordinance or regulation that reduces the cumulative effect of emissions."

Finally, because SANDAG in my view satisfied its initial burden to consider a range of reasonable mitigation measures in its EIR, I would conclude the burden then switched to petitioners to establish from the record what petitioners describe as other "effective" mitigation measures that allegedly were omitted from consideration in the EIR and to show, again from the record, that such "effective" measures 1) were not only legally feasible but also suitable for discussion in a program EIR involving a project incorporating a broad range of planning measures and policies over the next several decades, *and* 2) would avoid or substantially lessen the project's GHG impacts. (See *San Diego Citizenry Group v. County of San Diego* (2013) 219 Cal.App.4th 1, 14-17 [rejecting the petitioners' contention that unspecified, additional mitigation measures should have been considered in "meaningful detail" in an EIR and noting the general rule that "CEQA does not . . . require discussion of every mitigation measure the agency rejected as infeasible"].) I would conclude petitioners have not met, and cannot meet, this burden in this case. (See *id.* at p. 17 [noting that "[f]easibility under CEQA encompasses desirability to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, and technological factors"].)¹³

BENKE, J.

¹³ Because the trial court never reached the issues raised in the cross-appeal and because the majority in any event is remanding the matter with respect to the EIR's treatment of GHG impacts and mitigation measures of the project, as I have noted, I would defer the issues raised in the cross-appeal to the trial court for consideration. Nonetheless, I feel compelled to state my objection to the majority's conclusion that SANDAG failed to consider a reasonable range of project alternatives.

LL-3

ENDANGERED HABITATS LEAGUE

DEDICATED TO ECOSYSTEM PROTECTION AND SUSTAINABLE LAND USE



November 30, 2017

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RE: San Diego County Climate Action Plan (SCH# 2016101055), Newland Sierra Project (SCH# 2015021036), and the CARB 2017 Climate Change Scoping Plan

Dear Ms. Soffel and Ms. Smith:

Endangered Habitats League (EHL) wishes to supplement its comments on the draft Climate Action Plan (CAP) due to new and previously unavailable information released from the California Air Resources Board (CARB). That agency's revised October 27, 2017 Climate Change Scoping Plan (2017 Climate Change Scoping Plan) is highly pertinent to the County's own efforts. See: <<https://www.arb.ca.gov/cc/scopingplan/revised2017spu.pdf>>. As this new information also affects the proposed Newland Sierra project and its draft environmental impact report (DEIR), please submit this letter into the administrative record for that project.

Please note that these comments are also submitted on behalf of California Native Plant Society San Diego Chapter, Environmental Center of San Diego, Escondido Neighbors United, Southwest Wetlands Interpretive Association, San Diego Audubon Society, Preserve Wild Santee, Buena Vista Audubon Society, and San Pasqual Valley Preservation Alliance. All our organizations respectfully request your consideration.

The 2017 Climate Change Scoping Plan identifies how the State may reach its 2030 climate change target to reduce GHG emissions by 40 percent below 1990 levels, and substantially advance towards the State's 2050 climate goal to reduce GHG emissions by 80 percent below 1990 levels. The 2017 Climate Change Scoping Plan seeks to integrate efforts already underway to reduce the State's GHG emissions. Given the importance of the 2017 Climate Change Scoping Plan's guidance in reaching the State's GHG emissions reductions goals, it is critical that the County analyzes its recommendations within the County's environmental review for the County's CAP and the Newland Sierra Project.

It is expected that this 2017 Climate Change Scoping Plan will be adopted in final form by CARB within the next few months, perhaps at CARB's December meetings.¹ Assembly Bill 398 directs CARB to update the Scoping Plan no later than January 1, 2018. Therefore, the new Climate Change Scoping Plan will be in effect before the County considers the proposed CAP and proposed Newland Sierra Project. Rather than simply waiting until after the County finalizes the EIRs for both projects, we submit this letter now to make sure that County staff is aware of all of the information regarding the Scoping Plan that must be included in the County's two EIRs. The relevant information is summarized below.

I. VEHICLE MILES TRAVELED IS AN ESSENTIAL COMPONENT OF REDUCING GHG EMISSIONS

A. CARB Policy

The 2017 Climate Change Scoping Plan states that VMT reduction serves as an essential part of GHG emissions reductions, enabling the State to meet its climate change goals:

Stronger SB 375 GHG reduction targets will enable the State to make significant progress toward the goal of reducing total light-duty VMT by 15 percent from expected levels in 2050, but alone will not provide all of the VMT reductions that will be needed. The gap between what SB 375 can provide and what is needed to meet the State's 2030 and 2050 goals needs to be addressed through additional VMT reduction measures.

(2017 Climate Change Scoping Plan at p. 116.)

The 2017 Climate Change Scoping Plan repeatedly emphasizes the importance of VMT reductions. (2017 Climate Change Scoping Plan at pp. 74 [VMT reductions result in important health benefits]; 113 [transportation sector reduction goals include: "Promote all feasible policies to reduce VMT, including: Land use and community design that reduce VMT; Transit oriented development"].)

With regard to local actions, the 2017 Climate Change Scoping Plan recognizes that local decisions to reduce VMT are necessary to achieve the 2030 target under SB 32:

While the State can do more to accelerate and incentivize these local decisions, local actions that reduce VMT are also necessary to meet transportation sector-specific goals and achieve the 2030 target under SB 32. *Through developing the Scoping Plan, CARB staff is more convinced than ever that, in addition to achieving GHG reductions from cleaner fuels and vehicles, California must also reduce VMT.* Stronger SB 375 GHG reduction targets will enable the State to make significant progress toward needed reductions, but alone will not provide the VMT

¹ The first draft of the Plan was released on January 20, 2017.
https://www.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf

growth reductions needed; there is a gap between what SB 375 can provide and what is needed to meet the State’s 2030 and 2050 goals. In its evaluation of the role of the transportation system in meeting the statewide emissions targets, CARB determined that *VMT reductions of 7 percent below projected VMT levels in 2030 (which includes currently adopted SB 375 SCSs) are necessary. In 2050, reductions of 15 percent below projected VMT levels are needed. A 7 percent VMT reduction translates to a reduction, on average, of 1.5 miles/person/day from projected levels in 2030.* It is recommended that local governments consider policies to reduce VMT to help achieve these reductions, including: land use and community design that reduces VMT; transit oriented development; street design policies that prioritize transit, biking, and walking; and increasing low carbon mobility choices, including improved access to viable and affordable public transportation and active transportation opportunities. It is important that VMT reducing strategies are implemented early because more time is necessary to achieve the full climate, health, social, equity, and economic benefits from these strategies

(2017 Climate Change Scoping Plan at p. 150 [emphasis added].)

The 2017 Climate Change Scoping Plan makes clear that VMT reduction stands alone as separate and distinct from any plan for mitigating project GHG emissions impacts or other land use policies, including the potential for allowing the purchase of GHG emissions offsets and “offshore offsets.” Because CARB is “more convinced than ever” that VMT reduction is necessary to achieve State GHG reduction targets, local land use decisions may not mitigate increased GHG emissions resulting from VMT generated by new development projects merely by implementing GHG reduction policies that do not also reduce projects’ VMT. The 2017 Climate Change Scoping Plan does not allow for VMT mitigation through measures, such as purchasing offsets, that do not reduce projects’ VMT.

B. Climate Action Plan

The CAP draft supplemental environmental impact report (DSEIR) fails to describe how the proposed action will affect San Diego County’s overall VMT either by total miles or per person miles. Further, the DSEIR does not provide separate metrics for measuring VMT, nor does it describe how the CAP will impact the region as a whole. While the CAP analyzes GHG emissions impacts sector-by-sector within the County, it should provide an overall consideration of the impacts as a whole to accurately ascertain consistency with the 2017 Climate Change Scoping Plan, and compliance with Assembly Bill (AB) 32, Senate Bill (SB) 32, and other GHG reduction requirements. The DSEIR must provide this information.

For General Plan Amendments (GPAs) approved after the adoption of the CAP, the CAP proposes mitigating GHG impacts through the reliance on offsets that do not result in VMT reductions. GPAs would inherently produce GHG emissions over and above those considered in the General Plan and mitigated in the CAP. Similarly, any VMT from GPAs approved

subsequent to the CAP would be additive and must be appropriately mitigated. This cannot be achieved through the use of offsets alone.

C. Newland Sierra Project

The Newland Sierra Project's DEIR does not describe how the development will affect San Diego County's overall VMT either by total miles or per person miles. Although the Newland Sierra DEIR argues that a VMT analysis is not required, it provides a cursory analysis of the Newland Sierra Project's VMT: it states that the Newland Sierra Project's per capita VMT would be greater than the threshold for the County as a whole but less than the threshold for its rural subregion. Here, the appropriate metric would be the Countywide comparison, which corresponds to SANDAG's jurisdiction and the area to which the RTP/SCS applies. Also, the higher VMT in the subregion than the County as a whole is indicative that the Newland Sierra Project is proposed in a rural area requiring long car trips, which is contrary to smart planning.

Similar to the CAP, the Newland Sierra Project mitigates approximately 82% of its GHG emissions through the use of offsets. The offset program will not result in VMT reduction, and therefore is inconsistent with the 2017 Climate Change Scoping Plan. Moreover, the Newland Sierra Project only proposes Project Design Features, not mitigation measures, aimed at reducing VMT, and is therefore inconsistent with the 2017 Climate Change Scoping Plan.

II. THE CAP EIR AND THE NEWLAND EIR EACH MUST ANALYZE HOW THEY COMPLY WITH THE STATEWIDE METRIC FOR GHG EMISSIONS

A. CARB Policy

As mentioned above: "CARB determined that VMT reductions of 7 percent below projected VMT levels in 2030 (which includes currently adopted SB 375 SCSs) are necessary. In 2050, reductions of 15 percent below projected VMT levels are needed. A 7 percent VMT reduction translates to a reduction, on average, of 1.5 miles/person/day from projected levels in 2030." (2017 Climate Change Scoping Plan at p. 150.) CARB "also recognized that GHG determinations in CEQA should be consistent with the statewide Scoping Plan goals, and that CEQA documents taking a goal-consistency approach may soon need to consider a project's effects on meeting the State's longer term post-2020 goals." (*Id.* at p. 151) As such, CARB has established that local decisions impacting VMT and GHG are key to meeting the State's climate change goals.

B. Climate Action Plan DEIR Deficiencies

The CAP's DSEIR does not provide information which compares how the CAP will result in GHG emission metrics that compare to the GHG metrics in the 2017 Climate Change Scoping Plan. In addition, the DSEIR does not indicate whether the CAP's assumptions are consistent with the projected San Diego County population figures and projections used by CARB to derive the statewide metrics for per person GHG emissions.

The need for this information to be made available to the public is underscored by the fact that the CAP is a mitigation measure for the County's General Plan Update from 2011,

which assumed the amount of growth planned for within the General Plan. By contrast, the current proposed version of the County’s CAP contemplates additional GPAs, which would add population and associated GHG emissions on top of the amounts planned for in the 2011 General Plan as adopted. The CAP’s DSEIR must fully analyze the additional population and GHG emissions that are now going to be authorized by the latest proposed CAP. In addition, the CAP DSEIR must analyze whether GPAs that exceed the metric set forth in CARB’s 2017 Climate Change Scoping Plan may nonetheless be “cured” by the purchase of offsets without separate VMT mitigation.

C. Newland Sierra Project DEIR Deficiencies

The Newland DEIR does not provide information which compares how the development will result in GHG emissions that compare to the GHG metrics in the 2017 Climate Change Scoping Plan. Also, the DEIR does not indicate whether the DEIR’s assumptions are consistent with the projected San Diego County population figures and projections used by CARB to derive the Statewide metrics for per person GHG emissions. The Newland Sierra Project is unplanned growth that was not accounted for in the County’s General Plan. Because SANDAG’s RTP/SCS is based on the County’s General Plan land uses, new emissions and VMT from the Newland Sierra Project were not considered therein, and additional analysis is required. It is unclear whether Newland’s approximately 6,000 new residents will meet the RTP/SCS metric, or if there will be greater emissions. The DEIR must state whether or not the metric may be exceeded but “cured” by the purchase of offsets without separate VMT mitigation. It must also analyze whether the Project’s VMT will comply new Statewide metrics and allow SANDAG to comply with them.

III. THE CAP DSEIR AND NEWLAND DEIR MUST ANALYZE HOW THEY COMPLY WITH SENATE BILL 375 COMPLIANCE EFFORTS

A. CARB Policy

The 2017 Climate Change Scoping Plan describes the compliance efforts and GHG reductions from SB 375 and CARB’s recently released targets² for Metropolitan Planning Organizations (MPOs) such as SANDAG:

Local land use decisions play a particularly critical role in reducing GHG emissions associated with the transportation sector, both at the project level, and in long-term plans, including general plans, local and regional climate action plans, specific plans, transportation plans, and supporting sustainable community strategies developed under SB 375.

(2017 Climate Change Scoping Plan at p. 150.)

Further, CARB recently proposed new GHG emissions reduction targets for MPOs in order to reach the Statewide SB 375 GHG emission reduction targets. The targets are currently

² Available at:

https://www.arb.ca.gov/cc/sb375/final_staff_proposal_sb375_target_update_october_2017.pdf.

slated to take effect in 2018. SANDAG originally recommended a seven percent GHG emissions reduction in 2020 and a thirteen percent GHG emissions reduction in 2035 relative to 2005 emissions. SANDAG now proposes an 18 percent reduction target in 2035 relative to 2005 emissions. SANDAG's current RTP/SCS anticipates cities will continue to grow within existing urban boundaries, bringing people and destinations closer in mixed-use, compact communities that facilitate walking and transit use. SANDAG anticipated the additional GHG reductions would need to come from increasing the cost of driving and the number of zero-emission passenger vehicles, which CARB noted are outside the control of SANDAG and SB 375. CARB recommended a SB 375 target of 15 percent in 2020 and 21 percent in 2035, three percentage points higher than SANDAG's target recommendation due to CARB's quantification of the potential for additional land use and transportation strategies. Of note, CARB's targets for SANDAG (which has jurisdiction that is coterminous with County boundaries) are higher than other regional MPO targets, which indicates SANDAG's GHG emissions reduction efforts must go over and above efforts in other parts of the State. VMT reduction within the unincorporated County, therefore, takes on particular importance. Because of the unincorporated County's rural nature, new development there is likely to add more VMT than new development in the incorporated cities. Allowing unplanned sprawl development in the unincorporated County would thwart efforts throughout the County (SANDAG's jurisdiction) to reduce VMT consistent with SB 375 and CARB's new targets.

B. Climate Action Plan

The CAP must take into account how its adoption may affect SANDAG's ability to adopt a new RTP/SCS that complies with CARB's new targets. Given the increase in reductions from San Diego County under the new SB 375 targets, CARB has indicated that it believes San Diego County has additional work to do to reduce GHG emissions in order to ensure the State reaches its climate change goals. The CAP DSEIR should analyze how the CAP helps or hinders reaching SANDAG's targets, as it cannot merely assume that SANDAG will meet them.

The CAP DSEIR must identify how the CAP and its various alternative strategies and mitigation measures will affect regional compliance with CARB's updated targets, as well as regional VMT. The County's DSEIR fails to do so. Therefore, the public has not been given crucial information as to how the mitigation measures and alternatives in the proposed CAP will affect the SB 375 regulatory regime. The California Supreme Court recently overturned a local agency's project approval for similarly failing to identify potential environmentally sensitive habitat areas (ESHA) under the California Coastal Act, and account for those areas in their analysis of the project's mitigation. (*Banning Ranch Conservancy v. City of Newport Beach* (2017) 2 Cal.5th 918.) The Court concluded the absence of ESHA information failed to provide decision makers with the necessary information on a proposed project, although ESHA impacts were outside of the city's purview. Consistent with the new *Banning Ranch* decision, the CAP DSEIR must identify and analyze how it complies with State regulations which inform the CAP DSEIR's implementation of GHG mitigation measures.

Under *Banning Ranch*, it is crucial that an EIR on a project present information on how "related regulatory regimes" may apply to the proposed project, such as how the various mitigation measures and alternatives may help the County reach compliance with other related regulatory requirements such as SB 375 and CARB's updated GHG emission reduction targets

for SANDAG. In *Banning Ranch*, the Supreme Court stated that “[a]n EIR project description must include ‘[a] list of related environmental review and consultation requirements [found in] federal, state, or local laws, regulations, or policies. To the fullest extent possible, the lead agency should integrate CEQA review with these related environmental review and consultation requirements.’” Failure to present this information results in an information deficiency in the DSEIR, and the County should be able to provide such information regarding VMTs to accurately disclose how the CAP will affect SANDAG’s RTP/SCS process given the proposed land uses under the CAP.

Further, the County’s General Plan itself requires collaboration with local and State agencies, including SANDAG. General Plan Policy COS-20.3 states that the County must “[c]oordinate air quality planning efforts with federal and State agencies, SANDAG, and other jurisdictions.” Therefore, the County should collaborate with SANDAG to analyze consistency with the updated targets in the DSEIR.

C. Newland Sierra Project

The Newland Sierra Project fails to meet SANDAG’s current per capita VMT threshold and will generate new VMT that was not included in SANDAG’s adopted 2015 RTP/SCS, which was based on the assumption that the County would not approve a new urban level of development on the Newland site. In the new 2017 Updated Scoping Plan, CARB has indicated that VMT in San Diego County must be further reduced to comply with SB 375. As a result, if the County were to approve the Newland Sierra Project with its unplanned additional VMTs and the amount of VMT’s per person, the County’s action would cause the San Diego County region to fall short of SANDAG’s updated total VMT and per capita VMT reduction goals set forth in the adopted 2015 RTP/SCS and likely as well the upcoming 2020 RTP/SCS now be being prepared by SANDAG.

The Newland Sierra Project DEIR falls victim to many of the same errors as the CAP DSEIR. The Newland DEIR has failed to present information on how the Project will impact cumulative County-wide VMT averages. The DEIR merely discusses VMT, and provides information on the unincorporated County and the project’s subregion, without providing information on how the Project will impact the overall averages for the County, and therefore whether or not the Project will help or hinder the County in reaching its VMT reduction goals recommended by CARB. Under *Banning Ranch*, the County cannot simply leave this analysis for SANDAG to figure out how it will meet the required targets. Further, based on the limited analysis provided in the Newland DEIR, it appears that the Project would increase the County’s overall per person VMT because it exceeds the County’s VMT threshold. This would make it more difficult to comply with SB 375 and CARB’s new targets, making it even more important that the DEIR analyze the Project’s impacts on SANDAG’s ability to comply with SB 375. The County should have coordinated with SANDAG to ensure the required analysis took place. It does not appear the County has done so, and instead presents the Newland Sierra Project’s approval as *fait accompli*, whether or not it allows SANDAG to actually meet its regional GHG and VMT reduction requirements.

IV. THE CAP DSEIR AND THE NEWLAND DEIR MUST ANALYZE ENVIRONMENTAL JUSTICE IMPACTS

A. CARB Scoping Plan

CARB's 2017 Climate Change Scoping Plan rejects reliance on "offshore offsets" as a primary means for GHG mitigation. CARB explicitly recommends prioritization of on-site design features to reduce GHG emissions and direct investment in GHG reduction within a project's own region in order to achieve co-benefits. CARB also emphasizes the need for project features that reduce VMT and planning new development with access to affordable transit opportunities:

To the degree a project relies on GHG mitigation measures, *CARB recommends that lead agencies prioritize on-site design features that reduce emissions, especially from VMT, and direct investments in GHG reductions within the project's region that contribute potential air quality, health, and economic co-benefits locally.* For example, on-site design features to be considered at the planning stage include land use and community design options that reduce VMT, promote transit oriented development, promote street design policies that prioritize transit, biking, and walking, and increase low carbon mobility choices, including improved access to viable and affordable public transportation, and active transportation opportunities.

(2017 Climate Change Scoping Plan at p. 152 [emphasis added].)

In addition to its focus on on-site features to reduce GHG emissions and VMT, CARB provides examples of regional investment to reduce VMT that also create jobs and benefit the local economy. These include "local building retrofit programs that can pay for cool roofs, solar panels, solar water heaters, smart meters, energy efficient lighting, energy efficient appliances, energy efficient windows, insulation, and water conservation measures for homes within the geographic area of the project." (2017 Climate Change Scoping Plan at p. 152.) Other examples include "financing installation of regional electric vehicle (EV) charging stations, paying for electrification of public school buses, and investing in local urban forests." (*Ibid.*) Further, the 2017 Climate Change Scoping Plan recognizes that VMT and GHG emissions reductions are an environmental justice issue, as the Environmental Justice Advisory Committee recommended that CARB restrict sprawl and examine regional transportation issues. (*Id.* at p. 25.)

Finally, CARB emphasizes that offset investments cannot merely pay lip service to GHG reduction, but must provide clear evidence of follow through and monitoring to make sure such reductions are achieved: "Local direct investments in actions to reduce GHG emissions should be supported by quantification methodologies that show the reductions are real, verifiable, quantifiable, permanent, and enforceable." (2017 Climate Change Scoping Plan at p. 152.) Only if project design features and regional investments are found "infeasible" should a lead agency consider mitigation through retiring carbon credits. (*Ibid.*) CARB's emphasis on GHG

reductions through on-site features and direct investment within a project's region is an important public policy and environmental justice issue and should not be discarded lightly.

B. Climate Action Plan

The CAP fails to meet CARB's criteria for GHG mitigation as described above. As described in EHL's prior comments on the draft CAP, as an *initial* measure, all GPAs should attain a minimum threshold of VMT reduction, for example, at least achieving compliance with regional RTP/SCS VMT reduction targets. While *after* this, offsets might be considered, the CAP provides only a loose priority system for availability of offsets and sets no criteria for a project's analysis of feasibility of on-site reduction activities or regional direct investment. In fact, the CAP does not even disclose whether or to what extent projects exist in San Diego County that would be candidates for local direct investment. As a programmatic document, the County's CAP should provide clear guidance for subsequent project-specific analyses regarding the availability of local direct investment opportunities. The CAP should also require a clear finding of infeasibility, based on up-front standards, for additional on-site measures before a project moves to local direct investment and a clear finding of infeasibility, based on up-front standards, for local direct investment before moving to more distant or "offshore" offsets.

In addition, the CAP does not provide criteria for GPA projects relying on offsets to demonstrate with substantial evidence that reductions are "real, verifiable, quantifiable, permanent, and enforceable." In fact, the CAP lacks provisions requiring that the County as lead agency be a party to any contract relating to offsets or that clarifying the duties of any entity providing such offsets.

The CAP's loose priority structure would allow a project to move forward with 100% "offshore offsets" with little or no certainty that any would ever be achieved. This failure only serves to deprive the citizens of San Diego County of the economic opportunity brought by local direct investment and the health and air quality co-benefits of on-site GHG emissions reductions and local direct investment. This ignores sound public policy and environmental justice. Further, County roadways could become even further clogged with traffic due to greenfield developments that add GHG emissions and VMT while relying on "offshore offset" projects for mitigation.

C. Newland Sierra Project

The Newland Sierra DEIR repeats and builds upon many of the CAP's failings with allowing 100% "offshore offsets" while polluting San Diego County air and adding to San Diego County traffic congestion in exchange for a vague and unenforceable promise to seek GHG reduction activities across the globe. Newland Sierra fails to account for environmental justice in its analysis, and instead proposes a project that would result in greater sprawl rather than more infill development located near transportation hubs. Also, the use of offsets as an apparent replacement for specified on-site mitigation measures to reduce the Project's GHG emissions impacts contradicts the 2017 Climate Change Scoping Plan's emphasis on VMT reductions in order to "contribute potential air quality, health, and economic co-benefits locally." (2017 Climate Change Scoping Plan at p. 152.) The Newland Sierra Project's proposed offset scheme will not reduce the Project's overall VMT, and therefore cannot provide the necessary co-

benefits to the area's health and economy. The DEIR should require real investment in on-site GHG reductions to "generate real demand side benefits and local jobs." (*Ibid.*) Before resorting to the use of offsets, the Newland Sierra DEIR should consider and analyze the options outlined in the 2017 Climate Change Scoping Plan. Further, the Newland Sierra Project is proposed far from any existing or planned transit infrastructure and fails to provide any meaningful proposal to eliminate long automobile trips necessitated by sprawl development.

Newland's proposal is contrary to the public policy and environmental justice principles emphasized in the 2017 Climate Change Scoping Plan. The Newland Sierra Project would set a low bar for efforts in San Diego County and across the State to reduce GHG emissions by opening the floodgates to greenfield development based on vague and unenforceable promises of developers purchasing carbon credits overseas. CARB's emphasis on GHG reduction through VMT reduction followed by on-site measures and local direct investment sets a path forward for responsible balancing of development and GHG emissions reduction. The net zero concept must not become a paper tiger that shirks California's and San Diego County's commitment and responsibility as leaders in the fight to curb the effects of global climate change. The goal should be a carbon efficient economy *in San Diego*.

Thank you for your time and attention to these comments. Please include them in the CAP's administrative record and the Newland Sierra Project's administrative record, and please provide response to the points raised above. While the public comment periods for both the CAP's DSEIR and Newland DEIR have closed, this important development in State and regional GHG emissions and VMT reduction efforts was not available previously and warrants additional comment and response at this time. As always, we would look forward to collaborating with you on solutions. Please do not hesitate to contact me with questions or comments.

Yours truly,



Dan Silver
Executive Director

Pam Heatherington
Environmental Center of San Diego

Laura Hunter
Escondido Neighbors United

NeySa Ely
San Pasqual Valley Preservation Alliance

Jim Peugh
San Diego Audubon Society

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Natalie Shapiro
Buena Vista Audubon Society

Frank Landis
California Native Plant Society
San Diego Chapter

Mike McCoy
Southwest Wetlands Interpretive
Association

LL-4

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December 1, 2017

VIA EMAIL AND FEDEX

Rami Talleh, Deputy Director
Planning and Development Services
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5510 Overland Avenue, Suite 310
San Diego, CA 92123

Re: Response to Your August 24, 2017 Letter re North County MSCP Steering Committee Presentation

Dear Mr. Talleh:

As you know, we represent Golden Door Properties, LLC (“Golden Door”). We appreciate your August 24, 2017 response to our May 22, 2017 letter titled “North County MSCP Steering Committee Presentation.”

As you are aware, County of San Diego Planning and Development Services (“PDS”) is processing the proposed Newland Sierra project (“Project”). On May 7, 2015, PDS published a scoping letter (“Scoping Letter”) for the Project listing “Major Project Issues. (A copy of the Scoping Letter may be accessed online at <http://www.sandiegocounty.gov/content/dam/sdc/pds/regulatory/docs/newlandsierra/NewlandSierraScopingLetter.pdf>.) One of the Major Project Issues addressed in the Scoping Letter is “MSCP Draft North County Plan and Natural Communities Conservation Program (NCCP) Consistency.” (See Scoping Letter at 4, Attachment A Item 1-2.)

The Scoping Letter specifically addresses the potential for a hardline agreement for the Newland Project:

Please note that if the Wildlife Agencies Hardline Agreement is not approved, the project would be required to comply with the North County Plan and its requirements for projects in Pre-approved Mitigation Areas (PAMA), including avoidance of critical populations of sensitive species and adherence to preserve design and linkage principles. If the North County Plan has not been approved prior to the project moving forward, the project will require compliance with the Habitat Loss Permit (HLP) Ordinance and the County and Wildlife Agencies Planning Agreement.

(Scoping Letter at 4.) The Scoping Letter’s decision in the absence of an approved hardline agreement or approval of the North County Multiple Species Conservation Program (“NC MSCP”), therefore, is to require the Newland Project to comply with the Planning Agreement, including its preliminary conservation objectives and requirements for pre-approved mitigation areas (“PAMA”). The public has received no notice from County staff that the Scoping Letter has been revoked or modified, and it remains posted on the County’s website as of today’s date.

As your letter notes, the U.S. Fish and Wildlife Service (“USFWS”) and California Department of Fish and Wildlife (“CDFW,” together the “Wildlife Agencies”) must agree to any hardline included in the NC MSCP. The Wildlife Agencies have not agreed to the County’s proposed hardline for the Newland Project. Consequently, the County should adhere to the Scoping Letter’s decision and not assume a hardline for the purpose of environmental analysis—in either the project-specific environmental documents for the Newland Project or the County’s draft of the NC MSCP.

The approach set forth in your August 24 letter contradicts the County’s decision contained in the Scoping Letter. Your letter states on page 2 that “if [the Newland Project] is denied by the Board or significantly revised, it will be removed or modified within the Draft Plan.” Under this approach, the hardline is assumed to be approved for the purpose of environmental analysis unless or until it is specifically denied. This assumption of a hardline contradicts the Scoping Letter’s clear directive and decision that a hardline should not be relied upon unless or until it is specifically approved. The Scoping Letter was posted on the County’s website and has been relied upon by members of the public in understanding the nature and scope of the County’s environmental review for the Newland Project.

Further, the Newland Project’s draft environmental impact report (“DEIR”) adopted the same flawed approach as your letter, which contradicted the County’s decision contained in the Scoping Letter. The DEIR determined the Project would result in a less than significant impact with regard to preventing or precluding preparation of the NC MSCP based on the DEIR’s improper assumption of a hardline and the remainder of the future NC MSCP as the reason why there would be no significant adverse effect. (See Newland Sierra DEIR at 2.4-82, available at <http://www.sandiegocounty.gov/content/sdc/pds/ceqa/SP-15-001/NSDEIR.html>.) This assumption is inconsistent with the Scoping Letter’s decision and represents completely circular logic in assuming a hardline for the purpose of environmental analysis for the Newland Project, even though no hardline has been approved by the County and the County has not completed any environmental review for its proposed NC MSCP or any hardline that may be proposed within the NC MSCP.

To break this “chain” of circular logic, the County must either: (1) first finish and certify the County’s DEIR for the proposed NC MSCP containing the hardline before completing the Newland DEIR; or (2) rewrite the Newland DEIR to contain “standalone” biological analysis for potential impacts, including cumulative biological impacts and regional wildlife corridors, without assuming approval of the (as yet unapproved) NC MSCP and using the NC MSCP as a substitute.

The Golden Door submitted a comment letter and reports from expert biologists describing the flaws in the DEIR's biological analysis, improper assumption of a hardline, and inconsistency with the Planning Agreement's preliminary conservation objectives. A copy of the Golden Door's letter and attachments, as well as reports from expert biologists Megan Jennings and Schaefer Ecological Services, are provided on a disk included herein. Because the Newland DEIR and the NC MSCP are proceeding concurrently, and many comments on the DEIR are also relevant to the NC MSCP and its treatment of the Newland project site, we submit this material on the record with the County for consideration with respect to the NC MSCP.

In addition, various environmental organizations and public agencies also submitted comments on the Newland DEIR, which are relevant to the NC MSCP and its treatment of the Newland project site. We have included herein a second disk with these materials, which we also submit for the County's record and consideration of the NC MSCP. The comment letters on the second disk are from CDFW, USFWS, the California Department of Transportation, Endangered Habitats League (a letter and a report from expert biologist Hamilton Biological, Inc.), Sierra Club (San Diego), Environmental Center of San Diego, and the California Native Plant Society (San Diego).

Because the County is processing the Newland Project and the NC MSCP concurrently as separate projects, we are providing you these materials to ensure the County staff processing the NC MSCP is able to consider the same material as the County staff processing the Newland DEIR.

Thank you for your time and attention to this matter. Please do not hesitate to contact me at 858.523.5400 or christopher.garrett@lw.com if you would like to discuss these matters further.

Best regards,

Christopher W. Garrett

Christopher W. Garrett
of LATHAM & WATKINS LLP



Enclosures

Cc (email):

Kathy Van Ness, Golden Door
Mark Wardlaw, PDS
Kathleen Flannery, PDS
Lisa Gordon, PDS
Mary Kopaskie, PDS
Mark Slovick, PDS
Ashley Smith, PDS
William W. Witt, Esq., Assistant County Counsel
Claudia G. Silva, Esq., Assistant County Counsel
Dan Silver, Endangered Habitats League
Laura Hunter, Wildlife and Habitat Conservation Coalition
Stephanie Saathoff, Clay Co.
Denise Price, Clay Co.
Andrew Yancey, Latham & Watkins

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Madrid	Washington, D.C.
Milan	

December 19, 2017

VIA EMAIL AND U.S. MAIL

Ashley Smith
Planning and Development Services
County of San Diego
5510 Overland Avenue, Suite 310
San Diego, CA 92123

Re: Newland Sierra Failure to Comply with County Scoping Letter Requirements

Dear Ms. Smith:

As you know, we represent Golden Door Properties, LLC (“Golden Door”) in opposing the proposed Newland Sierra Project (“Project”). As you also know, we have been pro-actively communicating with the County of San Diego (“County”) staff and the applicant for several years concerning this project, including extensive comments on the Notice of Preparation (“NOP”) in March 2015 and Draft Environmental Impact Report (“DEIR”) in August 2017.

On May 7, 2015, the County issued a Scoping Letter to the Project applicant.¹ The Scoping Letter identified “issues” with the Project—including a more than 170-page Project Issues Checklist—that must be resolved by the applicant. Among the issues to be resolved, the Scoping Letter identified at least five “Major Project Issues,” which “may require substantial redesign of the proposed project or, if not resolved, would result in a recommendation for project denial by PDS.” The due date for the applicant to submit evidence of resolution of such issues was July 7, 2015.

The Project’s DEIR was published in June 2017, almost two years after the due date for resolution of the issues identified in the Scoping Letter. Throughout our years-long correspondence with the County about this Project, the County and applicant at various times refused to provide details about the Project to us—and many other members of the public. We were told that such details would be provided in the DEIR. Now that the DEIR has been published, however, not all of the promised information has been disclosed. In particular, the DEIR does not demonstrate that the issues identified in the County’s Scoping Letter have been

¹ The Scoping Letter has been made available online since 2015 at <http://www.sandiegocounty.gov/content/dam/sdc/pds/regulatory/docs/newlandsierra/NewlandSierraScopingLetter.pdf> and remains posted as of December 18, 2017. There are no revisions or updates to this letter.

adequately addressed. Before pointing out the crucial unresolved issues that remain from the Scoping Letter, the important point should be noted that in the interests of transparency and public notice, the County staff should post written copies of any updates or changes that were made to the Scoping Letter in subsequent correspondence with the applicant. It is unfair to the public for the County staff to announce one set of policy decisions in its Scoping Letter, and post the Scoping Letter for public examination, but then for the staff to secretly change the policy decisions they may have made in the Scoping Letter in subsequent private discussions with the applicant that were never documented and provided to the public.

Therefore, we ask that the staff post on the County's website, along with the Scoping Letter, written documentation of any decisions or changes that staff made to the Scoping Letter. We also ask that the County staff update the Newland EIR to include the original May 7, 2015 Scoping Letter, as well as any subsequent written correspondence from the staff to the applicant that may have changed the Scoping Letter.

To emphasize that the Newland DEIR's failure to follow the Scoping Letter is not a minor technicality or problem for the public, we would like to review the important policy decisions which staff made in the Scoping Letter, that appear to have been disregarded in the DEIR released to the public. For the sake of brevity and emphasis, this letter will focus on the five Major Project Issues identified by the County.

County Scoping Letter Major Project Issue #1 - Consistency with the San Diego County General Plan. The Scoping Letter requires further analysis of the Project for General Plan consistency and to ensure the Project "is in the public interest and would not be detrimental to public health, safety, and welfare." As discussed in more detail in the Golden Door's comment letter on the Project's DEIR, the Project is not consistent with County's General Plan, and the DEIR fails to provide adequate analysis.

The County Board of Supervisors has twice determined that the Project Site should remain rural. In 2010, the Board voted against the similar Merriam Mountains proposal, which would have added over 2,500 residential units to rural Twin Oaks Valley. Then, in 2011, after almost a decade of stakeholder input and millions of taxpayer dollars, the Board approved a General Plan that reduced the number of residential units permitted on the Project Site to approximately 100. That 2011 General Plan has provided the basis for other agencies' infrastructure planning—including SANDAG's 2015 Regional Transportation Plan/Sustainable Communities Strategy ("RTP/SCS"), which is necessary for meeting State reduction targets for greenhouse gas ("GHG") emissions and vehicle miles traveled ("VMT"). Notably, SANDAG's RTP/SCS does not include infrastructure improvements on I-15 to accommodate urban growth in the rural areas north of Escondido. Further, in previous staff reports on density increase proposals on the Project Site, County staff indicated that density increases that are less than what Newland proposes would require amendments to the General Plan's Guiding Principles and additional environmental review of the General Plan and recirculation of the General Plan EIR.

Now, before the County has even come close to building out the housing units designated in its General Plan, Newland has proposed to urbanize rural Twin Oaks Valley with over 6,000 new residents—a population the size of the City of Del Mar. Despite the drastic density increase

in this rural area and the divergence from the General Plan's principles, the Project's DEIR incredulously finds no significant land use impacts. No information provided to the public indicates that the Project has been revised since issuance of the Scoping Letter to comport with the General Plan. Instead, the DEIR's analysis relies on the conclusory premise that by seeking a discretionary amendment to certain selected parts of the County's General Plan to add the Project's proposed density, it automatically becomes General Plan-compliant. This is not so. This Project would open the backcountry to large-scale development in contrast to the balanced principles described in the General Plan and the emphasis on protecting rural community character.

In addition, the Project runs afoul of several specific General Plan policies. For example, the Project constitutes leapfrog development in violation of General Plan Policy LU-1.2. A previous staff report for another density increase on the Project Site raised this very issue. In addition, the DEIR relies on a "village" designation on part of the Project Site in its land use analysis; yet, no part of the Project Site is within a designated village boundary in the North County Metro Community Plan—which is part of the General Plan.

Further, the DEIR does not support a finding that the Project is in the public interest and would not be detrimental to public health, safety, and welfare. The Project's opening of the backcountry to massive sprawl development is contrary to the public interest as set forth in the General Plan. Project construction would pose various health risks, including the potential risk of subjecting construction workers and nearby residents to Valley Fever—which was not even studied in the DEIR. The Project also poses safety risks, as it is located entirely in a Very High Fire Hazard Severity Zone and would add thousands of vehicles to the area's evacuation routes for regional fire emergencies. These evacuation routes are already predicted by the traffic analysis to be at a standstill during normal days.

County Scoping Letter Major Project Issue #2 - MSCP Draft North County Plan and Natural Communities Conservation Program Consistency. The Project's DEIR and several letters from County staff indicate that the Newland Project proposes to achieve consistency with the North County Multiple Species Conservation Plan ("NC MSCP") by means of a so-called "hardline designation." The Scoping Letter specifically addresses the potential for a hardline agreement for the Newland Project:

Please note that if the Wildlife Agencies Hardline Agreement is not approved, the project would be required to comply with the North County Plan and its requirements for projects in Pre-approved Mitigation Areas (PAMA), including avoidance of critical populations of sensitive species and adherence to preserve design and linkage principles. If the North County Plan has not been approved prior to the project moving forward, the project will require compliance with the Habitat Loss Permit (HLP) Ordinance and the County and Wildlife Agencies Planning Agreement.

(Scoping Letter at 4.) The Scoping Letter's approach in the absence of an approved hardline agreement or approval of the NC MSCP, therefore, is to require the Project to comply with the Planning Agreement, including its preliminary conservation objectives and requirements for pre-

approved mitigation areas ("PAMA"). As you are aware, a hardline designation in the NC MSCP requires the agreement of the United States Fish and Wildlife Service and the California Department of Fish and Wildlife. Neither of these Wildlife Agencies has agreed to a hardline designation.

Consequently, the DEIR's statement that there will instead be County reliance on an unapproved hardline agreement conflicts with the statement contained in the Scoping Letter.

County Scoping Letter Major Project Issue #3 – Deer Springs Road. The Scoping Letter notes that Deer Springs Road is classified as a six-lane Prime Arterial in the General Plan's Mobility Element, but that Newland proposes Option A, which would reclassify Deer Springs Road as a two- and four-lane road and construct it as such, and Option B, which would not reclassify Deer Springs Road but would only build to four lanes.

The version of Option B described in the Scoping Letter would include grading a portion of Deer Springs Road to the ultimate six-lane configuration; however, Option B was later revised—subsequent to the public's opportunity to review and comment on the NOP—to eliminate the requirement to grade a portion to six lanes. Newland and the County have not provided any explanation of the revision or analysis of the change in impacts. The Scoping Letter notes disagreement between County staff and the applicant regarding Deer Springs Road's proposed configuration and requires further study and analysis of various options so that County staff can make a final recommendation.

As discussed in more detail in the Golden Door's comment letter on the Newland DEIR, the DEIR's analysis of Deer Springs Road is inconsistent and misleading and fails to provide adequate information about various options for its alignment. The analysis of Option B assumes six lanes of capacity although only proposing to construct four. No analysis of traffic impacts from Option B's proposed four-lane capacity is provided in the DEIR. Yet, the analysis of other impacts (e.g., biology, air quality, noise, property) for Deer Springs Road Option B only considers grading and building four lanes—despite the assumption of extra capacity for a six-lane road in the traffic analysis. In addition, the DEIR's traffic analysis improperly applied trip reduction credits for mixed land uses and an illusory transportation demand management program that inaccurately reduce the number of Project trips on to Deer Springs Road. As such, the impacts of various options for Deer Springs Road have not been analyzed as required by the Scoping Letter.

Further, the Scoping Letter requires that the Project's "Traffic Impact Study should include future Year 2040 and Buildout traffic volumes approved by the County and Caltrans." It appears that the traffic analysis for Deer Springs Road does not analyze impacts in 2040. Further, traffic volumes for Deer Springs Road were not "approved by Caltrans." In fact, Caltrans submitted a comment letter on the Project's DEIR noting that the DEIR inaccurately states that Caltrans has an interchange project at I-15 and Deer Springs Road that would mitigate traffic impacts and that the DEIR's analysis should not rely on such mitigation. The traffic analysis for Deer Springs Road, therefore, has not been "approved by Caltrans," but instead has been discredited.

County Scoping Letter Major Project Issue #4 - Off-Site Improvements. The Scoping Letter requires Newland to provide “suitable evidence” that it possesses the necessary property rights to construct off-site improvements without eminent domain. No such evidence was provided in the DEIR. In fact, the DEIR alludes to the potential for eminent domain on Sarver Lane, Deer Springs Road, and Camino Mayor. Eminent domain may be required in additional off-site locations. Further, we understand representatives of Newland are currently approaching various property owners in the area seeking to acquire property rights—more than two years after Newland was due to resolve issues in the Scoping Letter.

The Golden Door has submitted ample evidence to the County of potential property impacts due to proposed widening of Deer Springs Road as part of the Project. In August 2016, DELANE Engineering produced a technical study detailing property impacts from widening Deer Springs Road to both a four- and six-lane alignment—impacts that had been omitted from Newland’s plans provided by Fuscoe Engineering. DELANE also identified various errors in Fuscoe’s work. After release of the Project’s DEIR, DELANE followed up with an additional report confirming DELANE’s previous analysis and describing property impacts along Deer Springs Road that remained unaddressed—including impacts to private driveways and from proposed drainage channels.

Moreover, on Camino Mayor, Newland proposes significant improvements to a private road across property not owned by Newland. Property owners on Camino Mayor provided the County with extensive comments on the DEIR describing Newland’s lack of property rights. In addition, DELANE submitted a report describing property rights impacts and other issues with Newland’s proposals for Camino Mayor.

County Scoping Letter Major Project Issue #5 - Resource Protection Ordinance. The Project’s DEIR fails to adequately address the County’s Resource Protection Ordinance (“RPO”) as required by the Scoping Letter. Fifty-five percent of the Project Site contains RPO-defined slopes, and the Project would result in impacts to the California Coastal gnatcatcher and RPO-wetlands in violation of the RPO. Yet, instead of analyzing adequate mitigation for the Project’s RPO impacts, the County has proposed to simply exempt the 1,985-acre Project Site from the RPO. Simply changing the applicability of the ordinance does not mitigate impacts to the physical environment. It also fails to provide any analysis of RPO consistency as required by the Scoping Letter.

Further, even the proposed RPO exemption described in the DEIR is inadequate. As described in the DEIR, the proposed RPO exemption would exempt RPO compliance for impacts on the 1,985-acre Project Site. The exemption would not apply to any off-site impacts caused by the Project. The DEIR discloses temporary and permanent significant impacts to off-site RPO resources, including southern willow scrub, mulefat scrub, arundo dominated riparian, coast live oak woodland, and southern coast live oak riparian forest. Moreover, as discussed in more detail in the Golden Door’s comment letter on the DEIR, the County’s analysis significantly underestimates the Project’s off-site impacts, including impacts from grading and constructing a six-lane configuration for Deer Springs Road and an as yet undisclosed design for an interchange at I-15 and Deer Springs Road—as well as operation thereof. The Project’s RPO exemption does not exempt these off-site impacts from RPO-compliance; yet mitigation has not been

analyzed or proposed. Therefore, the DEIR has failed to provide the analysis of consistency with the Resource Protection Ordinance that the County staff specified in the Scoping Letter. The mere fact that the applicant has simply proposed an amendment from the RPO does not mean that the DEIR should omit the analysis of consistency that was specified in the Scoping Letter.

Finally, the Scoping Letter calls for a “Comprehensive Resource Management and Protection Program” to accompany any proposed RPO amendment; yet, none was provided in the DEIR. The DEIR provides a Resource Protection Plan (“RPP”) as Appendix H-2. This RPP, however, is not an actual plan, but merely regurgitates that biological analysis found elsewhere in the DEIR. It lacks performance standards and prescriptive statements against which Project consistency could be measured. Also, while the DEIR mentions a Resource Management Plan (“RMP”), mitigation measure M-BIO-8D defers RMP preparation to the future. M-BIO-8D notes the existence of two “conceptual” RMPs attached as Appendices L and M to Appendix D of the DEIR, but does not provide any specific and enforceable standards for a comprehensive RMP. Although the applicant had more than two years since issuance of the Scoping Letter to prepare a “Comprehensive Resource Management and Protection Program,” none has been provided in the DEIR to justify an RPO exemption. This further underscores that the DEIR has failed to provide any analysis of how the Newland project will comply with the RPO’s policies.

The absence of any details of the “Comprehensive Resource Management and Protection Program” indicates that an essential part of the applicant’s proposed project has not yet been provided to the public for review and analysis. Providing this missing part of the project in the Final EIR for the first time will deprive the public, and the federal and state resources agencies, of the opportunity to review and comment on the Plan, and to compare it to the protections that would have applied to the property if the applicant had not decided to ask for an exemption from the County’s RPO for its project.

* * *

Please provide evidence that the issues identified in the County’s Scoping Letter have been resolved and explain why such evidence was not included in the DEIR circulated for public review and comment earlier this year. Any written staff decisions and revisions to the Scoping Letter should be posted online for the public to examine. Otherwise, it appears that the DEIR has failed to comply with the County staff’s own Scoping Letter.

Without resolution of the Major Project Issues and all other issues on the Project Checklist, the County cannot treat the application for the Newland Sierra Project as complete and must cease processing the Project.

LATHAM & WATKINS LLP

We thank you for your time and attention to this matter. We ask that you include this letter and your response in the administrative record for the Newland Sierra Project. Please do not hesitate to contact us should you have any questions or comments.

Best regards,

Christopher W. Garrett

Christopher W. Garrett
of LATHAM & WATKINS LLP

cc: Kathy Van Ness, Golden Door
Mark Slovick, County Planning and Development Services
William W. Witt, Office of County Counsel
Claudia Silva, Office of County Counsel
Dan Silver, Endangered Habitats League
Stephanie Saathoff, Clay Co.
Denise Price, Clay Co.
Andrew Yancey, Latham & Watkins

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Milan	

December 21, 2017

VIA EMAIL AND FEDERAL EXPRESS

Ashley Smith
Planning and Development Services
County of San Diego
5510 Overland Avenue, Suite 310
San Diego, CA 92123

Re: Report from Reax Engineering re Fire Modeling of Newland Sierra Impacts to Surrounding Area During Santa Ana Wind Events (Log No. PDS2015-ER-15-08-001; SCH No. 2015021036, Project Numbers: PDS2015-GPA-15-001, PDS2015-SP-15-001, PDS2015-REZ-15-001, PDS2015-TM-5597, PDSXXXX-HLP-XXX)

Dear Ms. Smith:

As you know, we represent Golden Door Properties, LLC (“Golden Door”) in opposing the proposed Newland Sierra Project (“Project”). This letter transmits a report prepared by Reax Engineering that is included as **Attachment A**. The Reax report analyzes the fire risk from the proposed Project to the Golden Door and other surrounding properties. It provides a fire modeling analysis that takes into account Santa Ana wind conditions—conditions that were not analyzed in the County’s draft environmental impact report’s (“DEIR”) for the Project.

County staff did not make it clear that Newland DEIR’s wildfire analysis did not consider potential Santa Ana winds when the DEIR was released to the public. Recent events have caused the Golden Door to reassess existing and potential dangers from wildfire for the Golden Door property. During the Lilac Fire, the Golden Door chose to evacuate all of its guests due to the fire’s uncertain path. The Golden Door is continuing to update its planning for potential risks due to the spread of fire.

The recent Lilac Fire and several other major fires that burned hundreds of thousands of acres across the State occurred during Santa Ana winds and demonstrate how quickly fire can spread under such conditions, especially in sparsely developed rural areas. As you know, the Newland Project is proposed almost entirely in a Very High Fire Hazard Severity Zone. It is now clear that the DEIR did not analyze the potential for the spread of wildfire that might occur under similar conditions to the Lilac Fire, with potential Santa Ana wind gusts. The DEIR’s failure to include an analysis of fire risks during Santa Ana winds is a fatal omission under the California Environmental Quality Act (“CEQA”), and the County should recirculate the DEIR to analyze this important public safety issue.

In the absence of any information or wildfire modeling that could be performed by County staff or consultants in the DEIR, the Golden Door was forced to retain an expert to

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prepare an overview report, which is Attachment A. The Golden Door's August 14, 2017 comment letter discussed flaws in the DEIR's fire modeling methodology, and this report provides further information with respect to this issue that the Golden Door has already raised. County staff should review and consider additional evidence regarding the fire risk associated with the proposed Project, including the recent article published in the Voice of San Diego discussing development proposals in the County's high fire risk areas. (See **Attachment B**.) We have also attached a stand-alone .pdf document of a map that was included as part of the article depicting the location of proposed development projects in relation to the recent Lilac Fire and previously mapped high fire risk areas. (See **Attachment C**.) The County Planning staff may also wish to retain their own independent wildfire modeling consultant to perform an independent analysis of the cumulative wildfire risk associated with pending projects. In doing so, we would recommend that the staff retain a consultant who will include the potential for Santa Ana winds in the analysis.

The recent fires are a tragic reminder of the risks associated with locating new unplanned development in fire-prone rural areas. As a local business and member of the Twin Oaks Valley community, the Golden Door is concerned about risks to its property and that of its neighbors that would be caused by the Newland Sierra project. Although the formal comment period for the Project's DEIR closed prior to this new information, we ask that you provide responses to this letter and its attachments, recirculate the DEIR, and include this letter and attachments (as well as the County's response) in the County's administrative record to ensure the Planning Commission, Board of Supervisors, and general public are informed about the significant fire risks posed by the Project. In light of recent events highlighting the importance of protecting people and property from wildfires in the backcountry and given that the DEIR for Newland Sierra omits analysis of fire during Santa Ana wind conditions, full consideration of this material and the County's response to it is warranted. It is important for all concerned that these issues be publicly raised and discussed now, rather than waiting until hearings before the County Planning Commission or the County Board of Supervisors.

We thank you for your time and attention to this matter. Please do not hesitate to contact us should you have any questions or comments.

Sincerely,

Andrew D. Yancey

Andrew D. Yancey
of LATHAM & WATKINS LLP

Enclosures

cc: Kathy Van Ness, Golden Door
Mark Slovic, County Planning and Development Services
William W. Witt, Office of County Counsel
Claudia Silva, Office of County Counsel

LATHAM & WATKINS^{LLP}

San Diego County Planning Commissioners
Dan Silver, Endangered Habitats League
Stephanie Saathoff, Clay Co.
Denise Price, Clay Co.
Chris Garrett, Latham & Watkins

Attachment A



1921 University Ave. ▪ Berkeley, CA 94704 ▪ Phone 510-629-4930 ▪ Fax 510-550-2639

Chris Lautenberger
lautenberger@reaxengineering.com

19 December 2017

Golden Door Properties, LLC
777 Deer Springs Road
San Marcos, CA 92069

Subject: Fire risk impacts of Proposed Newland Sierra Project on The Golden Door and Surrounding Area

At your request, dated October 14, 2017, I have reviewed the May 2017 Draft Environmental Impact Report (DEIR) and Fire Protection Plan (FPP) associated with the planned Newland Sierra development and analyzed potential fire/life safety impacts of this planned development to your property as well as the surrounding area.

Santa Ana winds

The biggest fire threat to The Golden Door associated with the Newland Sierra development involves ignition on land owned by Newland Sierra under Santa Ana winds. Santa Anas are hot and dry winds that blow through Southern California each year, usually between the months of October and April. Santa Anas occur when high pressure forms in the Great Basin (Western Utah, much of Nevada, and the Eastern border of California) with lower pressure off the coast of Southern California. This pressure gradient drives airflow toward the Pacific Ocean.

As air travels West from the Great Basin, orographic lift dries the air as it rises in elevation over mountain ranges. As air descends from high elevations in the Sierra Nevada, its temperature rises dramatically (~5 °F per 1000 ft decrease in elevation). A subsequent drop in relative humidity accompanies this rise in temperature. This drying/heating phenomenon is known as a katabatic wind. Relative humidity in Southern California during Santa Anas is often 10% or lower. Santa Ana winds typically blow from the Northeast toward the Southwest. Sustained Santa Ana winds of 40+ mph with gusts of 60+ mph are not uncommon in Southern California.

The seasonality of Santa Anas presents a severe fire problem in Southern California which typically sees little rain between May and November. This means that October, November, and December Santa Anas occur after a 6+ month drought when herbaceous surface fuels are completely cured and live woody fuel moisture (*i.e.*, water in shrub-like vegetation) is at yearly lows. Much of the existing vegetation in Southern California is mixed chaparral which is characterized by rapid rates of fire spread and is highly conducive to spotting due to large-scale ember generation. Newland Sierra's DEIR acknowledges that chaparral is the primary type of vegetation within the project footprint. See DEIR, Appendix C, Part 2, Section 1.3.2, page 6 which states "Vegetation onsite consists of large blocks of densely vegetated, senescent southern mixed

chaparral with limited patches of Diegan coastal sage scrub, live oak woodlands, and southern willow scrub.”

Given that hot dry Santa Anas occur in part of California that is vegetated by highly flammable chaparral at a time of year when fuel moisture content is at annual lows, it is not surprising that dozens of large loss fires have occurred in Southern California under Santa Ana winds. A partial list of historical damaging fires that have occurred in Southern California under Santa Ana winds is shown in Table 1.

Table 1. Partial list of fires damaging fires occurring under Santa Anas in Southern California.

Name	Date	County	Acres	Structures	Deaths
Bel Air	November 1961	Los Angeles	6,000	484	0
Laguna	September 1970	San Diego	175,000	382	8
Green Meadow	October 1993	Ventura	44,000	53	0
Laguna	October 1993	Orange	14,000	441	0
Cedar	October 2003	San Diego	273,000	2,820	15
Simi	October 2003	Ventura	108,000	37	0
Esperanza	October 2006	Riverside	41,000	34	5
Harris	October 2007	San Diego	90,000	548	8
Witch	October 2007	San Diego	198,000	1,650	2
Sayre	November 2008	Los Angeles	11,000	604	0
Poinsettia	May 2014	San Diego	600	28	1
Lilac	December 2017	San Diego	4,100	157	0
Thomas	December 2017	Ventura/SB	272,000*	1,024*	1*

* As of December 19, 2017

Relative locations of The Golden Door and Newland Sierra

Golden Door Properties owns just over 600 acres to the South of land owned by Newland Sierra. Figure 1 shows the location of land owned by Golden Door Properties relative to the planned Newland Sierra development with an orthoimagery basemap; Figure 2 is an analogous map with a hillshade background to provide a qualitative sense of the terrain in the area. Deer Springs Road runs East/West between the Golden Door and Newland Sierra. Mesa Rock Road currently dead ends at the Southeast corner of Newland Sierra’s land and, as part of the planned development, would be extended into land owned by Newland Sierra as a primary means of ingress and egress.

Recall from the preceding discussion that Santa Ana winds blow from the Northeast toward the Southwest. Inspection of Figure 1 and Figure 2 shows that fire originating on land owned by Newland Sierra during Santa Ana winds, particularly the Southeastern extent along Mesa Rock Road, would propagate directly toward The Golden Door and its neighbors to the South and West, including several hundred structures along Sarver Lane, Buena Creek Road, and Twin Oaks Valley Road. Given that most of the land owned by Newland Sierra is mixed southern chaparral that hasn’t burned in at least 100 years, fire originating on Newland Sierra land under Santa Ana winds would be characterized by rapid rates of spread toward the Southwest with large scale ember production and long-range (> 1 mile) spotting cause by ember showers blown by winds out of the Northeast.

One thing that is not immediately apparent from Figure 1 or Figure 2 is the elevation difference the planned Newland Sierra development and The Golden Door and its neighbors. As shown in Figure 3, Newland Sierra is located north of the East/West ridgeline North of The Golden Door. A view from The Golden Door looking up at land owned by Newland Sierra is shown in Figure 4. The significance of this elevation difference is that the effective spotting distance from fire on Newland Sierra land to property owned by the Golden Door and its neighbors is increased, meaning that even weak to moderate Santa Anas could generate embers capable of reaching The Golden Door or its neighbors and igniting vegetation and structures there.

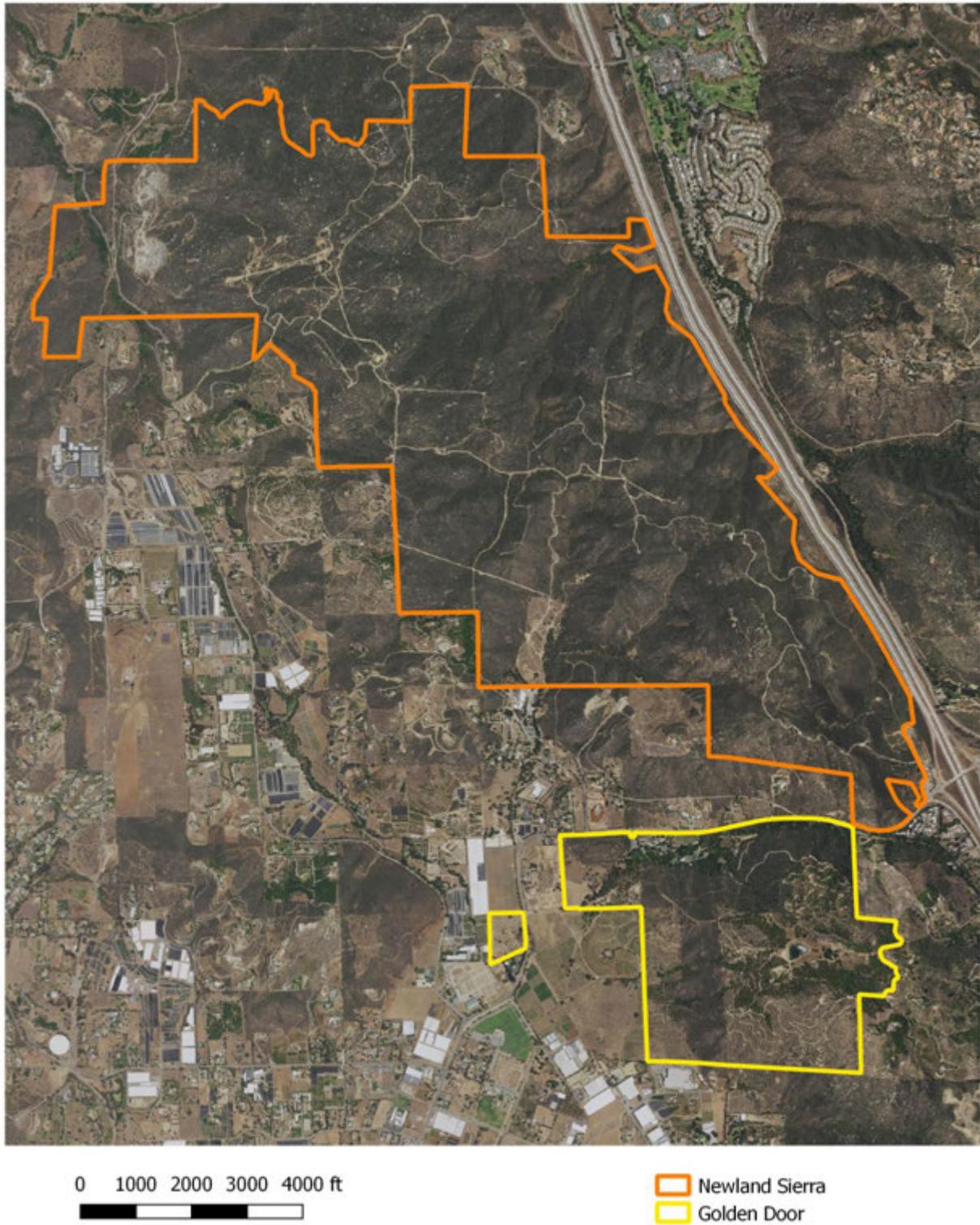


Figure 1. Location of parcels owned by Golden Door relative to parcels owned by Newland Sierra with orthoimagery background.

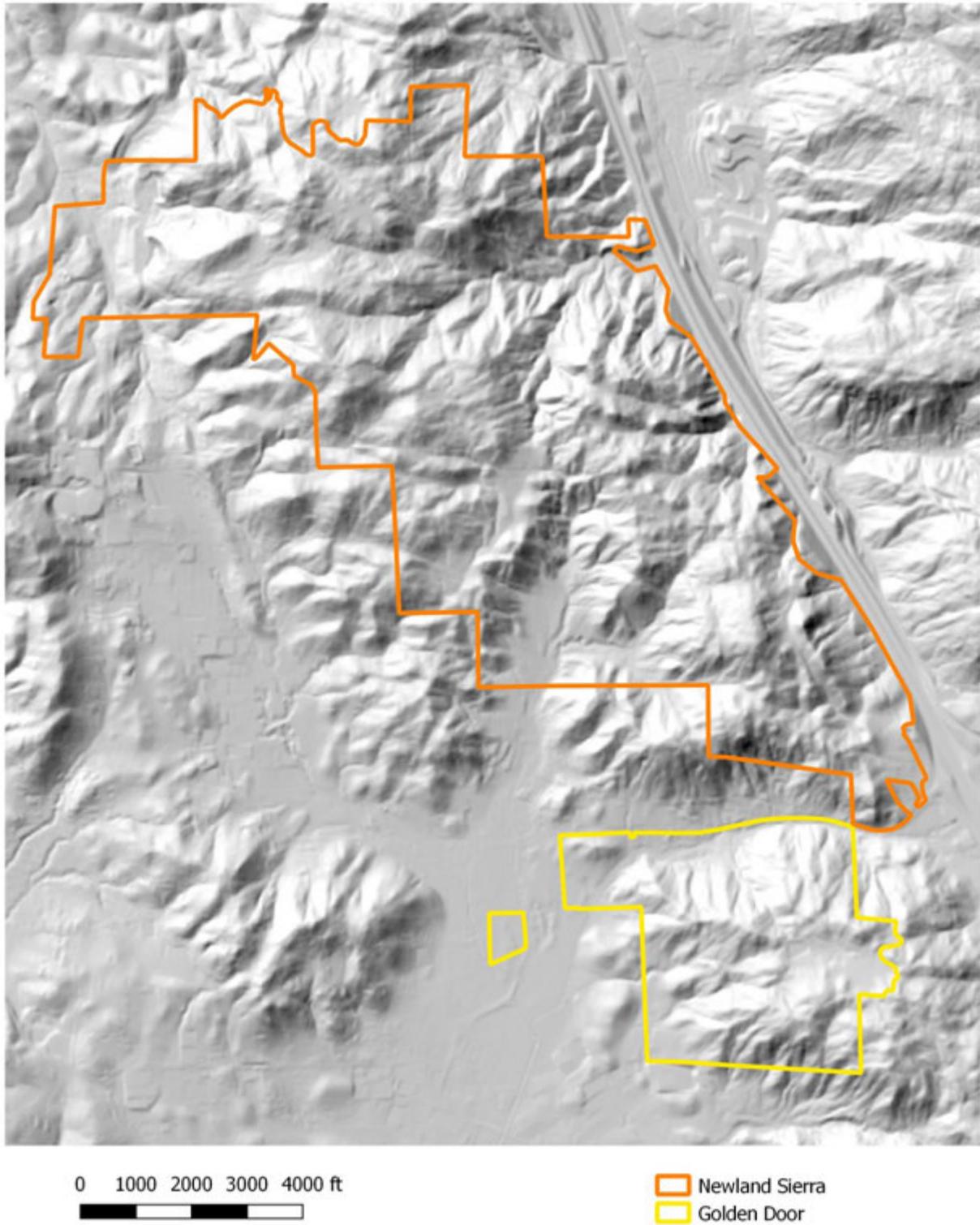


Figure 2. Location of parcels owned by Golden Door relative to parcels owned by Newland Sierra with hillshade background.



Figure 3. Photograph looking Northwest showing relative elevations of Newland Sierra and The Golden Door.



Figure 4. Photograph looking from The Golden Door toward Newland Sierra.

Fire Progression Analysis

Newland Sierra's Fire Protection Plan includes only static (FLAMMAP) fire modeling. FLAMMAP does not actually simulate fire spread across the landscape; it only quantifies potential fire behavior under constant environmental conditions assuming an area burns. The FLAMMAP modeling described in the FPP does not address how ignitions within Newland Sierra's footprint during Santa Anas could impact surrounding properties and neighbors including The Golden Door; rather only shows the change in potential that would be effected due to fuel treatments. However, such fuel treatments do very little to reduce potential fire consequences to The Golden Door and other neighbors.

Due to this oversight in the FPP, I conducted a transient fire progression analysis using ELMFIRE¹, a fire spread simulator that is similar to FARSITE. This fire progression analysis simulates movement of fire across the landscape and was conducted using the same basic assumptions as in Newland Sierra's Fire Protection Plan, *i.e.* 20-ft winds of 40 mph occurring concurrently with low dead and live fuel moistures. Fuel and topography inputs were taken from LANDFIRE 1.4.0 / LF 2014. Although the DEIR did not make available Geographic Information System (GIS) shapefiles showing the locations of roads and structures, a site plan from the DEIR .pdf document was orthorectified so that approximate locations of roads and structures could be determined. Fuels inputs were modified consistent with the presence of structures and fuel treatment zones as described in the FPP to facilitate modeling of post-development conditions. A point source ignition was placed in the Southeast part of the Newland Sierra's property in an area near the planned extension of Mesa Rock Road to simulate an anthropogenic ignition in that area. This is not the only location within the project footprint that ignition could occur, and resultant fire spread and potential impacts to other properties are dependent on the ignition location.

Three hours of simulated fire progression are shown in Figure 5 at half hour intervals. The vantage point is a birdseye isometric view looking over Highway 15 to the West down Deer Springs Road. Newland Sierra's property is shown as an orange outline (right hand side), and The Golden Door's property is shown as a yellow outline (left hand side). The fire perimeter is overlaid as red semi-transparent polygons.

Figure 5 shows that for this particular scenario, fire would reach Deer Springs Road and The Golden Door approximately 30 minutes after ignition. For ignition occurring at a different location, fire would enter other properties in a similar timeframe. Once this occurs, significant impacts to improved property, including structure loss, are likely to occur. Although this analysis does not include the effect of manual suppression on fire propagation, this is by design: fires burning through chaparral under moderate to strong Santa Anas are not amenable to direct attack and will burn until all available fuel is consumed or the winds stop.

¹ Lautenberger, C., "Wildland Fire Modeling with an Eulerian Level Set Method and Automated Calibration," *Fire Safety Journal* **62**: 289-298 (2013).



Figure 5a. Modeled fire progression ½ hour after ignition under Santa Ana conditions.



Figure 5b. Modeled fire progression 1 hour after ignition under Santa Ana conditions.



Figure 5c. Modeled fire progression 1-½ hours after ignition under Santa Ana conditions.

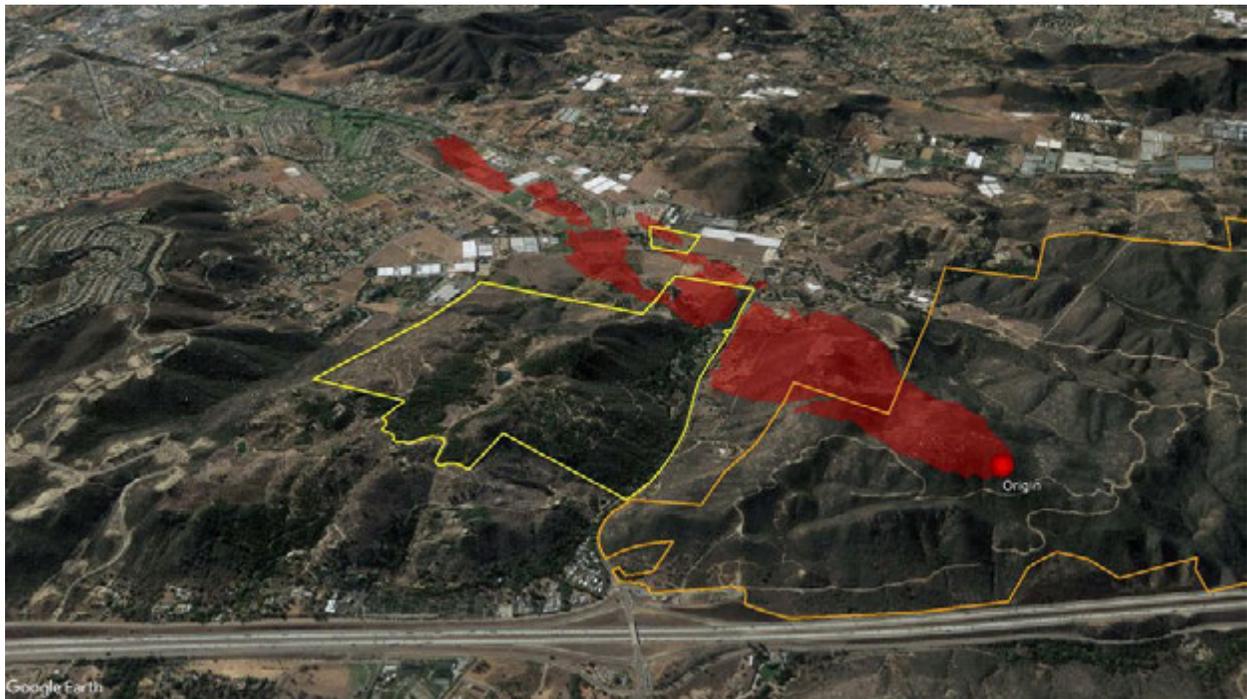


Figure 5d. Modeled fire progression 2 hours after ignition under Santa Ana conditions.



Figure 5e. Modeled fire progression 2-½ hours after ignition under Santa Ana conditions.



Figure 5f. Modeled fire progression 3 hours after ignition under Santa Ana conditions.

Based on this analysis, under moderate to strong Santa Ana winds:

- A fire that escapes initial containment efforts along Mesa Rock Road in the Southeast part of the planned Newland Sierra development will inevitably impact the Golden Door. Similarly, a fire igniting at other locations within Newland Sierra's footprint would be likely to impact other properties in the area.
- Such a fire traveling onto The Golden Door's property or its neighbors from Newland Sierra is likely to cause significant damage to existing vegetation and damage or destroy multiple structures.
- Such a fire is likely to reach The Golden Door within ½ hour after ignition. Entrapment will occur if emergency evacuation is not completed before the primary means of egress – a single road that exits through a gate onto Deer Springs Road – is blocked by fire and/or traffic congestion. A similar scenario may develop at neighboring properties, and it is conceivable that some residents may have less than ½ hour to evacuate.
- The highest risk of entrapment is associated with an overnight ignition under Santa Ana Conditions. Such a scenario would require Golden Door Staff to awaken as many as 42 guests, most of whom would be unfamiliar with their surroundings. Some may have mobility difficulties. Guests and staff (up to 140 workers may be on site at any given point in time) would evacuate in darkness, under high winds, with smoke in the air, in a wind-driven ember shower with multiple spot fires igniting. If entrapment occurs, burnover with multiple fatalities is likely.
- While this analysis was focused on the Golden Door, similar situations could develop at neighboring properties.

It is also important to point out that The Golden Door is not the only property that could be impacted by fire originating on Newland Sierra's land during Santa Ana conditions. Spotting distances for fire burning through chaparral under Santa Anas are on the order of 2-3 miles. Therefore, any properties within a 2-3 mile buffer of the planned Newland Sierra development could also be impacted by embers originating from fire burning there. Figure 6 shows a 2.5 mile buffer from Newland Sierra in the Southwest direction (because under Santa Ana winds this is the direction toward which the wind blows).

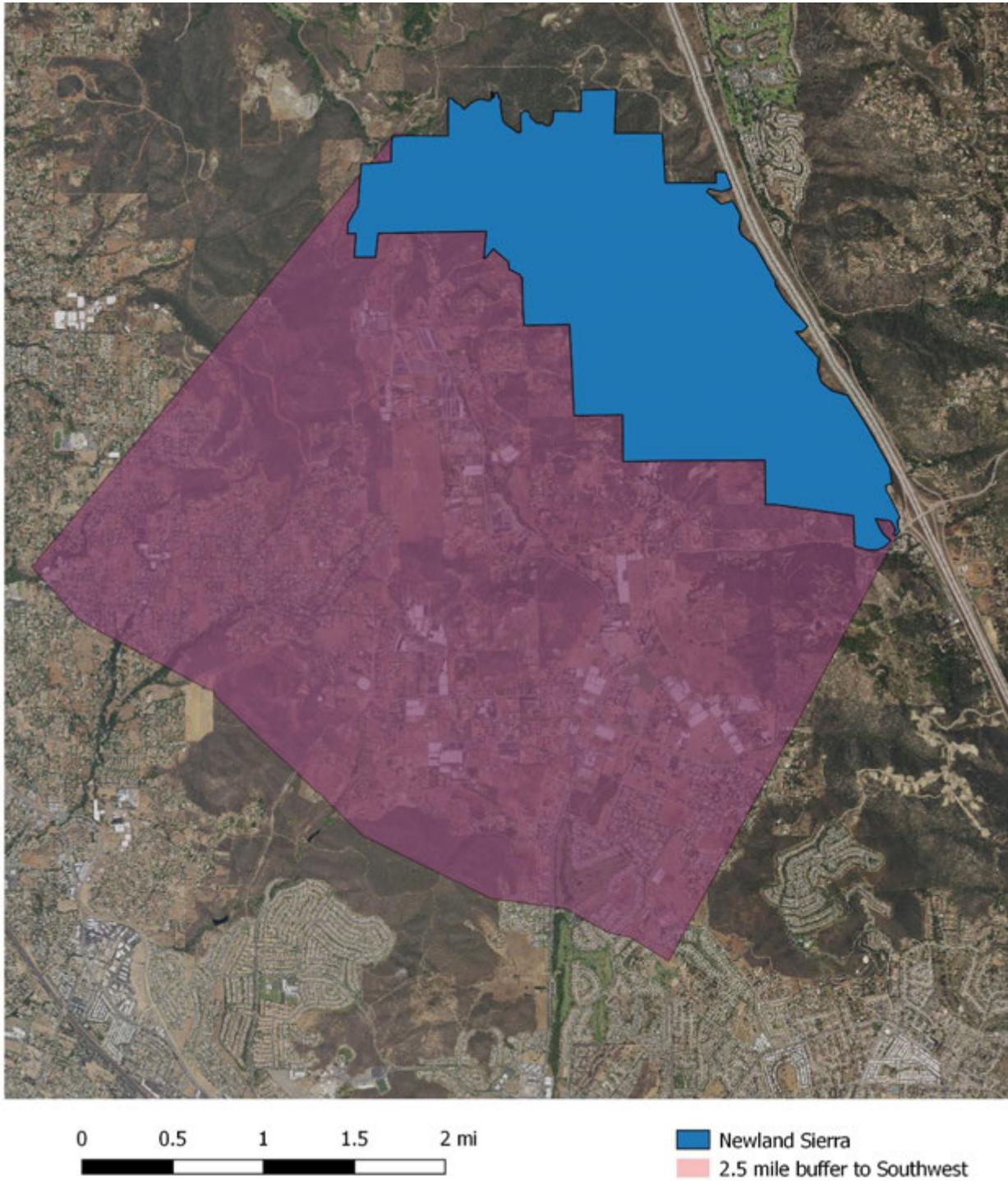


Figure 6. 2.5 mile to Southwest of Newland Sierra land.

It is notable that the 7 December 2017 Lilac Fire ignited approximately 5 miles north of the Newland Sierra project site and burned toward the Southwest under Santa Ana winds, ultimately destroying 157 structures. The Lilac Fire perimeter relative to Newland Sierra and The Golden Door is shown in Figure 7.

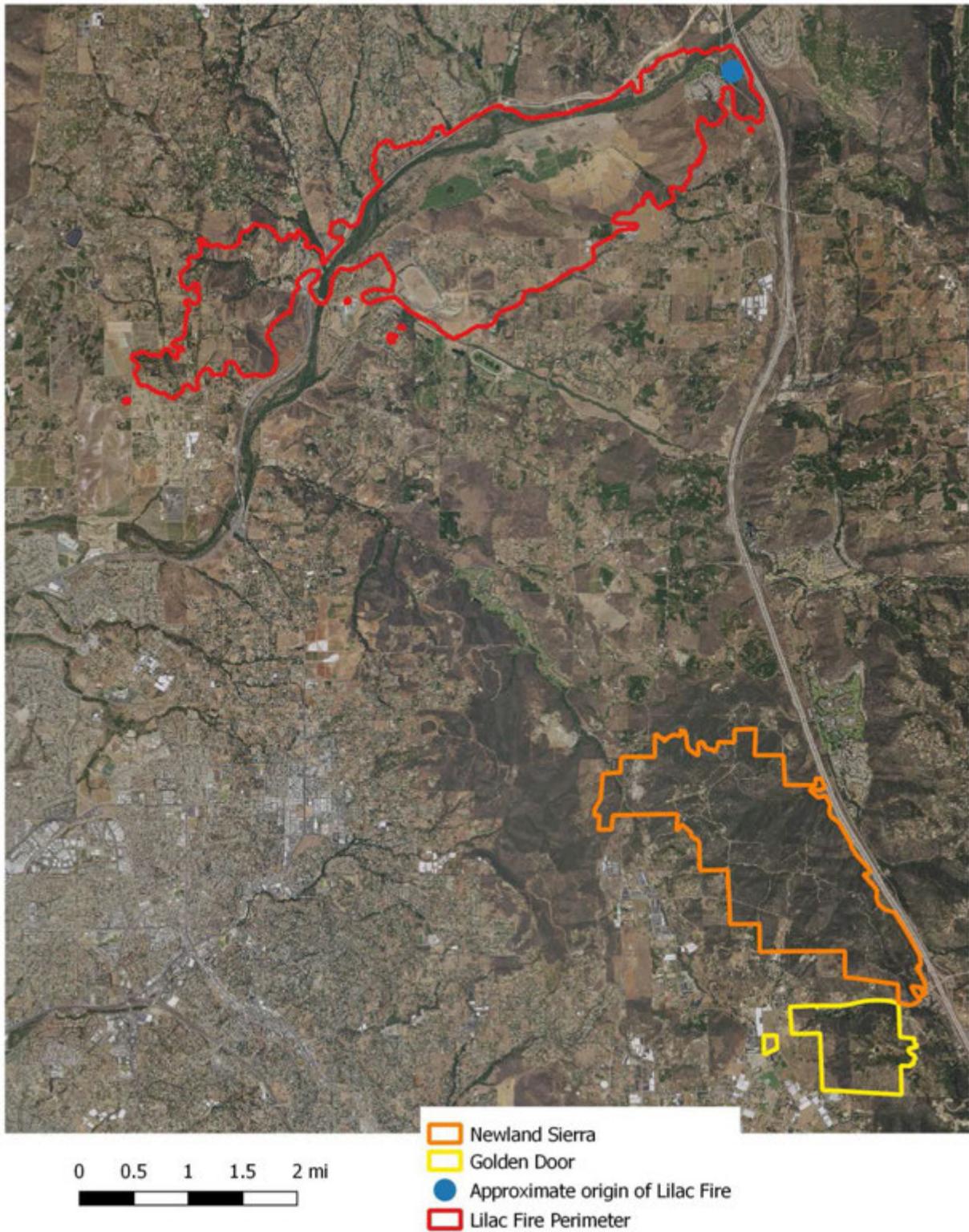


Figure 7. Location of Lilac Fire relative to Newland Sierra and The Golden Door.

Increase in ignition probability associated with Newland Sierra development

The majority of wildland fires are caused by humans as opposed to natural causes such as lightning. Common anthropogenic causes of fire include arson/incendiary, equipment use, debris burning, smoking, vehicles, fireworks, electricity, and outdoor cooking (barbecuing). Structure fires sometimes spread and initiate wildland fires. For these reasons, it should be apparent that the presence of development in the wildland urban interface – which adds roads, structures, vehicles, and people to previously undeveloped areas – results in increased probability of fire starts.

While this conclusion is common sense, multiple scientific studies have concluded the same. A study that analyzed 27 years of data in Canada² concluded “Fire ignition densities decreased exponentially as distance to road or populated place increased, and largest ignition trends occurred closest to both variables.” Similarly, a 2007 study entitled “Human Influence on California Fire Regimes”³ stated:

We found highly significant relationships between humans and fire on the contemporary landscape, and our models explained fire frequency ($R^2 = 0.72$) better than area burned ($R^2 = 0.50$). Population density, intermix WUI, and distance to WUI explained the most variability in fire frequency, suggesting that the spatial pattern of development may be an important variable to consider when estimating fire risk.

For the above reasons, the planned Newland Sierra development greatly increases the probability of ignition occurring within its footprint, which is currently mostly undeveloped land designated for limited residential development (1 unit per 20 acres).

Summary and conclusions

- Risk is the combination (product) of probability and consequence.
- Due to increased presence of humans and vehicular traffic, the planned Newland Sierra development greatly increases the probability of fire occurring within the project footprint.
- Under Santa Ana winds, the consequences associated with a fire igniting within Newland Sierra’s footprint to the Golden Door and other neighbors are severe. Potential consequences include destruction of multiple structures and loss of life. Although Newland Sierra’s fire protection plan discusses fuel treatments that would be implemented, these fuel treatments do very little to reduce potential consequences to The Golden Door and other neighbors.
- Since the Newland Sierra project greatly increases the probability of fire occurrence but does essentially nothing to reduce potential consequences to The Golden Door and other neighbors, it greatly increases overall fire risk to these entities.

Sincerely,



Christopher W. Lautenberger, PhD, PE

² Gralewicz, N.J., Nelson, T.A., Wulder, M.A., “Spatial and temporal patterns of wildfire ignitions in Canada from 1980 to 2006,” *International Journal of Wildland Fire* **21**: 230-242 (2012).

³ Syphard, A.D., Radeloff, V.C., Keeley, J.E., Hawbaker, T.J., Clayton, M.K., Stewart, S.I., and Hammer, R.B., “Human influence on California fire regimes,” *Ecological Applications* **17** 1388–1402 (2007).

Attachment B

- Voice of San Diego - <https://www.voiceofsandiego.org> -

County Officials Set to Consider Allowing Nearly 6,000 New Homes in High Wildfire Risk Areas

Posted By *Maya Srikrishnan* On December 12, 2017 @ 8:00 am



The site of the proposed Newland Sierra project, which would bring about 2,100 homes to an area at high risk for wildfires. / Photo by Jamie Scott Lytle

There's an invisible line where human development meets flammable vegetation, and it's where the most destruction from wildfires occurs.

It's called the wildland-urban interface. In San Diego, developers are looking to build nearly 6,000 more homes along this frontline.

"When I heard this fire started where it started, with those weather concerns, I was concerned," North County Fire Protection District Chief Steven Abbott said at a public meeting in Fallbrook Saturday of the Lilac Fire.

The Lilac Fire destroyed more than 180 structures, roughly half of which were homes, considered in the wildland urban interface. Nearly 7,500 residents evacuated and several were injured, including firefighters.

County leaders may soon decide whether to let developers move forward with projects that would be located in areas of extreme wildfire danger, an approval the projects need because they're proposed in areas where far fewer new homes were envisioned in the county's long-term growth plan, approved in 2011.

In Houston, development decisions may have contributed to the devastation ^[1] caused by flooding from Hurricane Harvey.

In Southern California, the same may be true for wildfires.

A 2013 study ^[2] by the U.S. Geological Survey, for instance, found that sprawl projects built far away from existing development, often called leapfrog development, have led to more houses being lost to fire.

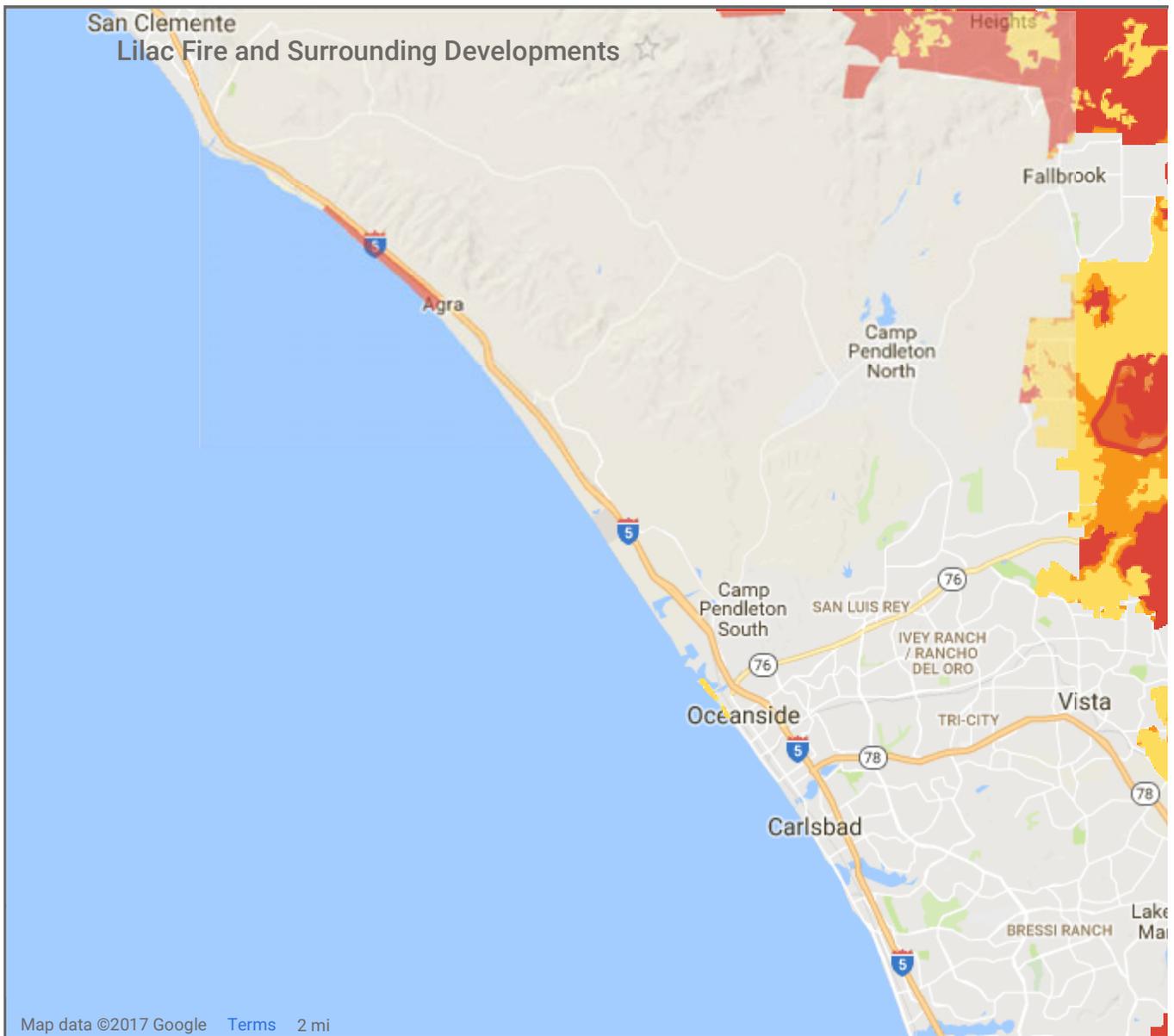
"The first set of homes are going to be in danger because they'll be surrounded by wildland," said Jon Keeley, one of the study's authors. "Leapfrog, without a doubt, leads to the highest loss of homes."

The safest way to build new housing is to build it near existing housing, the study found.

The large development projects still waiting for approval are not just located in severe wildfire risk areas ^[3]. Some are just on the other side of the I-15 from where the Lilac Fire burned. Some are in the same area as the 2014 Cocos Fire, which destroyed roughly 65 buildings ^[4], costing roughly \$28.5 million to contain and incurring an estimated \$29.8 million in property damage. They're also near the 2007 Witch Fire, which amounted to roughly \$1.3 billion in damages ^[5], and the 2003 Cedar Fire, which destroyed 2,820 buildings and killed 15 people ^[6].

The projects are proposed in northeastern San Diego County because it's some of the last bare land for development in the county. But that's exactly why they're concerning, experts say: The risk is highest when the first developments go in, and eventually subsides when there is a much larger mass of buildings and people like in downtown San Diego, Oceanside or Escondido.

One of the projects, [Lilac Hills Ranch](#) ^[7], proposes roughly 1,700 homes on 600 acres of rolling hills in Valley Center. Harmony Grove South would add 463 homes around the corner from Valiano, another proposed development including 326 homes. Another Harmony Grove project of about 700 homes is already under construction. Newland Sierra, between Vista and Valley Center, would bring another 2,135 homes. Warner Ranch, near Pala, proposes another roughly 780 homes.



Keeley said this year's fires in Napa and Sonoma counties, where more than 40 people died and hundreds of homes and buildings were destroyed, showed the dangers of new development.

"That area had fires very similar to the fires they had this year in 1964, but no one died in those fires," Keeley said. "The primary thing that has changed wasn't the fire."

The increase in deaths and destruction was more likely due to the drastic increase in people populating Santa Rosa ^[8], he said.

Richard Halsey, the director of the California Chaparral Institute, said from the minute you build a home in the wildland-urban interface, it becomes more and more dangerous, as

litter builds up, homes age, people accumulate stuff that could be flammable and let dried leaves or other brush build up in their gutters and yards. It's not until you reach a certain density, where most of the vegetation is removed from areas, that the danger diminishes.

Halsey said he's concerned about a project in his backyard in Escondido, Safari Highlands

[9].

"That was in the fire corridor that the 2007 fire raged through," he said. "It's in an area pretty much identical to the area that burned in Santa Rosa, the neighborhoods being taken out by the Thomas Fire right now."

The large projects all require amendments to the county's growth blueprint because they would put more density than is currently allowed. The amendments must go through the county's Planning Commission and Board of Supervisors.

Newland Sierra is expected to come before the board in 2018.

Decision-makers can impose requirements on the developments that could minimize their fire risk. Valiano, for instance, would need to build new roads leading out of the property [10] to help with evacuation, according to its Fire Protection Plan, a document included in the county's development review process. Harmony Grove Village would build a new fire station if approved [11].

Developers for Lilac Hills Ranch, meanwhile, have not yet proposed how they'll ensure fire crews can reach homes in the project's furthest reaches within required fire response timelines – though early phases of the development can begin before they figure it out.

The most common needs for North County projects, according to the San Diego County Fire Authority, mostly deal with adequate roads into and out of the projects.

During the Cocos Fire, traffic gridlocked on Country Club Drive as residents tried to evacuate, according to some accounts [12]. The fire created the same problem for another nearby development, San Elijo Hills, near San Marcos. San Elijo Road led to all three exits out of the development and became gridlocked as thousands of residents fled.

Lilac Hills Ranch, which is roughly less than a mile from the Lilac Fire at the closest point of the two and roughly three to four miles from the center of the fire zone to the center of the

development, already tried to skirt development requirements related to fire and public safety.

A 2015 Voice of San Diego investigation ^[13] found that developers behind the project refused to pay for a new fire station for the more than 3,000 additional residents they would bring in to the area. The project would build 1,746 homes in a mostly rural area where current restrictions allow only 110 homes.

In fall 2015, the county's Planning Commission recommended the Board of Supervisors approve the project, but with several changes – including funding the construction of a new fire station ^[14].

But instead of agreeing to that stipulation, Lilac Hills' developers eventually opted to instead put the project before voters last November as Measure B. The initiative also specified ^[15] ways the project could avoid certain safety investments.

For instance, the developer had asked the county for exceptions to various road standards, so they wouldn't have to flatten hills, or widen country roads to accommodate the influx of traffic the development would bring.

In the initiative, they simply said that West Lilac Road – which was the easternmost boundary of the Lilac Fire, and one of the roads the Planning Commission said needed widening – didn't need to be changed.

The Lilac Hills ballot measure failed, but the project and others that would require amendments to the county general plan are not dead ^[16].

Keeley said there are known avenues to make at-risk developments safer, but politicians need to demand them.

"People already know what the best thing to do in those cases is," Keeley said. "If you ask any fire chief in the county, they'll tell you, you got to have access roads, you're going to need a way to get firefighters in the area. Fire chiefs in San Diego County know pretty clearly what makes development risky, and they do have a lot of suggestions how to make those developments succeed. If developers are trying to avoid that, that's a political question."

Halsey also said politicians should work on retrofitting existing buildings and homes to improve their fire safety – for example, by putting in automatic external sprinkler systems that could wet the entire house during wildfire risk.

“The climate is changing,” Halsey said. “If we’ve built in wildland areas, there are things we can do to strengthen them.”

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URL to article: <https://www.voiceofsandiego.org/topics/land-use/county-officials-set-consider-allowing-nearly-6000-new-homes-high-wildfire-risk-areas/>

URLs in this post:

[1] may have contributed to the devastation:

https://www.washingtonpost.com/graphics/2017/investigations/harvey-urban-planning/?utm_term=.ea73a9c83faf

[2] 2013 study: <http://www.werc.usgs.gov/ProductDetails.aspx?ID=4935>

[3] located in severe wildfire risk areas: <https://www.voiceofsandiego.org/topics/science-environment/developers-seek-permission-to-build-in-severe-wildfire-risk-areas/>

[4] destroyed roughly 65 buildings: <http://www.readysandiego.org/aar/may-2014-san-diego-county-wildfires/May-2014-San-Diego-County-Wildfires.pdf>

[5] amounted to roughly \$1.3 billion in damages: http://air-worldwide.com/_public/NewsData/001563/AIRCurrents_CaliWildfires.pdf

[6] destroyed 2,820 buildings and killed 15 people:

https://web.archive.org/web/20160623225606/http://www.lakesidehistory.org/CedarFire/cedar_fire_memorial.htm

[7] Lilac Hills Ranch: <http://www.voiceofsandiego.org/topics/land-use/developer-wont-take-no-for-an-answer-on-massive-lilac-hills-ranch-project/>

[8] drastic increase in people populating Santa Rosa:

<http://sonomacounty.ca.gov/CAO/Public-Reports/About-Sonoma-County/Population-Growth/>

[9] Safari Highlands: <https://www.escondido.org/safari-highlands-ranch-specific-plan.aspx>

[10] to build new roads leading out of the property:

<http://www.sandiegocounty.gov/content/dam/sdc/pds/regulatory/docs/VALIANO/FDEIR/FPP-pt1.pdf>

[11] would build a new fire station if approved:

<http://www.sandiegocounty.gov/content/dam/sdc/pds/ProjectPlanning/hgvs/Harmony>

%20Grove%20Village%20South%20Public%20Review/PDS2015-GPA-15-002-EIR-AppL-Fire_Protection_Plan.pdf

[12] according to some accounts:

<http://www.sandiegocounty.gov/content/dam/sdc/pds/regulatory/docs/VALIANO/FDEIR/publiccomments/Valiano%20Individual%20Comments%20L%20through%20O%20rev.pdf>

[13] Voice of San Diego investigation:

<https://www.voiceofsandiego.org/corrections/developer-wont-take-no-for-an-answer-on-massive-lilac-hills-ranch-project/>

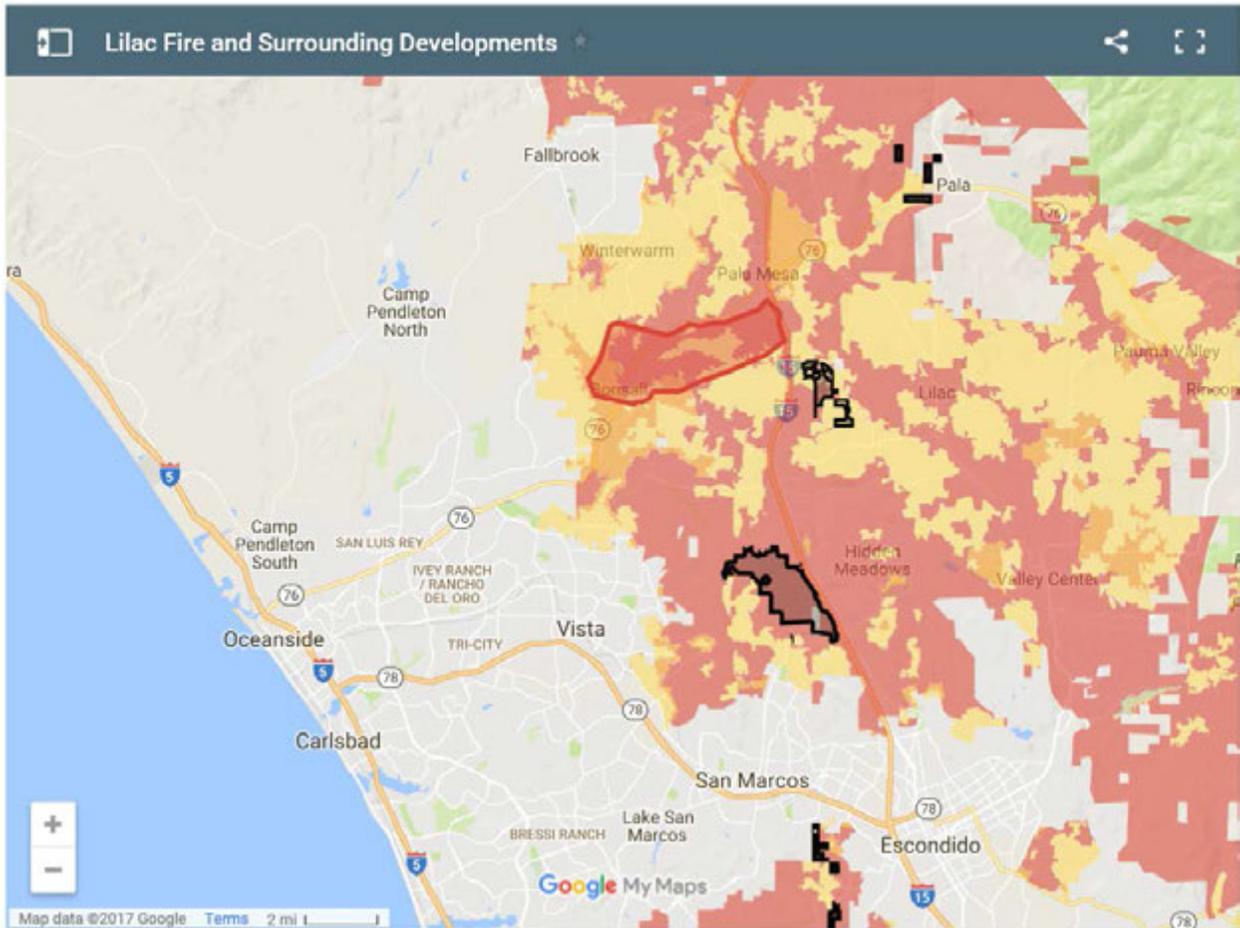
[14] of a new fire station: <http://www.voiceofsandiego.org/wp-content/uploads/2016/03/Planning-Commission-ACTION-SHEET-09-11-15.pdf>

[15] specified: <https://www.voiceofsandiego.org/topics/land-use/lilac-hills-initiative-includes-several-get-out-of-lawsuit-free-cards-for-developer/>

[16] are not dead: <https://www.voiceofsandiego.org/topics/land-use/lilac-hills-ranch-is-still-alive/>

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Attachment C



Maya Srikrishnan, *County Officials Set to Consider Allowing Nearly 6,000 New Homes in High Wildfire Risk Areas*, Voice of San Diego (Dec. 12, 2017)
<<https://www.voiceofsandiego.org/topics/land-use/county-officials-set-consider-allowing-nearly-6000-new-homes-high-wildfire-risk-areas>>

LL-7

From: Smith, Ashley <Ashley.Smith2@sdcounty.ca.gov>
Sent: Monday, January 08, 2018 10:35 AM
To: rbrandin@newlandco.com; brice@bosslergroup.com; SMolloy@newlandco.com; Sean Kilkenny; Brian Grover
Subject: FW: Comment on Rancho Lomas Verdes Specific Plan Notice of Preparation
Attachments: rancho lomas verdes specific plan.pdf; Map of Cumulative Projects from Newland EIR.pdf

FYI

Ashley Smith | Planning Manager | Project Planning
COUNTY OF SAN DIEGO | Planning & Development Services
T. 858.495.5375

From: CHRISTOPHER.GARRETT@LW.com [mailto:CHRISTOPHER.GARRETT@LW.com]
Sent: Friday, January 05, 2018 5:33 PM
To: Smith, Ashley <Ashley.Smith2@sdcounty.ca.gov>; Slovick, Mark <Mark.Slovick@sdcounty.ca.gov>
Cc: jhamilton@cityofvista.com; Witt, William <William.Witt@sdcounty.ca.gov>; Silva, Claudia <Claudia.Silva@sdcounty.ca.gov>; Fitzpatrick, Lisa <Lisa.Fitzpatrick@sdcounty.ca.gov>; gcourser@hotmail.com; dsilverla@me.com; kathyvanness@goldendoor.com; ssaathoff@theclayco.com; dzprice@theclayco.com; sackreml@cox.net
Subject: FW: Comment on Rancho Lomas Verdes Specific Plan Notice of Preparation

Ashley and Mark,

Below is an email that I just sent to John Hamilton, who is the environmental planner for the Rancho Lomas Verdes Specific Plan, for which the City of Vista received an application in 2011, ---4 years before the now 3 year old Notice of Preparation released for the Newland Project. (City of Vista Project 52, Case Number PC6-057, Application submitted August of 2011) <https://gis.cityofvista.com/PlanningProjects/>

Unfortunately, it doesn't appear that this project was included in the cumulative projects studied in the Newland EIR. With the explosion of new development projects being planned for rural North County San Diego, it is obviously difficult to keep track of them all. It is especially difficult when there are separate Cities each doing their own planning for pieces of unincorporated County land that they propose to annex and convert to more intense development than is proposed in the adopted County General Plan. Perhaps the answer would be for the planning staffs of the North County cities, SANDAG, the County and southeastern Riverside agencies, to attempt to compile a single data base of planning applications, both large and small. Each small project may not individually have a large impact, and the traffic study areas for each small project may themselves be limited, but when added together in a cumulative study, the overall traffic impacts of these small projects, when added to larger projects, may be great. Because of the great number of motorists traveling north and south each day from Riverside, what happens in the 76/East Vista Way corridor also affects Gopher Canyon and the Interstate 15 corridor.

We just learned of this project yesterday, and wanted to get you this information as soon as possible without any delay. For some reason, the City of Vista Notice of Preparation attached does not show the County as a responsible or trustee agency. Therefore, it is quite possible that you did not receive a copy of the notice from the City of Vista. Perhaps you could call and check for other any projects like this that Oceanside, Vista,

San Marcos or Escondido planning staff may be considering that have also been missed from the Newland EIR, or the separately released County PSR EIR.

Once you are sure that you have all the missing projects, like this project, including the ones we referenced in our letter last year, we would suggest that the cumulative impacts analysis in the Newland EIR be revised and recirculated for public comment. Another option would be to work with SANDAG staff to have them prepare an overall regional traffic study that includes all this newly proposed development not considered in the current adopted General Plans, and then use that study for consideration of any County General Plan amendments for the North County area. We are also concerned that the County should work with other agencies to consider whether the wildfire risk planning including in the County's existing Safety Element in the General Plan should be updated. Also, perhaps the County should consider revisions to their draft MSCP, if surrounding jurisdictions have proposed to annex and develop land which the County has designated as PAMA in its planning maps for the unincorporated area.

Regards,
Chris

From: Garrett, Christopher (SD)
Sent: Friday, January 5, 2018 5:12 PM
To: 'jhamilton@cityofvista.com' <jhamilton@cityofvista.com>
Cc: 'Ursula Sack & Joe Kreml' <sackreml@cox.net>; dsilverla@me.com; Seikkula, Samantha (SD) <Samantha.Seikkula@lw.com>; Yancey, Andrew (SD) <Andrew.Yancey@lw.com>; Margarett Morgan <Morgan7070@cox.net>; kathyvanness@goldendoor.com; Stephanie Saathoff - The Clay Company (ssaathoff@theclayco.com) <ssaathoff@theclayco.com>; Denise Price <dzprice@theclayco.com>; 'George Courser' <gcourser@hotmail.com>
Subject: Comment on Rancho Lomas Verdes Specific Plan Notice of Preparation

VIA EMAIL
John Hamilton, AICP
Environmental Planner
Community Development Department
200 Civic Center Drive
Vista, CA 92084-6275
Fax: (760) 639-6101

Dear Mr. Hamilton:

We are submitting comments on the attached Notice of Preparation for the Rancho Lomas Verdes Specific Plan Project on behalf of our client the Golden Door Spa.

While the Golden Door Spa is not expressing either opposition or support for the Rancho Lomas Verdes Specific Plan Project, we want to express our concerns about the new planning effort that the City of Vista is undertaking to plan for new intensive development for land which is outside the City's boundaries and outside the City's Sphere of Influence. The Golden Door strongly believes that all agencies should honor the County's General Plan, and not undertake planning efforts which bypass the Board of Supervisors to remove the land covered by the plan and place it within incorporated City boundaries.

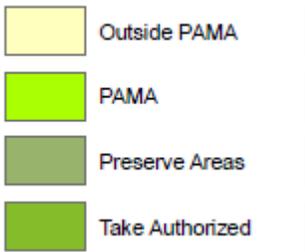
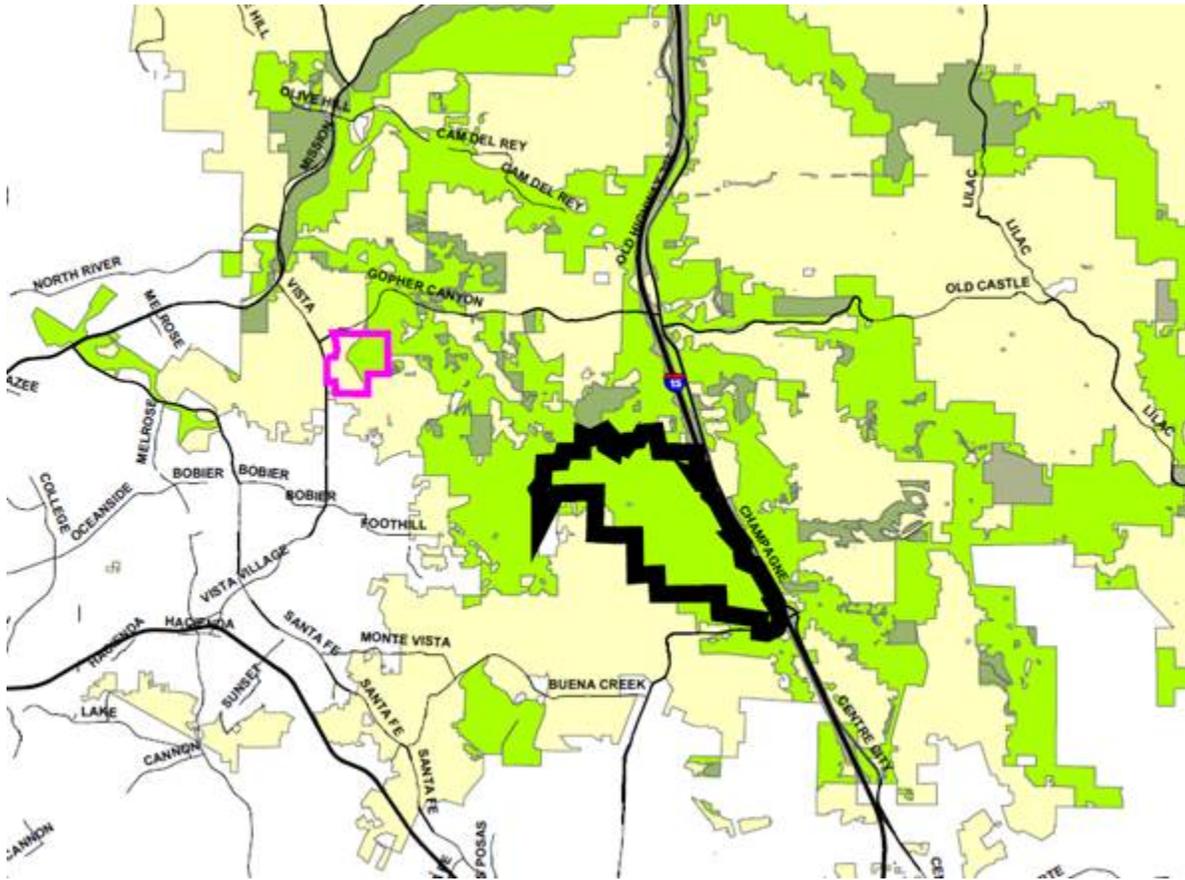
Among other things, this results in fragmented planning by different City and County staff members. For example, even though the City of Vista has been processing this application that was submitted to the City of Vista over 6 and one half years ago, (City of Vista [Project 52, Case Number PC6-057, Application submitted August of 2011](#)) <https://gis.cityofvista.com/PlanningProjects/> ---- this project has been ignored by the County of San Diego in its recently released EIR for the Newland Project, (See attached map of cumulative projects from the Newland EIR.)

North San Diego County faces a crisis in transportation planning. No one single county or city agency is looking at current plans plus the impacts of all the proposals for new urban development of rural North County. For example, when an agency only looks at a single new project, no effort is made to consider the combined impact of all these single projects on regional resources. Interstate 15 is projected to operate at Level of Service F during peak hours by the County of San Diego. This will lead to drivers seeking to avoid Interstate 15 by diverting traffic to SR 76 and connecting surface streets, such as Gopher Canyon Road or East Vista Way. Agencies such as SANDAG and Caltrans can only conduct regional transportation planning and forecasting if they can rely upon the adopted general plans of the County and incorporated Cities. This Rancho Lomas Verdes project has not been included in any of these regional plans, which relied upon the County and City of Vista adopted General Plans. Because so many proposed new projects are being planned outside of adopted plans, it is important that such approvals not go forward for consideration unless and until these regional plans can be updated with consideration of various scenarios that may occur, and facilities that must be expanded, before any project approvals are granted. If the City of Vista is going to go forward without comprehensive regional planning by SANDAG and the County, then the traffic study boundaries for the Rancho Lomas Verdes project must be expanded to extend to cover all these other cumulative projects, extending to Riverside County and down to the 78 corridor, and running from Interstate 5 to Interstate 15, to take into account the thousands of cars heading north and south each day within this region. With such regional comprehensive planning, agencies can determine if new transit facilities, such as light rail or express bus routes, should be built or extended to cover these regional needs.

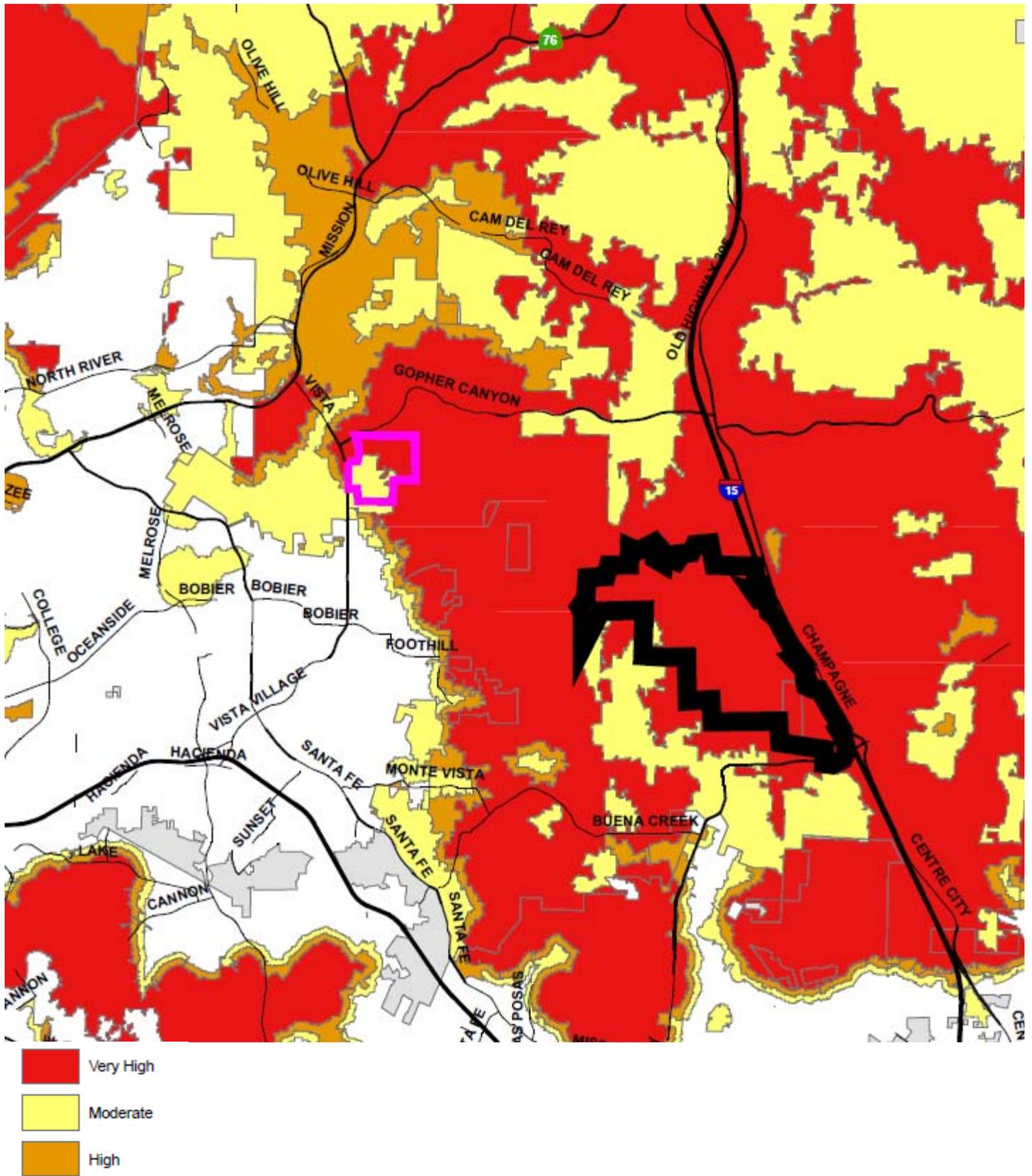
The EIR should also analyze the impact on the vehicle miles traveled (“VMT”) and greenhouse gas emission reduction plans of SANDAG. SANDAG’s current plan, approved by the California Air Resources Board, assumes that there will be no further development in rural areas that are not planned for new growth under existing general plans, and instead growth will occur only in “smart growth” areas designed by SANDAG in its adopted SCS/RTP. This project is not located in those smart growth areas, and will conflict with the attainment of the adopted plan’s VMT reduction goals.

We are also concerned that the project conflicts with the regional plans to address wildfire risk and potential damage to biological resources. The project also appears to be located in an important biological wildlife corridor that extends from the proposed Newland Project development. Below are maps from County planning documents which illustrate that point. Any EIR prepared by the City of Vista should consider the cumulative impacts on wildfire risk, biological resources, traffic and other environmental resources from all the projects listed in the map of cumulative projects from the County’s Newland EIR, and also the nearby Newland project itself, which is marked on the maps below. We urge you to closely coordinate with County staff, as well as staff at the Cities of San Marcos and Escondido which are also moving forward with new projects not previously included in their general plans.

The light green area below is Pre-Approved Mitigation Area (PAMA) in the County’s draft MSCP which was supposed to receive special protection from new development and disruption to biological resources.



Here is a map of the Rancho Lomas Verdes Project outlined in purple. The Project in Black is the Newland Sierra Project. The Red indicates Very High Fire Severity area, Orange is High and Yellow is Moderate.



Regards,

Chris

Christopher W. Garrett

LATHAM & WATKINS LLP

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Latham & Watkins LLP



**NOTICE OF PREPARATION
OF A
DRAFT ENVIRONMENTAL IMPACT REPORT
FOR THE
RANCHO LOMAS VERDES SPECIFIC PLAN**

SUMMARY

The project applicant (So. Cal. Ag. Properties, Inc.) seeks approval of the Rancho Lomas Verdes (RLV) Specific Plan, which proposes development of a residential estate community that would contain 153 residential lots within a 309-acre site. The RLV Specific Plan establishes the comprehensive planning framework, regulations and design guidelines that would direct future development within the Specific Plan Area (SPA). The project site is just north of the city of Vista's legal boundary, within the unincorporated community of Bonsall in the County of San Diego (see Figure 1, *Regional Location* and Figure 2, *Project Vicinity*). However, the southern portion of the site (approximately 71 acres) is within the City of Vista's (City) Sphere of Influence. The project site is generally bordered to the west by East Vista Way, to the north by Gopher Canyon Road, to the east by Elevado road, and to the south by Green Hills Way.

Under the requirements of the California Environmental Quality Act (CEQA) (Public Resources Code (PRC), Section 21000 *et seq.*) and the State Guidelines for Implementation of CEQA (State CEQA Guidelines) (California Code of Regulations, Section 15000 *et seq.*), the City is the Lead Agency for environmental review, which must evaluate the potentially significant environmental effects of the proposed project. Pursuant to State CEQA Guidelines Section 15168, the City has determined that an Environmental Impact Report (EIR) will be prepared to assess the proposed project's effects on the environment, to identify potentially significant impacts, and to identify feasible mitigation measures to reduce or eliminate potentially significant environmental impacts that cannot be avoided.

This Notice of Preparation (NOP) is being circulated pursuant to PRC Section 21153(a) and State CEQA Guidelines Section 15082. Public agencies and the public are invited to comment on the proposed scope and content of the environmental information to be included in the EIR. A 30-day review period is provided to return written comments to the City. Comments will be accepted from December 7, 2017 through January 5, 2018. A public scoping meeting regarding the EIR will be held on December 14 from 6:00 p.m. to 8:00 p.m. in the Vista Community Room at City Hall, 200 Civic Center Drive, Vista, California 92084. All comments should be directed to the City's Environmental Planner at the following address:

John Hamilton, AICP
Environmental Planner
Community Development Department
200 Civic Center Drive
Vista, CA 92084-6275
Fax: (760) 639-6101
jhamilton@cityofvista.com

ENVIRONMENTAL SETTING

Project Site

The SPA consists of six contiguous parcels and has historically supported agricultural uses on the site. The remaining area includes undeveloped hillsides that contain a mixture of native and non-native vegetation habitats. The SPA is characterized by rolling hillsides with moderate topography in the western area of the property and steeper slope features in the eastern portions of the site. An intermittent stream (Little Gopher Canyon Creek) traverses the site in the eastern area flowing north to Gopher Canyon Creek, which then flows to the San Luis Rey River channel.

The SPA currently contains land utilized for berry crop production. The area of the site in active crop production varies from year to year between approximately 75 and 100 acres on average based on operational needs. Other portions of the site remain vacant or fallow. A small commercial fruit stand is operated on the western edge of the site adjacent to East Vista Way. No residential structures are located on site, nor is the property located within an agricultural preserve.

Surrounding Land Uses and Transportation System

The area surrounding the project site is primarily developed with semi-rural residential development. Generally, properties with smaller lots ranging from less than 0.5 acres to two acres in size are located to the south and west. Moderate to larger residential properties ranging from one to four acres in size are located to the north and east.

The project site is bounded by East Vista Way to the west and Gopher Canyon Road to the north. East Vista Way is in the County's jurisdiction between SR 76 and approximately Osbourne Street. This portion of the road is two-lanes, one in either direction. East Vista Way transitions to a four-lane roadway at approximately Taylor Street, which is in the City's jurisdiction. Gopher Canyon Road is a two-lane roadway between East Vista Way and I-15. Interstate 15 is located approximately four miles to the east and State Route 76 is located approximately one mile to the north. The North County Transit District BREEZE Bus Route 306 Fallbrook to Vista line runs along East Vista Way. The San Luis Rey River is located approximately one mile to the north of the site, adjacent to the State Route 76 corridor.

PROJECT DESCRIPTION

The Applicant of the proposed project seeks adoption of the RLV Specific Plan from the City through a General Plan Amendment and Zone Change, approval of an annexation request to the City, and approval of a Tentative Subdivision Map.

The primary objective of the RLV Specific Plan is to provide a residential estate community that preserves environmentally sensitive areas in designated open space and enhances the area's semi-rural character. The RLV Specific Plan proposes estate lots ranging from a minimum of one acre to over five acres in size, with an average project density of 0.5-unit per acre. The residential development within the SPA is designed around a system of private roads, community trails, park spaces, and landscape amenities. Over 28 percent of the SPA would be designated as open space. Development is concentrated on the gentler sloping portions of the site. The RLV Specific Plan provides a transition from the higher density residential areas located to the south and west of the project site to the lower intensity large lot residential and

resort areas located to the north and east. The project site would be divided into three development areas that correspond to the varying lot size characteristics of the surroundings and an open space area, as shown in Figure 3, *Conceptual Site Plan*.

Planning Area 1 (PA-1) consists of 93 lots on approximately 138 acres. This area includes over 16 acres of open space, community trails, private parks, maintained open space, and landscape features. Lots are situated at varying elevations with several positioned to take advantage of the views surrounding the site. The main entry to the project at East Vista Way would be located within PA-1 aligned with Mason Road.

Planning Area 2 (PA-2) consists of 43 lots on approximately 53 acres. This area includes 3.6 acres of community trail features. Lots are organized along a gentle elevation ridge with views to the north and east. An emergency access point for the project is located at the northwest corner of PA-2, connecting to Ormsby Way with access to Gopher Canyon Road.

Planning Area 3 (PA-3) consists of 17 lots on approximately 29 acres in the eastern portion of the SPA. Lots are generally oriented with views to the south and west. PA-3 is surrounded on three sides by the open space area. An existing emergency access point would be maintained in the southeast corner of PA-3, providing neighboring areas an egress route through the area.

The Open Space area includes nearly 87 acres that would be maintained as a part of the RLV Specific Plan. The area, located in the northeast portion of the site, is devoted to wetlands, habitat, steep slope, and natural open space features. Within this area 78.5 acres of land would be dedicated as biological open space to preserve riparian, natural terrain, and other habitat areas. The remaining 8.5 acres of land within the open space area would consist of landscaped manufactured slopes and fuel modification zones supporting naturalized plantings buffering the proposed residential areas.

An additional 6.5 percent (19.8 acres) of land would consist of passive community recreation areas, landscape elements, and homeowner association-maintained open space within Planning Areas 1 and 2. These passive features include private parks, trails, and community landscape elements. The RLV Specific Plan also includes a community trail system that would be offset from the internal road network.

The main access to the SPA is planned via the east leg of the East Vista Way/Mason Road intersection. This access point would be signalized with dedicated left turn lanes. A secondary emergency access point would be located at the northwest corner of the SPA, connecting to Ormsby Way with access to Gopher Canyon Road. The project proposes to make improvements to East Vista Way at the proposed access point and provide frontage improvements.

The RLV Specific Plan also contains guidelines for landscape improvements for each planning area and other infrastructure (water, sewer, and storm drain) improvements. Off-site improvements are anticipated to include roadway improvements at East Vista Way and a sewer force main within East Vista Way to connect the proposed sewer pump station to an existing sewer line at the intersection of Warmlands Avenue. The RLV Specific Plan is anticipated to develop in three phases corresponding to the three planning areas. Phases may develop concurrently with timing and sequence adjusted as necessary in response to community preference and market conditions.

The County of San Diego General Plan designates the property under the Semi-Rural land use category with a corresponding maximum density of 1 dwelling unit (DU)/4 Acres (SR-4). The zoning category for the property is A-70 (Limited Agricultural Use). The project site is proposed for annexation to the city and would ultimately be regulated by the City's land use and zoning ordinances. In conjunction with the proposed annexation, the SOI would be amended to include the entire Specific Plan property with an RR (Rural Residential) – 1 DU/AC land use designation. The project site would be designated with the zoning category of SP - RLV (Specific Plan Rancho Lomas Verdes).

TOPICS TO BE ANALYZED IN THE EIR

Aesthetics. The EIR will address how the proposed project would modify scenic resources and natural landforms, change the visual character of the SPA, or create a new source of light or glare. The analysis will also include identification of key public views, and a discussion of consistency with the City's General Plan 2030 Update, and the proposed Specific Plan design guidelines.

Agricultural Resources. The EIR will analyze the potential impacts associated with the conversion of agricultural uses to residential development. The analysis will identify existing and historic agricultural uses within the project site, and analyze the proposed project's consistency with the City's General Plan 2030 Update and Zoning Ordinance.

Air Quality. The EIR will analyze anticipated emissions associated with construction and operation of the development within the SPA, and discuss the project's potential to expose sensitive receptors (e.g., residences) to substantial pollutant concentrations. The EIR will also discuss project consistency with applicable air quality plans and regulations.

Biological Resources. The EIR will analyze anticipated impacts to sensitive vegetation communities, species, and jurisdictional features within the SPA. Although the SPA is entirely within the County of San Diego's North County Multiple Species Conservation Program (NC-MSCP) Subarea, the site is being proposed for annexation into the City, and the NC-MSCP would not apply to the Specific Plan.

Cultural and Tribal Cultural Resources. The EIR will describe the areas of archeological and tribal sensitivity based on the results of a record search, field survey, and Native American consultation. Potential impacts associated with known and unknown sensitive cultural and tribal cultural resources affected by implementation of the Specific Plan will be addressed.

Energy. The EIR will estimate energy consumed during the future buildout of the RLV Specific Plan, including electrical energy demand, vehicular energy demand, and water and solid waste-related energy demand to assess whether the Specific Plan would employ an efficient use of energy.

Geology, Soils, and Paleontological Resources. The EIR will describe the geologic and seismic characteristics of the SPA. Potential geologic hazards that may result from implementation of the RLV Specific Plan will be identified, as well as any geologic conditions that may affect proposed development. This section will also analyze the potential of the project to directly or indirectly adversely affect paleontological resources.

Greenhouse Gas Emissions. The greenhouse gas emission section of the EIR will describe anticipated emissions associated with Specific Plan construction and operation, along with measures that the RLV Specific Plan would implement to reduce those emissions. This section will also include an analysis of the Specific Plan's consistency with the goals and policies contained within the City's Climate Action Plan and General Plan 2030 Update. The EIR will also evaluate the RLV Specific Plan's compliance with statewide legislation enacted to reduce greenhouse gas emissions such as Assembly Bill 32 and Senate Bill 32.

Hazards and Hazardous Materials. The issue of hazards and hazardous materials will be addressed in the EIR, particularly with respect to potential contamination remaining from previous agricultural activities on the site, and potential hazards related to wildland fires.

Hydrology and Water Quality. The hydrology section of the EIR will evaluate drainage patterns and flows generated as a result of development, the adequacy of downstream drainage features, and potential effects on water quality from implementation of the RLV Specific Plan. The discussion will also identify conceptual water quality control features, biofiltration basins, and Best Management Practices to be implemented during construction and operation of the development within the RLV Specific Plan.

Land Use and Planning. This section will analyze the consistency of the RLV Specific Plan with adjacent land uses, as well as with applicable portions of the Vista General Plan 2030 Update. The analysis will address land use designations and applicable planning policies, and examine factors that the Local Agency Formation Commission considers when reviewing annexation requests.

Noise. The EIR will describe the potential for the project to result in significant temporary and permanent noise increases associated with construction or operation (such as traffic-related noise) of the RLV Specific Plan that may affect noise-sensitive land uses (such as residences) in the site vicinity.

Population and Housing. The EIR will describe the proposed increase in housing availability and associated population from RLV Specific Plan implementation and compare it against regional forecasts. The analysis will address the project's potential to directly or indirectly induce population growth, or to displace substantial numbers of housing or people.

Public Services. The EIR will address potential impacts to fire, police, school, and maintenance of public roads based on the development of the RLV Specific Plan and information provided by each service-providing agency.

Recreation. The EIR will evaluate whether the RLV Specific Plan would include sufficient recreational facilities to serve the planned population, or if it could result in the need for improvements or increased maintenance at off-site recreational facilities.

Transportation and Traffic. The EIR will evaluate the potential short-term and long-term traffic impacts associated with the RLV Specific Plan. The EIR will analyze whether implementation of the project would negatively impact the existing traffic load and capacity of the street system, and identify any roadway improvements needed in the vicinity to reduce impacts.

Utilities and Service Systems. The EIR will address potential impacts to utilities and service systems including the ability to provide adequate sewer, water, storm water, electricity, gas, and solid waste disposal services to the SPA.

Effects Found not to be Significant. The discussion of effects found not to be significant will include a brief statement indicating the reasons that possible effects of RLV Specific Plan implementation were determined not to be significant. It is assumed that Mineral Resources would be addressed in this section.

Growth Inducement. The EIR will discuss the potential development of the SPA to induce, either directly or indirectly, economic or population growth resulting in the need for construction of additional housing or infrastructure beyond that proposed within the project site that could adversely affect the surrounding environment.

Alternatives. As required by State CEQA Guidelines Section 15126.6, the EIR will include a discussion of reasonable alternatives to the proposed project, including a No Project Alternative. Alternatives will be developed that would avoid or lessen the identified significant impacts of the proposed project, while feasibly attaining most of the basic objectives of the project.

Cumulative Impacts. In addition to analyzing the potential environmental impacts of the proposed project, the EIR will also include an analysis of cumulative effects. The EIR will analyze past, present, and reasonably foreseeable future projects within the city and surrounding areas (if applicable) that may contribute to a specific cumulative impact, when considered in conjunction with the impacts associated with implementation of the RLV Specific Plan.

TOPICS EXCLUDED FROM ANALYSIS IN THE EIR

All environmental issue topics required by the State CEQA Guidelines will be included within the EIR.

Responsible and Trustee Agencies

According to State CEQA Guidelines Section 15050, the City is designated as the Lead Agency for the Project. Responsible agencies are those agencies that have discretionary approval authority over one or more actions involved with the development of a proposed project. Trustee agencies are state agencies having jurisdiction by law over natural resources affected by a proposed project that are held in trust of the people of the State of California. The potential responsible and trustee agencies that have been identified as part of the preparation of this document and the required permits, approvals, or associated responsibilities for the proposed project are identified in Table A.

Table A: Potential Responsible and Trustee Agencies

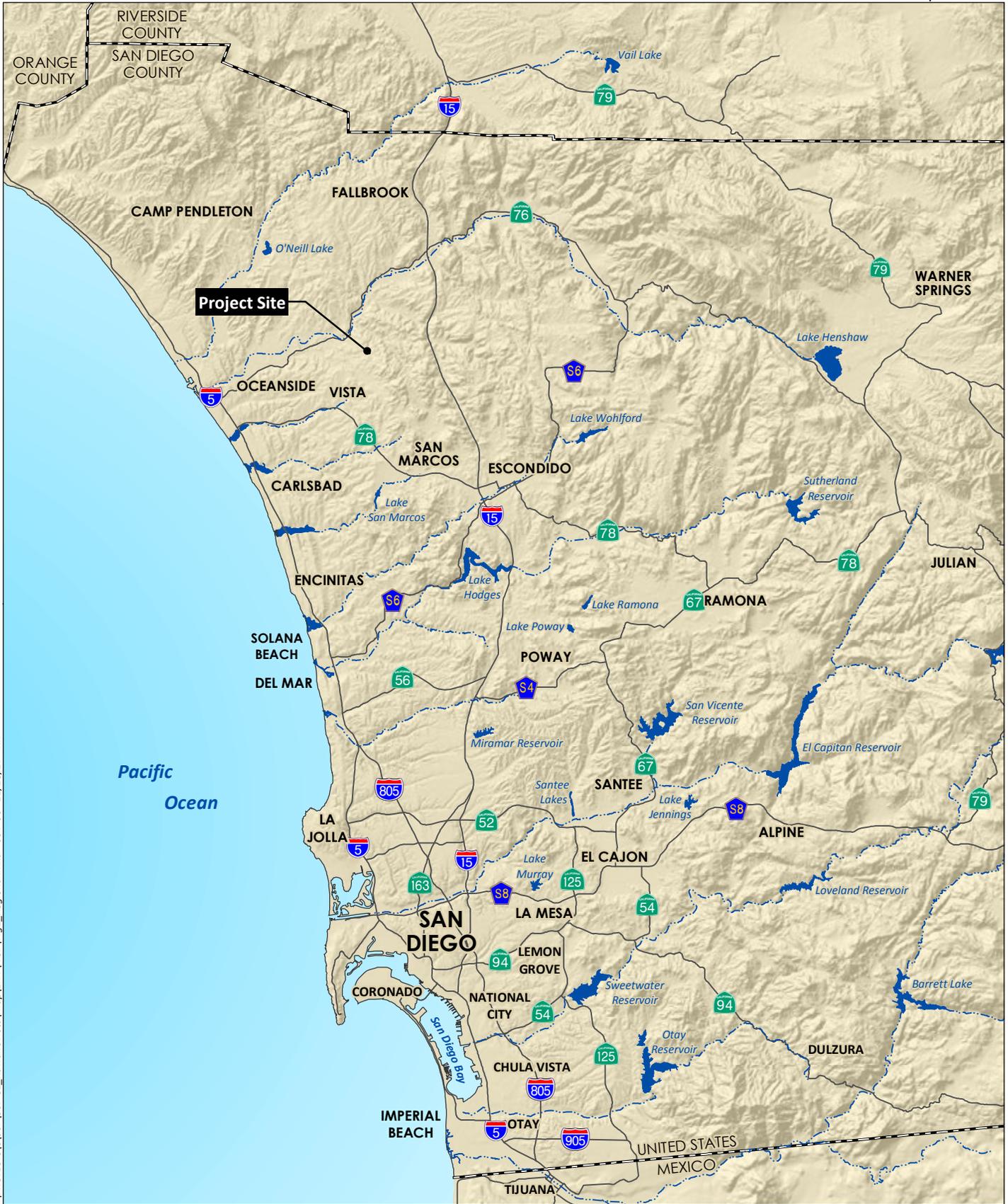
Agency	Potential Permit/Approval
State Water Resources Control Board/San Diego Regional Water Quality Control Board	Notice of Intent to comply with the terms of the National Pollutant Discharge Elimination System General Construction Permit to discharge stormwater associated with construction activity, and Section 401 Water Quality Certification
California Department of Fish and Wildlife	Incidental Take Permit pursuant to Title 783.2 of the California Fish and Game Code
U.S. Army Corps of Engineers	Section 404 Permit for impacts to waters of the United States

ENVIRONMENTAL PROCEDURES

This NOP will be submitted to the State Clearinghouse, which will forward it to potential Responsible Agencies and Trustee Agencies. Other interested parties that have specifically requested notification of this project will also receive a copy of the NOP.

After the 30-day review period for the NOP is complete and all comments are received, a Draft EIR will be completed in accordance with CEQA and the State CEQA Guidelines. Detailed analyses will be conducted to ascertain the proposed project's effects on the environment, and the relative degree of impact prior to avoidance or implementation of mitigation measures. Where impacts are determined to be significant and cannot be avoided, mitigation measures will be prescribed with the purpose of reducing the project's effects on those impacts either completely or to the maximum degree feasible.

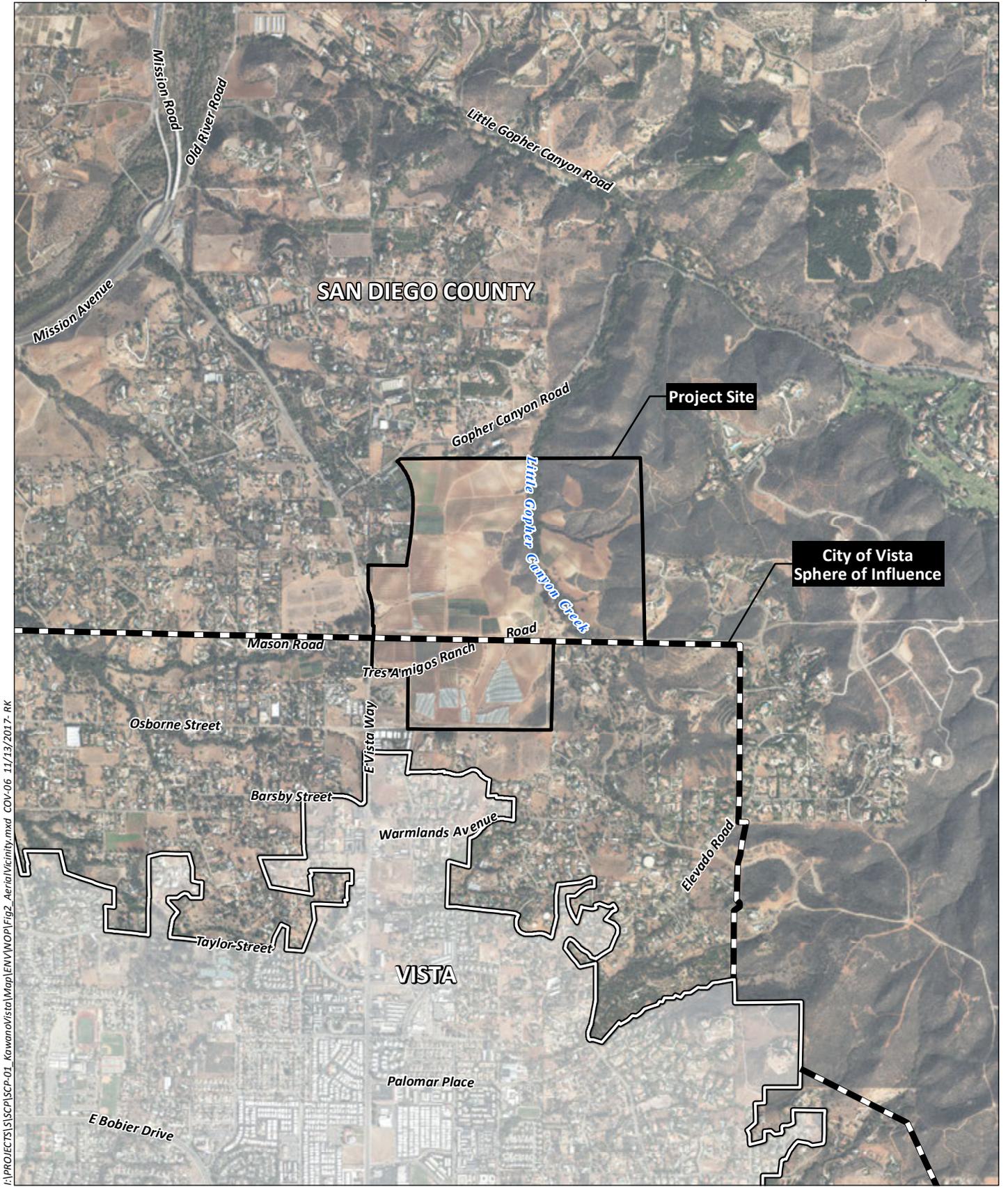
Once the Draft EIR is completed, it will be made available for a 45-day public review and comment period. A Notice of Availability of the Draft EIR will sent directly to those agencies and members of the general public commenting on the NOP. Following circulation of the Draft EIR, the City will prepare the Final EIR, which will include responses to comments on the Draft EIR and identify any changes to the Draft EIR that were made following public review. The Final EIR will then be considered for certification by the Planning Commission and City Council.



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Source: Base Map Layers (SanGIS, 2016)





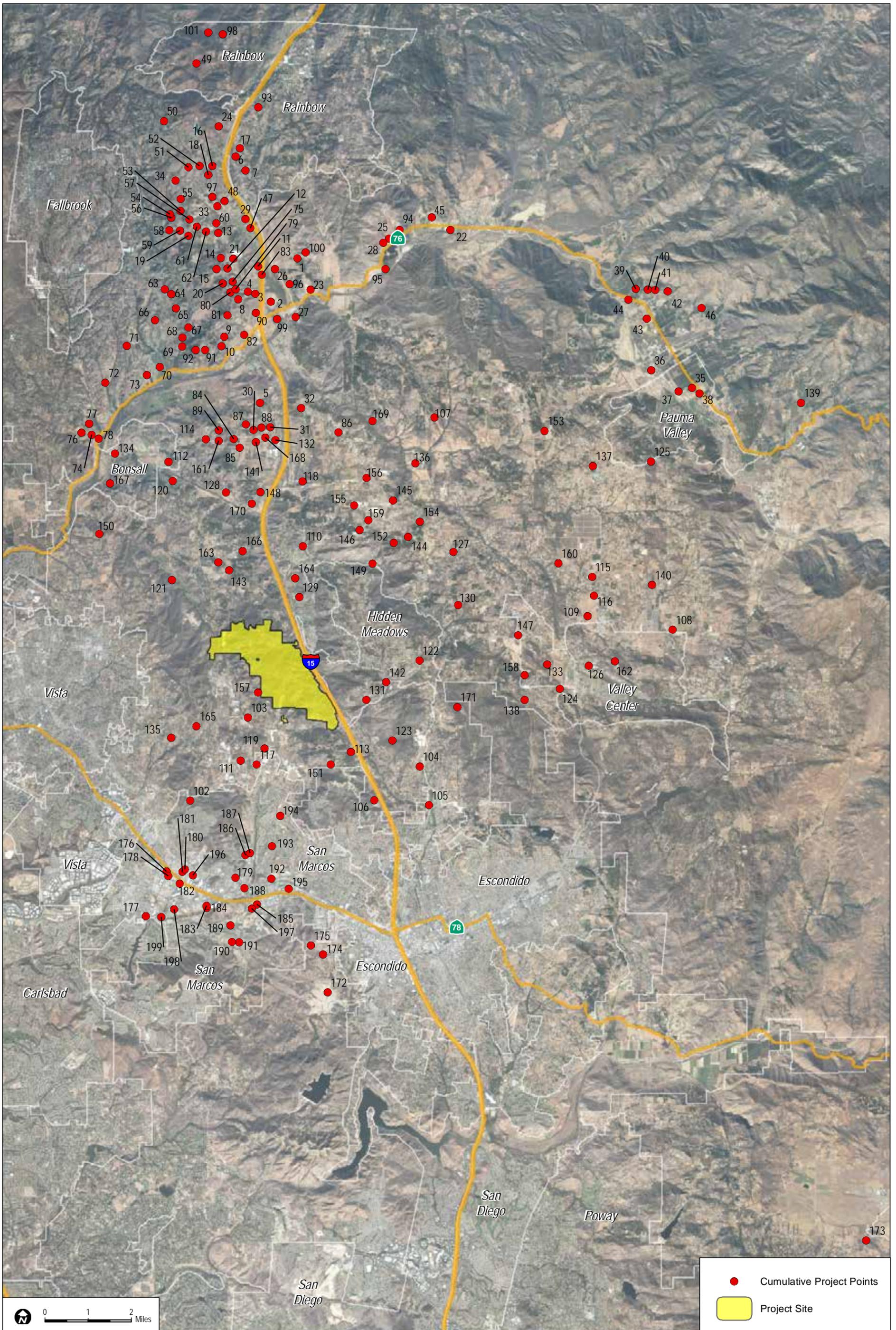
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Source: Aerial (SanGIS 2014)

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Source: The Lightfoot Planning Group and Excel Engineering 2017



SOURCE: SANDAG Imagery, 2014; Newland Sierra LLC, 2015.

FIGURE 1-46
Cumulative Projects Map

Newland Sierra Environmental Impact Report

LL-8



County of San Diego

DAVID HALL, CCB
EXECUTIVE OFFICER/CLERK

CLERK OF THE BOARD OF SUPERVISORS
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ANDREW POTTER
ASSISTANT CLERK OF THE BOARD

January 18, 2018

TO: Chairwoman Kristin Gaspar
Vice-Chairwoman Dianne Jacob
Supervisor Greg Cox
Supervisor Ron Roberts
Supervisor Bill Horn

FROM: DAVID HALL
Clerk of the Board of Supervisors

Attached, for your information, is correspondence from Josh Chatten-Brown regarding supplemental comments on San Diego Climate Action Plan, Draft Supplemental Environmental Impact Report for the Climate Action Plan and Pending General Plan Amendments.

Thank you.

Respectfully submitted,

A handwritten signature in blue ink, appearing to read "D Hall".

DAVID HALL
Clerk of the Board of Supervisors

Attachment

cc: Helen Robbins-Meyer, Chief Administrative Officer
Sarah Aghassi, Deputy Chief Administrative Officer, Land Use & Environment Group
Communications Received

DCH:mn

Nepomuceno, Maria

Subject: FW: Supplemental Comments on San Diego Climate Action Plan (PDS2015-POD-15-002), Draft Supplemental Environmental Impact Report for the Climate Action Plan (PDS2016-ER-16-00-003) and Pending General Plan Amendments

Attachments: Final Sierra Club Supplemental CAP and Pending GPAs Comment Letter.pdf

From: Cynthia Kellman [<mailto:cpk@cbcearthlaw.com>]

Sent: Wednesday, January 17, 2018 11:46 AM

To: Cox, Greg; Gaspar, Kristin; Roberts, Ron; Jacob, Dianne; Horn, Bill; CAP; Smith, Ashley; AdvancePlanning, PDS; Sandag Comments

Cc: Josh Chatten-Brown

Subject: Supplemental Comments on San Diego Climate Action Plan (PDS2015-POD-15-002), Draft Supplemental Environmental Impact Report for the Climate Action Plan (PDS2016-ER-16-00-003) and Pending General Plan Amendments

Good Morning,

Attached please find a comment letter from Josh Chatten-Brown regarding the above-captioned subject.

Please feel free to contact me with any questions or concerns.

Cynthia Kellman
CHATTEN-BROWN & CARSTENS
2200 Pacific Coast Highway, Ste. 318
Hermosa Beach, CA 90254
Tel: 310-798-2400 x6
Fax: 310-798-2402
Email: cpk@cbcearthlaw.com
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San Diego Office
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Phone: (619) 940-4522

January 16, 2018

Via e-mail (Lisa.Fitzpatrick@sdcountry.ca.gov); original to follow by first-class mail

San Diego County Planning Commission
5510 Overland Avenue, Suite 110
San Diego, CA 92123

**Re: Supplemental Comments on San Diego Climate Action Plan (PDS2015-
POD-15-002), Draft Supplemental Environmental Impact Report for
the Climate Action Plan (PDS2016-ER-16-00-003) and Pending
General Plan Amendments**

Dear Chair Brooks and Honorable Planning Commissioners:

The law firm of Chatten-Brown & Carstens represents the Sierra Club on matters relating to the County's environmental review of its revised Climate Action Plan ("Revised CAP"), Supplement to the 2011 General Plan Update Program Environmental Impact Report ("Supplemental Environmental Impact Report," or "SEIR"), and pending General Plan Amendment (GPA) projects.

The Sierra Club has consistently opposed any new GPAs until the County adopts a legally adequate CAP, and that is particularly important now. The County must act aggressively in attaining the goals that the County adopted in 2011. California is an international leader in addressing climate change and it is particularly important for the state to achieve its goal to prevent an erosion of international efforts. The consequences of the State failing to do so are dire in terms of sea level rise, more extreme weather, fires, water supply, and habitat loss. The CAP acknowledges that transportation is by far the largest contributor (45%) to its GHG emissions, yet the CAP only proposes to implement measures that would produce a 13% GHG reduction from this sector by 2030. The County must not authorize additional development through GPAs until the County demonstrates it has complied with the reductions it agreed to as mitigation for the development previously authorized in the 2011 General Plan Update.

The Sierra Club previously commented on the Draft CAP in its September 25, 2017 letter to the County's Planning and Development Services. (A complete copy of this letter is attached as **Exhibit A**.) Unfortunately, the deficiencies identified in that

letter have not been adequately addressed. The following discussion amplifies the prior points made, but also raises concerns regarding the County's lack of analysis of whether the revised CAP conflicts with CARB's Updated Scoping Plan and Updated Regional SB 375 Targets, and the lack of coordination with the San Diego Association of Governments (SANDAG). Additionally, the Sierra Club is concerned that the County, in its October 20, 2017 Planning Commission informational meeting and after the release of the Draft Supplemental EIR, indicated it was conducting cost-benefit studies for greenhouse gas emission reduction policies and may "de-emphasize some policies versus others."

There has been an undue delay in the County complying with the promises it made in 2011, including to prepare a Climate Action Plan (CAP) within six months of adopting the General Plan Update. After waiting for more than six years, the County proposes to achieve its GHG emission reduction goals primarily through carbon offsets. For the reasons discussed in this letter and the Sierra Club's prior letter, the County's use of out-of-County offsets violates CEQA. While the County has failed to move aggressively in addressing climate change up to the present time, there is now an opportunity for the San Diego County Board of Supervisors and Planning Commission to comply with the County's 2011 promises and show leadership on this important issue.

I. The Sierra Club Endorses the Arguments Made in Detail By Other Organizations.

In addition to the points made in the Sierra Club's initial letter on the Draft Revised CAP and EIR, and those points contained with some detail in this letter, there are numerous reasons given by other commenters why the CAP and EIR are not legally adequate. The Sierra Club endorses those comments, but will not repeat them here except to briefly mention them. The Club believes the County must address these issues in an updated CAP before the CAP is acted upon by the Supervisors. These issues include, but are not limited to, the following:

1. The failure of the County to consider the incompatibility of additional GPA's with the SANDAG Regional Transportation Plan (RTP) and Sustainable Communities Strategy (SCS), which documents are based on the development contemplated in the 2011 GPU. This issue is discussed in considerable detail by counsel for Golden Door, among others.

2. The County's General Plan Land Use and Conservation Elements require coordination of planning efforts with federal and State agencies, SANDAG, and other jurisdictions. The County's Conservation and Open Space Element provides:

COS-20.3. Regional Collaboration. Coordinate air quality planning efforts with federal and State agencies, SANDAG, and other jurisdictions.]

(County of San Diego General Plan, Conservation and Open Space Element, p. 5-39.)
The County's Land Use Element also requires this coordination:

LU-4.1 Regional Planning. Participate in regional planning to ensure that the unique communities, assets, and challenges of the unincorporated lands are appropriately addressed with the implementation of the planning principles and land use requirements, including the provisions of SB375.

(County of San Diego General Plan, Land Use Element, p. 3-26.)

By approving new development outside of the designated Smart Growth areas, which will cause VMT to violate SANDAG's adopted SCS/RTP, the County is failing to participate in the SANDAG regional planning process and the provisions of SB 375. This General Plan inconsistency was not analyzed in the Final Supplemental EIR (FSEIR).

3. Many of the CAP's mitigation measures are speculative and not supported by substantial evidence.

a. The Direct Investment Program.

The Direct Investment Program (DIP) is proposed as a discretionary action. In response to concerns raised by the California Native Plant Society, San Diego Chapter regarding the Direct Investment Program, the County states:

[T]he direct investment program would be established by the County by 2020 as a future discretionary action. If the CAP is adopted the County would determine which protocols would be feasible to implement in the County, and would undertake a separate CEQA evaluation at the time of the establishment of the program if required.

(Response to Comment Letter O9, p. 19.) The County relies heavily on the DIP as a mitigation measure. However, the County would have to ensure the DIP is funded and implemented. There are currently no projects identified for either the DIP or GPA offsets. For the large amount of credits that would be needed to achieve the 2030 targets, it is speculative that a sufficient amount of "in-County" created credits will be available. There is not substantial evidence to support future availability of these offset credits. The County must analyze feasible mitigation measures in advance of adopting the CAP, not after the fact.

b. The California Air Pollution Control Officers Association Registry.

The California Air Pollution Control Officers Association (CAPCOA) is merely a list of credits that one of the member air pollution districts has adopted. CAPCOA has a disclaimer about the use of such credits for CEQA purposes.

The GHG credits listed on the website, the CAPCOA GHG Rx, were validated by an air district of CAPCOA. District validation means that the particular district concluded the GHG credits met the CAPCOA protocol for such credits. Neither CAPCOA nor the district make any representations, warranties or guarantees of any kind as to the use or applicability of any GHG credit listed on the CAPCOA GHG Rx for any specific project, program, plan, compliance with the California Environmental Quality Act (CEQA; Pub. Res. Code § 21000 et seq. and 14 CCR§ 15000 et seq.), or for any other use. Please note that if a GHG credit listed on the CAPCOA GHG Rx is proposed to be used as part of a CEQA mitigation measure, the respective CEQA lead agency for the subject project is responsible for determining if the use of such GHG credit is appropriate (as mitigation) and satisfies its project conditions and other applicable requirements. The CAPCOA GHG Rx only lists available GHG credits so that interested parties may make private inquiries into obtaining those GHG credits. CAPCOA does not offer any other services beyond this listing service. The validation by the district, and the listing of GHG credits by CAPCOA, shall in no way create a property right.

In light of CAPCOA's disclaimer, the County's reliance upon the GHG credits on the CAPCOA GHG Rx is misplaced.

c. Installing Solar Photovoltaics on Existing Homes.

The measure as described is about streamlined permitting, not financial incentives to encourage a transition to green energy. The CAP should show how streamlined permitting will achieve the measure's reductions but in any case commit to implementing the wide range of measures available to encourage the development and installation of clean energy technologies.

II. The County's Contention It Has Limited Options to Control Transportation Emissions Is Belied by Its Control Over General Plan Amendments, Which Would Contribute to Sprawl and Increased VMT.

The CAP states:

On-road internal combustion transportation is the largest contributor to the unincorporated county's GHG emissions. Emissions from on-road

transportation sources accounted for 45% of the unincorporated county's total emissions in 2014.

(CAP, Chapter 3-8.) The CAP continues:

Given that on-road transportation is the largest source of GHG emissions in the county (see Table 2.1), the County has proposed several measures to reduce the number and length of vehicle trips. However, the County has limited options under its control for implementing transportation-based strategies.

(CAP, Chapter 3-3, emphasis added.) The County is wrong.

The County has the discretion to approve or deny General Plan Amendments ("GPAs"), and as the Sierra Club has repeatedly argued, no GPAs to allow greenfield developments which would result in significant GHG emissions should be allowed until the County is on target to achieve the 2030 emission targets.

The County acknowledges the significant role GPAs have on "the ability of the County to meet its targets and goal." (CAP, Chapter 2-14.) Yet, the County concludes that Mitigation Measure GHG-1, which would accomplish GHG reductions primarily through carbon offsets for large projects, including out-of-County, out-of-state, and even international offsets, solves this problem for the County.

With incorporation of Mitigation Measure GHG-1, GPAs listed in the cumulative impact discussion of the Draft SEIR and all future GPAs that propose increased density/intensity above what is allowed in the General Plan will comply with the CAP and; therefore, will not interfere with the County's 2020 and 2030 GHG reduction targets or 2050 goal.

(CAP, Chapter 2-14.) The County's proposed use of out-of-County offsets, which appear to be an easy solution for the County, should not enable the County to continue authorizing large-scale projects, like Newland Sierra, which create sprawl and increase vehicle miles traveled (VMTs). Instead, the County must place strict restrictions on the type of GPAs the County will authorize in order to not dramatically increase emissions through increased VMTs. As described above, the CAP should contain explicit language limiting further growth through GPAs to growth in SANDAG Smart Growth areas.

III. There Is Powerful Evidence That the County's Yet To Be Adopted New CAP Will Not Meet the Requirement to Be Comprehensive.

The December 1, 2017 letter from counsel for Golden Door Spa provided a transcript of statements made by County staff at the October 20, 2017 Planning

Commission informational meeting. These statements indicate that the County is still deciding which measures would be included in the CAP based on a cost-benefit analysis.

Specifically, County staff stated: “When the planning commission considers those measures, you may wish to de-emphasize some policies versus others.” County staff also said:

The County is completing two technical studies to analyze the cost associated with implementing the draft climate action plan. We're preparing a cost effectiveness study to quantify the net benefits received from implementing the proposed measures. The study will develop an estimate of county implementation costs for the CAP and quantify the net benefits received from implementing the proposed measures evaluated against the net cost to participants over the lifetime of all the measures. We're also in the process of conducting an assessment of direct investments to evaluate the cost effectiveness of possible local projects. This study will identify local project types for potential direct investment as detailed in the draft supplemental environmental impact report. And this feasibility study will evaluate the cost effectiveness of direct investments. These studies will be completed before the end of the year and presented to the planning commission and the board in early 2018.

These feasibility studies should have been prepared long ago, before the Draft Revised CAP and EIR were released to the public. A comprehensive plan should be adopted in January or February 2018, as originally represented by the County. Further delays will make it next to impossible to meet requirements for 2020 reductions. While the Sierra Club recognized that preparation of an EIR and a process to prepare a comprehensive plan would take some time, and not meet the County's original commitment, the original commitment the County made in 2011 was for the CAP to be prepared in 6 months. The Court of Appeal in *Sierra Club v. County of San Diego* stated: “As a plan-level document, the CAP is required by CEQA to incorporate mitigation measures directly into the document” [referring to the EIR]. (*Sierra Club v. County of San Diego* (2014) 231 Cal. App. 4th 1152, 1173.) The County's cost-benefit analysis should have been conducted prior to release of the Revised Draft EIR, not after it.

Additionally, the County's suggestion it may “de-emphasize” some mitigation measures is improper if the public does not have an opportunity to comment. The County did not indicate in the Draft EIR that some mitigation measures would be limited or eliminated. Adding or removing mitigation measures may require recirculation. (*See, e.g., Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, see also CEQA Guidelines §15088.5.) Here, the public has not had an opportunity to comment on the additional analysis the County is conducting in its feasibility studies.

Furthermore, there is no such thing as “emphasizing” or “de-emphasizing” mitigation under CEQA. There is a legal standard of definiteness and enforceability and mitigation measures either meet the standard or do not. No sliding scale can be prospectively developed by the County for the degree of “emphasis” to be placed on each mitigation measure. The entire CAP is a mitigation measure – CC-1.2 of the 2011 GPU EIR. Therefore, all of the measures provided must meet the CEQA standards for enforceable mitigation.

The County contends, “[T]he CAP’s GHG reduction measures themselves are not specifically ‘mitigation measures’ as defined under CEQA, nor are they specifically identified as mitigation in either the 2011 GPU PEIR or the Draft SEIR for the CAP.” (FSEIR, p. 8-53.) Here, the County essentially admits in response to comments that the CAP’s GHG reduction measures do not meet the criteria for mitigation measures. This is clear legal error, as the entire CAP is a required mitigation (CC-1.2) for the 2011 General Plan’s climate change impacts.

Though some delay was reasonable in order to prepare an EIR and a more comprehensive list of strategies, the County’s delay has been inordinate. The County has not demonstrated a sense of urgency and has not dedicated the necessary resources to prepare a comprehensive and enforceable CAP. Additionally, there are many other CAPs throughout the state that the County could have drawn from but no evidence that there was a comprehensive review of such plans and adoption of all feasible GHG reduction measures. While we wish the County had done a more thorough job in identifying new strategies within the County to reduce GHG emissions, the Club believes it is important that the County act promptly but that it commit at the same time to strengthening the plan on an accelerated time frame, with new strategies being subject to environmental review.

IV. The County’s Allowance of Out-of-County Offsets Is Inconsistent with the County General Plan’s Requirement to Achieve Specified Greenhouse Gas Emissions Reductions Within the County, and Out-of-County Offsets Are Less Enforceable than Those Within the County and Do Not Generally Achieve the Same Level of Emission Reductions.

Mitigation Measure CC-1.2 of the County’s 2011 General Plan Update provided:

The County Climate Change Action Plan will achieve comprehensive and enforceable GHG emissions reduction of 17% (totaling 23,572 MTC02E) from County operations from 2006 by 2020 and 9% reduction (totaling 479,717 MTC02E) in community emissions from 2006 by 2020.

(SEIR, p. 1-14, emphasis added.) The County specifically agreed that the reductions would be “from County operations” and “community emissions.” The CAP is a

mitigation measure for the 2011 General Plan's climate change impacts. Because the mitigation is for impacts in San Diego County, the County acknowledged that the mitigation need to be in San Diego County.

Leaving no doubt that the GHG emission reductions must occur within the County, the original Climate Action Plan included the following explanation within the section of the CAP entitled "Purpose of the Climate Action Plan":

The CAP was designed to support the following primary functions:

- Mitigate the impacts of climate change by achieving meaningful greenhouse gas (GHG) reductions within the County ...

(County of San Diego Climate Action Plan, Adopted June 2012, p. 3, *emphasis added*.)

In affirming the trial court's conclusion that the County failed to adopt a CAP that complied with the requirements of Mitigation Measure CC-1.2, the Court of Appeal quoted this language, stating: "According to the County, the CAP was prepared for the following purposes: 1. To mitigate the impacts of climate change by achieving meaningful GHG reductions within the County ..." (*Sierra Club v. Cty. of San Diego* (2014) 231 Cal. App. 4th 1152, 1160.)

After adopting the 2011 General Plan Update, the County first attempted to free itself from the constraints of Mitigation Measure CC-1.2 by treating the strategies within the CAP as merely recommendations. (*Sierra Club, supra*, 231 Cal. App. 4th at 1168.) However, the trial court and the Court of Appeal rejected the County's approach. The Court of Appeal stated:

The County agreed to the mitigating requirement of a CAP containing 'comprehensive and enforceable GHG emissions reduction measures that will achieve' the specified GHG reductions by 2020.

(*Ibid.*) As the County now proposes to eliminate the contents of Mitigation Measure CC-1.2 and replace it with entirely new language, we remind the County of its obligation to achieve the GHG reductions *within the County* and to include "comprehensive and enforceable GHG emissions reduction measures that will achieve the specified GHG reductions by 2020." The County's proposal to allow offsets outside of the County, outside of the state, and even outside of the country is not an enforceable mitigation measure and the County has not shown that it is infeasible to achieve such emission reductions *inside* the County. Furthermore, the County has not, and could not demonstrate that it is infeasible to achieve the GHG emission reductions previously required by the County *in* the County.

V. The EIRs for the Newland Sierra Project and the Property Specific Requests General Plan Amendment Show the County Intends to Allow Out-of-County Offsets, Which Does Not Meet the County's Commitment to Emission Reductions in the County and Are Not Enforceable.

Two important events occurred between the release of the Draft SEIR and the Final SEIR on the CAP. First, the County notified members of the public for the first time of the preparation of additional studies after the release of the Draft EIR. At the County's October 20, 2017 Planning Commission informational meeting, County staff indicated that the County is in the process of preparing feasibility studies, despite the fact that the Draft EIR for the Revised CAP had already been released. County staff also suggested that it may "de-emphasize" some mitigation measures, despite the fact that the public would not have an opportunity to comment on this action. Also, the California Air Resources Board (CARB) adopted its 2017 Climate Change Scoping Plan on December 14, 2017, after the release of the County Draft SEIR. The proposed CAP is inconsistent with the Scoping Plan.

As this new information also affects all other projects that require General Plan Amendments (GPAs), please submit this letter into the administrative record for the Newland Sierra Project and all other projects for which GPAs are now pending.

As discussed in Section IV above, Mitigation Measure CC-1.2 of the County's General Plan Update requires the County to achieve specified GHG reductions within San Diego County. However, the Revised CAP and SEIR authorize the use of offsets from outside the County of San Diego. The Draft EIR identifies the County's "priority" list for consideration of GHG reduction features as follows:

- 1) project design features/on-site reduction measures;
- 2) off-site within the unincorporated areas of the County of San Diego;
- 3) off-site within the County of San Diego;
- 4) off-site within the State of California;
- 5) off-site within the United States; and
- 6) off-site internationally.

(SEIR, 2.7-48.)

The Newland Sierra project Draft EIR and the Property Specific Requests General Plan Amendment EIR provide this exact same language quoted above. (Newland Sierra Draft Environmental Impact Report, p. 2.7-48; San Diego County Property Specific Requests General Plan Amendment and Rezone SEIR, pp. 2.17-18, 2.17-19.) The Newland Sierra Draft EIR then adds, "The project applicant or its designee shall first pursue offset projects and programs locally within unincorporated areas of the County of San Diego to the extent such offset projects and programs are financially competitive in the global offset market." (Newland Sierra Draft Environmental Impact Report, p., 2.7-

48.) Allowing developers to purchase out-of-County offsets provided that the developer first concludes that purchasing offsets within San Diego is not “financially competitive in the global offset market” is such a weak standard that defers entirely to the subjective determination of the developer that it provides almost no restriction at all.

The Newland EIR states only 18% of its GHG reductions will come from on-site measures. Thus, 82% of Newland’s GHG emissions reductions would come from outside the County. Additionally, the County has admitted in response to comments that only one project on the CARB-approved registries is in San Diego County and credits are not listed because the trees in the deforestation project have not reached maturity. (Master Response 12 at 8-52.) CEQA’s feasibility requirements have real teeth, and the mitigation measures included in the CAP must be enforceable. The CAP should be revised to address these issues.

Though the County did not prepare the EIR for the Newland Sierra project, CEQA requires that the agency independently perform its reviewing, analytical and judgment functions and to participate actively and significantly in the preparation and drafting process. (*Found. for San Francisco's Architectural Heritage v. City & Cty. of San Francisco* (1980) 106 Cal. App. 3d 893, 908.) Thus, County staff should have rejected the out-of-County approach.

Even if out-of-County offsets were permissible, the offsets analyzed in the CAP and EIRs for County projects would not meet the test to be effective and enforceable. A new report from the European Commission (available at https://ec.europa.eu/clima/sites/clima/files/ets/docs/clean_dev_mechanism_en.pdf) casts serious doubts about international credit schemes, concluding that the vast majority of them likely fail to actually reduce emissions. The report concluded that the international offset system in place in Europe has “fundamental flaws in terms of overall environmental integrity. It is likely that the large majority of the projects ... are not providing real, measurable and additional emission reductions.” (*Id.* at 11, emphasis added.) “Given the inherent shortcomings of crediting mechanisms, [the European Commission] recommends focusing climate mitigation efforts on forms of carbon pricing that do not rely extensively on credits,” the report said, adding that credits should play only a limited role after 2020. (*Ibid.*)

The report examined the Clean Development Mechanism, created under the Kyoto Protocol to allow countries to offset emissions by purchasing credits linked to green-energy projects on an international market. The system allows a power plant in Germany, for example, to buy credits for the emissions savings from a wind farm in India. The problem, the report says, is that the Indian wind farm likely would have been built anyway, even without the credits purchased by the Germans. In emissions-trading lingo, the reduction would be considered not “additional.” “Overall, our results suggest that 85 percent of the projects covered in this analysis and 73 percent of the potential

2013-2020 Certified Emissions Reduction (CER) supply have a low likelihood that emission reductions are additional and are not over-estimated,” said the report. (*Ibid.*) “Only 2 percent of the projects and 7 percent of potential CER supply have a high likelihood of ensuring that emission reductions are additional and are not over-estimated.” (*Ibid.*) In short, the County cannot rely upon out-of-County emissions to achieve the necessary reductions. You might want to add a sentence to say that in-State but out of County reductions may be particularly difficult to obtain because governmental levels throughout the State are struggling with achieving the necessary emission reductions.

Carbon offset credits were included as part of the Kyoto Protocol, but have fallen out of favor after scandals and poor performance. (*Carbon Credits Likely Worthless in Reducing Emissions, Study Says*, available at <https://insideclimatenews.org/news/19042017/carbon-emissions-credits-paris-climate-agreement>.) Some countries now decline to use them and the European Union plans to prohibit international trading after 2020, instead focusing on the European Union’s domestic emissions reduction target. (https://ec.europa.eu/clima/policies/ets/credits_en.) International offset programs may have other unintended environmental and social consequences. Some tree-planting projects in Guatemala, Ecuador and Uganda have been accused of disrupting water supplies; evicting thousands of villagers from their land; seizing grazing rights from farmers; cheating local people of promised income; and running plantations where the soil releases more carbon than is absorbed by the trees. (*The Inconvenient Truth About the Carbon Offset Industry*, available at <https://www.theguardian.com/environment/2007/jun/16/climatechange.climatechange>.)

International offset credits, which may include reductions in deforestation, should not be used to offset GHG emissions from transportation sources, which primarily burn fossil fuels. A Greenpeace report concludes “forests cannot offset fossil fuel emissions” because forest carbon is different than fossil carbon. (*Flawed Logic: Why Forests Cannot Offset Fossil Fuel Emissions*, available at <http://www.greenpeace.org/international/Global/international/briefings/forests/2013/Offsets-briefing-Flawed-Logic.pdf>.) The report explains, “Burning fossil fuel instantly, and almost irreversibly, releases additional CO₂ into the atmosphere. Forests, on the other hand, take up CO₂ only slowly, and even then only a portion of fossil emissions can be taken up. Allowing forests to be used as offsets would set us on a trajectory of burning even more of the fossil fuels that we need to leave in the ground in order to avoid catastrophic climate change. Our only chance to stop climate change is to avoid carbon emissions from all sources, meaning that we need to ultimately end burning fossil fuels while at the same time protecting forests.”

VI. The County's CAP Conflicts with CARB's Updated Scoping Plan and Updated Regional SB 375 Targets.

You have already been advised in a November 30, 2017 letter from the Endangered Habitats League that the CAP needs to account for the California Air Resources Board's (CARB) Scoping Plan. On December 14, 2017, CARB adopted the 2017 Climate Change Scoping Plan, the strategy for achieving California's 2030 greenhouse gas emissions target. (*California's 2017 Climate Change Scoping Plan: The Strategy for Achieving California's 2030 Greenhouse Gas Target*, available at https://www.arb.ca.gov/cc/scopingplan/scoping_plan_2017.pdf.) Developing and updating this Scoping Plan provides a road map of how the state intends to meet its climate goals with an increased focus on air quality.

The 2017 Climate Change Scoping Plan indicates that reducing vehicle miles traveled (VMT) is essential to reducing GHG emissions and enabling the State to meet its climate change goals. The Scoping Plan provides:

While the State can do more to accelerate and incentivize these local decisions, local actions that reduce VMT are also necessary to meet transportation sector-specific goals and achieve the 2030 target under SB 32. Through developing the Scoping Plan, CARB staff is more convinced than ever that, in addition to achieving GHG reductions from cleaner fuels and vehicles, California must also reduce VMT. Stronger SB 375 GHG reduction targets will enable the State to make significant progress toward needed reductions, but alone will not provide the VMT growth reductions needed; there is a gap between what SB 375 can provide and what is needed to meet the State's 2030 and 2050 goals. In its evaluation of the role of the transportation system in meeting the statewide emissions targets, CARB determined that VMT reductions of 7 percent below projected VMT levels in 2030 (which includes currently adopted SB 375 SCSs) are necessary. In 2050, reductions of 15 percent below projected VMT levels are needed. A 7 percent VMT reduction translates to a reduction, on average, of 1.5 miles/person/day from projected levels in 2030. It is recommended that local governments consider policies to reduce VMT to help achieve these reductions, including: land use and community design that reduces VMT; transit oriented development; street design policies that prioritize transit, biking, and walking; and increasing low carbon mobility choices, including improved access to viable and affordable public transportation and active transportation opportunities. It is important that VMT reducing strategies are implemented early because more time is necessary to achieve the full climate, health, social, equity, and economic benefits from these strategies.

(2017 Climate Change Scoping Plan, p. 150, emphasis added.)

CEQA sets out a fundamental policy requiring agencies to “integrate the requirements of this division with planning and environmental review procedures otherwise required by law or by local practice so that all those procedures, to the maximum feasible extent, run concurrently, rather than consecutively.” (*Banning Ranch Conservancy v. City of Newport Beach* (2017) 2 Cal. 5th 918, 936 (2017), citing Pub. Res. Code § 21003, subd. (a).) The CEQA Guidelines similarly specify that “[t]o the extent possible, the EIR process should be combined with the existing planning, review, and project approval process used by each public agency.” (Guidelines, § 15080.) Thus, lead agencies should integrate CEQA review with related environmental review and consultation requirements found in federal, state or local laws. Here, the County should integrate CEQA review with the environmental review contained in the 2017 Climate Change Scoping Plan.

The Draft SEIR for the CAP does not analyze or provide separate metrics for measuring VMT. It should analyze how adoption of the CAP may impact SANDAG’s ability to adopt a Regional Transportation Plan/Sustainable Communities Strategy that complies with CARB’s new targets outlined above. Allowing unplanned sprawl development in the County would frustrate efforts to reduce VMT consistent with SB 375 and CARB’s new targets.

The failure to analyze the consistency of the CAP with CARB’s Updated Scoping Plan would make the CAP inadequate. Regardless of whether it is legally permissible for the County’s CAP to conflict with CARB’s plan, at a minimum the County has to revise its Draft EIR for the CAP to explain these conflicts with CARB policies, and provide a new public review period on the Draft EIR to inform the public of this issue.

VII. The CAP Should Show Emissions Reductions to at Least 2035, and A Trajectory to Meet the State’s 2050 Emission Reduction Goals.

The CAP should be coordinated with the efforts of SANDAG to reduce transportation emissions. In doing so, the County should consider the impact of the recently published *Cleveland National Forest Foundation v. San Diego Association of Governments* (2017) 17 Cal. App. 5th 413 (hereinafter “*CNFF v. SANDAG*”) opinion on the CAP. As background, the Legislature enacted Senate Bill 32 (2015–2016 Reg. Sess.), adding Health and Safety Code section 38566, which adopts a goal of reducing GHG emissions by 40 percent below 1990 levels by the year 2030. The legislation directs CARB to craft regulations to implement its goal. (Health & Saf. Code, § 38566.) In enacting Senate Bill 375, the Legislature found the state’s emissions reductions goals cannot be met without improved land use and transportation policy. Consequently, Senate Bill 375 (Gov. Code, § 65080, subd. (b)(2)(B)) mandates the transportation plan include a Sustainable Communities Strategy to, as the EIR at issue in *CNFF v. SANDAG*

states, “guide the San Diego region toward a more sustainable future by integrating land use, housing, and transportation planning to create more sustainable, walkable, transit-oriented, compact development patterns and communities that meet [CARB's greenhouse gas] emissions targets for passenger cars and light-duty trucks.” (*CNFF v. SANDAG*, 17 Cal. App. 5th at 429.)

In enacting SB 375, the Legislature found automobiles and light trucks are responsible for 30 percent of the state's greenhouse gas emissions. (Stats. 2008, ch. 728, § 1, subd. (a).) Accordingly, SB 375 directed CARB to develop regional greenhouse gas emission reduction targets for automobiles and light trucks for 2020 and 2035. (Gov. Code, § 65080, subd. (b)(2)(A).) The targets established by CARB for the San Diego region require a 7 percent per capita reduction in carbon dioxide emissions by 2020 and a 13 percent per capita reduction by 2035 (compared to a 2005 baseline). CARB must update these targets every eight years until 2050. (Gov. Code, § 65080, subd. (b)(2)(A)(iv).)

The Court of Appeal in *CNFF v. SANDAG* concluded the Sustainable Communities Strategy EIR at issue in that case was “deficient in several respects – most particularly by focusing alternatives on traffic congestion relief rather than lower vehicle miles traveled.” (*CNFF v. SANDAG*, 17 Cal. App. 5th at 436.) The court added, “The omission of an alternative which could significantly reduce total vehicle miles traveled is inexplicable given SANDAG’s acknowledgements in its Climate Action Strategy that the state’s efforts to reduce greenhouse gas emissions from on-road transportation will not succeed if the amount of driving, or vehicle miles traveled, is not reduced.” (*Ibid.*) The court said it was reasonable to expect “at least one project alternative to have focused primarily on significantly reducing vehicle trips.” (*Id.* at 437.)

This decision highlights the importance of focusing on reducing VMTs to reduce GHG emissions. The CAP EIR’s proposed strategies to reduce VMTs are vague and undeveloped. For example, the CAP proposes to “expand community bicycle infrastructure.” (CAP SEIR, p. 2.7-13.) However, the EIR does not provide the details on how this measure, or other specified measures, would be implemented. Furthermore, the EIR neither commits the funding necessary to achieve the specified objectives, nor provides timelines for each of the measures identified. The County should commit funding now to implement the specified measures, and detail how the funds are to be spent according to a specific schedule. If the County waits until after the Community Plans are updated, this could be years.

Many other communities have adopted effective CAPs, which could be used as a guide for the County, including, for example, the County and City of San Francisco’s CAP. San Francisco’s CAP has a solid waste diversion goal of 75% diversion by 2010 and zero waste by 2020. In contrast, the County’s CAP proposes 75% diversion in another twelve years and zero waste by 2050, which is 32 years away. Why is the

County unable to achieve the reduction goals set in a comparable county? Yet, the County has not discussed whether staff has reviewed any other CAPs from other jurisdictions, or why similar measures adopted in other jurisdictions could not be implemented in San Diego County.

VIII. The Sierra Club's Proposed Mitigation Measures Are Feasible and Must Be Analyzed.

During the environmental review of the CAP adopted in 2012, the Sierra Club provided specific examples of feasible GHG reduction measures that would actually reduce GHG emissions and could be adopted without delay. (See, e.g., Exhibit A, September 25, 2017 Letter from Chatten-Brown and Carstens, Reference A, *A Plan to Efficiently and Conveniently Unbundle Car Parking Costs*.) These measures include reducing parking, requiring shared parking, and the best practice of unbundling the cost of parking. (*Ibid.*) In *Sierra Club v. County of San Diego* (2014) 231 Cal. App. 4th 1152, 1176, the Court of Appeal agreed with the Sierra Club, stating, "Sierra Club provided feasible mitigation measures. The County rejected these mitigation measures without substantial evidence for doing so."

The County provided the following response to the Sierra Club's proposed mitigation measure:

Upon careful consideration and evaluation, the County determined that a program to unbundle the cost of parking from County employees' salaries, as recommended in this comment and described more fully in comment O22-35, would be infeasible as a GHG reduction measure in the CAP at this time. County employees work in widely varying roles and in diverse locations where parking is either free and plentiful or expensive and precious. Calculating a fair unbundled charge applicable to all County employees would be virtually impossible under these varied conditions. Even if calculating a fair unbundled charge was possible, free or subsidized parking is currently a benefit provided to all County employees; therefore, to institute such a policy would affect County employee's Terms and Conditions of Employment, which would require negotiation and agreement from each of the County's nine labor unions, something that cannot be guaranteed at this time.

(Response to Comment Letter O22, p. 5.)

The County's defense of its refusal to unbundle the cost of parking from County employees' salaries is unavailing. The idea that the County provides free parking for employees is the problem. The fact that the County would have to negotiate with unions is not an excuse not to make this change. The County could

provide free bus passes and phase in parking fees over time, and perhaps run buses for County employees if there are enough employees at certain locations.

The County claims it currently subsidizes monthly transit passes, vanpool, and carpool services for employees in an effort to reduce air pollution, and ease traffic and parking congestion. However, no data to support this contention is provided. This information is necessary to evaluate what percentage of employees are participating in this program and examine its efficacy. Additionally, the County should set VMT reduction goals for its own fleet and set forth strategies for meeting these goals.

IX. Faced with Significant Fire, Water Supply, and Flooding Impacts of Climate Change, the County Must Act Promptly Now to Adopt the Most Effective Climate Action Plan Possible, and Then Provide Regular Updates.

Climate change has significant impacts on fire, water supply, and flooding. A research meteorologist with Scripps Institution of Oceanography at the University of California San Diego concluded that climate change is a major culprit in the wildfires that recently raged across Southern California. (*Climate Change A Major Culprit In Explosive Wildfires, Says San Diego Researcher*, available at <http://www.kpbs.org/news/2017/dec/12/climate-change-major-culprit-explosive-wildfires-s/>.) This conclusion is supported by a body of science that has drawn connections in the West between the prevalence of major wildfires and the rising frequency of earlier springtime conditions followed by hotter and drier summers.

(*Climate Change Expected to Fuel Larger Forest Fires — If It Hasn't Already*, available at <http://www.sandiegouniontribune.com/news/environment/sd-wildfire-climate-change-20170704-story.html>.) The California Department of Forestry and Fire Protection 2017 year-end report shows that five of the top 20 most destructive fires in the state's history occurred last year. (*Cal Fire Report Shows 2017 Nearly Doubled the Number of Wildfires in 2016*, available at <https://www.nbcsandiego.com/news/local/2017-Nearly-Doubled-Wildfires-in-2016-Cal-Fire-467800333.html>; *Top 20 Most Destructive California Wildfires*, available at http://www.fire.ca.gov/communications/downloads/fact_sheets/Top20_Destruction.pdf.)

In turn, these wildfires release powerful pollutants known as black carbon. The U.S. Forest Service estimates that the 2013 Rim Fire in central California spewed out the equivalent of the carbon dioxide emissions from 3 million cars. (*In California's Wildfires, A Looming Threat To Climate Goals*, available at <http://www.kpbs.org/news/2017/dec/20/californias-wildfires-looming-threat-climate-goals/>.) That is a major setback to the state's effort to reduce GHG emissions, and the recent fires in San Diego County, as well as future wildfires in the County, will likewise

frustrate the County's effort to reduce GHG emissions. The massive release of carbon from wildfires not only will make it more difficult for San Diego County to achieve its GHG reduction targets, but wildfires also eliminate trees, which are an excellent natural carbon dioxide absorber. Additionally, these pollutants have significant impact on air quality.

Climate change will have a significant impact on San Diego's water as well, leading to hotter, drier weather in San Diego, but also more frequent floods caused by larger storms. Water supply will be diminished but water demand is expected to increase. (*What Climate Change Means for San Diego's Water*, available at <https://www.newsdeeply.com/water/articles/2016/06/13/what-climate-change-means-for-san-diegos-water>.) A San Diego Foundation report on climate impacts in San Diego, prepared by climate scientists from the Scripps Institution of Oceanography at the University of California, San Diego predicts a 12 percent reduction in the runoff and stream flow that replenish the area's major water sources. (*Economic Resilience: Water*, available at <https://www.sdfoundation.org/wp-content/uploads/2016/04/economic-resilience-water.pdf>.) Meanwhile, by 2035, demand for water is expected to increase by 46 percent. (*Ibid.*) Water shortages affect consumers, wildlife and crop production, and agriculture, ecosystems, and urban areas compete for reduced water. (*Ibid.*) While the San Diego region will experience fewer rainy days, there will be more rain during large, intense storms, which could lead to more frequent flooding. (*Ibid.*)

Climate change has largely been defined as an environmental issue, with the worst effects decades or centuries away. But a new report from a commission convened by the medical journal *The Lancet*, one of the world's most prestigious medical journals, says that climate change is already harming human health on a vast scale. (*Climate Change Is Bad for Your Health*, available at <https://www.nytimes.com/2017/10/30/opinion/climate-change-health-heat.html>; *The Lancet Countdown on Health and Climate Change: From 25 years of Inaction to a Global Transformation for Public Health*, available at [http://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(17\)32464-9](http://www.thelancet.com/journals/lancet/article/PIIS0140-6736(17)32464-9).)

In light of these significant impacts, the County must act urgently to adopt the most effective CAP possible. However, in light of the significant deficiencies described above and in the previous comment letter we submitted to the Planning Department, and based upon points made by others, and the rapidly advancing science of climate change, there should be on-going updates to the CAP every two to three years. The Sierra Club recommends the County develop a Scientific and Technical Advisory Committee to advise the County. Additionally, we recommend there be a Community Advisory Committee formed, including the Sierra Club, that would regularly meet with County staff to discuss and recommend to the Planning Commission and the Board improvements to the CAP.

CONCLUSION

On behalf of all residents of the County of San Diego, the Sierra Club urges the County to adopt the most effective CAP possible, ensuring that the CAP puts measures in place to achieve at a minimum the comprehensive and enforceable GHG emissions reductions the County agreed to as a mitigation measure for the County's 2011 General Plan Update. The Sierra Club believes there should be no new GPAs unless the County can show it can achieved the emissions reductions it committed to pursuant to its previous increases in development. There are fundamental problems with the GPAs currently being considered, and their processing should be shelved. Until a comprehensive CAP is finally in place, no further GPA amendments should be considered.

The Sierra Club wants an enforceable CAP in place as soon as possible and hopes to avoid additional litigation. To that end, we propose the following resolution. First, the County would agree to implement the changes proposed by the Sierra Club and others that would strengthen the CAP prior to the Board of Supervisors' consideration of the CAP. Most importantly, the County must eliminate the use of out-of-County offsets. Second, the County would agree to not further process any additional GPAs until a further revision of the CAP adequately addresses the remaining issues that cannot be addressed in the short-term. Third, the County would commit to further update the CAP within one year, and thereafter reevaluate and update the CAP as necessary every three years. Finally, the County would agree to engage the Sierra Club and other interested groups in an advisory capacity for all future CAP updates.

If the County fails to adopt a plan that addresses the critical issues that have been raised from the Sierra Club and other organizations, refuses to commit to no further GPAs until the CAP is revised to address the issues raised in this letter and the Sierra Club's prior letter, and is unwilling to engage in a process for ongoing review, the Sierra Club will have no option other than to return to court to challenge the County's Revised CAP and any further GPA amendments that allow significant sources of GHG emissions to be constructed in the County. This is not in the best interest of the County, the Sierra Club, or the residents of the County. Therefore, we urge the County to adopt a legally adequate and enforceable CAP that cures the deficiencies identified in this letter, and to act quickly.

Sincerely,



Josh Chatten-Brown
Jan Chatten-Brown

Attorneys for Sierra Club

San Diego County Planning Commission

January 16, 2018

Page 19

cc:

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San Diego Association of Governments

EXHIBIT A



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September 25, 2017

By e-mail: CAP@sdcounty.ca.gov

Planning and Development Services
County of San Diego
Attn: Maggie Soffel
5510 Overland Avenue
San Diego, CA 92123

**Re: Comments on San Diego Climate Action Plan (PDS2015-POD-15-002)
and Draft Supplemental Environmental Impact Report (PDS2016-ER-
16-00-003)**

Dear Ms. Soffel:

The law firm of Chatten-Brown & Carstens represents the Sierra Club on matters relating to the County's preparation of its revised Climate Action Plan ("Revised CAP") and Supplement to the 2011 General Plan Update Program Environmental Impact Report ("Supplemental Environmental Impact Report," or "SEIR").

As described more fully below, the Revised CAP and SEIR are legally inadequate by modifying or effectively deleting Mitigation Measure CC-1.2 without additional analysis; erroneously claiming that 2014 is the first year data was available for a greenhouse gas (GHG) inventory; allowing out-of-County offsets; failing to require a reduction in vehicle miles traveled (VMT's) for housing projects; providing only a token annual reduction of VMT's for County employees; and failing to exercise its influence to encourage the San Diego Airport Authority to reduce GHG emissions reductions from airport ground operations, increasing public transit to the airport, and reducing emissions from vehicles serving the airport. Of great importance, no open lands should be annexed or rezoned for greater development until there is an adequate CAP that actually achieves the 2020 emission reduction goals the County agreed to in its 2011 General Plan Update.

In addition to this letter addressing legal issues, we also incorporate herein the September 25, 2017 Sierra Club San Diego comment letter prepared by Mike Bullock, Chair of the Sierra Club San Diego's Transportation Subcommittee. The Sierra Club San

Diego's comment letter, attached as **Exhibit A**, has detailed strategies that must be evaluated to assure a legally adequate Revised CAP and SEIR.

We request the County perform additional analysis of the issues described below and those set forth in Mr. Bullock's letter. Once additional analysis has been performed, this analysis, along with additional enforceable and effective mitigation measures, must be set forth in a Revised SEIR. The SEIR must then be recirculated so that the public and public agencies may comment on this information, as required by CEQA.

I. The Revised CAP and SEIR Eliminates the Specified Greenhouse Gas Emissions Reductions from 2006 Levels by 2020.

Mitigation Measure CC-1.2 of the County's 2011 General Plan Update required the County to:

Prepare a County Climate Change Action Plan with an update[d] baseline inventory of greenhouse gas emissions from all sources, more detailed greenhouse gas emissions reductions targets and deadlines; and a comprehensive and enforceable GHG emissions reduction measures that will achieve a 17% reduction in emissions from County operations from 2006 by 2020 and a 9% reduction in community emissions between 2006 and 2020.

(SEIR, p. 1-14.)

However, the Revised CAP and SEIR eliminate this requirement and replace it with general reductions of GHG emissions "consistent with state-legislative targets." (SEIR, p. 1-16.) This action is proposed even though Judge Taylor specifically rejected a proposed Supplemental Writ that would have allowed the County to amend or delete GHG mitigation measures adopted in 2011.

While generally mitigation conditions can be modified or deleted, the County made a firm commitment to reducing GHG emissions by 2020 when it adopted the 2011 General plan Update. Further, measures generally can only be deleted if they have become impractical or unworkable and the conclusion that they are is supported by substantial evidence. (*Lincoln Place Tenants Ass'n v. City of Los Angeles* (2007) 155 Cal. App. 4th 425, 449.) If the County continues to seek to modify or effectively delete Mitigation Measure CC-1.2, the SEIR must analyze why this measure has become impractical or unworkable. If the County does not demonstrate that Mitigation Measure CC-1.2 is impractical or unworkable, the County must show that the pro rata share of Mitigation Measure CC-1.2's GHG reductions have been achieved for County operations and community emissions.

II. The County's Claim It Does Not Have Baseline Data for Its GHG Inventory Prior to 2014 Is Belied By Its 2012 CAP, Which States the County Prepared Inventories With Baseline Years of 2005 and 2006.

In preparing its GHG inventory for the Revised CAP, the County uses baseline data from 2014. The County argues, "The County's base inventory of GHG emissions evaluated activities within the unincorporated county in the year 2014, the most recent year data is available." (SEIR, p. 1-6.) However, this conflicts with the 2012 CAP, which states the County prepared inventories with baseline years of 2005 and 2006. The 2012 CAP provides:

The County prepared baseline inventories at the community-wide and local government levels. The community-wide inventory has a baseline year of 2005, and emissions are limited to the County's unincorporated communities. The local government inventory has a baseline year of 2006 and only includes emissions related to County government operations. Each inventory is used to establish a baseline level of emissions, which then serves as the starting point for forming emissions reduction targets and as a tool to gauge the performance of emissions-reduction measures.

(2012 CAP, p. 14, emphasis added.) The SEIR must explain why the County did not use the 2005 and 2006 GHG inventories, as well as provide an analysis of how the 2014 GHG inventory compares to the previously prepared inventories.

The County's decision to use 2014 as the baseline year from which it will establish the 2020 and 2030 CAP targets and 2050 goal must demonstrate that using this baseline will result in reductions that are equal or greater to reductions using a 1990 benchmark. In the event the County argues that data prior to 2014 is inadequate, the County should address the 1990 GHG emissions inventory estimate for San Diego County that has been prepared. That estimate is discussed in the document entitled, "An Analysis of Regional Emissions and Strategies to Achieve AB 32 Targets Revised and Updated to 2010." (Available at <http://catcher.sandiego.edu/items/usdlaw/EPIC-GHG-2013.pdf>). Presumably, the County's share of the total 1990 San Diego County GHG emissions could be developed from that data.

III. The Allowance of Offsets From Outside the County of San Diego Is Inconsistent with the County General Plan's Requirement to Achieve Specified Greenhouse Gas Emissions Reductions in the County.

Mitigation Measure CC-1.2 of the County's General Plan Update requires the County to "achieve a 17% reduction in emissions from County operations from 2006 by 2020 and a 9% reduction in community emissions between 2006 and 2020."

The Revised CAP and SEIR authorize the use of offsets from outside the County of San Diego. The Draft EIR identifies the County's "priority" list for consideration of GHG reduction features as follows:

1) project design features/on-site reduction measures; 2) off-site within the unincorporated areas of the County of San Diego; 3) off-site within the County of San Diego; 4) off-site within the State of California; 5) off-site within the United States; and 6) off-site internationally.

(DEIR, 2.7-48.) These offset priorities, which allow offsets outside of the County, outside of the state, and even outside of the United States, only have to be considered "to the satisfaction of the Director of Planning Development Services." (SEIR, p. 2.7-38.) This provision would impermissibly purport to give the County wide latitude to allow essentially unrestricted use of international credits to balance out local GHG emissions created by County projects. The use of offsets is inconsistent with the County's Mitigation Measure CC-1.2 to reduce GHG emissions *within the County of San Diego* by specified reduction amounts.

IV. The CAP Lacks A Requirement to Reduce VMT's from Newly Planned Housing Projects.

The CAP identifies Strategy T-1, which is intended to "Reduce Vehicle Miles Traveled." The CAP contains three measures designed to reduce achieve Strategy T-1: Measure T-1.1 - Acquire Open Space Conservation Land; Measure T-1.2 - Acquire Agricultural Easements; and Measure T-1.3 - Update Community Plans.

The CAP's strategy is an important one. The CAP purports to focus on density in the county villages. (CAP, p. 3-9.) "Focusing new development in and around existing unincorporated communities allows the County to maximize existing infrastructure ... By not developing housing in the more remote areas, the county will avoid GHG emissions from transportation ..." (*Ibid.*) The Sierra Club fully supports this goal.

However, none of the three measures the County identifies contains any enforceable requirements to locate residential housing closer to major sources of employment and transit. Mitigation Measure CC-1.15 does not include anything about limiting VMT's from newly planned housing projects. In fact, as discussed below, by allowing developers to purchase "carbon offsets" instead – which may even be based upon GHG emission reductions outside of the United States – the CAP actually facilitates sprawl.

The County may argue that Measure T-1.3 – Update Community Plans will assist in locating residential housing closer to jobs and transit. However, updating Community Plans does not address residential housing on a countywide basis. Additionally, the

County improperly passes responsibility for something that is clearly within its control – land use planning in the County – to individual communities.

The CAP's failure to address VMT's from newly planned housing projects is inconsistent with the Sustainable Communities and Climate Protection Act of 2008 (Sustainable Communities Act, SB 375, Chapter 728, Statutes of 2008), which supports the State's climate action goals to reduce GHG emissions through coordinated transportation and land use planning with the goal of more sustainable communities. The County should use its power to establish land use planning priorities for residential housing development in order to reduce VMT's.

Pursuant to SB 375, Metropolitan Planning Organizations, including the San Diego Association of Governments (SANDAG), are required to adopt strategies that show prescribed land use allocation in their regional transportation plans. SANDAG's Regional Plan (available at http://www.sdforward.com/pdfs/RP_final/The Plan - combined.pdf; October 2015) states, "More than 80 percent of new housing in the region will be attached multifamily" (p. 34). The plan also states, "By 2050, 87 percent of the region's new housing and 79 percent of new jobs will be situated within a half-mile of public transit." (p.75) "The projected increase in new housing capacity is generally higher for areas with densities above 20 dwelling units per acre." (Appendix C, Table C.3.) The County should analyze how SANDAG's estimates are impacted by the County's land use planning.

V. The CAP's 1.5% Annual Reduction of VMT's for County Employees Is Inadequate.

The County is one of the largest employers in San Diego County, and thus, the County has a huge amount of leverage to make significant GHG emissions reductions by taking actions to reduce VMT's for its employees. For example, San Luis Obispo County found that "two-thirds of the county government's greenhouse gas emissions are caused by employees commuting to and from work." ("SLO County Supervisors Approve Flex-time, Telecommuting Policies," available at <http://www.sanluisobispo.com/news/local/article39123279.html>.)

The CAP proposes Mitigation Measure T-2.3 to "[r]educe County employee commute Vehicle Miles Traveled (VMT) by 20% by 2030." However, this amounts to an annual reduction of VMT's of merely 1.5%. Facing a huge challenge to achieve significant GHG emissions reductions, a 1.5% annual reduction of VMT's is minimal and additional reductions of VMT's are feasible and necessary. Please see additional analysis of this issue in the Sierra Club San Diego's comment letter attached as **Exhibit A**.

VI. The Revised CAP and SEIR Must Account for GHG Emissions from County Airport Ground Operations.

San Diego International Airport is owned and operated by the San Diego County Regional Airport Authority. (<http://www.san.org/Airport-Authority/About-the-Authority>.) The Board of Supervisors appoints a representative to that Board. (<http://www.sandiegocounty.gov/dpw/airports.html>.)

Cities and counties that have an airport and an adopted CAP, frequently include the GHG generation of the airports' ground operations. Examples include the County of Sacramento, the City/County of San Francisco, and the cities of Fullerton and Livermore. These emissions are often significant. Sacramento County Airport, owned and operated by the Sacramento County Airport System, provides a useful comparison to San Diego County. The County of Sacramento prepared a CAP that included GHG emissions from airport ground operations in the GHG inventory. (http://www.ca-ilg.org/sites/main/files/file-attachments/sac_030843.pdf, p. 26.) The Sacramento County CAP concluded that 31% of total government emissions in the County came from operation of the Sacramento International Airport, including ground support equipment, roadways, and parking (but excluding aircraft emissions).

San Diego County should include airport ground operations in its GHG inventory, and provide an analysis of what percentage of total government emissions in the County stem from airport ground operations and work with the Airport Authority to reduce those emissions.

VII. The County Should Show Compliance with the 2011 General Plan Update's Mitigation Measures Prior to Annexations or Rezoning of Open Lands.

Finally, until a valid, legally adequate CAP is in place that demonstrably will achieve the 2020 emission reduction goals set out in the 2011 General Plan Update, no lands that are currently "greenfields" should be annexed and no General Plan Amendment should be authorized that would allow more intense development of those lands.

CONCLUSION

The SEIR must be revised with this new information and then recirculated for public comment. (CEQA Guidelines section 15088.5.) Pursuant to Public Resources Code section 21092.2, we request all notifications regarding this Project.

Thank you for your consideration.

Soffel
September 25, 2017
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Sincerely,

A handwritten signature in black ink, appearing to read "Josh CB", written in a cursive style.

Josh Chatten-Brown
Attorney for Sierra Club

EXHIBIT A



San Diego Chapter
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Sept. 25, 2017

County of San Diego
ATTN: Maggie Soffel
Climate Action Plan SEIR
Planning & Development Services
Project Processing Counter
5510 Overland Avenue, Suite 310
San Diego, CA 92123

Email: CAP@sdcounty.ca.gov

Via E-mail

Subject: COUNTY OF SAN DIEGO CLIMATE ACTION PLAN (PDS2015-POD-15-002),
GENERAL PLAN AMENDMENT (PDS2016-GPA-16-007), DRAFT SEIR (LOG NO.
PDS2016-ER-16-00-003)

Land Use/Environmental Planner Soffel,

We appreciate the opportunity to comment on this project. At the same time, we regret that the County failed in its first effort to produce an acceptable set of CAP and CEQA documentation. We also regret that our efforts to provide feasible mitigation measures are still being ignored. We are also disappointed that your current efforts seems to plan for and thus enable sprawling, vehicle-miles-travelled-inducing (VMT-inducing) development, beyond what is allowed in the current General Plan.

In your Notice of Preparation (NOP) for this project, the Appellate Court ruling is properly identified. The precedent-setting, published ruling is Reference 1 of this letter.

Your NOP properly stated that the

Fourth District Court of Appeal held that the 2012 CAP did not meet the description set forth in the adopted mitigation measure (GPU PEIR Mitigation Measure CC-1.2) and that an EIR was needed for the plan.

However, there was much more to the ruling. For example, the ruling also said:

The Sierra Club provided feasible mitigation measures. The County rejected these mitigation measures without substantial evidence for doing so.

The County must admit this error and devise a strategy to ensure that it is not repeated. To our knowledge, the County has not admitted this error and is once again ignoring the feasible mitigations we proposed, in detail, during the last effort to produce an acceptable

CAP. We have proposed these mitigations, over and over, since that failed effort. Ignoring measures that might offend the political sensitivities of the Board of Supervisors, for example, is understandable but is also a path to CEQA violation.

Chapter 1 Project Description

On Page 1-1 the Project Description says, “The fundamental purpose of the project is to reduce County GHG emissions consistent with state legislative requirements”.

This stated fundamental purpose is incongruent with CEQA and the anthropogenic climate crisis humanity must confront and solve.

CEQA requires an analysis which uncovers and clearly describes the physical-world results to expect, from doing the project, considering the well-established concept of cumulative impacts of other such projects. The primary question posed by our anthropogenic climate crisis is whether humanity can stabilize the climate at a livable level or whether our greenhouse gas (GHG) emissions will cause our planet’s climate system to destabilize, causing a devastating collapse of the human population, leading to our extinction and the loss of most of the other life forms currently living on our planet. There is nothing provided in the SEIR Documents linking state legislative requirements with the climate stabilization question.

We will now show that the state legislative requirements will not result in avoiding climate destabilization.

From

http://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf (with excerpts shown in Reference 2) comes the following ominous information:

1. Scientific research indicates that an increase in the global average temperature of 2°C (3.6°F) above pre-industrial levels, which is only 1.1°C (2.0°F) above present levels, poses severe risks to natural systems and human health and well-being.
2. To have a good chance (not a guarantee) of avoiding temperatures above those levels, studies focused on a goal of stabilizing the concentration of heat-trapping gases in the atmosphere at or below the 450 parts per million (ppm) CO₂-equivalent (CO₂e, a metric that combines the climate impact of all well-mixed GHGs, such as methane and nitrous oxide, in terms of CO₂).
3. The CO₂e target is a somewhat approximate threshold, and the exact level of CO₂e is not precisely known because the sensitivity of the climate system to GHGs has uncertainty. Different models show slightly different outcomes within this range. An example of a pre-IPCC assessment study (Meinshausen et al. 2009)¹⁵ which has synthesized many studies on climate sensitivities, concluded that we would need to stabilize at about 400 ppm CO₂e

Item 3 should bring shivers of fear and tears of regret. We are already at 410 PPM and we are far from reducing our emissions enough to stop atmospheric CO₂e from going up. To do that, the industrial countries would need to reduce their emissions to 80% below their 1990 emission levels, which is the basis for California’s Executive Order S-3-05 (“S-3-05”), which is an order to achieve the 80% below 1990 emission levels by the year of 2050. The problem is that the S-3-05 target is for year 2050 and that is obviously far too late, based on the 3 items above.

Humanity might have a chance to stabilize the climate at a livable level if we achieve emissions that are 80% below our 1990 emission levels by 2030. However, our current state mandate, SB 32, is to reduce our emissions to 40% below our 1990 levels by 2030. To support the achievement of climate-stabilizing targets, California must double its SB 32 mandate, from 40% to 80% or, stated another way, achieve its S-3-05 target 20 years sooner.

Project Background

The section leaves out fact that the County ignored the primary San Diego Sierra Club mitigation measure of installing a car-parking system that gives its employees more choice over how they spend their wage, while significantly reducing the frequency of the choice of arriving at work in a single-occupancy vehicle (SOV). The current project again ignores that mitigation measure, in clear violation of CEQA law, as has been established in the last lawsuit.

We also disagree with the premise of the third purpose stated on Page 1-4. Given that the earth's atmospheric CO₂ is at the outrageous value of 410 parts per million (PPM) and going up significantly every single year, there can be no "GHG Threshold" below which there is some reason that the emission can be deemed "insignificant". Every project must be shown to fall within the General Plan and the Climate Action Plan and the public must be invited to suggest mitigation measures to reduce emissions further. This means all projects must go through a CEQA evaluation. As stated in CARB scoping plan documentation, in all cases, mitigation measures must be adopted if they are "technologically feasible and cost effective".

GHG Emissions Inventory

We thank you for this information and point out that On Road Transportation category, at 45%, is larger than the next three categories of Electricity (24%), Solid Waste (11%) and Natural Gas (9%). Cars and Light duty trucks, or "light duty vehicles" or "LDVs" emit most of the On Road GHG and deserve significant focus. For electricity the achieved target must be 100% renewable by 2035 and we are severely disappointed that the Board recently decided to not participate in a feasibility study of establishing a Community Choice Energy District, under California Community Choice Aggregation (CCA) law.

General Plan Amendment

We appreciate your documentation about what you are proposing. However, it is unfortunate that you are undermining CEQA, or at least making the task of advocates much more difficult, by emitting the important words, "enforceable measures". By doing that you may make the plan a useless exercise, with nothing guaranteed. If measures are not enforceable what good are they? Why leave out those critically important words?

Here is the existing (2011) Goal, with highlights added:

GPU Policy COS-20.1 (Climate Change Action Plan)

Prepare, maintain, and implement a climate change action plan with a baseline inventory of GHG emissions from all sources; GHG emissions reduction targets and deadlines, and **enforceable** GHG emissions reduction **measures**.

Here is what you are proposing:

GPU Policy COS-20.1 (Climate Change Action Plan)

Prepare, maintain, and implement a Climate Action Plan for the reduction of community-wide (i.e., unincorporated County) and County-Operations greenhouse gas emissions consistent with the California Environmental Quality Act (CEQA) Guidelines Section 15183.5.

Guidelines Section 15183.8, which states, “Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level”.

This “substantial evidence demonstrates” standard is much more difficult than the previous “enforceable” standard. This is no time to make climate action plans weaker or more difficult to evaluate.

As we have stated above, the point of CAPs should be ensuring that municipal governments are doing their part to help humanity achieve climate stabilization, not some artificial goal like a state mandate that may not be related to climate stabilization.

In order to comply with CEQA, which is about the physical world (and correct the grammar since “meet or exceed” is for a plural noun), the following new words (shown in ***bold italics***) must be added to COS-20:

GPU Goal COS-20 (Governance and Administration)

Reductions of community-wide (i.e., unincorporated County) and County Operations greenhouse gas emissions contributing to climate change that ***meet or exceed*** requirements of the Global Warming Solutions Act of 2006, as amended by Senate Bill 32 (as amended, Pavley. California Global Warming Solutions Act of 2006: emissions limit) ***and that meet or exceed targets for the industrialized countries of the world that are shown by climate scientists to, with reasonable assurance, stabilize the earth’s climate at a livable level, meaning that there would be no devastating collapse of the human population.***

Likewise:

GPU PEIR Mitigation Measure (MM) CC-1.2

Prepare a Climate Action Plan for the reduction of community-wide (i.e., unincorporated County) and County Operations greenhouse gas emissions consistent with both state-legislative ***and current climate science specified, climate-stabilizing*** targets, as described in General Plan Goal COS-20, and consistent with CEQA Guidelines Section 15183.5 or as amended, as referenced in General Plan Policy COS-20.1. As described in Section 15183.5, the key elements of the Climate Action Plan would include:

“CEQA Guidelines Section 15183.5(b)(1):

(1) Plan Elements. A plan for the reduction of greenhouse gas emissions should:

(A) Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area;

(B) Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable;

- (C) Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area;
- (D) Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;
- (E) Establish a mechanism to monitor the plan's progress toward achieving the level and to require amendment if the plan is not achieving specified levels;
- (F) Be adopted in a public process following environmental review."

Once prepared, implementation of the Climate Action Plan will be monitored and progress reported on a regular basis, as follows:

- o Implementation Monitoring Report – prepared annually;
- o Greenhouse Gas Emissions Inventory – updated every two years; and
- o Climate Action Plan – updated every five years.

Guidelines for Determining Significance for Climate Change

Given the nature of our anthropogenic climate crisis, there is no such thing as a GHG emission that is insignificant. All GHG reduction measures must be implemented if they are technologically feasible and cost effective. Our best hope of identifying all such mitigation measures is to subject all projects to the CEQA process.

2.6 Energy

We appreciate your statement that Notice-of-Preparation (NOP) comments received showed "concern" (your word) for a Community Choice Energy (CCE) program and the impacts and location of large-scale renewable energy projects. We believe that support for CCE districts under California Community Choice Aggregation (CCA) law is widespread, for good reason. We understand that there will be concern about any large scale project to generate energy.

The transportation-related measures appear in

2.7 Greenhouse Gas Emissions

This section starts by purporting to summarize the NOP comments you received on this critical topic. However, that summary is contradicted by your Appendix A, which shows comment letters numbered 1 and 18 that point out the need for achieving climate-stabilizing targets. Your summary says nothing about the need to define, explain, and achieve climate-stabilizing targets. Comment letter 18 has significant details on this topic. This topic is the most important in all of our earth's history, because life is sacred and most of it is under threat, by a crisis that humanity can either chose to solve or ignore. The fact that you think that topic (again, whether we will stabilize the climate at a livable level) is so unimportant that it should be ignored is significant.

We agree with the NOP's first paragraph and especially these words, in that paragraph: "significant environmental impacts". "Environmental impacts" are in the physical world, not in the world of laws or executive orders. In this case, the primary negative impact or outcome, that should be avoided, is climate destabilization. Therefore, the term, "climate destabilization" must be defined and also described.

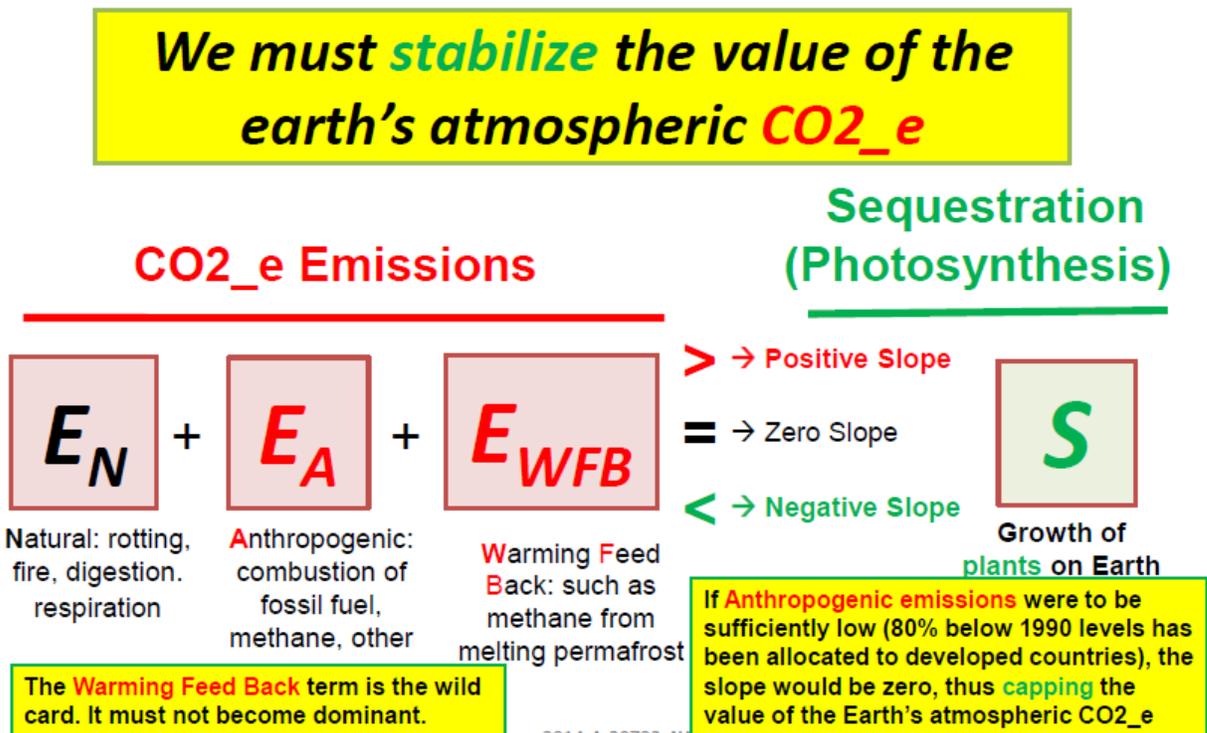
In the first paragraph of the NOP, it is written that the EIR must identify possible ways to mitigate or avoid the significant effects. Again, the “effects” are environmental in nature. This means that what will happen in the physical world must be considered. Besides this, how to avoid what would happen in the physical world must be considered.

What is needed is a description of climate destabilization and how to avoid the catastrophe of climate destabilization. CEQA and common sense require that negative environmental impacts be described, including the negative impact of climate destabilization.

General Plans and CAPs must first describe the difference between stabilizing the climate at a livable level and destabilization, where warming-system-feedbacks, such as methane gas leaking from melting permafrost, a process which is both driven by warming and creates more warming, become dominant. If they become too large, humanity will lose control, and the climate will transition to one which will no longer support most life forms on the planet, including our own species. Failing to provide this description is a CEQA violation. One authoritative source says, “the Earth is on a trajectory to warm by more than 4 degrees Celsius [and this] would be ***incompatible with continued human survival.***”

Avoidances of significant environmental impacts need to be described. Therefore, a discussion of “Greenhouse Gas Emissions” needs to state that there is a need for the EIR to have a description of how a climate is stabilized at a livable level.

We would like to help in this regard. Climate stabilization Step 1 is to get the earth’s atmospheric CO₂_e to stop increasing. This Step is shown in Figure 1.



The **Warming Feed Back** term is the wild card. It must not become dominant.

If **Anthropogenic emissions** were to be sufficiently low (80% below 1990 levels has been allocated to developed countries), the slope would be zero, thus **capping** the value of the Earth’s atmospheric CO₂_e

Figure 1 Stabilizing Atmospheric CO₂_e

It has been written that the industrial world must get its emissions down to a level that is 80% below 1990 levels to achieve the equality sign, which is one of the three possibilities

shown in Figure 1. It was thought that to achieve climate stabilization, humanity could do this as late as 2050 and that the atmospheric level of CO₂_e would then be at 450 PPM, corresponding to a 2 degree Celsius increase. However, it is now known that it is dangerous to allow a 2 degree Celsius change and that, even worse, an earth's atmospheric level of only 400 PPM of CO₂_e corresponds to a 2 degree Celsius change. As we all know, the earth's atmosphere is already at 410 PPM CO₂_e. This information about climate stabilization is shown in References 2 and 3.

In Figure 1, the zero slope condition will cap atmospheric CO₂_e, meaning that it will not go up and not go down. Currently, we have a positive slope condition, because our anthropogenic emissions are too high. We will require a negative slope to return our atmospheric CO₂_e to a safe level. The "wild card" in this problem is the warming feedback term. If it gets too large, we will have no hope of avoiding catastrophe.

You therefore must identify a climate-stabilizing target and then define enforceable measures to *achieve* that target. The principle of cumulative effects is being used here, as it must. The County must do its part. If it doesn't, it must assume that other municipal governments (around the world) will do the same and destabilization will result.

Besides this, to comply with CEQA, the CAP and its SEIR must describe destabilization's impact to our environment, to see if that is the outcome the decision makers want. During the process of destabilization, the earth will lose most of its life forms. This will not be pleasant for us or the animals, from aardvarks to zebras. We will all starve to death. This may take decades. The low-income people will starve first; the billionaires last. Of course there will be food riots; we will need to become a police state; and so on. Mass suicide and cannibalism may occur. A majority of the Board of Supervisors would rather avoid this, I assume. It is your job to make sure they understand this situation. The SEIR covers all of this up by not mentioning it. There is no excuse since it was described in NOP response Letter 18.

To achieve the CAP's identified climate-stabilizing targets, California state actions will be needed, driven by legislation and implemented by such entities as CARB, Caltrans, and the California Road User Charge Technical Advisory Committee (SB 1077.)

However, the County must also take strong actions. The County must show how climate-stabilizing targets can be achieved in each of the categories that emit greenhouse gas (GHG), assuming reasonable California actions, according to reasonable plans. These plans need to be either identified or written.

Cars and light-duty trucks emit the most GHG of any category in the County. Therefore, one thing that is needed to support the EIR is described in Reference 4, which is a sub-plank of the 2016 California Democratic Party (CDP) Platform:

[A] state plan showing how cars and light-duty trucks can hit climate-stabilizing targets, by defining enforceable measures to achieve the needed fleet efficiency and per-capita driving

To show that this is not impossible, as well as to offer a plan that the County may wish to use, we have included Reference 5, *Climate-Stabilizing, California Light-Duty Vehicle Requirements, Versus Air Resource Board Goals*.

Reference 5 shows that a climate stabilizing target is 80% below the 1990 level, by year 2030. Note that this is 20 years sooner than the final target of Executive Order S-3-05 and is double the drop from the 1990 level specified in SB 32, for 2030.

The SEIR, CAP, and GPU are proposing to only achieve legislative requirements, sometimes referred to as our “state mandates”.

However, where is it stated that “consistent with legislative requirement” is enough to avoid climate destabilization? The fact is that it is not stated. It is almost as if the authors hoped the reader won’t notice this.

It is true that the EIR needs to show how to achieve the “legislative requirement” but nowhere is it acknowledged that this is not enough to avoid catastrophe. Laws that happen to pertain to climate change, such as SB 32, do not replace or amend CEQA. CEQA may be humanity’s most important law, given our climate crisis. We must stop ignoring its most important set of requirements, related to climate: The environmental impacts of climate destabilization must be described and avoidance measures must be devised and implemented.

Effects of Climate Change on the Environment (Page 2.7-3)

This section violates CEQA. Your list of effects is incomplete. You fail to mention the fact that this crisis is essentially unbounded in the harm it can and probably will produce to humans and other life forms. This letter has already spelled that out. It shows exactly what needs to be said.

Governor Brown, in the week before the start of the *Paris Climate Talks*, said to the Pope these seven words, “Humanity must reverse course or face extinction”. Governor Brown was not exaggerating. He simply told the truth. CEQA requires the truth.

Executive Order S-3-05 (Page 2.7-5)

The Court ruled that S-3-05 was grounded in science. That is true. However, it is 2005 science. We now know much more. S-3-05 is now known to be too little too late. This was explained above, in this letter.

Assembly Bill 32 Climate Change Scoping Plan and Updates (Page 2.7-6)

This section leaves out the 3 items listed on Page 2 of this letter, showing that our climate crisis is much more urgent than we thought.

Senate Bill 375 (Page 2.7-7)

What this section fails to state is that when CARB assigned driving-reduction targets to the San Diego Association of Governments (SANDAG) and the other Metropolitan Planning Organizations (MPOs), they did not bother to make the targets part of an overall plan to ensure that cars and light-duty vehicles (LDVs) will achieve climate-stabilizing targets. If they had done that, the 2035 targets would have been about a 32% reduction in per-capita driving, with respect to 2005 levels (the SB 375 baseline), even assuming a rapid conversion to zero-emission vehicles (ZEVs). The basis for this is shown in Reference 5.

Proposed GHG Reduction Measures (Page 2.7-17)

These will be discussed in our comments regarding Chapter 3 of the Draft CAP.

CAP Impact Analysis (Page 2.7-22)

We note the words:

As climate change science and policy continues to advance, the County will be able to apply new reductions toward meeting the long-term 2050 GHG emissions reduction goal in future CAP updates, as outlined in Chapter 5 of the CAP.

However, climate science may also find that they have underestimated the reductions needed and/or underestimated the warming feedback of some effect. To comply with CEQA, the County must have a plan that contains a sufficient list of enforceable measures to achieve climate-stabilizing targets.

2.7.5.1 Issue 1: Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment (Page 2.7-36)

These words concern us:

*There are no additional feasible mitigation measures available to mitigate this impact based on information currently known. Therefore, this impact would be **significant and unavoidable**.*

As we have stated and as we will state with more detail in this letter, we have been suggesting a feasible car-parking-system mitigation measure that was ignored during the CEQA process of the last CAP and is being ignored during the CEQA process of this CAP. Also, energy-efficient zoning (not approving more sprawl development) is another mitigation measure that we repeatedly suggest. Again, the County ignores this suggestion by acting as if approving more sprawl development is not particularly harmful to efforts to achieve climate state mandates and climate-stabilizing targets.

It says on Page 2.7-37:

CARB recommends that “lead agencies prioritize on-site design features and direct investments in GHG reductions in the vicinity of the project” (CARB 2017). CARB also recognizes that “[w]here further design or regional investments are infeasible or not proved to be effective, it may be appropriate and feasible to mitigate project emissions through purchasing and retiring carbon credits issued by a recognized and reputable accredited carbon registry” (CARB 2017).

The County is taking the odd position that it might approve additional sprawl developments and offset the additional GHG emissions that will come with the additional driving through purchasing and retiring carbon credits issued by a recognized and reputable accredited carbon registry. But the key on-site design feature, as described by CARB above, is to not approve the additional sprawl development. Obviously, the General Plan Update design is, to a large degree, zoning. Said another way, zoning is a fundamental design parameter. To follow the CARB recommendation is to select a design, primarily zoning, which does not result in a significant increase in GHG emissions. There is nothing infeasible about selecting the design feature of not approving more sprawl development. In fact, the 2016 San Diego County Measure B ballot measure lost, even though a developer outspent the project opposition by over a 10-1 margin. The Measure B ballot measure was to approve a large additional sprawl development. This is an indication that the voters do not favor the approval of an additional sprawl development. We understand that developers who want to get their sprawl developments approved are often big contributors to candidates for the Board of Supervisors. However, casting a vote that will disappoint a big campaign

contributor is not infeasible, however painful it might be to some San Diego County Supervisors.

The discussion on Pages 2.7-37 through 2.7-40 shows a failure to understand that General Plan Updates (GPUs, or zoning changes, or additional sprawl developments) are project design features and they do not have to be approved. They in no way justify purchasing and retiring carbon credits issued by a recognized and reputable accredited carbon registry or any other such off site measure. It is true that CARB recognized if no local design feature is possible it might be acceptable to justify purchasing and retiring carbon credits issued by a recognized and reputable accredited carbon registry or any other such off site measure. However, that is not the case because GPUs do not have to be approved.

If a developer wanted an approval that required a GPU and it was going to pioneer a method of operation that would reduce emissions in a way that could be widely adopted, then it may be reasonable and conform to CEQA to allow it.

Table 2.7-1 County Greenhouse Emissions by Category (2014) (Page 2.7-42)

We note that on-road vehicles are 57% of the total. We know from the work (available on line) of our friends at the Energy Policy Initiatives Center (EPIC) that most of the on-road emissions are from LDVs. For this reason there needs to be a rigorous treatment of LDVs.

Table 2.7-2 County Emissions Forecasts, Reduction Targets and CAP Reductions (MTCO_{2e}/year) (Page 2.7-42)

Often municipal governments have no records of GHG emissions for year 1990, which is a baseline year for S-3-05. S-3-05 requires that 1990 levels are achieved in 2020. The table says that the target for year 2030 is 40% below the 2014 level, which means, since SB 32 calls for a 40% reduction from 1990 levels, that the 2014 level is coincidentally equal to what is being assumed to be the 1990 level. However, if this is true, the -2% in the 2020 column should be 0% and the -77% in the 2050 column should be -80%, to match the S-3-05 target. Please explain the discrepancies.

2.12 Transportation and Traffic (Page 2.7-12-1)

This section attempts to summarize the impacts of the transportation-related measures. We will comment on the measures as described in Chapter 3 of the CAP itself, because it seems to have the most detail. We find much of the discussion of transportation off base because it fails to recognize the overriding need to improve the methods by which we pay for the use of roads and parking.

Section 3 of the CAP

Built Environment and Transportation

Strategy T-1 is described as reducing VMT. It only has 3 measures, which would:

- acquired open space,
- acquire agricultural easements and
- update Community Plans

The first two would only “reduce VMT” in the sense that they would stop additional sprawl development which would increase VMT. If all we do is “hold the line” we have no hope of stabilizing the climate at a livable level. Updating Community Plans could be important.

We will comment on T-2 through T-4 below.

T-1.1 Acquire Open Space

It is clear that this is an on-going program that would happen in any case. The claim is made that it prevents a total of 491 homes. We agree it might, if the Supervisors were so unconcerned about climate change that they would approve additional sprawl development, without this acquisition of land. We understand this to be legitimate if the “baseline” or what is sometimes called the “business as usual” case included these homes. Is that correct or are these savings not real? To compute the GHG savings, what is the average number of trips per year per household and what is the average mileage (MPG) and trip length assumed?

T-1.2 Acquire Agricultural Easements

It looks like this is an on-going program. It is a Purchase of Agriculture Conservation Easement (PACE) Program and it is said to be an acquisition of 443 acres of agricultural easements by 2020 and an additional 4,430 acres between 2021 and 2030. The claim is made that it prevents a total of 198 homes. We agree it would, if the Supervisors were so unconcerned about climate change that they would approve additional sprawl development, without this purchase of land. We understand this to be legitimate if the “baseline” or what is sometimes called the “business as usual” case included the homes that could be approved on this land. Is that correct or are these savings not real? To compute the GHG savings, what is the average number of trips per year per household and what is the average mileage (MPG) and trip length assumed?

T-1.3 Update Community Plans

How do you compute the anticipated GHG Reduction? How do you know that the future Board of Supervisors will take this action? If they take this action, what allows you to assume how useful it will be? How do you quantify “Transit Oriented Development”? Many times the Sierra Club Transportation Chair has urged the San Diego Association of Government to replace “Smart Growth” with “VMT-Reducing Growth”. This would be far better because “VMT-Reducing Growth” can be quantified but “Smart Growth” cannot be quantified. Not one member of SANDAG’s Board or Staff gave any notice of the suggestion. Likewise, it may be that “Transit Oriented Development” has no definition and is not quantifiable in any way.

If a Community Plan has transit service is there any standard for that service to qualify it as being good enough to serve a so-called TOD? If so, what is that standard?

In an attempt to perhaps help you quantify VMT reductions, we offer the following Figure 2.

Are there any standards of density increase or maximum height increase that you are looking for in making these communities a better “TOD”, or, expressed in a more realistic way, more “VMT-Reducing”? Is there a metric for improving the jobs-housing balance or are you operating free of any numerical standards for that consideration?

Why does the County constantly assume that how drivers pay for parking is inconsequential? Every study of the matter finds that if, for example, all employees pay for parking with a reduced wage, whether they drive or not, many more people will drive than if the payment for parking is associated with the choice to drive.

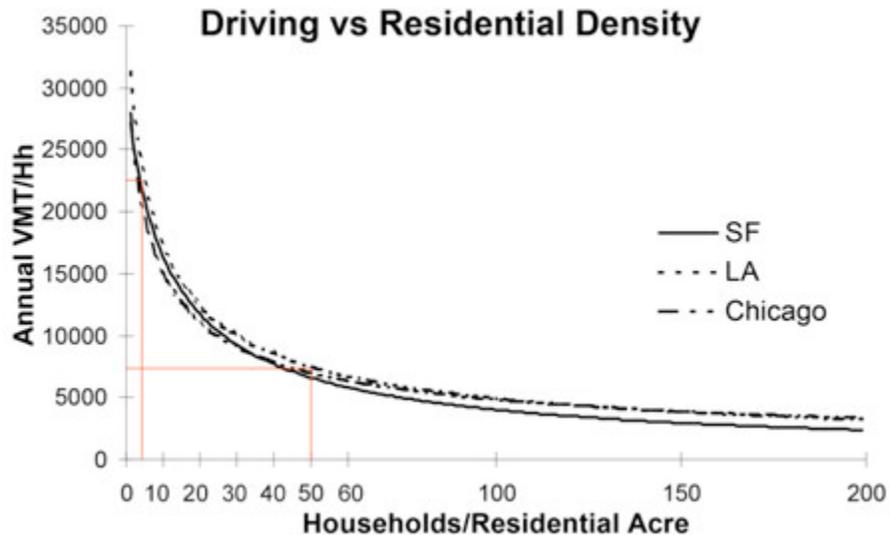


Figure 2 VMT Reductions from Increased Density

Reference 6 describes the modern round-a-bout. It includes a definition, how they improve traffic flow, how they improve air quality and reduce GHG, how they improve safety, and how much they cost. They should be part of any effort to do traffic calming or complete streets. As shown, each round-a-bout can eliminate 189 metric tons of CO2_e per year. Will you replace stop lights in Community Plans with round-a-bouts?

The *Supporting Efforts* table on Page 3-15 is not encouraging. Those are simple things that should have been done years ago. To “study, collaborate, and promote” are not enforceable and show that the County has not yet realized the urgency of our climate crisis. Enforceable changes in policy regarding density, height, car parking, and round-a-bouts should have been done by now.

Your “Performance Metric” table means almost nothing since your “Supporting Efforts” mean almost nothing.

Strategy T-2 Shift Toward Alternative Modes of Transportation (Page 3-17)

We agree with words written on Page 3-17.

T-2.1 Improve Roadway Segments as Multi-modal

There is an insufficient definition of the “multi-modal enhancements” that are being considered and how much this would reduce VMT. We know of no definition for “bikeway”. Would this be Class 1 (separated from cars), 2 (bike lanes), or 3 (marked routes)? There may be a place for all 3 and you may have data showing that each of these 3 can encourage riding and thereby reduce VMT. However, your lack of specificity suggests that you know little of this topic.

We believe in well-maintained roads. Since we must convert rapidly to a fleet of cars that no longer burns gasoline, the answer to having enough money to perform timely road maintenance is to design and implement an environmentally-sound road-use charge (RUC) pricing and payout system. A road user charge (RUC), has been proven feasible by the work of SB 1077. Currently, the gas tax rate, although improved by SB 1, is still too low to

pay the full cost of road maintenance. Besides this, the gas tax has a poor future. How do you propose to pay for whatever improvements are being considered? We oppose raising general taxes, such as a sales tax, to pay for roads. We should not be making it artificially cheap to drive cars. What is the County's position on this issue? We fully support "complete streets". Please explain how you computed the 2030 and 2050 GHG reductions of 604 and 1292. Why did you not mention "road diet" and round-a-bouts? Cycle tracks are controversial among bicyclists. How did you decide you favor them?

T-2.2 Reduce New Non-residential Development Vehicle Miles (Page 3-20)

There is a claim of a 15% reduction by 2030. This may be based on SANDAG's Regional Transportation Plan's VMT reduction as required by SB 375. If so, the County is doing nothing to claim this reduction. Is this based on SANDAG's Regional Transportation Plan's VMT reduction as required by SB 375? If so, there may be a mismatch because SB 375 is for 2035 but the County is claiming a reduction in 2030. Please explain this mismatch in target year. There is a mention of a Transportation Demand Management (TDM) ordinance. Why has the County not passed a TDM ordinance by now? Where can we read the proposed ordinance? Can we see the calculations of the driving reduction based on the imagined ordinance? We notice that the County is still unaware that "free" parking at work is really not free because it reduces everyone's wages, even those that never drive to work. We have repeatedly explained this issue and it discourages us that the County is still unaware that so-called "free" parking is unfair to those that drive less and that it increases the mode split of single-occupancy vehicle (SOV) driving.

The county's performance metric of a 15% reduction is too low to support light-duty vehicles achieving a reasonable climate-stabilizing target, as will be shown later in this letter. Is that value per-capita? Is it with respect to the SB 375 baseline year of 2005? If it is with respect to 2014, please show how you convert an SB 375 target for year 2035 to a value with a different target year and a different baseline year.

T-2.3 Reduce County Employee Vehicle Miles Travelled (Page 3-22)

In the original Sierra Club letter to San Diego County, regarding its first effort to produce a CAP, we proposed a car-parking-pricing-and-payout system that would increase fairness and reduce the choice of driving to work. That letter, dated March 19, 2012, is Reference 7. Throughout that lawsuit we stressed this mitigation measure as a policy that could be implemented for County employees. We were very specific in our proposal.

This feasible mitigation was ignored by the County in their legally-deficient Climate Action Plan (CAP) which they subsequently rescinded under court order. This is the mitigation measure that was described during oral arguments in Appellate Court, when a Justice asked the Club lawyer to describe a feasible mitigation measure that was ignored by the County.

After hearing the description, the Justice commented, "That sounds like feasible mitigation to me."

Here is a brief description of this feasible mitigation measure. This strategy would be a "game-changer", not only for the County, but for improving our prospects for achieving climate-stabilizing targets, wherever driving is a significant source of GHG emissions and so-called "free parking" at work is common.

Demonstration Project to Eliminate the Harm of Bundled-Benefit Parking at Work

San Diego County (“County”) would develop a Demonstration Project to, in effect, Unbundle the Benefit of Parking (“Demonstration Project”) where County employees work (“Proposed Location”).

BACKGROUND: Currently, County employees do not have the ability to choose between earnings and driving – employees effectively pay for parking out of their salary, whether or not they use the parking. The Demonstration Project will provide the opportunity for the employees to choose between earnings and driving. This is functionally equivalent to the implementation of the California Air Pollution Control Officers Association (CAPCOA) measure of unbundling the cost of parking.

PROJECT: Parking would be charged at a given rate (for example \$0.02/min – roughly \$10.80/day, considering 8 hours of work and 1 hour for lunch). Funds generated from these parking charges would be distributed as earnings to all employees working at the proposed location in proportion to each employee’s time spent at work, at the proposed location. Those who decide not to drive will not be charged for parking but will still receive earnings based on their time spent at work at the location. Implemented correctly, this free-market approach will substantially reduce vehicle miles traveled (VMT) and greenhouse gas (GHG) emissions, by reducing the drive-alone mode.

For employees whose parking charges are greater than their parking-lot earnings, an “add-in” may be included so that no employee loses money, compared to “free parking”. (Some documentation of this method refers to this payment as a “must-drive bonus”.) With such “add-in” payments, there could be an “Opt in” or “Opt out” choice. This would mean that, if the charges and payments associated with this system were included on employee pay checks, those that “Opt out”, would see no changes on their pay check, relative to how their pay check looked during the days of “free parking”. If the charges and payments associated with this system were shown on a separate, mailed statement, those that opt out would receive no such statement.

This project may be helped by receiving a grant to pay the development and installation cost, as well as the “add in” payments, for some specified number of years. The County would need to apply for such a grant.

This feasible and sensible mitigation measure is actually a demonstration project of an overall system that would operate all types of parking, as described in Reference 8. Reference 9 is a more detailed description of this demonstration project.

Based on Table 1 of Reference 8, the driving reduction could be 25%, at places of employment. Table 1 shows driving reductions resulting from introducing a new price differential for parking, for 10 cases. Its average reduction in driving is 25% and its smallest, single-case reduction is 15%. Again, these systems can be set up so that no driver loses money. Grant possibilities include the California Air Resources Board’s *Low Carbon Transportation* program and the Strategic Growth Council’s (SGC’s) *Transformative Climate Community* program.

T-2.4 Shared and Reduced Parking in New Non Residential Development (Page 3-22)

The system we are proposing as a demonstration project (shown in the T-2.3 section, in this letter, just above this section) is a sub-system of an overall system of parking we are currently calling a “Dividend-Account Parking” system. The “Dividend” word denotes that

some people receive parking lot earnings. The “Account” word denotes that the cars parked are associated with an account, of a person responsible to pay the cost of the parking. “Account” also denotes that the cost of parking is being taken into account, instead of being ignored and hidden, as is often the case. It is documented in Reference 8. It is a system where all parking is naturally shared.

Ultimately, based on the system we are proposing, we see no reason to restrict this to either New” or to “Non Residential”, as is suggested in the County’s title of this section. The system we are proposing was peer reviewed in 2010, when it was accepted for presentation at an Air and Waste Management Association (AWMA) Conference, in Calgary, Canada. The presentation received two standing ovations: once upon the conclusion of the presentation and again at the conclusion of the question and answer portion of the presentation. The system is hosted by the National Sierra Club: [.http://sierraclub.typepad.com/files/mike-bullock-parking-paper.pdf](http://sierraclub.typepad.com/files/mike-bullock-parking-paper.pdf). The County received this paper as a reference to the Reference 7 letter, back in 2012. We have never been given any indication that anyone at the County has read the paper. The T-2-4 section, which is about parking, gives no indication that anyone at the County has read the paper. We have certainly received no criticism of the paper from the County. Since there has been no criticism, we wonder why its ideas are being ignored. Is there any County employee working for the County on the CAP and its SEIR that is aware of the Sierra Club’s submittals to the County regarding car-parking? If so, what is their opinion of the proposals? Why has the County ignored the Sierra Club’s car parking proposals for over 5 years? Could you please show us how you compute the 1454 and the 2508 GHG reductions shown? How would you handle the sharing in terms of enforcement?

T-3 Decarbonize On-road and Off-road Vehicle Fleet (Page 3-27)

We support efforts to decarbonize vehicles. This includes the efforts shown in your sections T-3.1, T-3.2, T-3.3, and T-3.4. Beyond what is shown in these subsections, we have asked the SANDAG Board to put electrifying the Coaster train into their “Unconstrained” (unconstrained by money) Regional Transportation Plan, for example. We are joining with other groups to push for purchasing only Battery Electric busses. We have not heard that the County is interested in these efforts.

We appreciate your efforts to make construction less polluting. As far as retiring old model cars that get poor gas mileage, we would like to see the County join us in advocating for a plan of enforceable measures, whereby light-duty vehicles (LDVs) achieve a climate-stabilizing target. This would require actions such as what is described in T-3.3. We would like to see the County become a force for climate stabilization at SANDAG. Could you show us how you computed the GHG reduction of 866, shown on Page 3-32? Is the County supportive of electric transit vehicles and if so, what is your plan to help bring that about?

T-3.4 Reduce the County’s Fleet Emissions (Page 3-34)

We are disappointed that the County’s goal is only 50% of new vehicle purchases. We have a climate crisis. Would you please change that to 100%?

T-4 Invest in Local Projects to Offset Carbon Emissions (Page 3-37)

We accept that many of the projects named are worthwhile. However, the car parking system that we describe above is also a worthy project. Once that system is designed, other employers will want to use it, because it increases fairness while it decreases driving.

It can spread to other types of parking because it supports the sharing of parking. It will need to spread to all types of parking, in one unified system, if we are going to have a chance to achieve climate-stabilizing targets.

Energy (Page 3-40)

We appreciate the target of 90% renewable energy in the County by 2030. This will require the measures you named, which we want to be made enforceable, and more.

San Diego is conducting a study of feasibility of CCE. Carlsbad and other cities to its South are joining together to investigate the feasibility of forming a Community Choice Energy (CCE) District, under California Community Choice Aggregation (CCA) law. In the last three years, the rise of Community Choice Energy in California has been dramatic. The first Community Choice Agency (CCA), [Marin Clean Energy](#), launched in 2010, and was the only one for four years until [Sonoma Clean Power](#) launched in 2014, followed soon after by [Lancaster Choice Energy](#) in 2015. By mid-2015 a critical mass of information-sharing and proof-of-concept had spread throughout California and by late 2016 nearly half the counties in the state and over 300 cities were either operational or at some stage of evaluation of Community Choice. The CAP and SEIR should include, as a recommended mitigation measure, joining a CCE. To do this, the County needs to act to determine the feasibility of this measure and its effectiveness in moving towards your stated goal of 90% clean energy by 2030. This target is certainly a strength of your effort.

In 2014, Lancaster started to require all new residential construction project to include solar power. There is a minimum average solar generating capability of 0.5 to 1.5 kW per unit, depending on lot size and location. Are you willing to meet or exceed that standard?

The Need for a Concerted Effort to Ensure that Light-Duty Vehicles Will Achieve a Realistic Climate-Stabilizing Target

First, You Need a Plan:

The well-known and well-respected Energy Policy Initiative Center reported that 41% of the GHG emitted in San Diego County comes from cars and light-duty trucks, denoted as “LDVs” in this report. This is larger than the sum of the next two largest emitters: electricity, at 25% and natural gas, at 9%. Because LDVs are so important, there needs to be a plan showing a set of enforceable measures ensuring that LDVs will achieve a climate-stabilizing target. The first step is to show how a reasonable climate-stabilizing target is derived. As has been shown in the letter, there are strong indications that state mandates, such as SB 32 are not good enough.

This is not just understood by us. The California Democratic Party (CDP) has come to the same conclusion, as shown in its 2016 Platform. This bullet is from that platform (Reference 4) (<http://www.cadem.org/our-california/platform/2016-platform-energy-and-environment>).

- ***Demand a state plan showing how cars and light-duty trucks can hit climate-stabilizing targets, by defining enforceable measures to achieve the needed fleet efficiency and per-capita driving***

CARB should probably do this but so far, they have issued no such plan, perhaps because they have no such plan. However, CEQA requires that decision makers understand the

environmental consequences of what they may approve. What does the state need to do, which has the primary responsibility for fleet efficiency requirements and how much it will cost to drive on the road and how will this fit with what local and regional government may do, understanding that they do RTPs, zoning, and other transportation-related policies such as complete streets, transit, and parking policies. Therefore, such a plan is required for any project that will have a significant impact on the LDV sector. This means that most EIRs have been approved in violation of CEQA law. This should come as no surprise because there are few systems engineers in the ranks of those that might challenge an EIR. Some things take time.

Reference 5 is an example of a state plan that is being requested by the CDP. It may not be perfect but it is an honest attempt and it may be the only such example on the planet. It is included to show that such a report is not impossible. The County or any other government could accept the plan as their own, if they find no errors. What the County cannot do is to take the position that no such plan is required. The County could modify the Plan if it thinks it could improve upon its methods or its assumptions.

Enforceable and Feasible Mitigation Measures to Achieve Driving Reductions

The following numbered mitigation measures must be implemented unless you can prove that they are either not “technologically feasible” or they are not “cost effective”. When considering how cost effective the measures are, keep in mind that climate destabilization, which is where humanity is currently headed, will result in a devastating collapse of the human population, which is very expensive, in many ways.

1.) Reallocate SANDAG Funds Earmarked for Highway Expansion to Transit and Consider Transit-Design Upgrades

It is well-known that the induced traffic demand resulting from adding highway lanes will cause traffic congestion to remain constant. This is true, even if the new lanes are HOV (High Occupancy Vehicle) lanes; HOT (High Occupancy Toll) lanes; or Managed Lanes, which give priority to moving transit vehicles. Any project (or other change, such as autonomous vehicles that can travel at high speeds with very little distance between vehicles) that temporarily creates space on a freeway will induce enough traffic to fill that space, returning congestion to the level it was before the project (or other change.) Therefore, additional lanes will not reduce congestion one iota. The money spent to add lanes is not just a waste of money. With more lanes and the same level of congestion as before, the result is always more frustrated drivers, more air pollution, and more GHG emissions.

The sales tax measure called “Trans-Net” allocates approximately one-third for highway expansion, one-third for transit, and one-third for road maintenance. It has a provision that allows for a reallocation of funds, if supported by at least two-thirds of SANDAG Board members, including a so-called weighted vote, where governments are given a portion of 100 votes, proportional to their population. This feasible mitigation measure is to reallocate the Trans-Net amount, earmarked for all highway expansions, to transit. It is noted that perceived political risk for decision makers does not constitute infeasibility, for a suggested mitigation measure. SANDAG needs to help educate the public about the futility of adding lanes because of induced traffic demand, as well as our responsibility to have a plan showing how cars and light-duty trucks can achieve climate-stabilizing targets. This will reduce political risk.

This money could be used to fund additional transit systems; improve transit operations; and/or redesign and implement the redesign of an existing transit system. A redesign could be

the electrification and automation, or even a wholesale technology upgrading of the Coaster/AMTRAK and Sprinter rail lines. These systems need to be frequent and operate 24/7.

The money could also be used to implement a fixed-guideway connection between the San Diego Airport and both the Santa Fe Train Station and the Old Town Transit Center. A trade-off study is needed to find out if this should be done with a trolley extension or an automated system, perhaps using the technology that connects the Oakland Airport to the Coliseum BART station.

The County needs to assume this mitigation measure and then do everything it its power to convince the SANDAG Board that it must be done. (AB 805 would help.)

2.) A Comprehensive Road-Use Charge (RUC), Pricing-and-Payout System to Improve the Way We Pay for the Use of Roads

Comprehensive means that, for example, pricing, overall, is sufficient to cover all costs, including road maintenance and externalities such as harm to the environment and health; privacy is defined and achieved; the economic interests of low-income drivers doing necessary driving would be protected; that the incentive to drive fuel-efficient cars would be at least as large as it is under the current fuels-excise tax; and, as good technology becomes available, congestion pricing is used, if needed, to protect critical driving from congestion.

The word “*payout*” means that some of the money collected would go to people that are losing money under the current system.

Currently, user fees (gas taxes and tolls) are not enough to cover road costs. Even though general-fund money is being used to operate and maintain roads, California is not doing maintenance with enough frequency to minimize cost. It is well understood that deferred maintenance will cost more than timely maintenance. Besides this, the improved mileage of the Internal Combustion Engine vehicles (ICEs) and the large number of Zero-Emission Vehicles (ZEVs), both of which are needed to have the fleet efficiency required to achieve climate mandates, mean that gas-tax revenues will drop precipitously over the coming years. In view of these facts, California has passed and is implementing SB 1077, which creates a pilot project road user charge (RUC). The Road User Charge Technical Advisory Committee (RUC TAC) has twice visited San Diego. The first time, they met in the SANDAG Board Room. The second time, they met at the CALTRANS District 4 office. SANDAG Board Members and SANDAG staff were conspicuously absent from these meetings. SANDAG staff did not inform its Board of these meetings. This is unfortunate because a RUC is the future of road funding. Unfortunately, the SANDAG Board Majority seems to think that a new sales tax can be used to expand roads. The recent defeat of Measure A suggests that this is not true.

Both SANDAG and the County need to support California in its efforts to create an effective RUC pricing-and- payout system. As the pilot project finishes, legislation is needed to get the design and implementation moving. SANDAG and the County should lobby for a good system and then, in their EIRs, they should assume a good system. Such a system will play a useful role in reducing per-capita driving.

3.) Improving the Way We Pay for the Use of Car Parking

Bundled-cost parking increases the cost of everything, from rent to food; bundled-benefit parking reduces wages. These unsustainable practices are economically unfair to those that drive less or might like to drive less, if they could receive the fair, market-priced compensation for their effort, considering the high cost of providing parking. Surface parking only provides spaces at a rate of 120 car-spaces per acre of land. Parking garage construction costs are over \$20,000 per space. Underground parking costs from \$60,000 to \$100,000 per space. The fourth bullet of the Transportation Sub-plank of the 2016 California Democratic Party Platform (Reference 4) calls for “*shared, convenient and value-priced parking, operated with a system that provides earnings to those paying higher costs or getting a reduced wage, due to the cost of providing the parking.*”

This feasible mitigation was ignored by the County in their legally-deficient Climate Action Plan (CAP) which they subsequently rescinded under court order. This is the mitigation measure that was described during oral arguments in Appellate Court, when a Justice asked the Club to describe a feasible mitigation measure that was ignored by the County. It is described in this letter in Section **T-2.3 Reduce County Employee Vehicle Miles Travelled (Page 3-22)** on Page 13 of this letter.

4.) Good Bicycle Projects and Bicycle Traffic Skills Education

The best criterion for spending money for bicycle transportation is the estimated reduction in driving per the amount spent. It is hoped that the following strategies will come close to maximizing this important parameter.

a.) Projects to Improve Bicycle Access

All of the smart-growth neighborhoods, central business districts, and other high trip destinations or origins, both existing and planned, should be checked to see if bicycle access could be substantially improved with either a traffic calming project, a “complete streets” project, more shoulder width, or a project to overcome some natural or made-made barrier. One example is to build a Vista Way bicycle bridge over I-5 in Oceanside, to allow those walking or biking to travel between the South Oceanside coastal neighborhood and the regional shopping center, which contains such large stores as *Wal-Mart* and *Stator Brothers* grocery store. Currently, those walking or biking from the Vista Way area West of I-5 must travel much further and travel over a steep hill (Cassidy Street). There are no large grocery stores in the Coastal region of Oceanside, west of I-5. Vista Way was connected for bike riders and pedestrians before the construction of I-5.

b.) League of American Bicyclist Certified Instruction of “Traffic Skills 101”

Most serious injuries to bike riders occur in accidents that do not involve a motor vehicle. Most car-bike accidents are caused by wrong-way riding, riding on sidewalks, and errors in intersections; the clear-cut-hit-from-behind accident is rare.

After attending *Traffic Skills 101*, students that pass a rigorous written test and demonstrate proficiency in riding in traffic and other challenging conditions could be paid for their time and effort.

As an example of what could be done in San Diego County, if the average class size was 3 riders per instructor and each rider passes both tests and earns \$100 and if the instructor, with overhead, costs \$500 dollars, for a total of \$800 for each 3 students, that would mean that \$160M could teach $\$160M/\$800 = 200,000$ classes of 3 students, for a total of 600,000 students. This is approximately 20% of the population of San Diego

County. If a significant percentage of the graduates become every-day, utilitarian riders, this program will be a very cost-effective mitigation measure. It is certainly technologically feasible.

If SANDAG is unwilling to do this program countywide, the County could scale the program described above down to a County-run program. Members of Oceanside's Bicycle-Pedestrian Committee and others in the County are already teaching League-Certified classes, as described above.

5.) Eliminate or Greatly Increase the Maximum Height and Density Limits Close to Transit Stops that Meet Appropriate Service Standards

As sprawl is reduced, more compact, transit-oriented development (TOD) will need to be built. This strategy will incentivize a consideration of what level of transit service will be needed, how it can be achieved, and what levels of maximum height and density are appropriate. Having no limits at all is reasonable if models show that the development can function without harming the existing adjacent neighborhoods, given the level of transit service and other *supporting transportation policies*. One such *supporting transportation policy* would be the use of car-parking systems described in References 8 and 9, which support the full sharing of parking, less driving, and less car ownership. These are reasons that the County Supervisors and Staff need to weigh in on the redesign and rezoning of the area around its downtown San Diego location. This is probably not applicable in other locations under County control because the transit service is either nonexistent or it is insufficient.

6.) Work for Installing a “Dividend-Account” Parking System at Train Stations in the County

We understand it is difficult for the County to influence SANDAG and the North County Transit District (NCTD), which runs the Coaster. We are hopeful that AB 805 will reform the decision-making of the NCTD so that it will become open to progressive change and more responsible regarding the fact of our anthropogenic climate change crisis. We would like to see the County to develop a Plan to help the NCTD adopt the same sort of Dividend-Account Parking system at the Transit Centers as what we hope will be installed at your County offices downtown. In this case, the earnings or dividend are paid to adult train riders in proportion to the time they spend on round trip train rides. These beneficiaries are selected because the car parking is being provided for adult (driving age) train riders making round-trip train rides. The parking would be available to anyone driving a car that is in the Dividend-Account Parking system, meaning that there is an account with a person responsible for paying for the parking of the car being parked. This system would allow the parking to be used by any driver with an account, including non-train riders. Fully-shared parking is generally better than parking that is not shared or is less shared. “Free parking” at train stations maximizes driving to the station. A Dividend-Account parking system would maximize ridership. Currently, a person that could easily walk or bike to the station may drive. However, this is less likely to happen after the installation of a Dividend-Account parking system. The net cost (fare minus parking dividend) to ride will be reduced. This will increase ridership. This system will also ensure that someone that drives to the station can be assured of finding a parking place, because it will not be difficult to set the price of the parking to ensure vacancy, as is described in the paper shown here: <http://sierraclub.typepad.com/files/mike-bullock-parking-paper.pdf> (Reference 8). Note that the paper provides a dynamic pricing system

to guarantee a selected minimum vacancy rate. If a person drives to the station but does not find a parking place, they may become discouraged from riding the train.

Summary of the Six Mitigation Measures Described

Do you agree that Measure 3 above is feasible and if not, why not? Do you agree that Item 4 is feasible? Do you see the value in working for Mitigation Measures 1, 2, 5, and 6?

Need to Include Plots and Explanations of the Plots, in the EIR, to Leave No Doubt About the Cause and Grave Nature of Anthropogenic Climate Change

The SEIR must fully explain the urgency and danger of humanity's anthropogenic climate change crisis, sometimes referred to as simply "climate".

The best way to do this is to include plots and explanations of the plots, that leave no doubt about the validity and grave nature of climate.

Figure 3 shows the rise of the world's atmospheric CO₂ over the last 50 years.

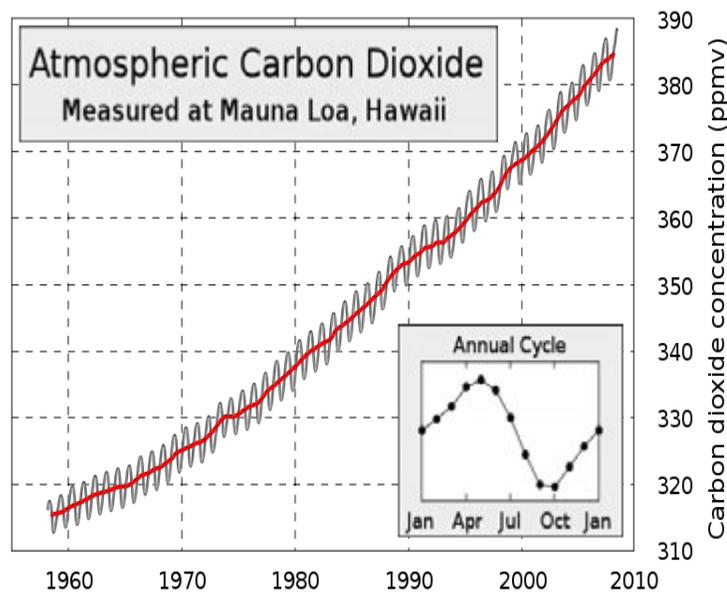


Figure 3 Atmospheric CO₂, Increasing Over Recent Decades

Figure 4 shows both atmospheric temperature (averaged over a year and averaged over all of the earth, derived from an isotope analysis) and atmospheric CO₂, over 800,000 years. (Our species is only around 300,000 years old.) Figure 4 shows that when climate deniers say that climate is always changing and so therefore climate change is normal, they are correct, except for one important consideration. There is nothing normal about the outrageous run up of atmospheric CO₂, to over 400 PPM, in such a short time that it appears to be an instantaneous spike, on Figure 4. There is no doubt that the spike is the result of our combustion of fossil fuels. The spike is clearly anthropogenic climate change.

Temperature and CO₂ Records

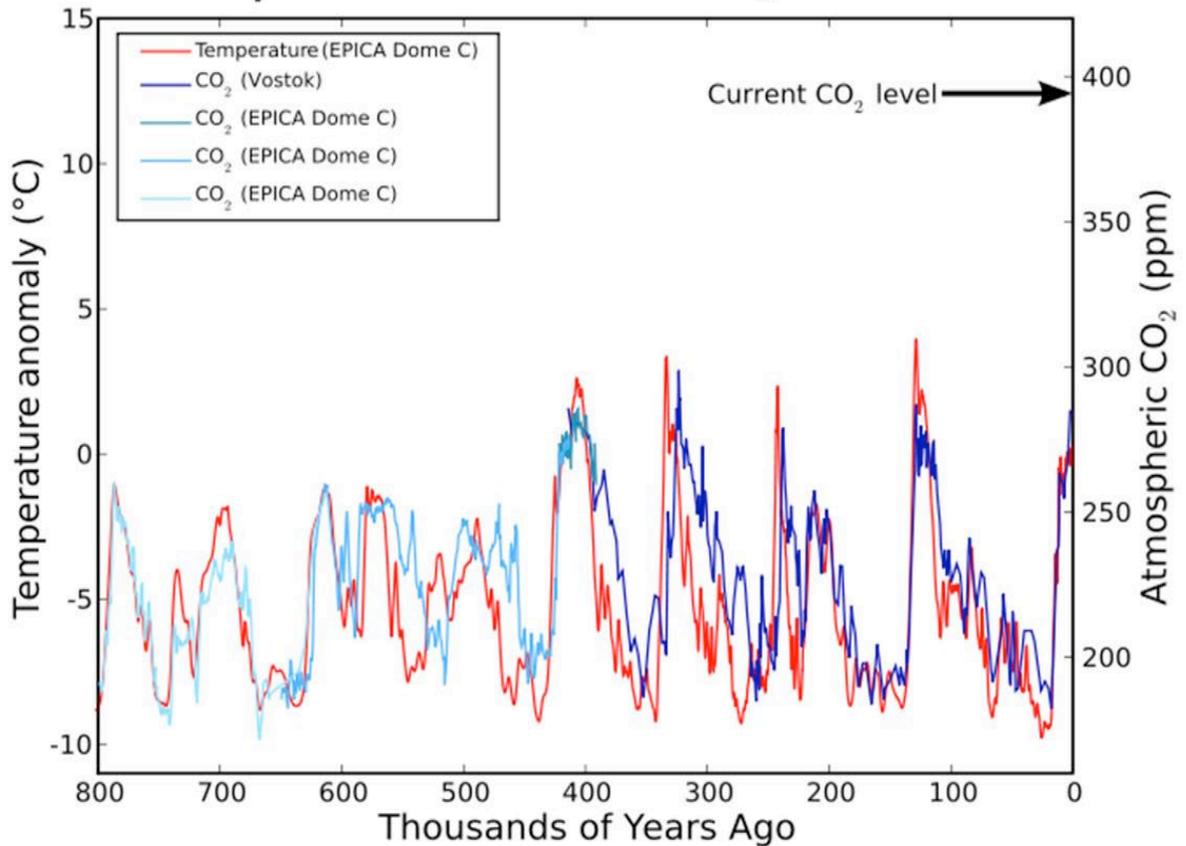


Figure 4 Atmospheric CO₂ and Mean Temperature, from 800,000 Years Ago, with Current CO₂ PPM Shown

Figure 5 covers all of the time of the development of our civilization. By focusing on just 1000 years, the spike's shape, in red, is revealed. Everything was normal until about 150 years ago, which is the start of our industrial revolution, when we started to burn fossil fuels. The ominous increase in temperature (in blue) is also shown. By doing extensive calculations we know how much CO₂ we have produced from the combustion of fossil fuels. Then, by directly measuring the atmospheric CO₂ and the acidity of the oceans, we know where all of that CO₂ currently resides. We also know that atmospheric CO₂ traps heat. There is no doubt that we have an Anthropogenic Global Warming (AGW) catastrophe in the making. Achieving climate-stabilizing targets is our only hope.

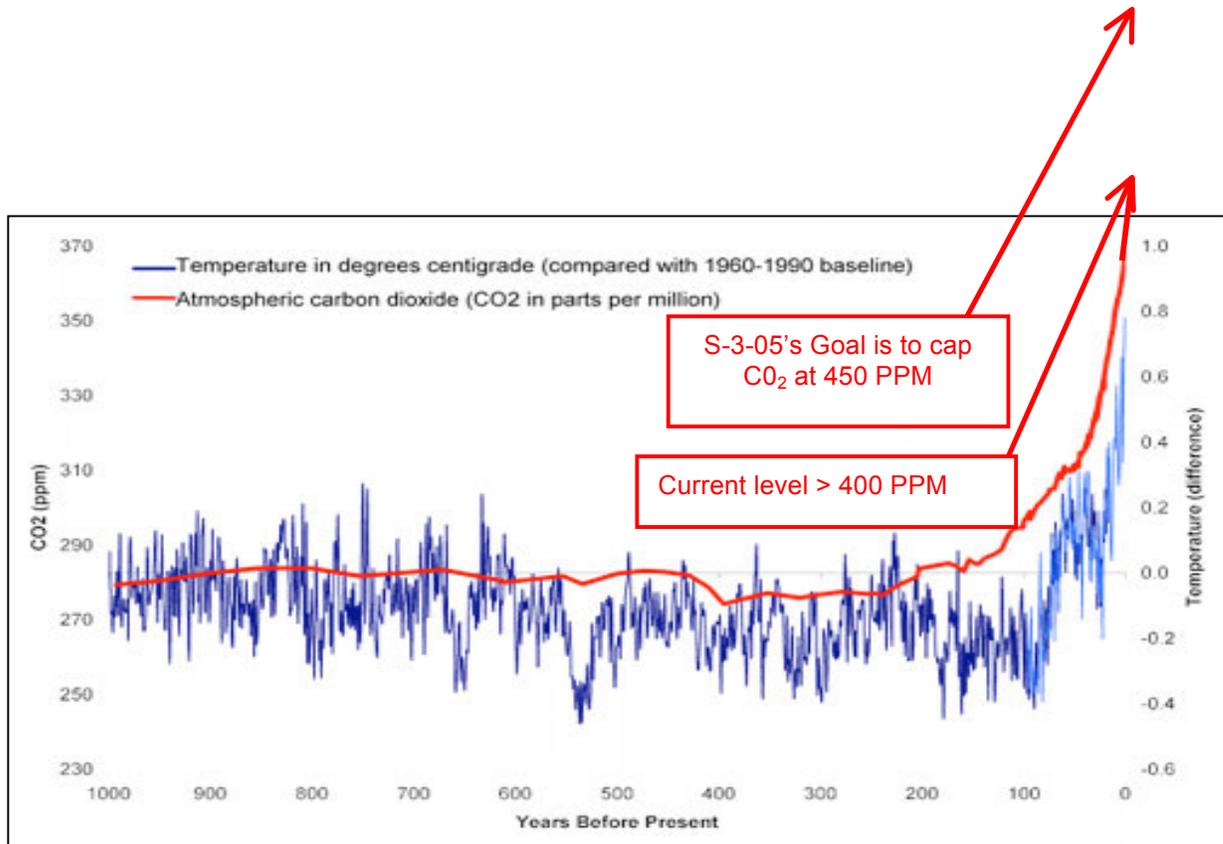


Figure 5 Atmospheric CO2 and Mean Temperature Over the Last 1,000 Years

Conclusion

We offer these words from Reference 10, which is the Superior Court Ruling, against the County (emphasis added):

There is no time for "building strategies" or "living documents;" as the PEIR quite rightly found, enforceable mitigation measures are necessary now.

We need to keep in mind the following:

- climate change has the potential to end most life forms on the planet and
- our own species could be headed towards a “devastating collapse” of our population, to quote the June 2008 issue of *Scientific American*

We would like to meet with County representatives to discuss our concerns and our proposed mitigation measures. Thank you for doing this critical and challenging work.

Respectfully submitted,

Mike Bullock mike_bullock@earthlink.net
Chair, Transportation Subcommittee
Sierra Club San Diego

George Courser
Chair, Conservation Committee
Sierra Club San Diego

REFERENCES

1. *Sierra Club versus County of San Diego*, D064243, Superior Court Number 37-2012-00101054-CU-TT-CTL
2. Excerpted text from *First Update to the Climate Change Scoping Plan, Building on the Framework* ;from: http://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf; *Achieving Climate Stabilization*
3. *Comments on Survey of CEQA Documents on Greenhouse Gas Emissions Draft Work Plan and Development of GHG Threshold of Significance for Residential and Commercial Projects*, CBD letter from to Mathew Vespa to Elain Chang of the South Coast Air Quality Management District, April 15, 2009
4. The Transportation sub-plank of the California Democratic Party Platform, 2016 <http://www.cadem.org/our-california/platform/2016-platform-energy-and-environment>
5. Bullock, Mike R; *Climate-Stabilizing, California Light-Duty Vehicle Requirements, Versus Air Resource Board Goals*, Paper 881-AWMA, from the Air and Waste Management Association’s 109th Annual Conference and Exhibition; New Orleans, June 16-25, 2016; Available on request from mike_bullock@earthlink.net
6. *Modern Round-a-bouts*, article provided by the San Diego County Air Pollution Control District
7. *Comments Regarding the Draft Climate Action Plan*, Sierra Club San Diego to Anna Lowe, County of San Diego; March 19, 2012
8. Bullock, M.; Stewart, J.; *A Plan to Efficiently and Conveniently Unbundle Car Parking Costs*; Paper 2010-A-554-AWMA, from the Air and Waste Management Association’s 103rd Annual Conference and Exhibition; Calgary, Canada, June 21-24, 2010. <http://sierraclub.typepad.com/files/mike-bullock-parking-paper.pdf>
9. Bullock, Michael; *Equitable and Environmentally-Sound Car-Parking Policy at a Work Site*; Aug. 30, 2015
10. *Sierra Club versus County of San Diego*, Case Number 37-2012-00101054-CTL, 04/19/2013

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**The San Diego Chapter of the Sierra Club is San Diego’s oldest and largest grassroots environmental organization, founded in 1948. Encompassing San Diego and Imperial Counties, the San Diego Chapter seeks to preserve the special nature of the San Diego and Imperial Valley area through education, activism, and advocacy. The Chapter has over 14,000 members. The National Sierra Club has over 700,000 members in 65 Chapters in all 50 states, and Puerto Rico.**



# REFERENCE 1

Filed 10/29/14

CERTIFIED FOR PUBLICATION

~~NOT TO BE PUBLISHED IN OFFICIAL REPORTS~~

California Rules of Court, rule 8.1115(a), prohibits courts and parties from citing or relying on opinions not certified for publication or ordered published, except as specified by rule 8.1115(b). This opinion has not been certified for publication or ordered published for purposes of rule 8.1115. XXXXXXXX

COURT OF APPEAL, FOURTH APPELLATE DISTRICT

DIVISION ONE

STATE OF CALIFORNIA

SIERRA CLUB,

Plaintiff and Respondent,

v.

COUNTY OF SAN DIEGO,

Defendant and Respondent.

D064243

(Super. Ct. No. 37-2012-00101054-  
CU-TT-CTL)

APPEAL from a judgment of the Superior Court of San Diego County, Timothy Taylor, Judge. Affirmed.

Thomas E. Montgomery, County Counsel, and C. Ellen Pilsecker, Chief Deputy County Counsel, for Defendant and Appellant.

Law Office of Malinda R. Dickenson, Malinda R. Dickenson; Chatten-Brown & Carstens, Douglas P. Carstens and Josh Chatten-Brown for Plaintiff and Respondent.

This action arises out of the County of San Diego's (County's) 2011 general plan update, wherein the County issued a program environmental impact report (PEIR), and adopted various related mitigation measures. In this action the Sierra Club sought, in a

petition for writ of mandate, to enforce one mitigation measure adopted by the County: the Climate Change Mitigation Measure CC-1.2 (Mitigation Measure CC-1.2). With Mitigation Measure CC-1.2, the County committed to preparing a climate change action plan with "more detailed greenhouse gas [GHG] emissions reduction [GHG] targets and deadlines" and "comprehensive and enforceable GHG emissions reductions measures that will achieve" specified quantities of GHG reductions by the year 2020.

However, the Sierra Club alleged that instead of preparing a climate change action plan that included comprehensive and enforceable GHG emission reduction measures that would achieve GHG reductions by 2020, the County prepared a climate action plan (CAP) as a plan-level document that expressly "does not ensure reductions." The County also developed associated guidelines for determining significance (Thresholds).

According to the Sierra Club, review of the CAP and Thresholds project under the California Environmental Quality Act (CEQA) (Pub. Resources Code, § 21000 et seq.) was performed after the fact, using an addendum to the general plan update PEIR, without public review, without addressing the concept of tiering, without addressing the County's failure to comply with the express language of Mitigation Measure CC-1.2, and without a meaningful analysis of the environmental impacts of the CAP and Thresholds project.

The court granted the petition, concluding that the County's CAP did not comply with the requirements of Mitigation Measure CC-1.2 and thus violated CEQA. The court found that the CAP did not contain enforceable GHG reduction measures that would achieve the specified emissions reductions.

The County appeals, asserting (1) the statute of limitations bars the claim that the mitigation measures are not enforceable; (2) the CAP met the requirements of Mitigation Measure CC-1.2; and (3) that the trial court erred in finding that a supplemental EIR was required. We affirm.

## FACTUAL AND PROCEDURAL BACKGROUND

### A. *Executive Order S-3-05*

In 2005 then-California Governor Arnold Schwarzenegger issued Executive Order No. S-3-05,<sup>1</sup> which acknowledged California's vulnerability to the effects of climate change and established targets for reducing GHG emissions in California over time. Specifically, Executive Order No. S-3-05 set statewide targets for three points in time: 2010, 2020, and 2050. The target for 2010 (2010 Target) was to reduce emissions to the levels they were at in the year 2000. The target for 2020 is to reduce emissions to the levels they were at in 1990 (2020 Target). The target for 2050 is that emissions be 80 percent below the levels they were at in 1990 (2050 Target).

Executive Order No. S-3-05 was based on then-available climate science and represented California's share of worldwide GHG reductions necessary to stabilize climate. As the Attorney General explained, "Executive Order [No.] S-3-05 is an official policy of the State of California, established by gubernatorial order in 2005, and designed to meet the environmental objective that is relevant under CEQA (climate stabilization)."

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<sup>1</sup> On March 24, 2014, the County requested that we take judicial notice of Executive Order No. S-3-05. We grant that request.

*B. The Legislature Addresses the Need for GHG Emission Reductions*

In response to Executive Order No. S-3-05, the California Legislature enacted the California Global Warming Solutions Action of 2006, Assembly Bill No. 32. (Health & Saf. Code, § 38500 et seq.) Consistent with Executive Order No. S-3-05, Assembly Bill No. 32 required the California State Air Resources Board (CARB) to determine 1990 levels of GHG emissions and then to establish "a statewide greenhouse gas emissions limit that is equivalent to that level, to be achieved by 2020." (Health & Saf. Code, § 38550.) Assembly Bill No. 32 also stated that GHG reductions must continue after 2020, requiring that the statewide greenhouse gas emissions limit established by CARB "remain in effect unless otherwise amended or repealed" (Health & Saf. Code, § 38551, subd. (a)) and further that "[i]t is the intent of the Legislature that the statewide greenhouse gas emissions limit continue in existence and be used to maintain and continue reductions in emissions of greenhouse gases beyond 2020." (Health & Saf. Code, § 38551, subd. (b).) Assembly Bill No. 32 also required that CARB "prepare and approve a scoping plan [for] achieving the maximum technologically feasible and cost-effective reductions in greenhouse gas emissions by 2020." (Health & Saf. Code, § 38561, subd. (a).)

In December 2008 CARB approved the scoping plan. The scoping plan "identifies California's cities and counties as 'essential partners' within the overall statewide effort, and recommends that local governments set a GHG reduction target of 15% below 2005-2008 levels by 2020." Thus, it was acknowledged that CARB would accept this target as a substitute for the 1990 level referenced in Assembly Bill No. 32 and Executive Order No. S-3-05.

### *C. The County's General Plan Update PEIR*

The County acknowledged in the general plan update PEIR that it needed to "reduce GHG emissions to 1990 levels by 2020" and that changes were required both in the community and in the County's operations, buildings, vehicle fleet, and with respect to its employee commutes, water, and waste.

A GHG emissions inventory was prepared as a special appendix (Appendix K). Appendix K set forth projected emissions reductions and assumptions then-available, and promised that the "Greenhouse Gas Reduction/Climate Action Plan, which will be prepared as an implementation strategy, will further detail the County's GHG emissions and how those reductions will occur."

There was extensive public comment on the general plan update, including from the California Attorney General:

"[W]e encourage the County to (1) commit in the General Plan to adopt by a date certain a CAP with defined attributes (targets, enforceable measures to meet those targets, monitoring and reporting, and mechanisms to revise the CAP as necessary) that will be integrated into the General Plan; (2) incorporate into the General Plan interim policies to ensure that any projects considered before completion of the CAP will not undermine the objectives of the CAP; and (3) for all GHG impacts the County has designated as significant, adopt feasible mitigation measures that can be identified today and that do not require further analysis." (Fn. omitted.)

### *D. Mitigation Measures*

The County thereafter promised to take a series of additional actions. These promises took the form of a group of climate change-related mitigation measures:

Mitigation Measures CC-1.1 through CC-1.19 (the Mitigation Measures). The Mitigation

Measures included requirements to update, review, and implement County programs; implement a strategic energy plan; revise the zoning ordinance; coordinate with other entities; educate the public; reduce vehicle miles traveled and encourage alternative modes of transportation; and, based thereon, to revise the County guidelines for determining significance.

The County made the following finding with regard to Mitigation Measure CC-1.2:

"[Mitigation Measure] CC-1.2 requires the preparation of a County Climate Change Action Plan within six months from the adoption date of the General Plan Update. The Climate Change Action Plan will include a baseline inventory of greenhouse gas emissions from all sources and *more detailed greenhouse gas emissions reduction targets and deadlines*. The County Climate Change Action Plan *will achieve comprehensive and enforceable GHG emissions reduction of 17% (totaling 23,572 MTC02E) from County operations from 2006 by 2020 and 9% reduction (totaling 479,717 MTC02E) in community emissions from 2006 by 2020*. Implementation of this Climate Change Action Plan will contribute to meeting the [Assembly Bill No.] 32 goals, in addition to the State regulatory requirements noted above." (Italics added.)

Mitigation Measure CC-1.2 formed the basis for Mitigation Measure CC-1.8, which required "revision of the County Guidelines for Determining Significance based on the Climate Change Action Plan."

Mitigation Measure CC-1.8, in turn, formed the basis for Mitigation Measure CC-1.7, which required that the County guidelines for determining significance anticipated by Mitigation Measure CC-1.8 incorporate CARB's recommendation for a threshold for determining significance of impacts on climate change. Should the recommendation "not be released in a timely manner," the County would "prepare its own threshold."

As required by CEQA (Pub. Res. Code, § 21081.6), the County incorporated a mitigation monitoring and reporting program (MMRP) into the general plan update PEIR.

Included in the MMRP was a promise to achieve GHG reductions by 2020 through comprehensive and enforceable GHG emission reduction measures. In addition to committing to the 2020 Target, the County also committed to compliance with the Executive Order No. S-3-05 trajectory. The County found "significant impacts associated with substantial climate-related risks" such as those "on water supply, wildfires, energy needs, and impacts to public health" would occur as a result of its general plan update. However, as a result of its commitment to adopt a CAP and Thresholds, and other mitigation measures, the County was able to make a finding that the climate change impacts anticipated by the general plan update PEIR would be avoided or substantially lessened.

*E. The CAP and Thresholds Project*

According to the County, the CAP was prepared for the following purposes:

1. To mitigate the impacts of climate change by achieving meaningful greenhouse gas (GHG) reductions within the County, consistent with Assembly Bill No. 32, the governor's Executive Order S-3-05, and CEQA guidelines (Cal. Code Regs., tit. 14, § 15000 et seq. [CEQA Guidelines]).

2. To allow lead agencies to adopt a plan or program that addresses the cumulative impacts of a project.

3. To provide a mechanism that subsequent projects may use as a means to address GHG impacts under CEQA.

4. To comply with the 2011 adopted County General Plan Environmental Impact Report (EIR) Mitigation Measure CC-1.2, Preparation of a Climate Action Plan.

Although compliance with Mitigation Measure CC-1.2 was one purpose of the CAP, two of the four purposes relate to preparation of the CAP as a plan-level document so that environmental review could be avoided on future projects that were determined to be below specified "thresholds." (CEQA Guidelines, § 15183.5.) However, the CAP did not mitigate climate change impacts consistent with Assembly Bill No. 32 and Executive Order No. S-3-05, did not satisfy the plan-level requirements of CEQA Guideline 15183.5, and it did not meet the requirements of Mitigation Measure CC-1.2

Instead, the CAP expressly acknowledged the possibility that "communitywide inventories will indicate that the community is not achieving its reduction targets" and admitted that the CAP "does not ensure reductions." Further, the CAP did not include a meaningful analysis of "measures that extend beyond the year 2020." Rather, the County documented that instead of continuing to reduce GHG emissions after 2020, GHG emissions allowed as a result of the general plan update were anticipated to *increase* after 2020.

The CAP and Thresholds were presented to the planning commission and the board of supervisors as "the project." The Thresholds, like the CAP, purport to expressly facilitate post-2020 development that would have significant adverse climate change impacts, without any consideration of post-2020 climate science as required by Assembly Bill No. 32 and Executive Order No. S-3-05.

#### *F. The Comment Period*

The Sierra Club submitted extensive comments to the County. In particular, the Sierra Club commented on the need to take action consistent with climate science and achieve the Assembly Bill No. 32 and Executive Order No. S-3-05 GHG emissions reductions targets. The Sierra Club also provided specific examples of feasible GHG Reduction measures that would actually reduce GHG emissions and could be adopted without delay. The Sierra Club submitted additional comments and testified at the planning commission hearing, attempted to appeal the planning commission's decision, and testified at the board of supervisors hearing.

#### *G. Proceedings Before the Planning Commission*

The final agenda for the April 27, 2012 regular meeting of the County Planning Commission Regulation Meeting made no reference to the associated Thresholds, which were also presented to the planning commission. Despite acknowledging the significant climate change effects as well as the requirements of Assembly Bill No. 32 and Executive Order No. S-3-05, staff took the position that no additional environmental review was required. The planning commission voted to adopt staff's recommendation with one addition relating to installation of electric vehicle recharging stations.

#### *H. Proceedings Before the Board of Supervisors*

The Project was placed on the agenda for the June 20, 2012 board of supervisors meeting as "County of San Diego Climate Action Plan (District: All)." The staff report and supporting documents presented to the board of supervisors included (1) the CAP, (2) the Thresholds, (3) the environmental documentation, and (4) public documentation.

The environmental documentation included a memorandum referencing "CEQA Guidelines Section 15164 Addendum to the County of San Diego General Plan Update [PEIR] (SCH 2002111067)" (Addendum) which was dated the same day as the hearing, June 20, 2012. The addendum defined the project as "the CAP and Significance Guidelines." The addendum included attachments entitled "Environmental Review Update Checklist Form" (environmental checklist) and "Environmental Review Update Checklist for County of San Diego Climate Action Plan." The environmental checklist included a determination by staff that the "new information included in the CAP and Significance Guidelines represent minor technical additions to the previously certified EIR."

At the board of supervisors hearing, staff acknowledged that "[s]tate and local measures in the climate plan are insufficient to achieve our target in 2035" and explained that the CAP measures were not required, but rather that staff "believe[d]" that "education and incentives" might produce a result.

The County also documented that GHG emissions were anticipated to *increase*, not decrease, after 2020. Staff explained that the County would not comply with Executive Order No. S-3-05 because "the State's plan right now goes out to 2020." Staff further explained to the Board of Supervisors that the Thresholds would result in a less than significant finding for greenhouse gas emissions for future development projects.

Ultimately, the board of supervisors took the following actions:

1. Adopted environmental findings including in attachment C.

2. Adopted the plan titled "County of San Diego Climate Action Plan (Attachment A)."

The only findings made by the County were the following:

1. The environmental impact report (EIR) dated August 3, 2011 on file with the Department of Planning and Land Use (DPLU) as Environmental Review Number SCH 2002111067 was completed in compliance CEQA and the State and County CEQA Guidelines and that the Board of Supervisors has reviewed and considered the information contained therein and the Addendum thereto dated June 20, 2012 on file with DPLU and attached thereto; and
2. There were no changes in the project or in the circumstances under which the project was undertaken that involved significant new environmental impacts which were not considered in the previously certified EIR dated August 3, 2011, that there was no substantial increase in the severity of previously identified significant effects, and that no information of substantial importance had become available since the EIR was certified as explained in the environmental checklist dated June 20, 2012 and attached thereto.

*I. The Sierra Club Files Suit*

The Sierra Club filed a petition for writ of mandate, challenging the June 20, 2012 approval of the CAP and Thresholds project, including the associated environmental review. The Sierra Club alleged that the CAP did not meet the requirements of Mitigation Measure CC-1.2, the Thresholds were not adopted pursuant to the requirements of CEQA Guideline section 15064.7, and that an EIR should have been prepared.

*J. The Trial Court's Decision*

The trial court determined that the CAP did not comply with the requirements for a CAP as set forth in Mitigation Measure CC-1.2, and thus violated CEQA. The trial court found that the CAP neither contained enforceable GHG reduction measures that

will achieve the specified emissions reductions, nor detailed deadlines for GHG emission reductions.

The trial court further found that the approval process violated CEQA, noting: "There is no showing that the County properly considered whether the CAP is within the scope of the PEIR" and that "environmental review is necessary to ascertain whether the CAP met the necessary GHG emission reductions when considering the CAP is merely hortatory and contains no enforcement mechanism for reducing GHG emissions."

Further, the trial court determined that whether or not the Thresholds were adopted was a subsidiary issue that did not need to be reached in light of the trial court's decision on the CAP (which formed the basis for the Thresholds) and the process by which it was approved.

## DISCUSSION

### I. STANDARD OF REVIEW

The Sierra Club and the County agree as to the applicable standards of review.

In reviewing the County's actions under CEQA, we must determine whether there was "a prejudicial abuse of discretion." (Pub. Resources Code, § 21168.5.) "Abuse of discretion is established if the agency has not proceeded in a manner required by law, or if the determination or decision is not supported by substantial evidence." (*Mira Mar Mobile Community v. City of Oceanside* (2004) 119 Cal.App.4th 477, 486.)

"[A] reviewing court must adjust its scrutiny to the nature of the alleged defect." (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 435 (*Vineyard*)). Challenges to an agency's failure to proceed in the

manner required by CEQA are subject to a significantly different standard of review than challenges that an agency's decision is not supported by substantial evidence. (*Ibid.*)

Where the challenge is that the agency did not proceed in the manner required by law, a court must "determine de novo whether the agency has employed the correct procedures, 'scrupulously enforc[ing] all legislatively mandated CEQA requirements.'" (*Ibid.*)

Furthermore, when a prior environmental impact report has been prepared and certified for a program or plan, the question for a court reviewing an agency's decision not to use a tiered EIR for a later project "is one of law, i.e., 'the sufficiency of the evidence to support a fair argument.'" (*Sierra Club v. County of Sonoma* (1992) 6 Cal.App.4th 1307, 1318.) "[I]f there is substantial evidence in the record that the later project may arguably have a significant adverse effect on the environment which was not examined in the prior program EIR, doubts must be resolved in favor of environmental review and the agency must prepare a new tiered EIR, notwithstanding the existence of contrary evidence." (*Id.* at p. 1319, fn. omitted.) The court "must set aside the decision if the administrative record contains substantial evidence that a proposed project might have a significant environmental impact; in such a case, the agency has not proceeded as required by law." (*Id.* at 1317.)

## II. OVERVIEW OF CEQA

"The fundamental goals of environmental review under CEQA are information, participation, mitigation, and accountability." (*Lincoln Place Tenants Assn. v. City of Los Angeles* (2007) 155 Cal.App.4th 425, 443-444 (*Lincoln Place II*).) As the California Supreme Court has explained: "If CEQA is scrupulously followed, the public will know

the basis on which its responsible officials either approve or reject environmentally significant action, and the public, being duly informed, can respond accordingly to action with which it disagrees. [Citations.] The EIR process protects not only the environment but also informed self-government." (*Laurel Heights Improvement Assn. v. Regents of the University of California* (1988) 47 Cal.3d 376, 392 (*Laurel Heights*).

CEQA requires a public agency to prepare an environmental impact report (EIR) before approving a project that may have significant environmental effects. (Pub. Resources Code, § 21100.) The EIR is "'the heart of CEQA' . . . an 'environmental alarm bell' whose purpose it is to alert the public and its responsible officials to environmental changes before they have reached ecological points of no return.'" (*Laurel Heights, supra*, 47 Cal.3d at p. 392.)

CEQA authorizes the preparation of various kinds of environmental impact reports depending upon the situation, such as the subsequent EIR, a supplemental EIR, and a tiered EIR. (Pub. Resources Code, §§ 21166, 21068.5, 21093, 21094.) Whereas the subsequent EIR and supplemental EIR are used to analyze modifications to a particular project, a tiered EIR is used to analyze the impacts of a later project that is consistent with an EIR prepared for a general plan, policy, or program. (CEQA Guidelines, § 15385; compare Pub. Resources Code, § 21166 & CEQA Guidelines §§ 15162, 15163 & 15164 [referencing "the project"] with Pub. Resources Code, § 21093 [stating that later projects may use tiering].)

CEQA requires that "environmental impact reports shall be tiered whenever feasible." (Pub. Resources Code, § 21093, subd. (b).) Tiering means "the coverage of

general matters in broader EIRs (such as on general plans or policy statements) with subsequent narrower EIRs . . . incorporating by reference the general discussions and concentrating solely on the issues specific to the EIR subsequently prepared." (CEQA Guidelines, § 15385; Pub. Resources Code, § 21068.5.) In the context of program and plan-level EIR's, the use of tiered EIR's is mandatory for a later project that meets the requirements of Public Resources Code section 21094, subdivision (b). (Pub. Resources Code, § 21094, subd. (a).)

Another requirement of CEQA is that public agencies "should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects." (Pub. Resources Code, § 21002.) "A 'mitigation measure' is a suggestion or change that would reduce or minimize significant adverse impacts on the environment caused by the project as proposed." (*Lincoln Place II, supra*, 155 Cal.App.4th at p. 445.)

If the agency finds that mitigation measures have been incorporated into the project to mitigate or avoid a project's significant effects, a "public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation." (Pub. Resources Code, § 21081.6, subd. (a)(1).)

If a mitigation measure later becomes "impracticable or unworkable," the "governing body must state a legitimate reason for deleting an earlier adopted mitigation

measure, and must support that statement of reason with substantial evidence." (*Lincoln Place Tenants Association v. City of Los Angeles* (2005) 130 Cal.App.4th 1491, 1509 (*Lincoln Place I*.)

### III. ANALYSIS

#### A. Statute of Limitations Defense

The County asserts that the Sierra Club's claim that the mitigation measures it adopted are not enforceable is barred by the statute of limitations because the Sierra Club should have challenged the County's approval of the general plan update EIR, not the CAP. We reject this contention.

The petition was filed 30 days after the County's June 20, 2012 approval of the CAP. In addition, the lawsuit was filed 29 days after the County filed a notice of determination (NOD). The Sierra Club's July 20, 2012 petition was timely filed 29 days after. Thus, the County triggered the 30-day statute of limitations set forth in Public Resources Code section 21167, subdivisions (b) and (e).

The Sierra Club is not challenging the validity of the general plan update PEIR or the enforceability of the mitigation measures provided in that document. Rather, the Sierra Club is challenging the project before the Board of Supervisors on June 20, 2012, and seeks to enforce a key mitigation measure set forth in the EIR and MMRP - Mitigation Measure CC-1.2.

Further, the Court of Appeal in *Lincoln Place II, supra*, 155 Cal.App.4th 425 rejected a similar argument to that made by the County. In that case, a tenants' association sought to compel the City of Los Angeles to enforce mitigation measures

contained in a vesting tentative tract map issued by the city. The city argued that the 180-day statute of limitations contained in Public Resources Code section 21167 for challenges to approval of projects without determining whether they have a significant effect on the environment barred the plaintiffs' action. In rejecting that action, the Court of Appeal held "[t]he statute's plain language demonstrates it has no application to this case seeking to *enforce mitigating conditions*." (*Lincoln Place II*, at p. 453, fn. 23, italics added.)

Moreover, the cases cited by the County in support of its position are inapposite. The County cites *River Valley Preservation Project v. Metropolitan Transit Development Bd.* (1995) 37 Cal.App.4th 154 and *Friends of Davis v. City of Davis* (2000) 83 Cal.App.4th 1004 for the proposition that because the time period within which to challenge the general plan update EIR has expired, the EIR is conclusively presumed to have complied with CEQA. Here, however, the Sierra Club is not challenging the general plan update EIR, but the CAP and Thresholds project, and is seeking to enforce Mitigation Measure CC-1.2.

The County's reliance upon *Environmental Council of Sacramento v. City of Sacramento* (2006) 142 Cal.App.4th 1018 and *Mount Shasta Bioregional Ecology Center v. County of Siskiyou* (2012) 210 Cal.App.4th 184 is also unavailing. The petitioners in those actions were challenging the adequacy of the mitigation measures themselves. Here, the Sierra Club does not attack the adequacy of the mitigation measure in the general plan update PEIR. To the contrary, the Sierra Club's lawsuit is in *support* of the County's past findings and promises to achieve GHG Reductions.

*B. Failure To Proceed in a Manner Required by Law*

As detailed, *ante*, implementation of Mitigation Measure CC-1.2 was only one of the purported purposes of the CAP and Thresholds project. The CAP and Thresholds project also purports to be a plan-level document for use in review of later projects.

As we shall explain, *post*, with respect to the CAP as mitigation for a plan-level document, the County failed to proceed in the manner required by CEQA by proceeding with the CAP and Thresholds project in spite of the express language of Mitigation Measure CC-1.2 that the CAP "include . . . more detailed greenhouse gas emissions reduction targets and deadlines" and that the CAP "will achieve comprehensive and enforceable GHG emissions reduction" by 2020. With respect to the CAP as a plan-level document itself, the County failed to proceed in the manner required by law by failing to incorporate mitigation measures into the CAP as required by Public Resources Code section 21081.6.

*1. The County failed to adopt a CAP that complied with the requirements of Mitigation Measure CC-1.2*

"Mitigating conditions are not mere expressions of hope." (*Lincoln Place I, supra*, 130 Cal.App.4th at p. 1508.) Once incorporated, mitigation measures cannot be defeated by ignoring them or by "attempting to render them meaningless by moving ahead with the project in spite of them." (*Lincoln Place II, supra*, 155 Cal.App.4th at p. 450.) This is true even where subsequent approvals are ministerial. (*Katzeff v. California Department of Forestry & Fire Protection* (2010) 181 Cal.App.4th 601, 614 [public agency "may not authorize destruction or cancellation of the mitigation—whether or not

the approval is ministerial—without reviewing the continuing need for the mitigation, stating a reason for its actions, and supporting it with substantial evidence"].) If a mitigation measure later becomes "impractical or unworkable," the "governing body must state a legitimate reason for deleting an earlier adopted mitigation measure, and must support that statement of reason with substantial evidence." (*Lincoln Place I, supra*, 130 Cal.App.4th at p. 1509.)

a. *The CAP does not include enforceable GHG emissions required by Mitigation Measure CC-1.2*

When it adopted the general plan PEIR, the County promised to achieve specified GHG reductions by 2020. However, when it approved the CAP and Thresholds project, the County stated that the CAP does not ensure the required GHG emissions reductions. Rather, the County described the strategies as recommendations.

Until this litigation was initiated, the County described the CAP as the most critical component of the County's climate change mitigation efforts. The CAP was intended to "provide[] the specific details associated with [the General Plan] strategies and measures for greenhouse gas (GHG) emissions reduction *that were not available* during the program-level analysis of the General Plan." (Italics added.)

The County agreed to the mitigating requirement of a CAP containing "comprehensive and enforceable GHG emissions reduction measures that will achieve" the specified GHG Reductions by 2020. This is because, as the County acknowledges, Executive Order No. S-3-05 requires consistent emissions reductions each year from

2010 through 2020 and then a greater quantity of emissions reductions each year from 2020 through 2050.

The County asserts that "[f]ive of the reduction measures incorporated into the CAP are also embodied in state or federal law" and that "CEQA permits reliance on existing regulatory standards as mitigation when it is reasonable to believe compliance will occur."

However, the County acknowledges that these measures will not, alone, achieve the specified GHG emissions reductions by 2020. In fact, the record shows that without local measures the requirements of Assembly Bill No. 32 will not be met.

Further, the record demonstrates that many of the mitigation measures set forth in the MMRP are not likely to achieve GHG emissions reductions by 2020 as promised by Mitigation Measure CC-1.2 because they are not currently funded. The record show that the County has not funded essential programs like replacing its own vehicle fleet, implementing water conservation programs, preparing town center plans, and reducing water demand. The County cannot rely on unfunded programs to support the required GHG emissions reductions by 2020, as Mitigation Measure CC-1.2 requires.

Transportation is a major concern, which the County concedes is the largest source of community GHG emissions. The Sierra Club presented evidence below that driving reductions needed to achieve Assembly Bill No. 32 and Executive Order No. S-3-05 targets are not met. The County did not dispute this evidence. The record shows that transit-related measures are either unfunded, that the County is not making meaningful

implementation efforts, and in some instances that the County is acting contrary to mitigation measures incorporated into the general plan update PEIR.

For example, two of the four transportation measures, T1 (increase transit use) and T2 (increase walking & biking), rely on at least one unfunded program. In addition, measures T1 and T2, as well as T3 (increase ridesharing), also rely on "coordination" with SANDAG and/or other entities.

In response to Sierra Club's comments relating to the effectiveness of these measures as a result of current SANDAG (San Diego Association of Governments) priorities, the County did not request funds based on the fact that it does not control how SANDAG spends its money. As the County stated, "The County does not control regional plans or allocation of regional transportation funding." This position was rejected by the Supreme Court in *City of Marina v. Board of Trustees of the California State University* (2006) 39 Cal.4th 341, 367 [holding respondent could not disclaim responsibility for making payments without first asking for funds].

The CAP's transportation section also does not include an analysis of the County's own operations, and the record appears to include contradictions even over programs over which the County has exclusive control, such as replacement of its own vehicle fleet with alternatively fueled vehicles. Although the County suggests it will implement "1 % greater efficiency per year", the County has not formally bound itself to do so. Indeed, there is no mention of potential funding sources with respect to reductions related to County operations.

b. *The CAP contains no detailed deadlines for reducing GHG emissions*

As the trial court found, the CAP contained no detailed deadlines. The County argues on appeal that the 2020 goal and the timeframes set forth in the MMRP are sufficient to meet the requirement of "more detailed . . . deadlines." However, Mitigation Measure CC-1.2 expressly required that the CAP provide more detailed deadlines. If the County did not intend for the CAP to do anything further with respect to deadlines than already set forth, the County would not have used the word "more." Indeed, in addition to not providing the promised deadlines, the CAP acknowledges that it will not be effective unless it is updated.

c. *The evidence cited by the County*

The County asserts that CAP measures will be effective because "[p]articipation rates were discussed and modified," and the "feasibility of attaining reduction targets was assessed." However, the County does not cite any evidence in the record to support its belief that people will participate in the various programs to the extent necessary to achieve the reductions asserted, or even assert that feasible measures will actually be implemented.

Rather, the County cites to entire appendices and chapters of the CAP. However, information contained in appendices are "not a substitute for "a good faith reasoned analysis."" (*Vineyard, supra*, 40 Cal.4th at p. 442.) "The audience to whom an EIR must communicate is not the reviewing court but the public and the government officials deciding on the project." (*Id.* at p. 443.)

The County also asserts that the CAP "demonstrates a [GHG emissions] reduction of 19%." However, the CAP expressly states that it does not ensure reductions. Instead, the County's evidence relates to quantification of the respective measures. Quantifying GHG reduction measures is not synonymous with implementing them. Whether a measure is effective requires more than quantification, but an assessment of the likelihood of implementation. There is no evidence in the record that the above-referenced mitigation measures will make any contribution to achieving GHG emissions reductions by 2020.

*2. The County's failure to make findings regarding the environmental impact of the CAP and Thresholds project*

Instead of analyzing and making findings regarding the environmental effects of the CAP and Thresholds project, the County made an erroneous assumption that the CAP and Thresholds project was the same project as the general plan update. (*Sierra Club, supra*, 6 Cal.App.4th at p. 1320 ["section 21166 and its companion section of the [CEQA] Guidelines appear to control only when the question is whether more than one EIR must be prepared for what is essentially the same project"].) As a result, the County failed to render a "written determination of environmental impact" before approving the CAP and Thresholds project. (*No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 81; Pub. Resources Code, § 21151.) This constitutes a failure to proceed in the manner required by law. (*No Oil, supra*, 13 Cal.3d at p. 81.)

By inaccurately assuming the CAP and Thresholds project was the same project as the general plan update, the County failed to analyze the environmental impacts of the

CAP and Thresholds project itself. (*Natural Resources Defense Council, Inc. v. City of Los Angeles* (2002) 103 Cal.App.4th 268, 283 [holding CEQA violated where "no evidence that the [County] formally addressed whether or not the [] project fell within the concept of a 'tiered' EIR"].) As a result, the County never made the required findings that the effects of the CAP and Thresholds project were examined, mitigated, or avoided. (Pub. Resources Code, § 21094, subd. (a).)

The facts of the present case, as the trial court found, are similar to *Center for Sierra Nevada Conservation v. County of El Dorado* (2012) 202 Cal.App.4th 1156 (*CSNC*). In *CSNC*, the county prepared a general plan and PEIR. (*Id.* at p. 1162.) In the PEIR, one of the mitigation measures was the preparation of a management plan, including a fee program, to mitigate the general plan's impacts on oak woodland habitat. (*Id.* at p. 1163.) The initial study concluded that the project was merely an implementation of the county's general plan. (*Id.* at p. 1176.)

The Court of Appeal rejected this argument, holding that a tiered EIR was required to examine the management plan since the PEIR did not include sufficient details, rejecting the argument that the management plan was merely an implementation of the general plan. (*CSNC, supra*, 202 Cal.App.4th at pp. 1176, 1184-1185.)

The County attempts to distinguish *CSNC* by asserting the general plan update PEIR analyzed the same environmental issue addressed in the CAP. However, the record reveals that the necessary details were not available to the County at the time the general plan update PEIR was certified. Indeed, no component of the project, the CAP or the Thresholds, had even been created at the time of the general plan update.

As the Court of Appeal in *CSNC* explained:

"That the preceding 2004 program EIR contemplated adverse environmental impacts resulting from development under the 2004 General Plan does not remove the need for a tiered EIR for the oak woodland management plan. . . . Here, the specific project—the oak woodland management plan (including Option B fee program)—required a tiered EIR to examine its specific mitigation measures and fee rate." (*CSNC, supra*, 202 Cal.App.4th at p. 1184.)

The general plan update anticipated implementation of mitigation measures—CC-1.2, CC-1.7, and CC-1.8—as mitigating conditions to mitigate the adverse climate change environmental impacts of the general plan update. Those measures were analyzed in the PEIR. However, the PEIR never considered the use of the CAP and the Thresholds as a plan-level program. Thus, the environmental impacts of its use needed to be considered in an EIR. (*NRDC, supra*, 103 Cal.App.4th at p. 281 [project did not arise until after PEIR and thus was not contemplated therein].)

The County contends that the Board of Supervisors made an "implied finding" that the CAP complied with Mitigation Measure CC-1.2 and that finding is "entitled to great deference." However, "such an 'implicit finding' does not satisfy CEQA's requirement of express findings." (*Sacramento Old City Assn. v. City Council* (1991) 229 Cal.App.3d 1011, 1037.) "[T]he board of supervisors must make findings . . . to permit a reviewing court to bridge the analytic gap between the evidence and the ultimate decision." (*People v. County of Kern* (1976) 62 Cal.App.3d 761, 777; see *Citizens for Quality Growth v. City of Mt. Shasta* (1988) 198 Cal.App.3d 433, 442 ["passing references to the mitigation measures are insufficient to constitute a finding, as nothing in City's resolutions binds it to follow these measures"].)

Moreover, even if "implied findings" were permissible, there can be no "interpretation" of Mitigation Measure CC-1.2 contrary to its express terms. (*Southern Cal. Edison Co. v Public Utilities Com.* (2000) 85 Cal.App.4th 1086, 1105 ["an agency's interpretation of a regulation or statute does not control if an alternative reading is compelled by the plain language of the provision"]; see *Santa Clarita Organization for Planning the Environment v. City of Santa Clarita* (2011) 197 Cal.App.4th 1042, 1062 [agency's "view of the meaning and scope of its own ordinance" does not enjoy deference when it is "clearly erroneous or unauthorized"].)

3. *The County failed to proceed in the manner required by law by failing to incorporate mitigation measures directly into the CAP*

As discussed, *ante*, one of the major differences between the climate change action plan anticipated by Mitigation Measure CC-1.2 in the general plan update PEIR and the CAP and Thresholds project as prepared, is that the general plan update PEIR did not analyze the CAP as a plan-level document that itself would facilitate further development. As a plan-level document, the CAP is required by CEQA to incorporate mitigation measures directly into the CAP:

*"A public agency shall provide the measures to mitigate or avoid significant effects on the environment are fully enforceable through permit conditions, agreements, or other measures. Conditions of project approval may be set forth in referenced documents which address required mitigation measures or, in the case of the adoption of a plan, policy, regulation, or other public project, by incorporating the mitigation measures into the plan, policy, regulation, or project design." (Pub. Resources Code, § 21081.6, subd. (b), italics added.)*

As authority for the assertion that it did not need to incorporate enforceable mitigation measures into the CAP directly, the County cites *Twain Harte Homeowners Assn. v. County of Tuolumne* (1982) 138 Cal.App.3d 664, 689-690. However, *Twain Harte* was decided before enactment of Public Resources Code section 21081.6, subdivision (b), which, as discussed, *ante*, requires "in the case of the adoption of a plan" that mitigation measures be fully enforceable "by incorporating the mitigation measures into the plan . . . ."

"The purpose of CEQA is not to generate paper, but to compel government at all levels to make decisions with environmental consequences in mind." (*Bozung v. Local Agency Formation Com.* (1975) 13 Cal.3d 263, 283.) By failing to consider environmental impacts of the CAP and Thresholds project, the County effectively abdicated its responsibility to meaningfully consider public comments and incorporate mitigating conditions. In addition to the example discussed, *ante*, related to transportation impacts, the Sierra Club also provided examples of mitigation implemented by other regions to mitigate the effects of climate change in the energy sector. The County neither implemented nor responded to these examples which have already been implemented elsewhere.

#### 4. *The trial court's finding that the County must prepare an EIR*

As set forth in *Lincoln Place I*, a supplemental EIR must be prepared when a public agency determines a previously adopted mitigation measure is infeasible. (*Lincoln Place I, supra*, 130 Cal.App.4th at pp. 1508-1509.) In addition, CEQA guidelines,

section 15183.5, subdivision (b)(1)(F) provides that a plan for the reduction of GHG emissions should "[b]e adopted in a public process following environmental review."

The County's failure to comply with Mitigation Measure CC-1.2 and Assembly Bill No. 32 and Executive Order No. S-3-05 supports the conclusion that the CAP and Thresholds project will have significant, adverse environmental impacts that have not been previously considered, mitigated, or avoided.

a. *Substantial evidence supports the court's finding preparation of an EIR was required*

The County asserts that the substantial evidence standard of review applies to the question of whether a supplemental EIR was required, under which deference is given to an agency's determination. (*Latinos Unidos de Napa v. City of Napa* (2013) 221 Cal.App.4th 192, 200-202.) The Sierra Club, on the other hand asserts that the "fair argument" test applies, under which "deference to the agency's determination is not appropriate and its decision not to require an EIR can be upheld only when there is no credible evidence to the contrary." (*Sierra Club, supra*, 6 Cal.App.4th at p. 1318.) We conclude that under either standard, the trial court did not err in finding a supplemental EIR was required.

The fair argument versus substantial evidence test is of no moment because, here, there is no substantial evidence in the record supporting the County's erroneous conclusion that "activities associated with the CAP and Significance Guidelines are within the scope of the General Plan Program EIR."

The County does not dispute that "to avoid serious climate change effects, atmospheric GHG concentrations need to be stabilized as quickly as possible." In fact, the County warns that expected local adverse effects of climate change include "higher temperatures, [¶] a greater number of extremely hot days, [¶] changes in the pattern and amount of precipitation, [¶] decreased water supplies accompanied by increased demand, [¶] increased wildfire risk, [¶] changes in ecosystems, and [¶] decline or loss of plant and animal species." However, the CAP and Thresholds project was approved without the appropriate environmental analysis to avoid or mitigate these consequences. As the trial court found, "environmental review is necessary to ascertain whether the CAP met the necessary GHG emission reductions when considering the CAP is merely hortatory and contains no enforcement mechanism for reducing GHG emissions."

Moreover, as the County acknowledges, the details of the CAP "were not available during program-level analysis of the General Plan." For example, the general plan update PEIR did not provide a "baseline GHG emissions inventory; detailed GHG-reduction targets and deadlines; comprehensive and enforceable GHG emissions-reduction measures; and implementation, monitoring, and reporting of progress toward the targets defined in the CAP." In 2011 the County found that implementation of mitigation measures, including CC-1.2, CC-1.7, and CC-1.8, were part of the mitigation imposed to mitigate the climate change impacts of the general plan update. It cannot be said that failing to comply with Mitigation Measure CC-1.2, Assembly Bill No. 32, and Executive Order No. S-3-05 does not change the environmental conclusions in the general plan update PEIR.

Further, the general plan update PEIR did not contemplate that preparation of the CAP and Thresholds project was at the "plan-level." As a plan-level document, the CAP and Thresholds project was required to undergo environmental review as a matter of law. (CEQA Guidelines, § 15183.5, subd. (b)(1)(F).) The general plan update PEIR also did not contemplate that as a result of the CAP, "[m]ore projects will fall below the bright line threshold, and will not have to conduct detailed analysis", much less study the environmental impact of such. County staff, the planning commission, and the board of supervisors were all aware that approving the CAP and Thresholds project would allow more projects to avoid a climate change analysis, including projects with post-2020 climate change impacts without post-2020 environmental review.

Furthermore, in 2011, the County found that climate change impacts were mitigated not only by implementation of mitigation measures, but also by "compliance with applicable regulations" including Assembly Bill No. 32 and Executive Order No. S-3-05.

By contrast, the CAP and Thresholds project now acknowledges it does not comply with Executive Order No. S-3-05. Instead of maintaining a constant rate of GHG emissions reductions after 2020, as required by Executive Order No. S-3-05, the County admits that GHG emissions will instead increase after 2020. Thus, the County's own documents demonstrate that the CAP and Thresholds project will not meet the requirements of Assembly Bill No. 32 and Executive Order No. S-3-05 and thus will have significant impacts that had not previously been addressed in the general plan update PEIR.

The explanation given to the board of supervisors for failing to address the post-2020 impacts facilitated by the CAP and Thresholds project was that "the State's plan doesn't go out that far, and it would be speculative for us to do that."

However, contrary to the County's argument that it would be "speculative" to consider the environmental impacts of the CAP, the County has acknowledged that other agencies have, in fact, been able to do so. It is an abuse of discretion to reject alternatives or mitigation measures that would reduce adverse impacts without supporting substantial evidence. (CEQA Guidelines, §§ 15043, 15093, subd. (b).) The County's assumption that considering post-2020 impacts is "speculative" is not supported by substantial evidence. (Pub. Resources Code, § 21082.2, subd. (c) ["Argument, speculation, unsubstantiated opinion or narrative, evidence which is clearly inaccurate or erroneous . . . is not substantial evidence. Substantial evidence shall include facts, reasonable assumptions predicated upon facts, and expert opinion supported by facts."].)

The Sierra Club provided feasible mitigation measures. The County rejected these mitigation measures without substantial evidence for doing so.

In sum, the CAP does not fulfill the County's commitment under CEQA and Mitigation Measure CC-1.2, to provide detailed deadlines and enforceable measures to ensure GHGF emissions will be reduced.

DISPOSITION

The judgment is affirmed. The Sierra Club shall recover its costs on appeal.

NARES, J.

I CONCUR:

McCONNELL, P. J.

I CONCUR IN THE RESULT:

HUFFMAN, J.

# REFERENCE 2

# First Update to the **Climate Change Scoping Plan**

## ***Building on the Framework***

From:

[http://www.arb.ca.gov/cc/scopingplan/2013\\_update/first\\_update\\_climate\\_change\\_scoping\\_plan.pdf](http://www.arb.ca.gov/cc/scopingplan/2013_update/first_update_climate_change_scoping_plan.pdf)

### **B. Achieving Climate Stabilization**

Scientific research indicates that an increase in the global average temperature of 2°C (3.6°F) above pre-industrial levels, which is only 1.1°C (2.0°F) above present levels, poses severe risks to natural systems and human health and well-being. Considering knowledge from the paleo-climate record with changes currently observed in the Greenland and Antarctic ice sheets, we can expect substantial sea level rise, 0.4 to 0.8 meters, with upper end uncertainties approaching one meter above present day during the 21st Century and continued substantial increase after 2100 even with stringent mitigation of emissions to achieve 2°C stabilization. Increased climate extremes, already apparent at present day climate warming (~0.9°C), will no doubt be more severe. **To have a good chance (not a guarantee) of avoiding temperatures above those levels, studies focused on a goal of stabilizing the concentration of heat-trapping gases in the atmosphere at or below the 450 parts per million (ppm) CO<sub>2</sub>-equivalent (CO<sub>2</sub>e, a metric that combines the climate impact of all well-mixed GHGs, such as methane and nitrous oxide, in terms of CO<sub>2</sub>).**

The CO<sub>2</sub>e target is a somewhat approximate threshold, and the exact level of CO<sub>2</sub>e is not precisely known because the sensitivity of the climate system to GHGs has uncertainty. Different models show slightly different outcomes within this range. **An example of a pre-IPCC assessment study (Meinshausen et al. 2009)<sup>15</sup> which has synthesized many studies on climate sensitivities, concluded that we would need to stabilize at about 400 ppm CO<sub>2</sub>e (Bullock note: We have already exceeded 400 PPM!!!!!!!) in order to likely avoid exceeding the 2°C threshold (even at that stabilization target, there is still about a 20 percent chance of exceeding the temperature target).** Further, a recent paper by an international team of scientists (Hansen et al. 2013)<sup>16</sup> asserts that the **widely accepted target of limiting human-made global climate warming to 2°C above preindustrial levels is likely too high and may subject future generations and nature to irreparable harm. Recognizing this fact, the international community agreed in meetings in Cancun in 2012 to review, by 2015, progress to the 2°C target and consider whether it should be strengthened to a 1.5°C threshold.**

What is important to recognize in these studies of warming thresholds is the critical importance of non-CO<sub>2</sub> gases, particularly the short-lived climate pollutants. For example, to avoid 2°C warming at a 66 percent confidence level, total carbon emissions (as CO<sub>2</sub>e) must be kept to 1000 GtC. Considering that we have already emitted about 500 GtC, which leaves 500 GtC to be divided up among nations. If the non-CO<sub>2</sub> gases are included then

the total CO<sub>2</sub>e emissions are at 790 GtC, leaving only 210 GtC to be emitted. Thus, there is a compelling case to reduce the short-lived climate pollutants.

In early May 2013, the Mauna Loa monitoring station, which has been shown to provide excellent measurements of CO<sub>2</sub> throughout the global atmosphere, recorded atmospheric CO<sub>2</sub> of 400 ppm,<sup>17</sup> substantially higher than the 316 ppm recorded when the station made its first measurements in 1958. The monitoring station offers the longest-running record of atmospheric CO<sub>2</sub> measured directly from the air. This recent reading will take a few years to become the international average; however, reaching 400 ppm at Mauna Loa is significant and has surpassed a worrisome milestone.

Although stabilizing atmospheric GHG concentration below 450 ppm CO<sub>2</sub>e is important, it does not mean that once that level is reached, temperatures will immediately level off. Because of time lags inherent in the Earth's climate, the initial warming that occurs in response to a given increase in the concentration of CO<sub>2</sub> ("transient climate change") reflects only about half the eventual total warming ("equilibrium climate change").

Observational data reveal that, in recent decades, some climate extremes are already increasing in response to relative modest warming; these extremes would likely increase considerably with warming of 2°C or more. While the findings suggest that even at relatively low levels of global warming the world will have to face significant sea level rise, the studies also demonstrate that the potential impacts are substantially greater if we allow warming to reach a level as high as 2°C. If they occur, changes such as these would not rapidly reverse, as even if the atmospheric CO<sub>2</sub> amount declines, it would take many centuries for the deep ocean to cool.

To prevent exceeding 450 ppm CO<sub>2</sub>e, developed countries must substantially reduce their emissions in the near term. The 2008 World Energy Outlook suggests that Organization for Economic Co-operation and Development (OECD) countries must reduce emissions by about 40 percent below 2006 levels by 2030.<sup>18</sup> The Union of Concerned Scientists has suggested a 2030 emissions target for the United States of 56 percent below 2005 levels (44 percent below 1990 levels).<sup>19</sup> A governmental study from the Netherlands finds that Europe would have to reduce emissions by 47 percent below 1990 levels and the United States would have to reduce emissions by 37 percent below 1990 levels by 2030.<sup>20</sup> The International Energy Agency comes to a similar conclusion, finding that the United States would have to reduce emissions by about 38 percent below 1990 levels by 2030.<sup>21</sup> Note that percent reductions by 2030 depend on the assumed overall trajectory of emissions, including the amount after 2030.

Because of the cumulative effects of GHG emissions and resultant changes to the earth's energy balance and the inertia in the climate system, delaying efforts to reduce emissions will likely mean that global average temperature will increase by more than 2°C, increasing the costs associated with combatting climate change. Reducing the global concentration to 450 ppm CO<sub>2</sub>e after delaying mitigation actions for ten more years is estimated to cost an additional \$3.5 trillion, compared to levels of investment needed now if low-carbon strategies were to be adopted immediately.<sup>22</sup>

# REFERENCE 3



April 15, 2009

***Via Electronic Mail***

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**Re: Comments on Survey of CEQA Documents on Greenhouse Gas Emissions  
Draft Work Plan and Development of GHG Threshold of Significance for  
Residential and Commercial Projects**

This letter provides comments from the Center for Biological Diversity (“the Center”) on the “Survey of CEQA Documents on Greenhouse Gas Emissions Draft Work Plan” as well as SCAQMD’s continuing efforts to develop a greenhouse gas (GHG) threshold of significance for residential and commercial projects.

SCAQMD’s survey of the GHG emissions from residential, commercial, and mixed-use projects should yield valuable data on the range of emissions resulting from these types of Projects in the South Coast air basin. Under the Work Plan, SCAQMD will use this data “to determine the level of GHG emissions for residential and commercial projects that constitute the 90th percentile ... or other percentile desired.” (Work Plan at 1.) According to SCAQMD, a threshold based on the 90% capture of sector emissions is consistent with the long-term emission reduction objectives set by Executive Order S-3-05, which calls for emission reductions to 80% below 1990 levels by 2050, or 90% below current levels. (SCAQMD Interim GHG Significance Threshold Staff Proposal (revised), at 3-2.) Compliance with Executive Order S-3-05 targets is presumed to be sufficient “to contribute to worldwide efforts to cap GHG concentrations at 450 ppm, thus, stabilizing the climate.” (*Id.*)

While the Center appreciates SCAQMD’s recognition that a GHG threshold must be based on long-term climate stabilization objectives, the best available scientific data now indicates that the threats posed by even small increases in temperature are far greater than previously thought. Stabilization of greenhouse gas emissions at 450 ppm as contemplated under Executive Order S-3-05 is insufficient to minimize the risk of catastrophic outcomes. Therefore, the capture of 90% of emissions from the residential and commercial sectors, which is based on compliance with Executive Order S-3-05, is

not a sufficiently stringent capture rate to sufficiently contribute to preventing dangerous climate change.

Importantly, while the emission reduction targets embodied in AB 32 and Executive Order S-3-05 can inform a significance determination, it is only to the extent that these targets accurately reflect scientific data on needed emissions reductions. Under CEQA, regulatory standards can serve as proxies for significance where they accurately reflect the level at which an impact can be said to be less than significant. *See, e.g., Protect the Historic Amador Waterways v. Amador Water Agency*, 116 Cal. App. 4th 1099, 1109 (2004).

To ensure that an adopted threshold of significant is an accurate reflection of scientific and factual data, this letter sets for the best available science on climate change. As set forth below, the best available science most strongly support a threshold of zero. The further a threshold is from zero, the more tenuous the evidence to support a determination that the threshold is effective at meeting the environmental objective of avoiding dangerous climate change. Framed in the context of SCAQMD’s methodology, the further a threshold is from a 100% capture rate, the more tenuous the evidence to support a determination that the threshold is effective. Accordingly, in the event SCAQMD is unwilling to set a zero threshold, SCAQMD should consider increasing the capture rate beyond 90% and also require projects with emissions less than this threshold to adopt measures to reduce their GHG emissions before reaching a determination that project impacts are less-than-significant. A non-zero quantitative threshold – assuming it is sufficiently stringent – coupled with performance standards that projects under this threshold must adopt recognizes that all projects must be part of the solution to global warming and would seem to be more equitable and defensible than a bright-line non-zero threshold alone.<sup>1</sup>

Finally, with regard to the Work Plan itself, it would be helpful to include data on emissions from categorically exempt projects. In the debate over an appropriate threshold of significance for GHGs, arguments have been forwarded that a low threshold would eliminate the application of categorical exemptions. Whether or not this is the case, actual data on the emissions typically resulting from projects invoking a categorical exemption would better inform this discussion.

### **1. A GHG Threshold That Purports to Be Consistent with Executive Order S-3-05 Emission Reduction Targets Is Insufficient to Prevent Dangerous Climate Change**

CEQA calls for the identification of “any critical thresholds for the health and safety of the people of the state.” Pub. Res. Code § 21000(d). With regard to GHGs, this

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<sup>1</sup> Were the District to adopt a non-zero threshold, a quantitative threshold that does not require projects under this threshold to take any action to reduce GHGs may also create an improper *de minimis* exception. *See, e.g., Communities for Better Env’t v. California Resources Agency*, 103 Cal. App. 4th 98, 121 (2002) (“Focusing on the *de minimis* effect in absolute terms isolates the effect individually, and this runs counter to the combined approach that CEQA cumulative impact law requires.”).

critical threshold is avoiding dangerous anthropogenic interference (DAI) with the climate system. Article 2 of the United Nations Framework Convention on Climate Change (UNFCCC) calls for “stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference (DAI) with the climate system.”<sup>2</sup> With the United States and over 180 other countries as signatories, the UNFCCC’s objective of avoiding DAI with the climate is widely viewed as the international regulatory standard for protecting the global climate. The environmental objective of avoiding DAI is recognized in ARB’s Draft GHG Threshold Guidance. (ARB Preliminary Draft Staff Proposal, Recommended Approaches for Setting Interim Significance Thresholds for Greenhouse Gases under the CEQA (“ARB Draft GHG Threshold”), Oct. 24, 2008 at 3.) In its Policy Objective for the Interim GHG Threshold for Industrial Projects, SCAQMD seems to set a roughly analogous objective of “reducing GHG emissions to stabilize climate change.” (SCAQMD Interim GHG Significance Threshold Staff Proposal (revised), at 3-2.)

The policy objectives of both ARB and SCAQMD’s threshold proposals both state that reaching the emission reduction targets set forth by Executive Order S-3-05, whereby emissions are reduced to 80% below 1990 levels by 2050, would contribute to avoiding dangerous climate change because these reductions are consistent with a pathway to the stabilization of atmospheric concentrations of GHG emissions at 450 ppm. (ARB Draft GHG Threshold at 3; SCAQMD Interim Threshold Proposal at 3-2.) Stabilization of GHGs at 450 ppm provides a 50/50 chance of limiting mean temperature rise to 2°C above pre-industrial levels.<sup>3</sup>

A pathway toward stabilization of GHGs at 450 ppm presents two serious concerns. First, the best available scientific evidence now indicates that a warming of 2°C is not “safe” and would not prevent dangerous interference with the climate system. Second, because the consequences of overshooting a 2°C threshold could include the displacement of millions due to sea level rise, irreversible loss of entire ecosystems, and the triggering of multiple climactic “tipping points” wherein climate change begins to feed on itself and spin rapidly out of control, the risk tolerance for overshooting a 2°C temperature rise should be extremely low. Yet a stabilization target of 450 ppm seems content to, at best, flip a coin in the hopes that future generations are not left with few choices beyond mere survival. While the emission reduction targets set forth under Executive Order S-3-05 is a significant improvement from business-as-usual, because these targets are insufficient to adequately minimize the risk of DAI, compliance with Executive Order S-3-05 is not a sufficiently stringent objective from which to develop a threshold of significance.

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<sup>2</sup> United Nations Framework Convention on Climate Change, art. 2, May 9, 1992, *available at* [http://unfccc.int/essential\\_background/convention/background/items/1349.php](http://unfccc.int/essential_background/convention/background/items/1349.php).

<sup>3</sup> Union of Concerned Scientists, *How to Avoid Dangerous Climate Change: A Target for U.S. Emissions* 3 (Sept. 2007); Malte Meinshausen, *What Does a 2°C Target Mean for Greenhouse Gas Concentrations? A Brief Analysis Based on Multi-Gas Emission Pathways and Several Climate Sensitivity Uncertainty Estimates* in AVOIDING DANGEROUS CLIMATE CHANGE 268 (Cambridge Univ. Press 2006).

Projected risks and damages from global warming are more serious than believed even a few years ago. In 2001, the Intergovernmental Panel on Climate Change (IPCC) used five Reasons For Concern (RFCs) in its Third Assessment Report (TAR) to illustrate the temperature range at which impacts may be considered dangerous.<sup>4</sup> Relationships between the impacts reflected in each RFC and increases in global mean temperature were portrayed in a “burning embers” diagram, which reflected the severity of risk from rising temperature through gradations in color from white (no or little risk) to yellow (moderately significant risk) to red (substantial or severe risk).<sup>5</sup> Depending on the RFC, substantial impacts or risks (transition from yellow to red) occurred with a temperature rise from 1°C to 4°C from current levels.<sup>6</sup>

Since the release of the TAR, scientific understanding of the vulnerability of the climate to temperature rise has evolved considerably.<sup>7</sup> Based on new findings in the growing scientific literature since the TAR was released, the burning embers diagram was revised in 2008 to reflect the dangerous risks posed by smaller increases in temperature than originally identified in the TAR.<sup>8</sup> In the updated burning embers diagram, substantial impacts or risks now occur at or near current temperature levels for a number of RFCs.<sup>9</sup> As reflected in the updated RFCs, a 2°C temperature increase from pre-industrial levels (or 1.4°C increase from 1990 levels) is well past the point where severe and irreversible impacts will occur.<sup>10</sup>

It is now estimated that a mean global temperature increase of 1.5°C above pre-industrial levels has the potential to trigger irreversible melting of the Greenland ice sheet, a process that would result in an eventual 7m sea level rise over and above that caused by thermal expansion of the oceans, and potentially causing an additional sea level rise of 0.75m, as soon as 2100.<sup>11</sup> Specific consequences of a 2°C temperature rise from pre-industrial levels include the loss of 97% of the world’s coral reefs and the transformation of 16% of global ecosystems.<sup>12</sup> At a 2°C temperature rise, approximately one to three

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<sup>4</sup> IPCC, CLIMATE CHANGE 2001: SYNTHESIS REPORT, SUMMARY FOR POLICYMAKERS 11 (2001). The five RFCs identified in the TAR are: 1) Risks to Unique and Threatened Systems; 2) Risks of Extreme Weather Events; 3) Distribution of Impacts; 4) Aggregate Impacts; and 5) Risks of Large Scale Discontinuities. *Id.*

<sup>5</sup> *Id.*; Joel B. Smith et al., *Assessing Dangerous Climate Change Through an Update of the Intergovernmental Panel on Climate Change (IPCC) “Reasons for Concern,”* PNAS- PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES USA EARLY EDITION 1 (2008), available at <http://www.pnas.org/cgi/doi/10/1073/pnas/0812355106>.

<sup>6</sup> IPCC, *supra* note 4, at 11. The RFC’s assessed impacts from a baseline of 1990 temperature levels rather than pre-industrial levels. Because pre-industrial warming until 1990 was 0.6°C, an impact resulting from a temperature rise of 1°C equates to a 1.6°C rise from pre-industrial levels.

<sup>7</sup> Smith, *supra* note 5, at 1, 5.

<sup>8</sup> *Id.*

<sup>9</sup> *Id.* at 5.

<sup>10</sup> *Id.* 3.

<sup>11</sup> Rachel Warren, *Impacts of Global Climate Change at Different Annual Mean Global Temperature Increases* in AVOIDING DANGEROUS CLIMATE CHANGE 95 (Cambridge Univ. Press, 2006). Unlike the IPCC’s RFC, Warren assessed impacts from temperature rise from pre-industrial levels, not 1990 levels.

<sup>12</sup> *Id.* Indeed, given increased confidence that 1°C to 2°C increase poses significant risks to many unique and threatened systems, including many biodiversity hotspots, the updated burning embers diagram indicates substantial impacts and/or moderate risks from warming that has already occurred. Smith, *supra* note 5, at 5.

billion people would experience an increase in water stress, sea level rise and cyclones would displace millions from the world's coastlines and agricultural yields would fall in the developed world.<sup>13</sup> In the Arctic, ecosystem disruption is predicted upon expectations of a complete loss of summer sea ice, with only 42% of the tundra remaining stable. This would destroy the Inuit hunting culture, cause the extinction of the polar bear and result in large losses in global bird populations. Moreover, because Arctic ice functions to reflect heat back into the atmosphere, its loss would allow more sunlight to heat the Arctic Ocean and further accelerate the buildup of heat and the melting of the Greenland ice sheet. As the devastating and irreversible impacts resulting from a 2°C mean global temperature rise are far in excess of any reasonable definition of DAI, limiting mean temperature rise to 2°C above pre-industrial levels is not a sufficient environmental objective for the purposes of developing a GHG significance threshold.

Specific impacts to California are also more dire than previously estimated. For example, in its most recent report, the Climate Action Team determined that the latest scientific findings indicate that “prior estimates [of sea-level rise] likely have been too low.”<sup>14</sup> Based on two recent models, “[b]y 2050, sea-level rise could range from 30-45 cm (11 to 18 inches) higher than in 2000, and by 2100, sea-level rise could be 60 to 140 cm (23 to 55 inches) higher than in 2000. As sea level rises, there will be an increased rate of extreme high sea-level events, which can occur when high tides coincide with winter storms and there are associated high wind wave and beach run-up conditions.”<sup>15</sup> Moreover, the rise in sea-level may be much higher than even these models predict because they do not account for the ice-melt contributions from the Greenland and Antarctic ice sheets and assume medium to medium high emissions scenarios.<sup>16</sup>

Not only are the climate impacts expected from a 2°C temperature increase far in excess of what should be considered “safe”, but policies which propose greenhouse gas stabilization levels of 450 ppm CO<sub>2</sub>eq present substantial risks of overshooting this target, thus exacerbating the problem. Equating a particular atmospheric concentration of greenhouse gases with a specific temperature increase involves a significant degree of uncertainty. This is because climate sensitivity – the extent to which temperatures will rise as a result of increasing concentrations of heat-trapping gases – depends on Earth's response to certain physical processes that are not fully understood.<sup>17</sup> Thus, due to uncertainty in climate sensitivity, scientists estimate that the mean probability of exceeding 2°C where stabilizing greenhouse gases at a CO<sub>2</sub>eq level of 450 ppm is 54% with a 30% probability that global average temperature would rise more than 3°C.<sup>18</sup> At

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<sup>13</sup> Warren, *supra* note 11 at 98.

<sup>14</sup> California Action Team, Draft Biennial Report (Mar. 2009) at 1.9.

<sup>15</sup> *Id.* at 1.10.

<sup>16</sup> California Climate Change Center, The Impacts of Sea-Level Rise on the California Coast, CEC-500-2009-024D (March, 2009) at 1.

<sup>17</sup> See, e.g., Luers, Amy, Cayan Daniel, Franco Guido, Hanemann Michael, Croes Bart, California Climate Change Center, *Our Changing Climate: Assessing the Risks to California* at 4 (2006) CEC-500-2006-077.

<sup>18</sup> Malte Meinshausen, *What Does a 2°C Target Mean for Greenhouse Gas Concentrations? A Brief Analysis Based on Multi-Gas Emission Pathways and Several Climate Sensitivity Uncertainty Estimates* in AVOIDING DANGEROUS CLIMATE CHANGE (Cambridge Univ. Press) (2006) at 268-69. Meinshausen operates under assumptions that do not roughly equate CO<sub>2</sub> eq with CO<sub>2</sub> concentrations. In *What Does a*

400 ppm CO<sub>2</sub>eq, the mean probability of exceeding 2°C is 28%.<sup>19</sup> If greenhouse gas emissions were stabilized at 350 ppm CO<sub>2</sub>eq, the mean probability of exceeding 2°C would be reduced to 7%.<sup>20</sup>

Properly accounting for climate sensitivity in climate policy is critical because, as dire as the projected impacts resulting from a 2°C mean temperature increase, increases above 2°C would result in impacts of apocalyptic proportions. If a 2-3°C increase in mean global temperature occurred, feedbacks in the climate system would cause a shift in the terrestrial carbon cycle. Currently, land-based carbon acts as a sink for CO<sub>2</sub>, buffering the effects of anthropogenic climate change. If CO<sub>2</sub> concentrations continue to rise, this sink will become a source, owing to increased soil respiration, further exacerbating climate change. The most dramatic impacts will be a widespread loss of forests and grassland, including the Amazon rainforest, which would undergo a transition to savannah, triggering wide spread implications for local population, global biodiversity, and the global carbon cycle.<sup>21</sup> At a global increase in temperature of 3°C above pre-industrial levels, many additional impacts in human and natural systems would occur in ways exponentially more devastating than those predicted for a 2°C temperature increase. Few ecosystems can adapt to such a large temperature rise: 22% would be transformed losing 7% to 74% of their extent.<sup>22</sup> An additional 25 to 40 million people would be displaced from coasts due to sea level rise, an additional 1200 to 3000 million would suffer an increase in water stress and 65 countries would lose 16% of their agricultural GDP.<sup>23</sup>

Based on the severe impacts already observed as well as future impacts and risks posed by additional warming to which we are committed due to inertia in the climate system, climatologists are increasingly concluded that current climate conditions already constitute DAI and that greenhouse gas emissions ultimately must be drawn down to net negative levels through the rapid phase-out of coal and improved forest and agricultural management.<sup>24</sup> Atmospheric concentrations of CO<sub>2</sub> have risen from a pre-industrial

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*2°C Target Mean for Greenhouse Gas Concentrations?*, Meinshausen notes that 550 CO<sub>2</sub> eq roughly corresponds to a stabilization of 475 ppm CO<sub>2</sub> only. *Id.* at 269. In a second paper that appears to utilize the same assumptions, Meinshausen notes that 500 CO<sub>2</sub> eq is approximately equivalent to 450 ppm CO<sub>2</sub> stabilization, 450 CO<sub>2</sub> eq is approximately equivalent to 400 ppm CO<sub>2</sub> stabilization, and 400 CO<sub>2</sub> eq is approximately equivalent to 350-375 ppm CO<sub>2</sub> stabilization; Union of Concerned Scientists, *How to Avoid Dangerous Climate Change: A Target for U.S. Emissions* (Sept. 2007) at 3.

<sup>19</sup> Malte Meinshausen, *What Does a 2°C Target Mean for Greenhouse Gas Concentrations? A Brief Analysis Based on Multi-Gas Emission Pathways and Several Climate Sensitivity Uncertainty Estimates* in AVOIDING DANGEROUS CLIMATE CHANGE (Cambridge Univ. Press) (2006) at 270.

<sup>20</sup> *Id.*

<sup>21</sup> Rachel Warren, *Impacts of Global Climate Change at Different Annual Mean Global Temperature Increases* in AVOIDING DANGEROUS CLIMATE CHANGE (Cambridge Univ. Press) (2006) at 98-99.

<sup>22</sup> *Id.* at 99.

<sup>23</sup> *Id.* at 96-97.

<sup>24</sup> James Hansen et al., *Target Atmospheric CO<sub>2</sub>: Where Should Humanity Aim?* 2 OPEN ATMOSPHERIC SCIENCE J. 217, 226-27 (2008); see also Matthews H.D. & Caldeira, K., *Stabilizing the Climate Requires Near-Zero Emissions*, 35 GEOPHYSICAL RESEARCH LETTERS L04705 (2008) (“future anthropogenic emissions would need to be eliminated in order to stabilize global-mean temperature.”).

concentration of 280 ppm to 383 ppm in 2007.<sup>25</sup> Annual mean global temperature has increased by 0.76°C relative to pre-industrial times and is increasing at a rate of 0.17°C/decade.<sup>26</sup> Impacts from this anthropogenic interference with the climate has already resulted in tens of thousands of climate-related deaths, species extinction, ocean acidification and loss of coral reefs, and the significant retreat of glaciers and sea ice. In addition to the impacts already observed, additional warming “in the pipeline” due to inertia in the climate system and their feedback loops will result in further increases in temperature posing significant risks of severe and irreversible impacts.<sup>27</sup> The climate is locked into anywhere from 0.3 to 0.7°C additional warming relative to late 20th century levels due to the eventual impacts of past historical emissions.<sup>28</sup> On account of additional warming to which we are committed, Ramanathan and Feng found that there is a “high probability that the DAI threshold is already in our rearview mirror.”<sup>29</sup> Similarly, on the basis of paleoclimate evidence and ongoing climate change, James Hansen and other leading climate scientists concluded the present CO<sub>2</sub> levels of 385 ppm are “already in the dangerous zone” and that “[i]f humanity wishes to preserve a planet similar to that on which civilization developed and to which life on Earth is adapted, paleoclimate evidence and ongoing climate change suggest that CO<sub>2</sub> will need to be reduced from its current 385 ppm to at most 350 ppm, but likely less than that.”<sup>30</sup> In looking at dangerous climate change through the lens of risk tolerance, Harvey concluded that, at a 10% risk tolerance, atmospheric CO<sub>2</sub> concentrations close to present levels “violates the UNFCCC” for a range of assumptions of climate sensitivity.<sup>31</sup> Accordingly, as the climate change to which we are committed is already dangerous, there is little scientific basis to conclude that any new source of emissions is innocuous.

## 2. Conclusion

The Center appreciates SCAQMD’s continued work to develop a threshold of significance for GHGs. The Center urges SCAQMD to apply the data derived from the Work Plan in a manner that is consistent with the scientific and factual data on the emission reductions necessary to avoid DAI. *See* Guidelines § 15064(h). Given the

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<sup>25</sup> Global Carbon Project, *Carbon Budget and Trends 2007* (2008), available at: <http://www.globalcarbonproject.org/carbontrends/index.htm>.

<sup>26</sup> Kevin E. Trenberth et al., 2007: *Observations: Surface and Atmospheric Climate Change in CLIMATE CHANGE 2007: THE PHYSICAL SCIENCE BASIS, CONTRIBUTION OF WORKING GROUP I TO THE FOURTH ASSESSMENT REPORT OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE* 252 (Susan Solomon et al. eds., Cambridge Univ. Press 2007).

<sup>27</sup> V. Ramanathan & Y. Feng, *On Avoiding Dangerous Anthropogenic Interference With the Climate System: Formidable Challenges Ahead*, 105 PNAS 14245, 14249 (Sept. 23, 2008); James Hansen et al., *Target Atmospheric CO<sub>2</sub>: Where Should Humanity Aim?* 2 OPEN ATMOSPHERIC SCIENCE J. 217, 226 (2008).

<sup>28</sup> Michael E. Mann, *Defining Dangerous Anthropogenic Interference*, 106 PNAS 4065, 4066 (Mar. 17, 2009).

<sup>29</sup> V. Ramanathan & Y. Feng, *On Avoiding Dangerous Anthropogenic Interference With the Climate System: Formidable Challenges Ahead*, 105 PNAS 14245, 14249 (Sept. 23, 2008)

<sup>30</sup> James Hansen et al., *Target Atmospheric CO<sub>2</sub>: Where Should Humanity Aim?* 2 OPEN ATMOSPHERIC SCIENCE J. 217, 217-18 (2008).

<sup>31</sup> Danny Harvey, *Dangerous Anthropogenic Interference, Dangerous Climatic Change, and Harmful Climatic Change: Non-Trivial Distinctions With Significant Policy Implications*, 82 CLIMATE CHANGE 1, 20 (2007).

severe and irreversible impacts resulting from a 2°C mean global temperature rise and the significant risk that this temperature would increase beyond 2°C at GHG levels of 450 ppm, a stabilization objective of 450 ppm CO<sub>2</sub>eq is far in excess of what can be considered safe. Accordingly, setting a threshold based on consistency with a 450 ppm stabilization target is inconsistent with CEQA’s purpose to “identify any critical thresholds for the healthy and safety of people of the state.” Pub. Res. Code § 21000(d). Because the 90% capture rate is based on the outdated presumption that compliance with Executive Order S-3-05 targets is sufficient to avoid dangerous climate change, SCAQMD should adopt a threshold for residential and commercial projects that captures a higher percentage of emissions and requires projects with emissions below this threshold to comply with performance standards.<sup>32</sup>

Thank you for your consideration. Please do not hesitate to contact Matthew Vespa at (415) 436-9682 x309 [mvespa@biologicaldiversity.org](mailto:mvespa@biologicaldiversity.org) if you have any questions or concerns.

Sincerely,

A handwritten signature in black ink that reads "Matthew Vespa". The signature is written in a cursive style with a large, sweeping "V" at the end.

Matthew Vespa  
Senior Attorney

cc: Steve Smith  
Michael Krause

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<sup>32</sup> The 90% capture rate used for SCAQMD’s industrial threshold purportedly reflected the practical concern that minimal mitigation was available for the types of projects (such as boilers) that fell under this threshold. These concerns do not apply to residential and commercial structures, where any number of mitigation measures are available for all sizes of projects to reduce GHG emissions.

# REFERENCE 4

From : <http://www.cadem.org/our-california/platform/2016-platform-energy-and-environment>

## **From the 2016 California Democratic Party (CDP) Platform**

### **Transportation**

- Support vehicle regulations to provide healthier air for all Californians, support strong and workable low-emission and zero-emission vehicle standards that will continue to be a model for the country, support Clean Vehicle Incentive programs to include the installation of charging infrastructure, and provide assistance to small businesses to meet the low-emission standards;
- Demand Regional Transportation Plan (RTP) driving-reduction targets, shown by science to support climate stabilization;
- Work for equitable and environmentally-sound road and parking operations; Support strategies to reduce driving, such as smart growth, “complete streets”; teaching bicycling traffic skills; and improving transit, from local systems to high speed rail
- Work for shared, convenient and value-priced parking, operated with a system that provides earnings to those paying higher costs or getting a reduced wage, due to the cost of providing the parking; and,
- Demand a state plan showing how cars and light-duty trucks can hit climate-stabilizing targets, by defining enforceable measures to achieve the needed fleet efficiency and per-capita driving;
- Support policies, including tax policies and the use of Greenhouse Gas Reduction Fund (GGRF) grants, that empower business owners, especially small business owners, to make investments in transportation infrastructure to ensure that freight moves by lower-emission local, short-line freight railroads, instead of adding to highway congestion and pollution.

# REFERENCE 5

# Climate-Stabilizing, California Light-Duty Vehicle Requirements, Versus Air Resource Board Goals

Paper 881

**Mike R. Bullock**

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## ABSTRACT

An Introduction is provided, including the importance of light-duty vehicles (LDVs: cars and light duty trucks) and a definition of the top-level LDV requirements to limit their carbon dioxide (“CO<sub>2</sub>”) emissions.

Anthropogenic climate change fundamentals are presented, including its cause, its potential for harm, California mandates, and a greenhouse gas (GHG) reduction road map to avoid disaster.

A 2030 climate-stabilizing GHG reduction target value is calculated, using statements by climate experts. The formula for GHG emissions, as a function of per-capita driving, population, fleet CO<sub>2</sub> emissions per mile, and the applicable low-carbon fuel standard (LCFS) is given. The ratio of the 2015 value of car-emission-per-mile to the 2005 value of car-emission-per-mile is obtained.

Internal Combustion Engine (ICE) mileage values from 2000 to 2030 are identified, as either mandates or new requirements. A table is presented that estimates 2015 LDV fleet mileage.

Zero Emission Vehicle (ZEV) parameters are given. A table is shown that uses 2030 ZEV and ICE (ICE LDVs) requirements, named the “Heroic Measures” case, to compute the LDV fleet-equivalent mileage. That equivalent fleet mileage is used, with population and the required emission reduction, to compute a required per-capita driving reduction, with respect to 2005. Measures to achieve this per-capita driving reduction are described, with reductions allocated to each measure. The energy used per year for the Heroic Measures case is estimated

The “Heroic Measures” set of fractions of ZEV’s purchased, as a function of year, is compared to the California Air Resources Board (CARB) goals.

## INTRODUCTION

Within the context of working the anthropogenic-climate-change problem and from a systems engineering perspective, the top-level requirement is to reduce greenhouse gas (GHG) emissions enough to support stabilizing our climate at a livable level. This top-level requirement must flow down to the subsystem of LDVs, especially due to the magnitude of their emissions. (As an example, LDVs emit 41% of the GHG in San Diego County<sup>1</sup>.)

More specifically, LDV requirements will be identified that, taken together, will result in GHG emission reductions sufficient to “support climate stabilization”. “Support climate stabilization” means that the LDV emission level will be equal to a climate-stabilizing target. Such a target is expressed as an emission level in some target year. The target is based on climate science.

From a systems engineering perspective, at the top level, the needed LDV requirements are

- LDV fleet efficiency, meaning the greenhouse gas (GHG) emissions per mile driven, applicable to the entire fleet, on the road in the year of interest and
- an upper bound on per-capita driving, given the derived fleet efficiency and the predicted population growth.

The fleet efficiency requirement will be developed as a function of lower-level requirements, such as Corporate Average Fuel Efficiency (CAFÉ) requirements, requirements on how fast Battery Electric Vehicles (BEVs) must be added into the fleet each year, and requirements to get low-efficiency vehicles off the roads. The second top-level requirement, the upper bound on per-capita driving, will spawn transportation-system requirements designed to result in less driving, such as better mass transit. This paper will derive a formulae to compute the required per-capita driving levels, based on fleet efficiency, predicted population growth, and the latest, science-based, climate-stabilizing GHG emission target.

In this work, three categories of LDV emission-reduction strategies will be considered: cleaner cars, cleaner fuels, and less driving.

## **BACKGROUND: OUR ANTHROPOGENIC CLIMATE CHANGE PROBLEM**

### **Purpose of This Section**

Before going to work to solve a systems-engineering problem, it is important to understand the nature of the problem. How complex is the problem? How much is at stake if the problem is not solved? Is it reasonable to take a chance and only solve the problem with a reasonably high probability or is there too much at stake to gamble? This section is an attempt to answer these questions.

### **Basic Cause**

Anthropogenic climate change is driven by these two processes<sup>2</sup>: First, our combustion of fossil fuels is adding “great quantities” of CO<sub>2</sub> into our atmosphere. Second, that additional atmospheric CO<sub>2</sub> is trapping additional heat.

### **California’s First Three Climate Mandates**

California’s Governor’s Executive Order S-3-05<sup>3</sup> is similar to the Kyoto Agreement and is based on the greenhouse gas (GHG) reductions that were recommended by climate scientists for industrialized nations back in 2005. In 2005, many climate scientists believed that the reduction-targets of S-3-05 would be sufficient to support stabilizing Earth’s climate at a livable level, with a reasonably high level of certainty. More specifically, this executive order aims for an average, over-the-year, atmospheric temperature rise of “only” 2 degree Celsius, above the preindustrial temperature. It attempts to do this by limiting our earth’s level of atmospheric CO<sub>2</sub>\_e to 450 PPM by 2050 and then reducing emissions further, so that atmospheric levels would come down to more tolerable levels in subsequent years. The S-3-05 emission targets are 2000 emission levels by 2010, 1990 levels by 2020, and 80% below 1990 levels by 2050.

It was thought that if the world achieved S-3-05, there might be a 50% chance that the maximum temperature rise will be less than 2 degrees Celsius, thus leaving a 50% chance that it would be larger than 2 degrees Celsius. A 2 degree increase would put over a billion people on the planet into a condition described as “water stress” and it would mean a loss of 97% of the earth’s coral reefs.

There would also be a 30% chance that the temperature increase would be greater than 3 degrees Celsius. A temperature change of 3 degree Celsius is described in Reference 3 as being “exponentially worse” than a 2 degree Celsius increase.

The second California climate mandate is AB 32, the *Global Warming Solutions Act of 2006*. It includes provisions for a cap and trade program, to ensure meeting S-3-05’s 2020 target of the 1990 level of emissions. It continues after 2020. AB 32 requires CARB to always implement measures that achieve the maximum *technologically feasible and cost-effective* (words taken from AB 32) greenhouse-gas-emission reductions.

In 2015 Governor Brown signed Executive Order B-30-15. This Executive Order established a mandate to achieve an emission level of 40% below 2020 emissions by 2030, as can be seen by a Google search. If Executive Order S-3-05 is interpreted as a straight line between its 2020 target and its 2050 target, then the B-30-15 target of 2030 is the same as S-3-05’s implied target of 2035, because 2035 is halfway between 2020 and 2050 and 40% down is halfway to 80% down.

California is on track to achieve its S-3-05 second (2020) target. However, the world emission levels have, for most years, been increasing, contrary to the S-3-05 trajectory. In part because the world has been consistently failing to follow S-3-05’s 2010-to-2020 trajectory, if California is still interested in leading the way to stabilizing the climate at a livable level, it must do far better than S-3-05, going forward, as will be shown.

## **Failing to Achieve these Climate Mandates**

What could happen if we fail to achieve S-3-05, AB 32, and B-30-15 or if we achieve them but they turn out to be too little too late and other states and countries follow our example?

It has been written<sup>4</sup> that, “A recent string of reports from impeccable mainstream institutions—the International Energy Agency, the World Bank, the accounting firm of PricewaterhouseCoopers—have warned that the Earth is on a trajectory to warm by at least 4 Degrees Celsius and that this would be incompatible with continued human survival.”

It has also been written<sup>5</sup> that, “Lags in the replacement of fossil-fuel use by clean energy use have put the world on a pace for 6 degree Celsius by the end of this century. Such a large temperature rise occurred 250 million years ago and extinguished 90 percent of the life on Earth. The current rise is of the same magnitude but is occurring faster.”

## **Pictures That Are Worth a Thousand Words**

Figure 1 shows (1) atmospheric CO<sub>2</sub> (in blue) and (2) averaged-over-a-year-then-averaged-over-the-surface-of-the-earth world atmospheric temperature (in red). This temperature is with respect to a recent preindustrial value. The data starts 800,000 years ago. It shows that the current value of atmospheric CO<sub>2</sub>, which is now over 400 PPM, far exceeds the values of the last 800,000 years. It

also shows that we should expect the corresponding temperature to eventually be about 12 or 13 degrees above preindustrial temperatures. This would bring about a human disaster<sup>3,4,5</sup>.

Figure 2 shows the average yearly temperature with respect to the 1960-to-1990 baseline temperature (in blue). It also shows atmospheric levels of CO<sub>2</sub> (in red). The S-3-05 goal of 450 PPM is literally “off the chart”, in Figure 2. Figure 2 shows that, as expected, temperatures are starting to rise along with the increasing levels of CO<sub>2</sub>. The large variations in temperature are primarily due to the random nature of the amount of solar energy being received by the earth.

## **FURTHER BACKGROUND: CALIFORNIA’S SB 375 AND AN IMPORTANT DATA SET**

As shown in the Introduction, LDVs emit significant amounts of CO<sub>2</sub>. The question arises: will driving need to be reduced or can cleaner cars and cleaner fuels arrive in time to avoid such behavioral change? Steve Winkelman, of the Center for Clean Air Policy (CCAP), worked on this problem.

### **SB 375, the *Sustainable Communities and Climate Protection Act of 2008***

Under SB 375, the California Air Resources Board (CARB) has given each Metropolitan Planning Organization (MPO) in California driving-reduction targets, for the years 2020 and 2035. “Driving” means yearly, per capita, vehicle miles travelled (VMT), by LDVs, with respect to 2005. The CARB-provided values are shown at this Wikipedia link, [http://en.wikipedia.org/wiki/SB\\_375](http://en.wikipedia.org/wiki/SB_375). It is important to note that although this link and many other sources show the targets to be “GHG” and not “VMT”, SB 375 clearly states that the reductions are to be the result of the MPO’s Regional Transportation Plan (RTP), or, more specifically, the Sustainable Communities Strategy (SCS) portion of the RTP. Nothing in the SCS will improve average mileage. That will be done by the state and federal government by their Corporate Average Fleet Efficiency (CAFÉ) standards. The SCS can only reduce GHG by reducing VMT. The only way an SCS can reduce GHG by 12%, for example, is to reduce VMT by 12%.

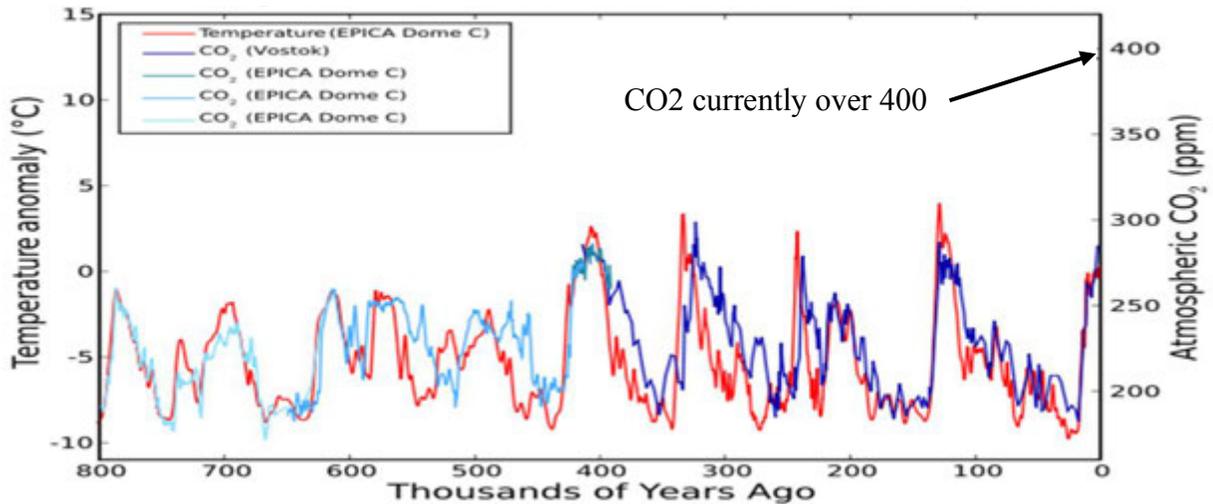
Under SB 375, every Regional Transportation Plan (RTP) must include a section called a Sustainable Communities Strategy (SCS). The SCS must include driving reduction predictions corresponding to the CARB targets. Each SCS must include only *feasible* transportation, land use, and transportation-related policy data. If the SCS driving-reduction predictions fail to meet the CARB-provided targets, the MPO must prepare an Alternative Planning Strategy (APS). An APS uses *infeasible* transportation, land use, and transportation-related policy assumptions. The total reductions, resulting from both the SCS and the APS, must at least meet the CARB-provided targets.

### **Critical Data: Useful Factors from Steve Winkelman’s Data**

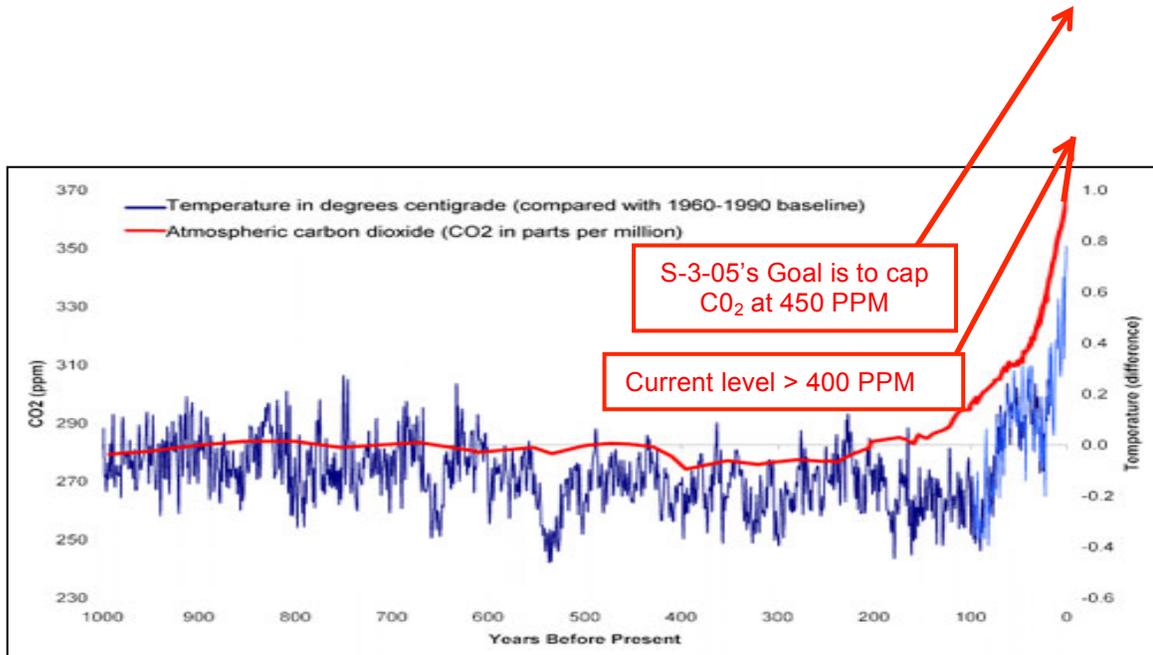
Figure 3<sup>6</sup> shows 6 variables as a percent of its 2005 value. The year 2005 is the baseline year of SB 375. The red line is the Caltrans prediction of VMT. The purple line is California’s current mandate for a Low Carbon Fuel Standard (LCFS). As shown, by 2020, fuel in California must emit 10% less per gallon than in 2005. The turquoise line is the 1990 GHG emission in California. As shown, it is 12% below the 2005 level. This is important because S-3-05 specifies that in 2020, state GHG emission levels must be at the

1990 level. The green line is the CO<sub>2</sub> emitted per mile, as specified by AB 1493, also known as “Pavley 1 and 2” named after Senator Fran Pavley. The values shown do not account for the LCFS. The yellow (or gold) line is the S-3-05 mandate, referenced to 2005 emission levels. The blue line is the product of the red, the purple, and the green line and is the percentage of GHG emissions compared to 2005. Since VMT is not being adequately controlled, the blue line is not achieving the S-3-05 line. Figure 3 shows that driving must be reduced. For this reason, Steve Winkelman can be thought of as the true father of SB 375.

**Figure 1. Atmospheric CO<sub>2</sub> and Mean Temperature from 800,000 Years Ago**

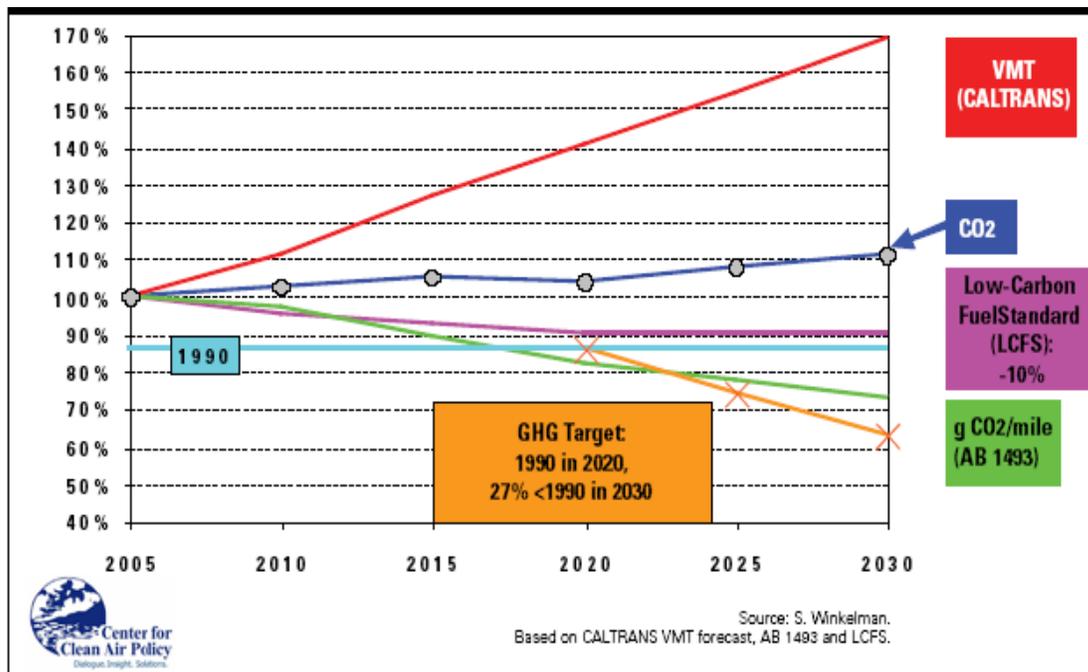


**Figure 2. Atmospheric CO<sub>2</sub> and Mean Temperature, Over the Last 1,000 Years**



This table provides inspiration for a road map to climate success for LDVs. Climate stabilization targets must be identified and achieved by a set of requirements to define fleet efficiency and per-capita driving.

**Figure 3** The S-3-05 Trajectory (the Gold Line) AND the CO<sub>2</sub> Emitted from Personal Driving (the Blue Line), where that CO<sub>2</sub> is a Function (the Product) of the California-Fleet-Average CO<sub>2</sub> per Mile (the Green Line), The Predicted Driving (VMT, the Red Line), and the Low-Carbon Fuel Standard (the Purple Line)



## THE DEVELOPMENT OF CALIFORNIA'S TOP-LEVEL LDV REQUIREMENTS TO SUPPORT CLIMATE STABILIZATION

It is also clear that cleaner cars will be needed and can probably be achieved. As will be seen, much cleaner cars will be needed if driving reductions are going to remain within what many people would consider achievable. Mileage and equivalent mileage will need to be specified. A significant fleet-fraction of Zero-Emission Vehicles (ZEVs, either Battery-Electric LDVs or Hydrogen Fuel Cell LDVs) will be needed. Since mileage and equivalent mileage is more heuristic than emissions per mile, they will be used instead of CO<sub>2</sub> per mile driven.

Since the SB-375 work used 2005 as the reference year, it will remain the reference year here.

### GHG Target to Support Climate Stabilization

The primary problem with S-3-05 is that California's resolve and actions have been largely ignored by other states, our federal government, and many countries. Therefore, rather than achieving 2000 levels by 2010 and being on a track to achieve 1990 levels by 2020, world emission have been increasing. Reference 7 states on Page 14 that the required rate of reduction, if commenced in 2020,

would be 15%. That rate means that the factor of 0.85 must be achieved, year after year. If this were done for 10 years, the factor would be  $(0.85)^{10} = 0.2$ . We don't know where world emissions will be in 2020. However, it is fairly safe to assume that California will be emitting at its 1990 level in 2020, in accordance with S-3-05. This situation shows that the correct target for California is to achieve emissions that are reduced to 80% below California's 1990 value by 2030. Note that if the reductions start sooner, the rate of reduction of emissions can be less than 15% and the 2030 target could be relaxed somewhat. However, it is doubtful that the world will get the reduction rate anywhere near the needed 15% by 2020. Therefore, the target, of 80% below 1990 levels by 2030 is considered to be correct for California. Reference 7 also calls into question the advisability of aiming for a 2 degree Celsius increase, given the possibilities of positive feedbacks that would increase warming. This concern for positive feedbacks is another reason that this paper will work towards identifying LDV requirement sets that will support achieving 80% below 1990 values by 2030.

### Notes on Methods

The base year is 2005. An intermediate year of 2015 is used. The car efficiency factor of 2015 with respect to 2005 is taken directly from Figure 3. The car efficiency factor of 2030 with respect to 2015 is derived herein, resulting in a set of car-efficiency requirements. It is assumed that cars last 15 years.

### Primary Variable Used

Table 1 defines the primary variables that are used.

**Table 1 Variable Definitions**

| <b>Variable Definitions</b> |                                                                                                                                       |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| $e_k$                       | LDV Emitted CO <sub>2</sub> , in Year “ $k$ ”                                                                                         |
| $L_k$                       | Low Carbon Fuel Standard (LCFS) Factor that reduces the Per-Gallon CO <sub>2</sub> emissions, in Year “ $k$ ”                         |
| $C_k$                       | LDV CO <sub>2</sub> emitted per mile driven, average, in Year “ $k$ ”, not accounting for the Low Carbon Fuel Standard (LCFS) Factor  |
| $c_k$                       | LDV CO <sub>2</sub> emitted per mile driven, average, in Year “ $k$ ”, accounting for the Low Carbon Fuel Standard (LCFS) Factor      |
| $p_k$                       | Population, in Year “ $k$ ”                                                                                                           |
| $d_k$                       | Per-capita LDV driving, in Year “ $k$ ”                                                                                               |
| $D_k$                       | LDV Driving, in Year “ $k$ ”                                                                                                          |
| $M_k$                       | LDV Mileage, miles per gallon, in Year “ $k$ ”                                                                                        |
| $m_k$                       | LDV Equivalent Mileage, miles per gallon, in Year “ $k$ ” accounting for Low Carbon Fuel Standard (LCFS) Factor, so this is $M_k/L_k$ |
| N                           | Number of pounds of CO <sub>2</sub> per gallon of fuel but not accounting for the Low Carbon Fuel Standard (LCFS) Factor              |

## Fundamental Equations

The emissions are equal to the CO2 per mile multiplied by the per-capita driving multiplied by the population, since per-capita driving multiplied by the population is total driving. This is true for any year.

$$\text{Future Year } k: \quad e_k = c_k * d_k * p_k \quad (\text{Eq. 1})$$

$$\text{Base Year } i: \quad e_i = c_i * d_i * p_i \quad (\text{Eq. 2})$$

Dividing both sides of Equation 1 by equal values results in an equality. The terms on the right side of the equation can be associated as shown here:

$$\frac{e_k}{e_i} = \frac{c_k}{c_i} * \frac{d_k}{d_i} * \frac{p_k}{p_i} \quad (\text{Eq. 3})$$

Since carbon dioxide emitted per gallon is just a constant (about 20 pounds per gallon), the constant cancels out of the ratio of emissions per mile, leaving the following relationship.

$$\text{To work with mileage:} \quad \frac{m_i}{m_k} = \frac{c_k}{c_i} \quad (\text{Eq. 4})$$

Putting Equation 4 into Equation 3 results in the following equation:

$$\frac{e_k}{e_i} = \frac{m_i}{m_k} * \frac{d_k}{d_i} * \frac{p_k}{p_i} \quad (\text{Eq. 5})$$

Showing the base year of 2005, the future year of 2030, introducing the intermediate year of 2015 and the year of 1990 (since emissions in 2030 are with respect to the 1990 value) results in Equation 6.

$$\frac{e_{2030}}{e_{1990}} * \frac{e_{1990}}{e_{2005}} = \frac{c_{2030}}{c_{2015}} * \frac{c_{2015}}{c_{2005}} * \frac{d_{2030}}{d_{2005}} * \frac{p_{2030}}{p_{2005}} \quad (\text{Eq. 6})$$

The ratio on the far left is the climate-stabilizing target, which is the factor of the 2030 emission to the 1990 emission. It is shown to be 0.20 or 80% less. The next ratio is the emission of 1990 compared to 2005. It is the turquoise line of Figure 3, which is 0.87. The first ratio on the right side of the equation is the fleet emission per mile in 2030 compared to the value in 2015. This ratio will be derived in this report and it will result in a set of car efficiency requirements. Moving to the right, the next ratio is the car efficiency in 2015 compared to 2005. It can be obtained by multiplying the purple line 2015 value times the green line 2015 value, which is 0.90 \* 0.93. The next term is the independent variable. It is the driving reduction required, compared to the 2005 level of driving. The final term on the far right is the ratio of the population in 2030 to the population in 2005. Reference 8 shows that California's population in 2005 was 35,985,582. Reference 9 shows that California's population in 2030 is predicted to be 44,279,354. Therefore,

$$\frac{p_{2030}}{p_{2005}} = 44279354 \div 35985582 = 1.2305 \quad (\text{Eq. 7})$$

Putting in the known values results in Equation 8:

$$0.20 * 0.87 = \frac{c_{2030}}{c_{2015}} * 0.90 * 0.93 * \frac{d_{2030}}{d_{2005}} * 1.2305 \quad (\text{Eq. 8})$$

Combining the values, solving for the independent variable (the per-capita driving ratio), and changing from emission-per-mile to equivalent-miles-per-gallon results in the following:

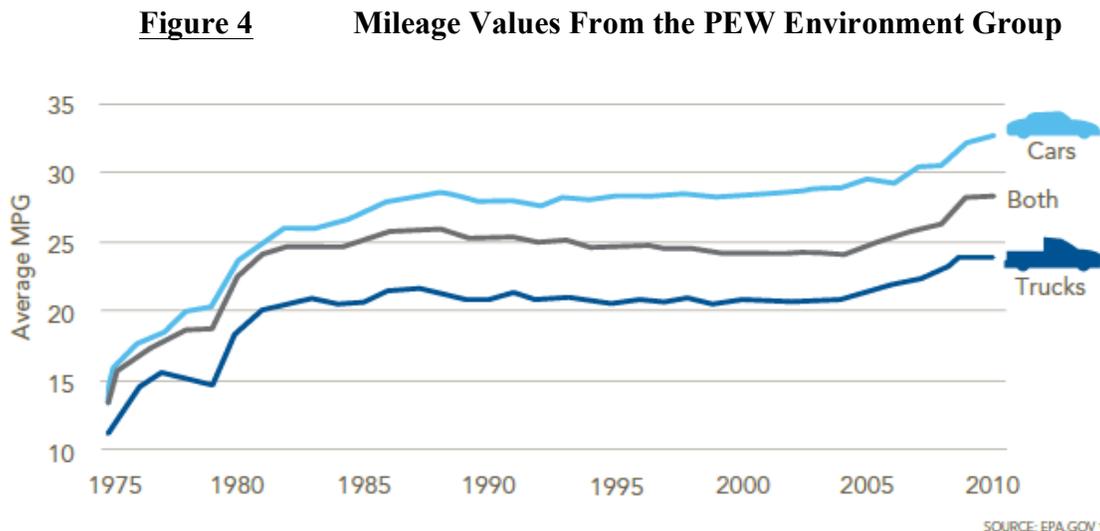
$$\frac{d_{2030}}{d_{2005}} = 0.1689 * \frac{m_{2030}}{m_{2015}} \quad (\text{Eq. 9})$$

With the coefficient being so small, it is doubtful that we can get the equivalent mileage in 2030 to be high enough to keep the driving ratio from falling below one. The mileage of the 2005 fleet will be based on the best data we can get and by assuming cars last 15 years. The equivalent mileage in 2030 will need to be as high as possible to keep the driving-reduction factor from going too far below 1, because it is difficult to reduce driving too much. The equivalent mileage will be dependent on the fleet-efficiency requirements in the near future and going out to 2030. Those requirements are among the primary results of this report.

### Internal Combustion Engine (ICE) Mileage, from Year 2000 to Year 2030

The years from 2000 to 2011 are taken from a plot produced by the PEW Environment Group, [http://www.pewenvironment.org/uploadedFiles/PEG/Publications/Fact\\_Sheet/History%20of%20Fuel%20Economy%20Clean%20Energy%20Factsheet.pdf](http://www.pewenvironment.org/uploadedFiles/PEG/Publications/Fact_Sheet/History%20of%20Fuel%20Economy%20Clean%20Energy%20Factsheet.pdf)

The plot is shown here as Figure 4. The “Both” values are used.



The values from 2012 to 2025 are taken from the US Energy Information Agency (EIA) as shown on their website, [http://www.c2es.org/federal/executive/vehicle-standards#ldv\\_2012\\_to\\_2025](http://www.c2es.org/federal/executive/vehicle-standards#ldv_2012_to_2025). They are the LDV Corporate Average Fleet Efficiency (CAFÉ) values enacted into law in the first term of President Obama. From 2025 to 2030, it is assumed that the yearly ICE improvement in CAFÉ will be 2.5 MPG.

### Mileage of California’s LDV Fleet in 2015

Table 2 uses these values of the Internal Combustion Engine (ICE) LDV mileage to compute the mileage of the LDV fleet in 2015. It assumes that the fraction of ZEVs being used over these years is small enough to be ignored. The 100 miles driven, nominally, by each set of cars, is an arbitrary value and inconsequential in the final calculation, because it will divide out. It is never-the-less used, so that it is possible to compare the gallons of fuel used for the different years. The “f” factor could be used to account for a set of cars being driven less. It was decided to not use this option by setting all of the values to 1. The Low Carbon Fuel Standard (LCFS) values are taken from Figure 3. The gallons of fuel are computed as shown in Equation 10, using the definition for  $L_k$  that is shown in Table 1.

**Table 2 Calculation of the Fleet MPG for 2015**

| LDV Set                              | Years Old | Model Year | CAFE MPG | LCFS Factor $L_{Year}$ | Factor Driven f | Gallons Used Per f*100 Miles |
|--------------------------------------|-----------|------------|----------|------------------------|-----------------|------------------------------|
| 1                                    | 14-15     | 2001       | 24.0     | 1.0                    | 1.0             | 4.17                         |
| 2                                    | 13-14     | 2002       | 24.0     | 1.0                    | 1.0             | 4.17                         |
| 3                                    | 12-13     | 2003       | 24.0     | 1.0                    | 1.0             | 4.17                         |
| 4                                    | 11-12     | 2004       | 24.0     | 1.0                    | 1.0             | 4.17                         |
| 5                                    | 10-11     | 2005       | 25.0     | 1.0                    | 1.0             | 4.00                         |
| 6                                    | 9-10      | 2006       | 25.7     | .9933                  | 1.0             | 3.87                         |
| 7                                    | 8-9       | 2007       | 26.3     | .9867                  | 1.0             | 3.75                         |
| 8                                    | 7-8       | 2008       | 27.0     | .9800                  | 1.0             | 3.63                         |
| 9                                    | 6-7       | 2009       | 28.0     | .9733                  | 1.0             | 3.48                         |
| 10                                   | 5-6       | 2010       | 28.0     | .9667                  | 1.0             | 3.45                         |
| 11                                   | 4-5       | 2011       | 29.1     | .9600                  | 1.0             | 3.30                         |
| 12                                   | 3-4       | 2012       | 29.8     | .9533                  | 1.0             | 3.20                         |
| 13                                   | 2-3       | 2013       | 30.6     | .9467                  | 1.0             | 3.09                         |
| 14                                   | 1-2       | 2014       | 31.4     | .9400                  | 1.0             | 2.99                         |
| 15                                   | 0-1       | 2015       | 32.6     | .9333                  | 1.0             | 2.86                         |
| <b>Sum of Gallons:</b>               |           |            |          |                        |                 | <b>54.29</b>                 |
| <b>Miles = 100*Sum(f's):</b>         |           |            |          |                        |                 | <b>1500</b>                  |
| <b>MPG = Miles/(Sum of Gallons):</b> |           |            |          |                        |                 | <b>27.63</b>                 |

$$Gallons\ Used\ per\ f * 100\ miles = \frac{f \times 100}{(CAFE\ MPG) / L_k} \quad (Eq. 10)$$

**How ICE Mileage Values Will Be Used with ZEV Equivalent Mileage Values**

As will be seen, after 2015, the net (computed using both ICEs and ZEVs) mileage values for each year are assumed to greatly improve by having a significant fraction of ZEVs. The ICE CAFÉ standards are used in this report as just the ICE contribution to fleet MPG. The ICE MPG values are inadequate by themselves and will therefore need to become less important because ZEVs will need to quickly take over the highways.

Federal requirements will need to change dramatically. Currently, federally-mandated corporate average fuel efficiency (CAFÉ) standards have been implemented, from 2000 to 2025. These standards require that each corporation produce and sell their fleet of cars and light-duty trucks in the needed proportions, so that the combined mileage of the cars they sell, at least meet the specified mileage.

The car companies want to maximize their profits while achieving the required CAFÉ standard. In California, the car companies will already be required to sell a specified number of electric vehicles, which have a particularly-high, equivalent-value of miles-per-gallon. If the laws are not changed, this will allow these companies to sell more low-mileage, high profit cars and light-duty trucks, and still achieve the federal CAFÉ standard.

It will be better to apply the CAFÉ standards to only the ICEs and then require that the fleet of LDVs sold achieve some mandated fraction of ZEVs. The ZEVs will get better and better equivalent mileage, as our electrical grid is powered by more renewable sources of energy. Therefore, their equivalent mileage is not fixed, but will improve over the years. Requirements developed here are for 2030. Therefore a high percentage of all the electricity generated in the state, including both the “in front of the meter” (known as the “Renewable Portfolio Standard” or “RPS”) portion and the “behind the meter” portion is assumed to come from sources that do not emit CO2. More specifically, the value of 80% is assumed. This therefore becomes a fleet-efficiency requirement.

### ZEV Equivalent Mileage Values

To calculate the mileage of the 2030 fleet of LDVs, it is necessary to derive a formula to compute the equivalent mileage of ZEVs, as a function of the percent of electricity generated without emitting CO2, the equivalent ZEV mileage if the electricity is from 100% fossil fuel, and the equivalent ZEV mileage if the electricity is from 100% non-CO2 sources. The variables defined in Table 3 are used.

The derivation of the equation for equivalent ZEV mileage is based on the notion that the ZEV can be imagined to travel “r” fraction of the time on electricity generated from renewables and “(1-r)” fraction of the time on fossil fuel. If the vehicle travels “D” miles, then, using the definitions shown in Table 3, the following equation can be written.

$$G = \frac{r \times D}{m_{zr}} + \frac{(1-r) \times D}{m_{zf}} \quad (\text{Eq. 11})$$

$$m_z = D/G = D / \left( \frac{r \times D}{m_{zr}} + \frac{(1-r) \times D}{m_{zf}} \right) \quad (\text{Eq. 12})$$

Dividing the numerator and the denominator by D and multiplying them both by the product of the two equivalent mileage values results in Equations 13.

$$m_z = m_{zr} \times m_{zf} / (r \times m_{zf} + (1 - r) \times m_{zr}) \quad (\text{Eq. 13})$$

Again, using the definitions in Table 3 results in the following.

$$m_z = \text{Num}/(\text{Den}) \quad (\text{Eq. 14})$$

**Table 3 Variables Used in the Calculation of ZEV Equivalent Mileage**

| <b>Variable</b> | <b>Definition</b>                                                      |
|-----------------|------------------------------------------------------------------------|
| $m_z$           | <b>ZEV Equivalent mileage</b>                                          |
| $m_{zr}$        | <b>ZEV Equivalent mileage if the electricity is from renewables</b>    |
| $m_{zf}$        | <b>ZEV Equivalent mileage if the electricity is from fossil fuels</b>  |
| $r$             | <b>fraction of electricity generated from sources not emitting CO2</b> |
| $G$             | <b>Gallons of equivalent fuel used</b>                                 |
| $D$             | <b>Arbitrary distance travelled</b>                                    |
| $Num$           | $m_{zr} \times m_{zf}$                                                 |
| $Den$           | $r \times m_{zf} + (1 - r) \times m_{zr}$                              |

Table 4 shows an assignment of assumed values and the result of a calculation, using Equations 13, 14, and the definitions in Table 3, to produce a ZEV equivalent mileage.

**Table 4 Variable Assignment and the Resulting ZEV Mileage**

| $m_{zr}$    | $m_{zf}$  | $r$        | $1-r$      | Num              | Den            | $m_z$         |
|-------------|-----------|------------|------------|------------------|----------------|---------------|
| <b>5000</b> | <b>70</b> | <b>0.8</b> | <b>0.2</b> | <b>350000.00</b> | <b>1056.00</b> | <b>331.44</b> |

### **Computing an LDV Fleet Mileage Assuming Heroic Measures (HM)**

Table 5 shows the additional definitions that will be used in this calculation. Table 6 computes the 2030 LDV mileage, assuming “Heroic Measures” to reduce the miles driven in poor-mileage ICE’s, in building and selling a significant fraction of ZEVs, and in getting the Low Carbon Fuel Standards to continue to improve beyond the Figure 3 minimum of 0.90.

**Table 5 Additional Variables Used in the Calculation of 2030 LDV Mileage**

| <b>Variable</b> | <b>Definition</b>                                      |
|-----------------|--------------------------------------------------------|
| $D_i$           | <b>Distance travelled by ICE vehicles</b>              |
| $D_z$           | <b>Distance travelled by ZEVs</b>                      |
| $G_i$           | <b>Gallons of Equivalent fuel used by ICE vehicles</b> |
| $G_z$           | <b>Gallons of Equivalent fuel used by ZEVs</b>         |

As shown by the values for “f”, government policies must be adopted, in 2030, to reduce the miles driven by the ICE’s, from model years 2016 to 2023. The 2016 model ICE’s are driven only 30% as much as the nominal amount. The 2017 year ICE’s can be driving 10% more. This rate of change continues up to 2023, when the ICE’s are doing less damage, due to the large fraction of ZEVs on the road.

**Table 6 Calculation of 2030 LDV Mileage Assuming Heroic Measures**

| Year                                                             | ICE Parameters and Calculations |       |         |     |       |        | ZEVs |       |       | Yearly Totals |               |          |
|------------------------------------------------------------------|---------------------------------|-------|---------|-----|-------|--------|------|-------|-------|---------------|---------------|----------|
|                                                                  | CAFÉ MPG                        | LCFS  | Eq. MPG | f   | $D_i$ | $G_i$  | z    | $D_z$ | $G_z$ | Total Miles   | Total Gallons | 2030 MPG |
| 2016                                                             | 34.3                            | .9267 | 37.01   | .3  | 30.0  | .8105  | .04  | 4     | .012  | 32.8          | .7901         | 41.51    |
| 2017                                                             | 35.1                            | .9200 | 38.15   | .4  | 40.0  | 1.0484 | .07  | 7     | .021  | 44.2          | .9962         | 44.37    |
| 2018                                                             | 36.1                            | .9133 | 39.53   | .5  | 47.5  | 1.2018 | .12  | 12    | .036  | 56.0          | 1.1494        | 48.72    |
| 2019                                                             | 37.1                            | .9000 | 40.92   | .6  | 54.0  | 1.3197 | .18  | 18    | .054  | 67.2          | 1.2567        | 53.47    |
| 2020                                                             | 38.3                            | .8500 | 42.56   | .7  | 52.5  | 1.2337 | .24  | 24    | .072  | 77.2          | 1.3225        | 58.37    |
| 2021                                                             | 40.3                            | .8000 | 47.41   | .8  | 48.0  | 1.0124 | .34  | 34    | .103  | 86.8          | 1.2162        | 71.37    |
| 2022                                                             | 42.3                            | .8000 | 52.88   | .9  | 40.5  | .7660  | .48  | 48    | .145  | 94.8          | 1.0299        | 92.05    |
| 2023                                                             | 44.3                            | .8000 | 55.38   | 1.0 | 30.0  | .5418  | .62  | 62    | .187  | 100.0         | .8733         | 114.51   |
| 2024                                                             | 46.5                            | .8000 | 58.13   | 1.0 | 15.0  | .2581  | .76  | 76    | .229  | 100.0         | .6422         | 155.71   |
| 2025                                                             | 48.7                            | .8000 | 60.88   | 1.0 | 5.0   | .0821  | .90  | 90    | .272  | 100.0         | .4358         | 229.46   |
| 2026                                                             | 51.2                            | .8000 | 64.00   | 1.0 | 5.0   | .0781  | .95  | 95    | .287  | 100.0         | .3648         | 274.16   |
| 2027                                                             | 53.7                            | .8000 | 67.13   | 1.0 | 5.0   | .0745  | .98  | 98    | .296  | 100.0         | .3255         | 307.24   |
| 2028                                                             | 56.2                            | .8000 | 70.25   | 1.0 | 5.0   | .0712  | .99  | 99    | .299  | 100.0         | .3129         | 319.56   |
| 2029                                                             | 58.7                            | .8000 | 73.38   | 1.0 | 5.0   | .0681  | .99  | 99    | .299  | 100.0         | .3123         | 320.18   |
| 2030                                                             | 61.2                            | .8000 | 76.50   | 1.0 | 5.0   | .0654  | .99  | 99    | .299  | 100.0         | .3118         | 320.75   |
| Sum of Miles and then Gallons of Equivalent Fuel:                |                                 |       |         |     |       |        |      |       |       | 1259.00       | 11.34         |          |
| Equivalent MPG of LDV Fleet in 2030:                             |                                 |       |         |     |       |        |      |       |       | <b>111.03</b> |               |          |
| Sum of ZEV Miles = 865. Fraction of Miles Driven by ZEVs = 68.7% |                                 |       |         |     |       |        |      |       |       |               |               |          |

As shown, the ZEV fraction of the fleet assumes the value of 12%, just 2 years from now (shown in the green field.) It then proceeds upward, to 18% in 2019; 24% in 2020; 34% in 2021; and so on, until it reaches 99% by 2028.

Achieving these fractions of ZEVs might be compared to what was done during World War II, when automobile production lines were rapidly converted to produce tanks. This reduced the new cars that could be purchased. Besides this, rationing gasoline made it difficult to drive at times and, due to shortages of leather, which was being used to produce boots for soldiers, some citizens found it hard to even buy shoes. These rapid and inconvenient changes were tolerated, because most people agreed that the war needed to be won. The heroic measures assumed here may not be possible unless citizens and the political leaders they elect understand the dire consequences of climate destabilization and therefore accept, and even demand, the measures that are needed to support climate stabilization.

The equivalent miles per gallon of the LDV fleet in 2030, specifically 111.03 miles per gallon, will be considered as a potential 2030 LDV requirement.

## Computing the Heroic-Measures (HM) Case Per-Capita and Net Driving Factor Requirements, Based on the Result Shown in Table 6

Plugging the

- equivalent MPG of the LDV fleet in Year 2030, taken from the bottom of Table 6, which is 111.03 MPG ( $m_{2030}$ ), and
- the MPG of the LDV fleet in Year 2015, taken from the bottom of Table 2, which is 27.63 MPG ( $m_{2015}$ ),

into Equation 9, gives the following result:

$$\frac{d_{2030}}{d_{2005}} = \mathbf{0.1687} * \frac{m_{2030}}{m_{2015}} = \mathbf{0.1687} * \frac{111.03}{27.63} = \mathbf{0.68} \quad (\text{Eq. 14})$$

This means that the per-capita driving in 2030 will need to be about 32% less than in year 2005. The net driving can be computed by multiplying the per-capita driving, 0.68, by the population factor of 1.2305, computed in Equation 7, resulting in 0.84 (since  $0.68 \times 1.2305 = 0.84$ .) This means that, even with the 23% increase in California's population, the net driving will have to drop by 16%. If this LDV requirement set is selected, all of California's transportation money can be used to improve transit, improve active transportation (mainly walking and biking), and maintain, but not expand, roads. The good news is that there can be little or no congestion because highway capacity now is larger than it was in 2005. Policies will be needed to achieve the required reduction in driving.

### Case 2: Computing LDV Requirements that Support Climate Stabilization but Still Allow 2005 Per-Capita Driving

The first step is to use Equation 9 and the value of the mileage in 2015 to compute the needed LDV equivalent fleet mileage for 2030 if the left side of the equation is equal to 1.0.

$$m_{2030} = \mathbf{1.0} \times m_{2015} / \mathbf{0.1689} = \mathbf{27.63} / \mathbf{0.1689} = \mathbf{163.59} \text{ MPG} \quad (\text{Eq. 15})$$

Table 7 is constructed, with the fraction of ZEVs selected to achieve the needed equivalent fleet mileage of about 163.59 MPG. Since its ZEV fractions are larger and sooner than in the "Heroic Measures" table, Table 7 is showing what has been called the "Extra-Heroic Measures" (EHM) case. The ICE "f" values are unchanged; as are the LCFS values. The EHM ZEV differences from the HM case are the highlighted "z" values.

This means that with the 23% increase in California's population, computed in Equation 7, the net driving would also increase by 23%. If this LDV requirement set were to be implemented, a lot of California's transportation money would be needed to expand the highway system, leaving less to improve transit, improve active transportation (mainly walking and biking), and maintain roads.

**Table 7 Calculation of 2030 LDV Mileage Assuming Extra-Heroic Measures**

| Year                                              | ICE Parameters and Calculations |       |         |     |       |       | ZEVs |       |       | Yearly Totals |               |          |
|---------------------------------------------------|---------------------------------|-------|---------|-----|-------|-------|------|-------|-------|---------------|---------------|----------|
|                                                   | CAFÉ MPG                        | LCFS  | Eq. MPG | f   | $D_i$ | $G_i$ | z    | $D_z$ | $G_z$ | Total Miles   | Total Gallons | 2030 MPG |
| 2016                                              | 34.3                            | .9267 | 37.01   | .3  | 30.0  | .8105 | .04  | 0     | .012  | 32.8          | .7901         | 41.51    |
| 2017                                              | 35.1                            | .9200 | 38.15   | .4  | 36.0  | .9436 | .10  | 10    | .030  | 46.0          | .9738         | 47.24    |
| 2018                                              | 36.1                            | .9133 | 39.53   | .5  | 35.0  | .8855 | .25  | 25    | .075  | 62.5          | 1.024         | 61.02    |
| 2019                                              | 37.1                            | .9000 | 40.92   | .6  | 30.0  | .7332 | .40  | 40    | .121  | 76.0          | 1.000         | 75.96    |
| 2020                                              | 38.3                            | .8500 | 42.56   | .7  | 21.0  | .4935 | .65  | 65    | .196  | 89.5          | .7718         | 115.96   |
| 2021                                              | 40.3                            | .8000 | 47.41   | .8  | 8.0   | .1687 | .90  | 90    | .272  | 98.0          | .4403         | 222.59   |
| 2022                                              | 42.3                            | .8000 | 52.88   | .9  | 4.5   | .0851 | .95  | 95    | .287  | 99.5          | .3717         | 267.66   |
| 2023                                              | 44.3                            | .8000 | 55.38   | 1.0 | 5.0   | .0903 | .95  | 95    | .287  | 100.0         | .3769         | 265.31   |
| 2024                                              | 46.5                            | .8000 | 58.13   | 1.0 | 5.0   | .0860 | .98  | 98    | .296  | 100.0         | .3301         | 302.95   |
| 2025                                              | 48.7                            | .8000 | 60.88   | 1.0 | 5.0   | .0821 | .98  | 98    | .296  | 100.0         | .3285         | 304.38   |
| 2026                                              | 51.2                            | .8000 | 64.00   | 1.0 | 5.0   | .0781 | .99  | 99    | .299  | 100.0         | .3143         | 318.14   |
| 2027                                              | 53.7                            | .8000 | 67.13   | 1.0 | 5.0   | .0745 | .99  | 99    | .299  | 100.0         | .3136         | 318.88   |
| 2028                                              | 56.2                            | .8000 | 70.25   | 1.0 | 5.0   | .0712 | .99  | 99    | .299  | 100.0         | .3129         | 319.56   |
| 2029                                              | 58.7                            | .8000 | 73.38   | 1.0 | 5.0   | .0681 | .99  | 99    | .299  | 100.0         | .3123         | 320.18   |
| 2030                                              | 61.2                            | .8000 | 76.50   | 1.0 | 5.0   | .0654 | .99  | 99    | .299  | 100.0         | .3118         | 320.75   |
| Sum of Miles and then Gallons of Equivalent Fuel: |                                 |       |         |     |       |       |      |       |       | 1304.30       | 7.97          |          |
| Equivalent MPG of LDV Fleet in 2030:              |                                 |       |         |     |       |       |      |       |       | <b>163.59</b> |               |          |

**Comparing the ZEV Fraction Values of the “Heroic-Measures” (HM) Case to the “Extra-Heroic Measures” (EHM) Case**

Table 8 shows the direct comparison of the ZEV fractions that are ZEV requirements for the HM Case and the EHM Case. The largest differences are highlighted. The EHM case does not appear to be achievable.

**Table 8 HM Case and the EHM Case Which Supports 2005 Per-Capita Driving**

| Cases | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| HM    | .04  | .07  | .12  | .18  | .24  | .34  | .48  | .62  | .76  | .90  | .95  | .98  | .99  | .99  | .99  |
| EHM   | .04  | .10  | .25  | .40  | .65  | .90  | .95  | .95  | .98  | .98  | .99  | .99  | .99  | .99  | .99  |

## **ACHIEVING THE REQUIRED DRIVING REDUCTION OF THE HEROIC-MEASURES (HM) CASE**

As shown in Equation 14, in 2030, the per-capita driving will need to at least 32% below the 2005 value. As shown in this link, [http://en.wikipedia.org/wiki/SB\\_375](http://en.wikipedia.org/wiki/SB_375), California's Metropolitan Planning Organizations (MPOs) are adopting Region Transportation Plans (RTPs) that will achieve reductions in year 2020 and 2035. As also shown there, the targets, for year 2035, range from 0% for Shasta to 16% for Sacramento Area Council of Governments. Since this is for 2030 instead of 2035, and to be reasonably conservative, it is assumed here that the state will achieve a 10% reduction in per-capita driving, in 2030, compared to 2005. This leaves 22% to be achieved by new programs.

The title of each of the following subsections contains the estimated per-capita driving reduction each strategy will achieve, by 2030.

### **Reallocate Funds Earmarked for Highway Expansion to Transit and Consider Transit-Design Upgrades (3%)**

San Diego County has a sales tax measure called "TransNet", which allocates one-third for highway expansion, one-third for transit, and one-third for road maintenance. It has a provision that allows for a reallocation of funds, if supported by at least two-thirds of SANDAG Board members, including a so-called weighted vote, where governments are given a portion of 100 votes, proportional to their population. It is hereby proposed to reallocate the TransNet amount, earmarked for highway expansion, to transit and to do similar reallocations throughout California.

This money could be used to fund additional transit systems; improve transit operations; and/or the redesign and implementation of the redesign of existing transit systems. The redesign could include electrification and automation or even upgrading to a different technology.

### **A Comprehensive Road-Use Fee Pricing and Payout System to Unbundle the Cost of Operating Roads (7.5%)**

*Comprehensive* means that pricing would be set to cover all costs (including road maintenance and externalities such as harm to the environment and health); that privacy and the interests of low-income drivers doing necessary driving would be protected; that the incentive to drive fuel-efficient cars would be at least as large as it is under the current fuels excise tax; and, as good technology becomes available, that congestion pricing is used to protect critical driving from congestion.

The words *payout* and *unbundle* mean that some of the money collected would go to people that are losing money under the current system.

User fees (gas taxes and tolls) are not enough to cover road costs<sup>10</sup> and California is not properly maintaining its roads. Reference 10 shows that in California user fees amount to only 24.1% of what is spent on roads. Besides this, the improved mileage of the ICEs and the large number of ZEVs needed mean that gas tax revenues will drop precipitously.

This system could be used to help reduce the ICE LDV miles driven in 2016 to 2022, as shown in the "f" column of Tables 6 and 7. This system could probably be implemented in less than 5 years.

## **Unbundling the Cost of Car Parking (7.5%)**

Unbundling the cost of car parking<sup>11</sup> throughout California is conservatively estimated to decrease driving by 7.5%, based on Table 1 of Reference 11. That table shows driving reductions resulting from introducing a price for parking, for 10 cases. Its average reduction in driving is 25% and its smallest reduction is 15%.

## **Good Bicycle Projects and Bicycle Traffic Skills Education (3%)**

The best criterion for spending money for bicycle transportation is the estimated reduction in driving per the amount spent. The following strategies may come close to maximizing this parameter.

### ***Projects to Improve Bicycle Access***

All of the smart-growth neighborhoods, central business districts, and other high trip destinations or origins, both existing and planned, should be checked to see if bicycle access could be substantially improved with either a traffic calming project, a “complete streets” project, more shoulder width, or a project to overcome some natural or made-made obstacle.

### ***League of American Bicyclist Certified Instruction of “Traffic Skills 101”***

Most serious injuries to bike riders occur in accidents that do not involve a motor vehicle<sup>12</sup>. Most car-bike accidents are caused by wrong-way riding and errors in intersections; the clear-cut-hit-from-behind accident is rare<sup>12</sup>.

After attending *Traffic Skills 101*, students that pass a rigorous written test and demonstrate proficiency in riding in traffic and other challenging conditions could be paid for their time and effort.

As an example of what could be done in San Diego County, if the average class size was 3 riders per instructor and each rider passes both tests and earns \$100 and if the instructor, with overhead, costs \$500 dollars, for a total of \$800 for each 3 students, that would mean that \$160M could teach  $\$160M/\$800 = 200,000$  classes of 3 students, for a total of 600,000 students. The population of San Diego County is around 3 million.

## **Eliminate or Greatly Increase the Maximum Height and Density Limits Close to Transit Stops that Meet Appropriate Service Standards (2%)**

As sprawl is reduced, more compact, transit-oriented development (TOD) will need to be built. This strategy will incentivize a consideration of what level of transit service will be needed, how it can be achieved, and what levels of maximum height and density are appropriate. Having no limits at all is reasonable if models show that the development can function without harming the existing adjacent neighborhoods, given the level of transit service and other supporting transportation policies (such as car parking that unbundles the cost and supports the full sharing of parking<sup>11</sup>) that can be assumed.

## **Net Driving Reduction from All Identified Strategies**

By 2030, the sum of these strategies should be realized. They total 23%, resulting in a 1% margin over the needed 22% (which is added to the existing 10% to get the needed 32%.)

## ADDITIONAL ELECTRICITY REQUIRED

The URL [http://www.energy.ca.gov/2013\\_energypolicy/documents/2013-06-26\\_workshop/presentations/09\\_VMT-Bob\\_RAS\\_21Jun2013.pdf](http://www.energy.ca.gov/2013_energypolicy/documents/2013-06-26_workshop/presentations/09_VMT-Bob_RAS_21Jun2013.pdf) shows that Californians drove about 325 Billion miles per year, from 2002 to 2011. This value can be multiplied by the 0.84 factor reduction of driving, computed right after the calculation shown in Equation 14, and the fraction of miles driven by ZEVs, shown at the bottom of Table 6, of 0.687 (from 68.7%), to give the 2030 miles driven by ZEVs = 325 Billion x 0.84 x 0.687 = 188 Billion miles per year.

Using the Tesla information here [http://en.wikipedia.org/wiki/Tesla\\_Roadster](http://en.wikipedia.org/wiki/Tesla_Roadster), it is assumed that 21.7 kW-h is used per 100 miles, or 0.217 kW-h per mile. The total energy used per year is therefore 188 Billion miles x 0.217 kW-h = 40,699 GW-h.

<http://www.cpuc.ca.gov/cfaqs/howhighiscaliforniaselectricitydemandandwheredoesthepowercomefrom.htm>, shows that California is using about 265,000 GW-h per year. Therefore the electricity needed to power California's HM ZEV LDF fleet in 2030 is 100% x 40,648/265,000 = 15.34% of the amount of electricity California is currently using. Table 4 shows that 80% (r = 0.80, with "r" defined in Table 3) of electricity must be generated without producing CO<sub>2</sub>. This estimated 15.34% increase in demand should help the California Public Utilities Commission (CPUC) and the California Energy Commission (CEC) with their planning.

## COMPARISON WITH CALIFORNIA AIR RESOURCES BOARD (CARB) PLANNING

The following quote<sup>13</sup> allows us to compare the CARB plan for LDVs with what would be required to stabilize the climate at a livable level, in the form of the Heroic Measures case:

*Regulations on the books in California, set in 2012, require that 2.7 percent of new cars sold in the state this year be, in the regulatory jargon, ZEVs. These are defined as battery-only or fuel-cell cars, and plug-in hybrids. The quota rises every year starting in 2018 and reaches 22 percent in 2025. Nichols wants 100 percent of the new vehicles sold to be zero- or almost-zero-emissions by 2030*

Table 9 shows the values implied by this statement and compares them to the HM values. Table 10, which is similar to Tables 6 and 7, computes the overall mileage of the 2030 fleet, using the CARB values.

### Computing the Heroic-Measures (HM) Case Per-Capita and Net Driving Factor Requirements, Based on the Result Shown in Table 10

Plugging the

- equivalent MPG of the LDV fleet in Year 2030, taken from the bottom of Table 10, which is 74.25 MPG, and
- the MPG of the LDV fleet in Year 2015, taken from the bottom of Table 2, which is 27.63 MPG,

into Equation 8, gives the following result:

$$\frac{d_{2030}}{d_{2005}} = 0.1687 * \frac{m_{2030}}{m_{2015}} = 0.1687 * \frac{74.25}{27.63} = 0.45 \quad (\text{Eq. 16})$$

**Table 9 Zero Emission Vehicle (ZEV) % of Fleet, for Two Cases**

| Year | CARB  | Heroic Measures | Year | CARB   | Heroic Measures |
|------|-------|-----------------|------|--------|-----------------|
| 2016 | 2.7%  | 4.0%            | 2024 | 19.6%  | 76.0%           |
| 2017 | 2.7%  | 7.0%            | 2025 | 22.0%  | 90.0%           |
| 2018 | 5.1%  | 12.0%           | 2026 | 37.6%  | 95.0%           |
| 2019 | 7.5%  | 18.0%           | 2027 | 53.2%  | 98.0%           |
| 2020 | 9.9%  | 24.0%           | 2028 | 68.8%  | 99.0%           |
| 2021 | 12.4% | 34.0%           | 2029 | 84.4%  | 99.0%           |
| 2022 | 14.8% | 48.0%           | 2030 | 100.0% | 99.0%           |
| 2023 | 17.2% | 62.0%           |      |        |                 |

This means that the per-capita driving will need to be about 55% less in 2030 than in year 2005. The net driving can be computed by multiplying the per-capita driving, 0.45, by the population factor of 1.2305, computed in Equation 7, resulting in 0.55. This means that, even with the 23% increase in California’s population, the net driving will have to drop by 45%. If CARB wants the LDV sector to achieve a reasonable climate-stabilizing target, it will need to require ZEV adoption profile closer to the Heroic Measures Case. The adoption profile they have now will required a reduction in driving that will probably be very difficult to achieve.

## CONCLUSION

A requirement set named “Heroic Measures” (HM) is quantified. Table 8 shows that the HM LDV efficiency requirements are much easier to achieve than those needed to allow per-capita driving to remain close to its 2005 level, which has been quantified as the “Extra Heroic Measures Case”. Strategies to achieve the required HM driving reductions are also allocated and described. They are perhaps about as difficult as achieving the HM LDV fleet efficiency. It is computed that the 2030 fleet of LDV HM ZEVs would require an amount of electricity which is equal to about 15% of what California is using today. The current CARB plan for ZEV adoption is shown to require a very large reduction in driving if LDVs are to achieve a climate-stabilizing target.

**Table 10 Calculation of 2030 LDV Mileage Assuming the CARB Values**

| Year                                              | ICE Parameters and Calculations |       |         |     |       |        | ZEVs |       |       | Yearly Totals |               |          |
|---------------------------------------------------|---------------------------------|-------|---------|-----|-------|--------|------|-------|-------|---------------|---------------|----------|
|                                                   | CAFÉ MPG                        | LCFS  | Eq. MPG | f   | $D_i$ | $G_i$  | z    | $D_z$ | $G_z$ | Total Miles   | Total Gallons | 2030 MPG |
| 2016                                              | 34.3                            | .9267 | 37.01   | .3  | 30.0  | .8105  | .03  | 3     | .008  | 31.9          | .79681        | 40.02    |
| 2017                                              | 35.1                            | .9200 | 38.15   | .4  | 40.0  | 1.0484 | .03  | 3     | .008  | 41.6          | 1.0283        | 40.48    |
| 2018                                              | 36.1                            | .9133 | 39.53   | .5  | 47.5  | 1.2018 | .05  | 5     | .015  | 52.6          | 1.2158        | 43.23    |
| 2019                                              | 37.1                            | .9000 | 40.92   | .6  | 54.0  | 1.3197 | .08  | 8     | .023  | 63.0          | 1.3787        | 45.70    |
| 2020                                              | 38.3                            | .8500 | 42.56   | .7  | 52.5  | 1.2337 | .10  | 10    | .030  | 73.0          | 1.5114        | 48.29    |
| 2021                                              | 40.3                            | .8000 | 47.41   | .8  | 48.0  | 1.0124 | .12  | 12    | .037  | 82.5          | 1.5162        | 54.39    |
| 2022                                              | 42.3                            | .8000 | 52.88   | .9  | 40.5  | .7660  | .15  | 15    | .045  | 91.5          | 1.4954        | 61.17    |
| 2023                                              | 44.3                            | .8000 | 55.38   | 1.0 | 30.0  | .5418  | .17  | 17    | .052  | 100.0         | 1.5475        | 64.62    |
| 2024                                              | 46.5                            | .8000 | 58.13   | 1.0 | 15.0  | .2581  | .20  | 20    | .059  | 100.0         | 1.4425        | 69.32    |
| 2025                                              | 48.7                            | .8000 | 60.88   | 1.0 | 5.0   | .0821  | .22  | 22    | .066  | 100.0         | 1.3477        | 74.20    |
| 2026                                              | 51.2                            | .8000 | 64.00   | 1.0 | 5.0   | .0781  | .38  | 38    | .113  | 100.0         | 1.0884        | 91.87    |
| 2027                                              | 53.7                            | .8000 | 67.13   | 1.0 | 5.0   | .0745  | .53  | 53    | .161  | 100.0         | .8577         | 116.59   |
| 2028                                              | 56.2                            | .8000 | 70.25   | 1.0 | 5.0   | .0712  | .69  | 69    | .208  | 100.0         | .6517         | 153.44   |
| 2029                                              | 58.7                            | .8000 | 73.38   | 1.0 | 5.0   | .0681  | .84  | 84    | .255  | 100.0         | .4673         | 214.02   |
| 2030                                              | 61.2                            | .8000 | 76.50   | 1.0 | 5.0   | .0654  | 1.0  | 100   | .302  | 100.0         | .3017         | 331.44   |
| Sum of Miles and then Gallons of Equivalent Fuel: |                                 |       |         |     |       |        |      |       |       | 1236.00       | 16.65         |          |
| Equivalent MPG of LDV Fleet in 2030:              |                                 |       |         |     |       |        |      |       |       | <b>74.25</b>  |               |          |

## ABBREVIATIONS AND ACRONYMS

|                         |                                        |                 |                                      |
|-------------------------|----------------------------------------|-----------------|--------------------------------------|
| <b>AB 1493</b>          | California’s Assembly Bill 1493        | <b>HM</b>       | “Heroic Measures” LDV Case           |
| <b>AB 32</b>            | California’s Assembly Bill 32          | <b>ICE</b>      | Internal Combustion Engine LDV       |
| <b>APS</b>              | Alternative Planning Strategy          | <b>kW-h</b>     | Kilo Watt-hour                       |
| <b>CAFE</b>             | Corporate Average Fuel Efficiency      | <b>LCFS</b>     | Low Carbon Fuel Standard             |
| <b>CARB</b>             | California Air Resources Board         | <b>LDV</b>      | Light-Duty Vehicle                   |
| <b>CBD</b>              | Center for Biological Diversity        | <b>MPO</b>      | Metropolitan Planning Organization   |
| <b>CEC</b>              | California Energy Commission           | <b>Pavley</b>   | Senator Pavley’s AB 1493             |
| <b>CEQA</b>             | California Environmental Quality Act   | <b>PPM</b>      | Parts per Million                    |
| <b>CPUC</b>             | California Public Utilities Commission | <b>RPS</b>      | Renewable Portfolio Standard         |
| <b>CCAP</b>             | Center for Clean Air Policy            | <b>RTP</b>      | Regional Transportation Plan         |
| <b>CNFF</b>             | Cleveland National Forest Foundation   | <b>S-3-05</b>   | Governor’s Executive Order S-3-05    |
| <b>SB 375</b>           | California’s Senate Bill 375           | <b>SANDAG</b>   | San Diego Association of Governments |
| <b>CO<sub>2</sub></b>   | Carbon Dioxide                         | <b>SCS</b>      | Sustainable Community Strategy       |
| <b>CO<sub>2_e</sub></b> | Carbon Dioxide Equivalent GHG          | <b>TransNet</b> | San Diego County sales tax           |
| <b>EHM</b>              | “Extra Heroic Measures” LDV Case       | <b>URL</b>      | Universal Resource Locator           |
| <b>GEO</b>              | Governor’s Executive Order             | <b>VMT</b>      | Vehicle Miles Travelled              |
| <b>GHG</b>              | Greenhouse gas                         | <b>ZEV</b>      | Zero Emission Vehicle LDV            |
| <b>GW-h</b>             | Giga Watt-Hours                        |                 |                                      |

## ACKNOWLEDGEMENTS

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## REFERENCES

- 1 Anders, S. J.; De Haan, D. O.; Silva-Send, N.; Tanaka, S.T.; Tyner, L.; *San Diego County Greenhouse Gas Inventory*, September 2008, <http://www.sandiego.edu/epic/ghginventory/>
- 2 Tarbuck, E.; Lutgens, F.; *Earth Science*; Tenth Edition, published by Prentice Hall, 2003, page 539
- 3 Vespa, M.; *Comments on Survey of CEQA Documents on Greenhouse Gas Emissions Draft Work Plan and Development of GHG Threshold of Significance for Residential and Commercial Projects*, Letter from Center for Biological Diversity to Elaine Chang, Deputy Executive Officer of Planning, Rule Development, and Area Sources of the South Coast Air Quality Management District; dated April 15, 2009. <http://www.aqmd.gov/ceqa/handbook/GHG/2009/april22mtg/CBDcomments.pdf>
- 4 Hertsgaard, M; *Latino Climate Solution, the Nation*, Dec. 24/31, 2012.
- 5 Whitney E.; *How to Meet the Climate Crisis, UU World*, Volume XXVI No. 4, Winter 2012.

- 6 Adams, T.; Eaken, A.; Notthoff, A.; *Communities Tackle Global Warming, A Guide to California's SB 375*, June 2009, NRDC;  
<http://www.nrdc.org/globalWarming/sb375/files/sb375.pdf>
- 7 Hansen, James, Brief of Amicus Curiae, Exhibit A, Case3:11-cv-o22o3-EMC Document108 Filed 11/14/11. from  
<http://ourchildrenstrust.org/sites/default/files/Hansen%20Amicus%20.pdf>
- 8 State of California, Department of Finance, California County Population Estimates and Components of Change by Year, July 1, 2000-2010. Sacramento, California, December 2011, from <http://www.dof.ca.gov/research/demographic/reports/estimates/e-2/2000-10/>, the “E-2. California County Population Estimates and Components of Change by Year — July 1, 2000–2010”
- 9 Schwarm, Walter, Demographic Research Unit, California Department of Finance, *Total Population Projections for California and Counties: July 1, 2015 to 2060 in 5-year Increments*, from <http://www.dof.ca.gov/research/demographic/reports/projections/P-1/>, then “[Report P-1 \(County\): State and County Total Population Projections, 2010-2060 \(5-year increments\)](#)” link, to open or download the EXCEL spreadsheet file.
- 10 Henchman, Joseph; *Gasoline Taxes and Tolls Pay for Only a Third of State & Local Road Spending*; January 17, 2013; <http://taxfoundation.org/article/gasoline-taxes-and-tolls-pay-only-third-state-local-road-spending>
- 11 Bullock, M.; Stewart, J.; *A Plan to Efficiently and Conveniently Unbundle Car Parking Costs*; Paper 2010-A-554-AWMA, from the Air and Waste Management Association's 103<sup>rd</sup> Annual Conference and Exhibition; Calgary, Canada, June 21-24, 2010. <http://sierraclub.typepad.com/files/mike-bullock-parking-paper.pdf>
- 12 Forester, J. *Effective Cycling*, MIT Press, 6<sup>th</sup> Edition, 1993.
- 13 Lippert, John; *Bloomberg News* August 2, 2015; *California Has a Plan to End the Auto Industry as We Know It*; <http://www.bloomberg.com/news/articles/2015-08-03/california-regulator-mary-nichols-may-transform-the-auto-industry>

## KEYWORDS

Driving, climate, mandates, S-3-05, SB 375, RTP, CEQA, Unbundled, GHG, CAFÉ, ZEVs

# REFERENCE 6

# Modern Roundabouts

Reduce congestion and improve safety on main roads



## What is a “Modern Roundabout?”

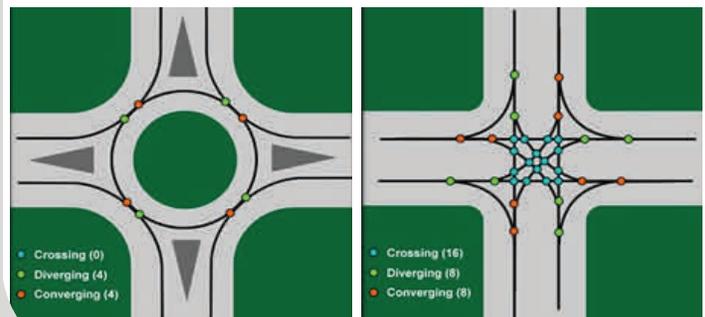
A modern roundabout is a circular intersection in which vehicles travel counterclockwise around a center island. Unlike large traffic circles or rotaries of the past, modern roundabouts are easy to navigate, environmentally friendly, attractive, and safe. Raised “splitter islands” induce arriving drivers to slow down prior to entering the intersection, and provide a refuge island for crossing pedestrians. Entering vehicles yield to traffic already in the roundabout.



Photo: SANDAG

## Why are roundabouts so much safer?

Roundabouts reduce both speed and the number of “conflict points,” from 32 to 8 (see figure).<sup>4</sup> Crashes in roundabouts are also less severe; converting intersections from signals to roundabouts reduces injury crashes by 80% and all crashes by 50%.<sup>4</sup> Severe injuries are rare; a study of 23 conversions found a 76% decrease in injury crashes and an 89% reduction in fatalities.<sup>5</sup> Bicyclists and pedestrians of different skills levels are safely accommodated in roundabouts, although visually impaired pedestrians may require special treatments.<sup>6</sup>



## How do roundabouts improve traffic flow?

Unlike signals, roundabouts keep traffic moving. Since the capacity of a street is greatly influenced by its intersections, reducing the number of stops increases road capacity, which improves traffic flow. As a result, fewer lanes are required, which has multiple safety, capacity, and cost benefits. On La Jolla Blvd. in San Diego (photos), five roundabouts allowed the City to shrink the street and widen the sidewalks, providing outdoor dining and meeting places, with less traffic noise.

## How do roundabouts improve air quality?

By reducing vehicle idling, roundabouts significantly decrease fuel consumption and emissions.

- On La Jolla Blvd. each roundabout is estimated to annually save 20,000 gallons of gasoline,<sup>1</sup> avoiding 9.9 lbs. of particulate pollution.<sup>2</sup>
- One roundabout can eliminate 189 metric tons of CO<sub>2</sub>e emissions annually, equivalent to 37 cars.<sup>1,3</sup>
- Installing 320 roundabouts in San Diego could reduce CO<sub>2</sub>e emissions by 60,480 metric tons annually — equal to the annual emissions of 10,900 cars.<sup>1,2</sup>

## How much do roundabouts cost?

As of 2014, the installation cost of a roundabout was around \$1 million, while traffic signals typically cost \$600,000. However, long-term costs for roundabouts are lower since little maintenance and no electricity are required. Costs of traffic crashes are also greatly reduced.

## Do drivers prefer roundabouts?

Until recently, roundabouts were unfamiliar to Americans. But drivers favor roundabouts once they become familiar with them. A 2002 study of roundabout conversions in three communities found that only 36% of drivers supported roundabouts before they were constructed, but 70% favored them one year after construction.<sup>8</sup>



1. Silva-Send, Nilmini (2009) *Reducing Greenhouse Gases from On-Road Transportation in San Diego County*. Energy Policy Initiatives Center, USD.  
2. U.S. EPA, *Average Annual Emissions and Fuel Consumption for Gasoline-Fueled Passenger Cars and Light Trucks* (2008).  
3. *Greenhouse Gas Emissions from a Typical Passenger Vehicle*, EPA Office of Transportation and Air Quality (2011)  
4. FHWA. *Driver Conflict Points: Roundabout vs Stop Sign*, safety.fhwa.dot.gov, accessed March 3, 2014)

5. Persand, B.N. et al. (2001) Safety effect of roundabout conversions in the United States. *Transportation Research Record*.  
6. FHWA (2010) *Roundabouts: An Informational Guide*.  
7. Lounsbury & Associates, *Myths and Facts about Roundabouts*, www.alaskaroundabouts.com/mythfact6.html, accessed July 15, 2014.  
8. Retting R.A. et al. (2002) Long-term trends in public opinion following construction of roundabouts. *Transportation Research Record*.  
Photos by Andy Hamilton, APCD, except as indicated.

# Traffic Circles

Reduce harmful emissions while improving neighborhoods



## What is a traffic circle?

Traffic circles (or “mini-roundabouts”) are circular intersection islands similar to modern roundabouts, usually installed in **2-lane streets**. Unlike with roundabouts, the approach islands (“splitter islands”) are painted rather than raised.<sup>1</sup>



Large vehicles such as buses and fire trucks can comfortably navigate traffic circles, improving safety and reducing noise on residential streets.

## How much do traffic circles improve safety?

The Institute of Transportation Engineers found traffic circles reduce intersection collisions 70%.<sup>5</sup> Similarly, the City of Seattle studied 130 sites and found a 73% decrease.<sup>6</sup> These results stem from the sideways routing (“horizontal deflection”) of the travel path, which eliminates dangerous crash types such as head-on, left turn, and right angle crashes,<sup>7</sup> and discourages speeding. In Portland, traffic circles virtually eliminated speeds over 35 mph, where before, 15% or more of traffic exceeded 35 mph.<sup>8</sup> Traffic circles are unexpected, so proper signage and markings are important.



Old and new traffic circles, in Del Mar and North Park, respectively.

## What are the main advantages of traffic circles?

Traffic circles are a relatively low-cost intervention to reduce traffic speeds and intersection crashes.<sup>2</sup> Although the geometry of the center island reduces speeds, it need not reduce the access of large trucks and emergency vehicles (above photo). To handle especially long trucks and busses, the center island typically includes a mountable “apron” less than four inches high that rear wheels can pass over.<sup>3</sup> However, the island must be large enough to prevent vehicles from making left turns in front of it. In addition to increasing safety, traffic circles provide a space for vegetation, public art, or a neighborhood identity sign.<sup>2</sup> However, it is important to consider how ongoing watering or maintenance costs will be funded.

**Cost:** On average \$10,000 — \$25,000, excluding costs of landscaping.<sup>4</sup>

## How do traffic circles reduce auto emissions?

One gallon of gasoline burned by an average San Diego vehicle produces 17.5 lb CO<sub>2</sub>, 45.4g CO, 11.3g NO<sub>x</sub>, and 4.5g VOC.<sup>9</sup> Like roundabouts, traffic circles used in place of stop signs or signals reduce these emissions two ways:

- (1) Reducing starts and stops: In one study, small roundabouts were found to reduce CO by 29%, NO<sub>x</sub> by 21% and greenhouse gases by 28%.<sup>10</sup> The town of Carmel, Indiana, has converted over half its intersections to roundabouts or traffic circles, with an estimated average savings of 24,000 gallons of fuel (and accompanying emissions) per intersection per year.<sup>11</sup>
- (2) Calming neighborhood traffic: Data show residents walk<sup>12</sup> or bike more — replacing some vehicle trips — when cars drive slower in their neighborhood.

1. Federal Highway Administration (2014) *Designing Sidewalks and Trails for Access*, 9.2.6 *Neighborhood Traffic Circles*. [http://fhwa.dot.gov/environment/bicycle\\_pedestrian/publications/sidewalk2/sidewalks209.cfm](http://fhwa.dot.gov/environment/bicycle_pedestrian/publications/sidewalk2/sidewalks209.cfm)  
2. Transafety, Inc. (1998) Traffic circle design criteria. *Road Management & Engineering Journal*. <http://usroads.com/journals/rmej/9801/rm980103.htm>  
3. Seattle Department of Transportation (n. d.) *Neighborhood Traffic Operations: Traffic Circle Program*. <http://www.seattle.gov/transportation/trafficcircles.htm>  
4. City of Oceanside, CA (2011) *City of Oceanside Traffic Calming Program*, p. 40.  
5. Institute of Transportation Engineers (n. d.) *Traffic Calming Measures - Neighborhood Traffic Circle*. <http://www.ite.org/traffic/circle.asp>  
6. Fehr & Peers (2010) *Traffic Circles*. <http://www.trafficcalming.org>  
7. Federal Highway Administration (2010) *Roundabouts: An Informational Guide*,

2nd Edition. NCHRP Report 672.  
8. Stein, H. et al. (1992) Portland's successful experience with traffic circles. *ITE 1992 Compendium of Technical Papers*, p. 39-44.  
9. Calculated from California Air Resources Board's EMFAC2011 model.  
10. Varhelyi, A. (2002) The effects of small roundabouts on emissions and fuel consumption: a case study. *Transportation Research Part D: Transport and Environment, U.S. Transportation Research Board*.  
11. Insurance Institute for Highway Safety (2005) *Status Report*, Col. 40, No. 9, November 19, 2005.  
12. America Walks (2011) *National Walking Survey*.  
Photos by Andy Hamilton, APCD.

# REFERENCE 7



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March 19, 2012

**VIA HAND DELIVERED and EMAILED TO: (Anna.Lowe@sdcountry.ca.gov)**

Anna Lowe, Department of Planning and Land Use  
County of San Diego  
5201 Ruffin Road, Suite B  
San Diego, CA 92123-1666

Re: Comments Regarding the Draft Climate Action Plan and Related Documents

Dear Ms. Lowe:

The San Diego & Imperial Counties Chapter of the Sierra Club (the “Sierra Club” or the “Chapter”) respectfully requests that the Draft County of San Diego Climate Action Plan (“Draft CAP”), the Draft Guidelines for Determining Significance: Climate Change (“Draft Significance Thresholds”), and the Draft Report Format and Content Requirements: Greenhouse Gas Analyses and Reporting (“Draft GHG Report Requirements”) be returned to staff for revisions and subsequent recirculation before presentation to the Board of Supervisors for consideration at a public hearing.

In failing to require greenhouse gas (“GHG”) reductions past 2020 projections, the County Draft CAP, Draft Significance Thresholds, and Draft GHG Report Requirements, if adopted, will themselves contribute to the ultimate human catastrophe: climate destabilization.

Additionally, the County has failed to keep its own promises to the people – promises made just last year in the 2011 County of San Diego General Plan Update Environmental Impact Report (“General Plan EIR”).

As set forth below, the Draft CAP does not meet its stated goals of (1) complying with General Plan EIR Mitigation Measure CC-1.2 or Assembly Bill 32 (“AB 32”); or (2) mitigating the impacts of climate change consistent with the reduction requirements contained in Executive Order S-3-05 (“the Executive Order”).<sup>1</sup>

To make matters worse, and instead of contributing to the solution, the Draft Significance Thresholds and the Draft Report Requirements serve to further exacerbate the devastating impacts of climate change by purporting to limit California Environmental Quality Act (“CEQA”) review – and therefore consideration of mitigation measures and alternatives - based on thresholds that do nothing to avoid dangerous anthropogenic interference (“DAI”) within the climate system.

---

<sup>1</sup> In addition, the Draft CAP does not mitigate the impacts of climate change consistent with the California Environmental Quality Act (“CEQA”) Guidelines, allow lead agencies to adopt a plan or program that addresses the cumulative impacts of a project, or provide a mechanism that subsequent projects may use as a means of addressing GHG impacts under CEQA.

For this reason, adoption of the Draft Significance Thresholds and the Draft Report Requirements themselves would have adverse environmental impacts that have not been analyzed by the County as required by CEQA.

I. **THE DRAFT CAP DOES NOT COMPLY WITH THE REQUIREMENTS OF MITIGATION MEASURE CC-1.2 OR AB 32.**

The General Plan EIR identified significant impacts related to GHG emissions and was adopted based on findings that the mitigation measures identified and described therein would be implemented. Specifically, in certifying the General Plan EIR, the Board of Supervisors made findings that Mitigation Measure CC-1.2 would mitigate potentially significant climate change impacts to a level below significance:

**CC-1.2 requires the preparation of a County Climate Change Action Plan within six months from the adoption date of the General Plan Update. The Climate Change Action Plan will include a baseline inventory of greenhouse gas emissions from all sources and more detailed greenhouse gas emissions reduction targets and deadlines. The County Climate Change Action Plan will achieve comprehensive and enforceable GHG emissions reduction of 17% (totaling 23,572 MTCO<sub>2</sub>E) from County operations from 2006 by 2020 and 9% reduction (totaling 479,717 MTCO<sub>2</sub>E) in community emissions from 2006 by 2020. Implementation of the Climate Action Plan will contribute to meeting the AB 32 goals, in addition to the state regulatory requirements...**

General Plan EIR, Finding A-37, Attachment H-1, p. 71-72. Mitigation Measure CC-1.2 states as follows, and requires the County to:

**Prepare a County Climate Change Action Plan with an update baseline inventory of greenhouse gas emissions from all sources, more detailed greenhouse gas emissions reduction targets and deadlines; and a comprehensive and enforceable GHG emissions reduction measures that will achieve a 17% reduction in emissions from County operations from 2006 by 2020 and a 9% reduction in community emissions between 2006 and 2020. Once prepared, implementation of the plan will be monitored and progress reported on a regular basis.**

General Plan EIR, p. 7-80.

The Draft CAP is not the County Climate Change Action Plan contemplated by Mitigation Measure CC-1.2. As set forth below, the Draft CAP: (A) does not provide an updated baseline inventory; (B) does not provide detailed reduction targets and deadlines; (C) does not contain “comprehensive and enforceable GHG emissions reduction measures”; (D) does not “achieve a 17% reduction in emissions from County operations from 2006 by 2020 and a 9% reduction in community emission between 2006 and 2020”; and (E) precludes meaningful monitoring and reporting.

**A. THE DRAFT CAP DOES NOT PROVIDE AN UPDATED BASELINE INVENTORY.**

Mitigation Measure CC-1.2 required that County “Prepare a County Climate Change Action plan with an update baseline inventory of greenhouse gas emissions from all sources...” but the Draft CAP does not provide such an updated inventory. Instead, the Draft Cap appears to use 2005 and 2006 baselines that were already in existence at the time Mitigation Measure CC-1.2 was adopted.

**B. THE DRAFT CAP DOES NOT PROVIDE MORE DETAILED REDUCTION TARGETS AND DEADLINES.**

Mitigation Measure CC-1.2 required that the County “Prepare a County Climate Change Action plan with...more detailed greenhouse gas emissions reduction targets and deadlines...” but the Draft CAP in fact provides *less* detailed targets and deadlines than provided in AB 32 and the Executive Order.

The Draft CAP appears to ignore certain requirements of AB 32 as interpreted by the County’s own data. For example, the County’s position is that, “To achieve AB 32’s 2020 target, community-wide emissions would have to be reduced by 479,717 MT CO<sub>2</sub>e from 2006 levels. **A 9% reduction from 2006 levels is necessary to achieve 1990 levels...**” General Plan EIR, CEQA Findings Regarding Significant Effects, Attachment A, p.2. The Draft CAP does not distinguish between community emissions reductions and County emissions reductions and omits any reference to the 9% community reductions set forth in Mitigation Measure CC-1.2.

Instead, the entirety of the established targets and deadlines appears to be “15% below 2005 levels by 2020.” Draft CAP, p. 20. The Draft CAP in fact recognizes that to be on track to meet the goals of the Executive Order emissions reductions would have to be 49% below 2005 levels by 2035; and that the Draft CAP does not meet that goal. Draft CAP, p. 49.

As if an excuse, the Draft CAP states that only “current technology and existing state and federal regulations” are considered. Draft CAP, p. 49. Notwithstanding that there is no excuse for contributing to climate destabilization, the Draft CAP makes inaccurate assumptions and statements with respect to currently available solutions. For example, in assuming it cannot meet the Executive Order requirements, the Draft CAP must be presuming it will not meet the regulatory goals already established by the California Public Utilities Commission. If the County were to meet the already established California Energy Efficiency Strategic Plan goals for 2020, GHG emissions from stationary electricity usage would drop 50% by 2020 compared to a 2008 baseline year. See Attachment 1. The GHG reduction would exceed 80% by 2030 if the same pace of zero net energy building retrofits is assumed in the 2020-2030 timeframe. See Attachment 2. Currently available transportation related GHG reduction solutions are presented in the Appendix. See also Attachments 5-7.

**C. THE DRAFT CAP DOES NOT PROVIDE COMPREHENSIVE AND ENFORCEABLE GHG EMISSIONS REDUCTION MEASURES.**

It was no mistake that Mitigation Measure CC-1.2 used language like “comprehensive,” “enforceable,” and “will achieve.” Proposed mitigation measures are required by law to be “fully enforceable.” Cal. Pub. Res. Code § 21081.6(b); Guidelines § 15126.4(a)(2). Mitigation measures must be definite and defined so that their effectiveness is ascertainable. See, e.g., *San Franciscans for Reasonable Growth v. City & County of San Francisco*, 151 Cal.App.3d 61, 79 (1984).

Instead of “achieving” the reductions set forth in Mitigation Measure CC-1.2 and required by law, the Draft CAP concedes that it “does not ensure reductions...” Draft CAP, p. 69. In addition, the Draft CAP uses language such as “addressing,” “informing and inspiring meaningful GHG reductions,” and “Allow lead agencies to adopt a plan or program that addresses the cumulative impacts of a project.” These vague statements should be replaced with mandatory requirements that actually produce results.

The CAP provides seventeen GHG reduction measures that the drafters conclude will allow the County to achieve the goal of reducing emissions to 15% below 2005 levels by 2020. Draft CAP, p. 22. However, the measures do not explain the strategies that will be implemented, they do not provide cost breakdowns, they do not describe any incentives, they do not set forth specific mechanisms for monitoring each measure, and they do not explain the role of each implementation partner listed.

For example, measure E1, Energy-Efficient New Development, states that the County will “use incentives to encourage builders to exceed current energy efficiency standards by 15%.” Draft CAP, p. 29. What incentives? It then states there are also educational programs that “will create the educated and experienced workforce that is needed to take advantage of the County’s Green Building Incentive program.” *Ibid.* Where is the description of the County’s Green Building Incentive program? Who will participate in the educational program? How will the program be implemented or monitored? E1 also neglects to explain the likelihood of securing funding from the listed “Potential Funding Sources” and how instrumental are each to the success of the measure. *Ibid.* In addition, the measure does not indicate the roles of each implementation partner. *Ibid.* Without this important information, how could the County accurately determine the GHG reductions anticipated from this measure or the participation rate? All these things must be considered in order to provide full information and demonstrate enforceability to achieve acceptable mitigation under CEQA.

The Draft CAP concedes that some of the strategies provided in will not yield quantifiable emissions reductions. Draft CAP, p. 22. The strategies that will not yield quantifiable emissions reductions are not, and must be, identified. There is no information about the percentage of reductions that do not yield quantifiable emissions reductions, and there is therefore no way to analyze their effect on the requirements of Mitigation Measure CC-1.2.

In summary, the Draft CAP does not provide comprehensive and enforceable mechanisms that will actually reduce GHG emissions. With inadequate reduction measures it is far from clear whether or not the Draft CAP will achieve the County GHG emissions reduction target of 15% below 2005 levels by 2020. Further, with an ambiguous reduction target, it is not possible to determine that such a target will be sufficient even to comply with AB 32.

**D. THE DRAFT CAP DOES NOT PROVIDE COMPREHENSIVE REDUCTION MEASURES THAT WILL ACHIEVE A 17% REDUCTION IN EMISSIONS FROM COUNTY OPERATIONS AND A 9% REDUCTION IN COMMUNITY EMISSIONS.**

Mitigation measure CC-1.2 requires the CAP to achieve a 17% reduction in emissions from County operations from 2006 by 2020 and a 9% reduction in community emissions between 2006 and 2020. As set forth above, the Draft CAP does not actually achieve *any* emission reductions. In addition, the CAP only gives one emissions reduction target - 15% below 2005 levels by 2020.

Nowhere in the Draft CAP is there a reference to reducing “9% community emissions between 2006 and 2020.” Moreover, the terms “County” and “community” are used in the General Plan EIR, “municipal” and “community” are used in Attachment A to General Plan EIR Attachment H-1 (“Attachment A”), and just “County” is used in the Draft CAP. See e.g. Attachment A, p. 3. The inventory update in Attachment A says the *community* baseline year is changed to 2005, however, the 2005 baseline year used in the Draft CAP is for the *County*. No explanation is provided for the absence of the “9% reduction between 2006 and 2020” requirement of Mitigation Measure CC-1.2 in the Draft CAP.

#### **E. THE CAP MONITORING PROGRAM PRECLUDES EFFECTIVE IMPELEMENTATION.**

The Draft CAP also fails to provide for effective implementation. Mitigation Measure CC-1.2 requires that, “Once prepared, implementation of the plan will be monitored and progress reported on a regular basis.” The inadequate Draft CAP itself concedes that, “it is imperative to monitor progress toward the goals set in CAP and to revisit and update the CAP periodically.” Draft CAP, p. 69. However, the proposed monitoring tool that can “track progress between inventories and examine effectiveness of specific measures” and is contemplated to be “revisited periodically to reflect any changes in emissions projections or reduction potential,” neglects to define “periodically.” *Ibid*. In addition, the monitoring section of the CAP does not explain how the County will “coordinate monitoring efforts at the community and local government levels,” which seems to be the key to the success of the program. *Ibid*. Without full participation and information from those implementing the Draft CAP, as well as those affected by the Draft CAP measures, the monitoring system will not receive the necessary and relevant information to make an assessment about the progress of implemented measures.

#### **II. THE DRAFT CAP DOES NOT COMPLY WITH THE EXECUTIVE ORDER**

The Governor’s Executive Order S-3-05 states:

**[T]he following greenhouse gas emission reduction targets are hereby established for California: by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; by 2050, reduce GHG emissions to 80 percent below 1990 levels**

The CAP acknowledges the targets established in the Executive Order and the developed emissions forecasts for 2035 necessary to reach 2050 GHG emissions reductions. Draft CAP, p. 20. The Draft CAP explains that reductions “would need to reach 49% below 2005 levels by 2035, based on emissions forecasts for 2035 and 2050 under BAU conditions, to meet the 2050 goal.” *Ibid*. However, after expressing dedication to meeting legislative goals and the need to look beyond 2020 deadlines, and determining reduction targets for 2035 and 2050, the CAP stops short. Draft CAP, p. 49, 52. The Draft CAP utilized the same measures developed for 2020 scenario for the 2035 scenario, with the only change being an increase in rates of participation. Draft CAP, p. 49. This planning only yields a potential reduction of 13.7% below 2005 levels by 2035 and “does not achieve the 49% reduction target.” *Ibid*.

The scientific community recognizes that DAI within the climate system will not be avoided by 2020 reductions alone. See Attachments 3, 4. As set forth above, the Draft CAP inaccurately states that “current technology and existing state and federal regulations” are considered. Draft CAP, p. 49. Regulatory goals already established by the California Public Utilities Commission provide current solutions and guidance to achieve 2035 and 2050

reductions. See Attachments 1, 2. Similarly, currently available transportation related GHG reduction solutions are presented in the Appendix, in which specific comments are provided and inadequacies explained. See also Attachments 5-7.

**III. THE DRAFT SIGNIFICANCE THRESHOLDS AND THE DRAFT REPORT REQUIREMENTS, AS DRAFTED, WILL CONTRIBUTE TO CLIMATE DESTABILIZATION AND ARE SUBJECT TO CEQA.**

Instead of trying to avoid DAI within the climate system, the Draft Significance Thresholds and Draft Report Requirements serve to further exacerbate the devastating impacts of climate change.

The CEQA Guidelines explained that lead agencies may adopt thresholds of significance for use in environmental review but that the thresholds must be supported by substantial evidence:

- (a) Each public agency is encouraged to develop and publish thresholds of significance that the agency uses in the determination of the significance of environmental effects. A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant.
- (b) Thresholds of significance to be adopted for general use as part of the lead agency's environmental review process must be adopted by ordinance, resolution, rule, or regulation, and developed through a public review process and be supported by substantial evidence.
- (c) When adopting thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence.

CEQA Guidelines § 15064.7. Here, there is no substantial evidence that supports adoption of the Draft Significance Thresholds and Draft Report Requirements which do not even purport to provide for emissions reductions past 2020 targets. The scientific of climate change reveals that 2020 targets are insufficient to avoid DAI within the climate system. Adoption of the Draft Significance Thresholds and/or the Draft Report Requirements will therefore themselves adversely impact the environment. An EIR would be required before either or both could be adopted.

CEQA Guideline section 15064.4, entitled, Determining the Significance of Impacts from Greenhouse Gas Emissions, provides additional guidance for determining GHG impact significance:

- (a) The determination of the significance of greenhouse gas emissions calls for a careful judgment by the lead agency consistent with the provisions in section 15064. A lead agency should make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate the amount of greenhouse gas emissions resulting from a project. A lead agency shall have discretion

to determine, in the context of a particular project, whether to:

(1) Use a model or methodology to quantify greenhouse gas emissions resulting from a project, and which model or methodology to use. The lead agency has discretion to select the model or methodology it considers most appropriate provided it supports its decision with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use; and/or

(2) Rely on a qualitative analysis or performance based standards.

(b) A lead agency should consider the following factors, among others, when assessing the significance of impacts from greenhouse gas emissions on the environment:

(1) The extent to which the project may increase or reduce greenhouse gas emissions as compared to the existing environmental setting;

(2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.

(3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of greenhouse gas emissions. Such requirements must be adopted by the relevant public agency through a public review process and must reduce or mitigate the project's incremental contribution of greenhouse gas emissions. If there is substantial evidence that the possible effects of a particular project are still cumulatively considerable notwithstanding compliance with the adopted regulations or requirements, an EIR must be prepared for the project.

Again, as set forth above, there has been no effort based on existing scientific and factual data to calculate the GHG emissions that would result from adoption of the Draft Significance Thresholds or the Draft Report Requirements. To the contrary, existing scientific and factual data reveals that thresholds that do not meet 2035 requirements are insufficient. See Attachment 3, Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group Meeting #15, p. 2. As set forth and referenced in the attached letter from the Center for Biological Diversity, not even compliance with the Executive Order will avoid dangerous anthropogenic interference with the climate system. See Attachment 4. Failing to address emissions reductions past 2020 necessarily renders the Draft Significance Thresholds and Draft Report Requirements insufficient.

I have attached an appendix and seven (7) documents, which are incorporated by reference as part of our comments on the County's proposed plan. This letter, its appendix and the incorporated documents must be included in any review of your plan. We request written responses to each and every comment made in this submission. Please notice our organization at the above address of any further processing of this plan or meetings on this plan.

Thank you for your fine staff work and including us in this process.

Respectfully submitted,

*/s/ John Stump*

John Stump, Chair  
Chapter Executive Committee

cc. Ms. Malinda Dickensen, Chapter Vice Chair  
Ms. Mollie Bigger, Chapter Conservation Chair  
Mr. Mike Bullock, Chapter Transportation Chair  
Ms. Masada Disenhouse, Chapter Climate Chair

Enclosures (7)

**Attachment 1** – California Energy Efficiency Strategic Plan, January 2011 Update

**Attachment 2** – California Energy Efficiency Strategic Plan Zero Net Energy Action Plan: Commercial Building Sector 2010-2012

**Attachment 3** – Letter from Center for Biological Diversity to Elaine Chang, Deputy Executive Officer of Planning, Rule Development, and Area Sources of the South Coast Air Quality Management District; *Comments on Survey of CEQA Documents on Greenhouse Gas Emissions Draft Work Plan and Development of GHG Threshold of Significance for Residential and Commercial Projects*, dated April 15, 2009.

**Attachment 4** – Minutes for the GHG CEQA Significance Threshold Stakeholder Working Group #5, dated September 28, 2010

**Attachment 5** – Letter from Sierra Club Transportation Chair to SANDAG Board, *California Air Resources Board (CARB) Greenhouse Gas (GHG) Reduction Targets, Issued to SANDAG, in Accordance with SB 375, for the Year 2035*, dated April 20, 2011

**Attachment 6** – M. Bullock & J. Stewart, *A Plan to Efficiently and Conveniently Unbundle Car Parking Costs*; Paper 2010-A-554-AWMA, from the Air and Waste Management Association's 103<sup>rd</sup> Annual Conference and Exhibition; Calgary, Canada, June 21-24, 2010

**Attachment 7** – Letter from M. Bullock to the Honorable President Richard Holober and Members of the Board of Trustees, San Mateo County Community College District; *An Updated Parking Policy, in Light of the Controversy Surrounding the Removal of Building 20, Greenhouse, and Gardens, to Add Parking*, dated July 27, 2011

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**The San Diego Chapter of the Sierra Club is San Diego's oldest and largest grassroots environmental organization, founded in 1948. Encompassing San Diego and Imperial Counties, the San Diego Chapter seeks to preserve the special nature of the San Diego and Imperial Valley area through education, activism, and advocacy. The Chapter has over 14,000 members. The National Sierra Club has over 700,000 members in 65 Chapters in all 50 states, and Puerto Rico.**



## **APPENDIX**

### **Summary**

Improvements to Chapters 1 and 2 are given. Chapter 2 suggestions include computing the driving reductions needed to achieve the S-3-05's trajectory by 2035. Feasible mitigation measures would eliminate congestion, improve air quality, increase social equity, and empowering people to make meaningful decisions both about methods of transit and how to spend their hard earned dollars.

### **Qualifications**

Understanding the relationship between global warming and transportation requires mathematics. The Chapter Transportation Chair, Mike Bullock, a contributor to this letter and drafter of this Appendix, has a BSEE degree and a Masters of Science, Engineering (MSE) degree. He worked for 36 years at Lockheed Martin, in Sunnyvale. For the last 20 years there, he worked as a satellite-systems engineer. One of his responsibilities was to develop equations and methods to measure and then compensate out, through satellite database upload, the misalignments of the key antennas on the MILSTAR communication satellite.

### **Specific Comments on the Draft CAP**

#### **1.1 Comments on the Draft CAP's Purpose**

The Attorney General Office's (AG's) excellent letter found at [http://ag.ca.gov/cms\\_attachments/press/pdfs/n2056\\_santa\\_clarita\\_letter.pdf](http://ag.ca.gov/cms_attachments/press/pdfs/n2056_santa_clarita_letter.pdf) compels a high standard of specificity. This CAP must identify the needed GHG reductions and show how those needed reductions will be achieved.

The words, "informing and inspiring meaningful GHG reductions" should be replaced with "achieving meaningful GHG reductions."

The first sentence on the top of the right column should include the *regional* level. SANDAG's RTP2050 is a \$214B dollar plan, with direct impacts on GHG emissions. SANDAG's work should not be ignored.

Table 1.1 should be labeled so the reader understands the year of the reductions. If the year is 2020, a similar table is needed for 2035.

#### **1.3 Comments on the Greenhouse Effect**

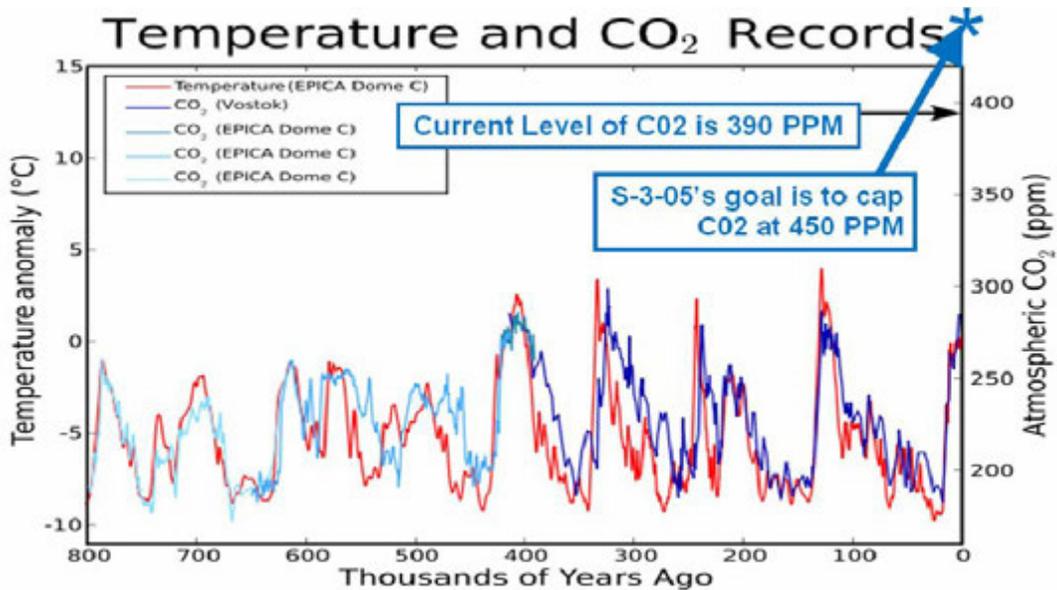
This section fails to inform the reader of the urgency and extreme danger posed by our climate crisis. The June 2008 issue of *Scientific American* (*The Ethics of Climate Change*, by Professor John Broome) reports that the levels of GHG expected in 20 years will result in a 5% chance of a 14.4 degree Fahrenheit increase in the earth's temperature and this would be an "utter catastrophe" and create the possibility of a "devastating collapse of the human population, perhaps even to extinction".

The plot shown on Page 6 fails to show the historic temperature profile. For that information, it is necessary to also show Figure 1 and 2. They are well known. Note that the 450 PPM value is shown. That would be the peak level of atmospheric CO<sub>2</sub>, if the world achieves the S-3-05 trajectory. That peak value would occur in year 2050 and then the atmospheric level of CO<sub>2</sub> would gradually be brought down to less-dangerous levels.

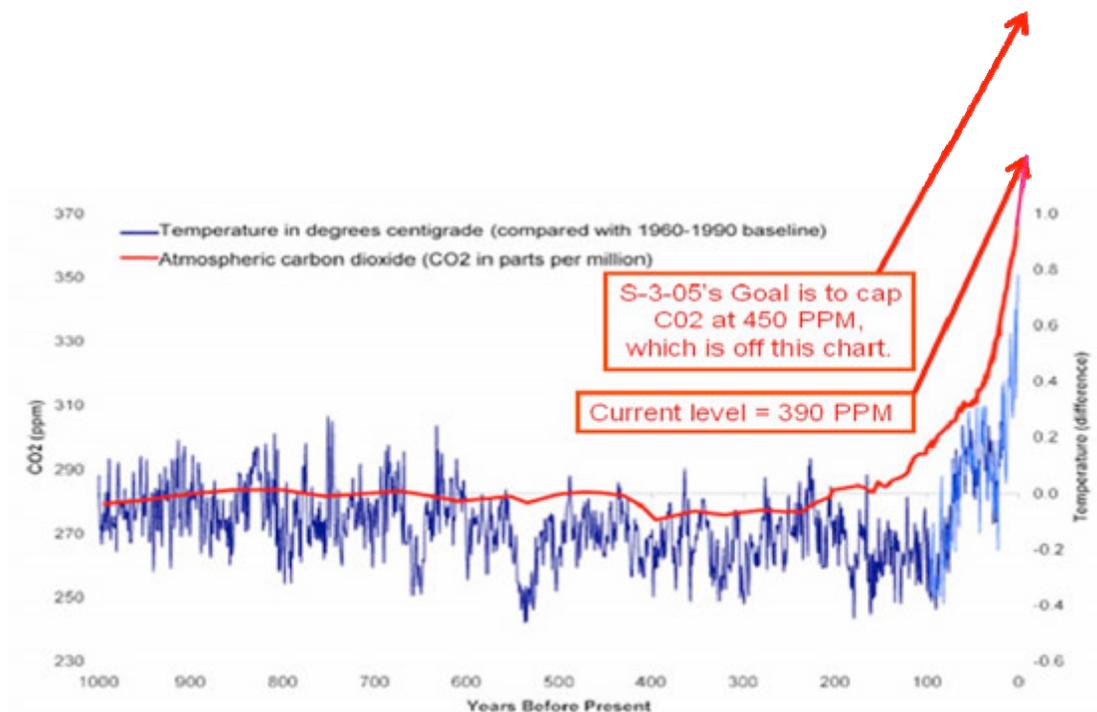
Figure 1 shows that the CO<sub>2</sub> levels shown on your Page-6 plot, which are 400 PPM up to 1000 PPM, correspond to temperatures of well over 10 degrees Centigrade. Such temperatures would risk a catastrophic collapse of the human population, to include the eventual extinction of our species. There are no adaptation strategies that could deal with such an event.

Figure 2 clearly shows that, although the temperature rise is somewhat masked by solar activity, underneath that relatively high frequency temperature variation, the temperature rise, which is due to the trapped heat caused by the higher-than-normal CO<sub>2</sub>, is already taking place. The trapped heat's effect on our atmosphere will be delayed as it melts ice and warms the ocean. We must at least achieve the S-3-05 trajectory.

**Figure 1 Atmospheric CO<sub>2</sub> and Mean Temperature, 800,000 Years Ago, with 450 PPM CO<sub>2</sub> Shown**



**Figure 2 Atmospheric CO2 and Mean Temperature, Over the Last 1,000 Years**



Attachment 3, also available at <http://www.aqmd.gov/ceqa/handbook/GHG/2009/april22mtg/CBDcomments.pdf>, has descriptions of the likelihoods of various S-3-05 outcomes, first in terms of temperature rise. Even if we achieve S-3-05, there is a 50% chance that the temperature rise will exceed 2 Degrees Centigrade. A 2 degree Centigrade rise in temperature would have very serious negative consequences, as described. There is a 30% chance that the temperature change would exceed 3 Degrees Centigrade, which is described as “exponentially worse” than the 2-Degrees-Centigrade outcome. And so on. Going above 500 PPM is unthinkable and yet that seems to be exactly what we are doing.

On Page 6 the Draft CAP, failing to meet S-3-05 is described by saying that “climate change will threaten our economic well-being, public health, and environment”. The dangerous and currently out-of-control predicament in fact threatens human extinction. A bullet on Page 7 states that local effects could include “the decline or loss of species”, but does not reveal that our own species is at risk. This sort of over sight continues throughout Pages 8 and 9.

On Page 9 it says, “The extent to which these changes produce negative impacts will depend on actions taken today to ensure resilience in the face of climate change and, where necessary, adaptation to its impacts”. This ignores our responsibility to limit our GHG emissions and the fact that without sufficient and timely limitations, adaptation will not be possible.

#### **1.4 Comments on the “Local Effects of Climate Change” and “Potential Climate Change Health Effects” Sections**

These sections do not describe the severity of our climate crisis.

#### **1.5 Comments on the “Relationship to Other State and County Documents”**

It is crucial that the Draft CAP require strategies that will reduce emissions to levels at least as low as the S-3-05 trajectory.

Table 1.2 is valuable but must be improved in at least the following ways.

The description of S-3-05 needs to contain the following additional sentence: “These targets must be considered as points that define straight-line trajectories. It should also be understood that world-wide emission levels must at least stay beneath these straight lines. The net emissions, over the years, must be limited. The net emission is proportional to the area under these straight lines. Any year that emissions are above the lines creates a surplus that then requires years beneath the lines. The world is currently emitting at levels well above the line between the first two points.

The SB 375 description is incorrect because what the Metropolitan Planning Organization (MPOs) must achieve is GHG reductions that do not include reductions from state programs of cleaner cars and cleaner fuels. This means that the reductions can only be achieved by driving reductions, or, in other words, reducing vehicle miles travelled (VMTs). Therefore, it would be more accurate to simply change the “GHG emissions” words to “VMTs”, to say “VMTs from passenger vehicles must be reduced . . .”

#### **1.6 Comments on the “Scope and Content of the CAP”**

The bullet “Community Measures and Actions” should identify Table 3.2, since it provides the estimated GHG emissions. For example, T2, shown on Page 41, gives the results as a “50% increase in bicycle and pedestrian facilities”; T3 gives “50% of employers using TDM. It is not until Table 3.2 that the reader learns of the GHG reductions. Besides this, the estimated GHG reductions (only from VMT reductions, for cars and light-duty trucks) need to be for years 2035 and 2050, not just 2020 as stated in that bullet.

#### **2.1 Comments on the Draft CAP’s Chapter 2**

#### **2.2 Comments on the “Business-as-Usual Projections”**

Regarding the transportation sector; cleaner cars, cleaner fuels, and other state-transportation programs are out of the County’s direct control but the County can play an important role by seeking improved legislation and rule making. The County’s primary role, in terms of transportation, however, is to reduce VMT. Table 2.3’s BAU should therefore assume the state’s transportation programs will perform as currently estimated but assume VMT will be “BAU”, meaning as currently projected with no county or regional programs to reduce driving.

#### **2.3 Comments on the “GHG Emissions-Reduction Targets”**

We appreciate your recognition of the critical need to meet S-3-05. Given the dire predictions as set forth in Attachment 3 and reference materials therein <http://www.aqmd.gov/ceqa/handbook/GHG/2009/april22mtg/CBDcomments.pdf>, compliance with S-3-05 should be stated as the *minimum* to be accomplished.

The computation of the critical value of 49% below the 2005 value by 2035 should be set forth. This value means that the 2035 emissions need to be  $(.51) \times (2005 \text{ emissions})$ . In Attachment 5, letter from Sierra Club to SANDAG, April 20, 2011, *California Air Resources Board (CARB)*

*Greenhouse Gas (GHG) Reduction Targets, Issued to SANDAG, in Accordance with SB 375, for the Year 2035*) the computation was .525, instead of .51.

Driving reductions needed to achieve 2020 or 2035 reductions are not met. This calculation can only be done by assuming some achieved improvement from cleaner cars and cleaner fuels. The work shown here will repeat the process shown in Attachment 5.

**Overview of Relationships and Derivation of Key Formula**

The S-3-05 net reduction in GHG emissions, from cars and light-duty trucks, expressed as a fraction of 2005 emissions, is obtained by multiplying four factors together. The definitions of Table 1 apply.

**Table 1** Factor Definitions, with Respect to Year 2005

| <b>Factor Definitions</b>                                                                                                                         |                                                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| <i>All are for for the year of interest, with respect to year 2005 values.<br/>Except for Population, all are for cars and light-duty trucks.</i> |                                                                          |
| <b>f</b>                                                                                                                                          | <b>net factor of the emissions of Greenhouse Gas</b>                     |
| <b>f_Pavley</b>                                                                                                                                   | <b>factor of the average statewide mileage</b>                           |
| <b>f_Fuel</b>                                                                                                                                     | <b>factor of the reduction of GHG due to fuels that burn less carbon</b> |
| <b>f_Population</b>                                                                                                                               | <b>factor of the population in the region of interest</b>                |
| <b>f_PerCapitaVMT</b>                                                                                                                             | <b>factor of per capita driving</b>                                      |

The following equations apply.

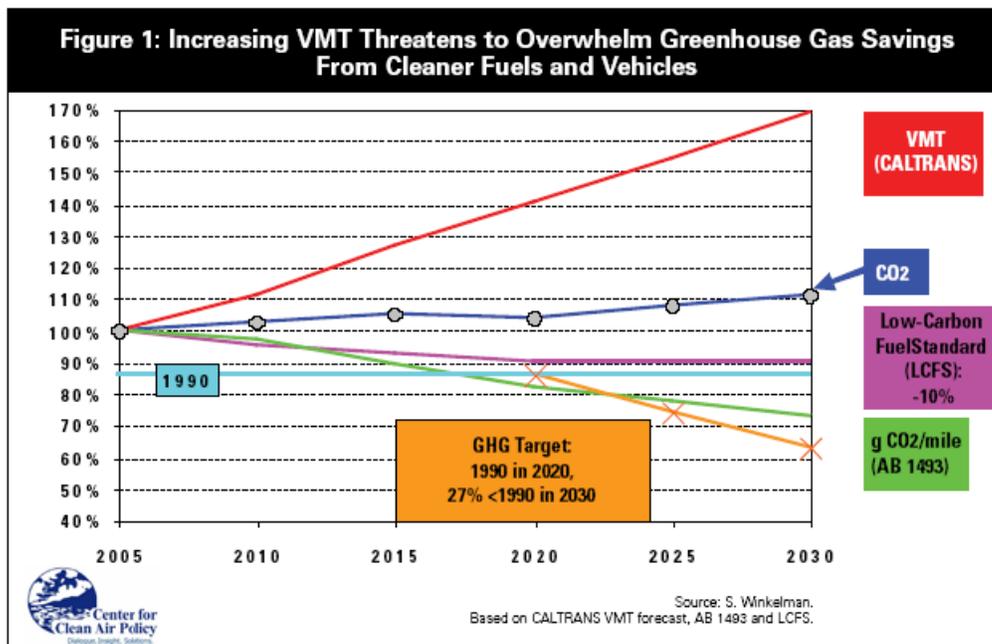
**Eq. 1**  $f = f\_Pavley \times f\_Fuel \times f\_Population \times f\_PerCapitaVMT$

Eq. 2 is derived from Eq. 1.

**Eq. 2**  $f\_PerCapitaVMT = f / (f\_Pavley \times f\_Fuel \times f\_Population)$

Figure 3 is from <http://www.nrdc.org/globalWarming/sb375/files/sb375.pdf>, a widely-respected report on SB 375. Note that all of its values are in the units of factors (same as fraction) of their values in year 2005. Figure 3 will supply all of the needed values, except for the factor of population. (Neither the red line nor the blue line are used.) Its gold line is the S-3-05 trajectory. (CARB ignored this line when it issued the MPO driving-reduction values for year 2035.)

**Figure 3** GHG Reductions from Pavley (AB 1493, in Green); the Low Carbon Fuel Standard (in Purple); the Predicted Driving (VMT, in Red); the Net Result of GHG (CO2, in Blue); and & the S-3-05 Trajectory (in Gold)



**Getting the Net Factor of the Emissions of Greenhouse Gas in 2035, with Respect to 2005 Values**

To get the net factor of the emissions of GHG, for year 2035, with respect to year 2005, it is necessary to extrapolate the Governor’s Executive Order target values (the gold line of Figure 1), out to year 2035. The gold line shows that this factor is 0.87 in 2020 and is 0.64 in 2030. Therefore, in year 2035, the factor will be

$$0.64 + [(.64 - .87) / (2030-2020)] * (2035-2030) = 0.525$$

However, as stated above, the value of .51 will be used, to correspond to your “.49 down” value.

**Getting the Factor of the Average Statewide Mileage in 2035, with Respect to the 2005 Value**

To get the Pavley reduction factor, for Year 2035, it is necessary to extrapolate the average statewide mileage factor data, which is Figure 1’s green line, out to Year 2035. It is 0.82 in 2020 and it is 0.73 in 2030. Therefore, in year 2035 the statewide mileage factor data will be

$$0.73 + [(.73 - .82) / (2030-2020)] * (2035-2030) = 0.685$$

Pavley 1 ends in Year 2017. It is widely assumed that it will be replaced by what is often called “Pavley 2”. The extrapolation computed here is based on the assumption made by the author of Figure 1, as shown in the slope of the green line from year 2020 to 2030. Based on the authoritative credentials of the authors of Figure 1, this is the best assumption that can be made. Assuming that the California fleet will continually get

more efficient, in terms of CO<sub>2</sub> per mile driven, relies on an assumption that a significant fraction of our car owners will be able to purchase newer-model cars.

### **Getting the Factor of the Reduction of GHG Due to Fuels that Burn Less Carbon**

Looking at the purple line of Figure 1, it is clear that this factor will be 0.9 in 2035.

### **Getting the Factor of the Increase in Population**

The factor for population in San Diego County is computed using the populations estimated in CARB's <http://arb.ca.gov/cc/sb375/mpo.co2.reduction.calc.pdf>, namely 3,034,388 people in 2005 and 3,984,753 people in 2035. So the factor, from 2005 to 2035 is  $3,984,753/3,034,388 = 1.313$ . Note that this number will be different for the unincorporated area. If the unincorporated value is larger, the per-capita factor will be smaller and so the needed per-capita reduction in driving will be larger. If the unincorporated value is smaller, the per-capita factor will be larger and so the needed per-capita reduction in driving will be smaller. The net driving change compared to 2005 will be unchanged, regardless of what population growth is assumed.

### **Computing the Required Driving Reduction, for 2035**

The 4 values computed above are used in Eq. 2 to compute the required factor.

$$\text{Eq. 3 } f_{\text{PerCapitaVMT}} = .51 / ( .685 \times 0.9 \times 1.313 )$$

Therefore,  $f_{\text{PerCapitaVMT}} = .630$ . **This corresponds to a 37.0% reduction in per-capita driving, in year 2035, compared to year 2005.**

It is also important to compute the net driving factor and the net driving reduction. The net driving factor is the per-capita driving reduction factor (.630) multiplied by the population factor (1.313).

$$\text{Eq. 4 } f_{\text{netDriving}} = .630 \times 1.313 = .827.$$

**This means that even with more efficient cars, cleaner fuels, and a larger population; the net driving in San Diego County will have to be 17.3% less than in year 2005.**

Therefore, there is absolutely no reason to add highway capacity. The only rational course of action is to shift all the currently-allocated-highway-expansion money to transit expansion.

Please add these important calculations and conclusions to your GHG Emissions-Reduction Targets section.

## **3.0 Comments on the Draft CAP's Chapter 3 Land Use and Transportation Community Measures and Actions, for Year 2035**

Given the large role that the driving of cars and light-duty trucks plays in emitting GHG, the CAP must achieve the year 2035 driving reductions shown at the end of this letter's Section 2.0. This is a per-capita driving reduction of 37.0% and a net driving reduction of 17.3%. Both of these values are with respect to year 2005. Given the large change needed, LU1, T1, T2, and T3 will be insufficient. At least two more transportation "Measures and Actions" will be required.

### **3.1 Comments on LU 1**

This section should be improved. "Near existing and planned transit corridors" should say "Within walking distance of existing and funded transit stops on transit lines with service at or above levels shown to significantly reduce driving reductions and car ownership for those living

within walking distance of its stops.” The “25% of new development” shown in Table 3.2 should be at least 75%. As soon as possible, California needs to implement an equitable and environmentally-sound road use fee pricing system that will unbundle the costs of building roads, of maintaining roads, and of the external economic losses road use imposes on society in general, such as environmental and health costs. This will cause the market to support so-called “smart growth”, mixed-use development over urban sprawl. The County needs to seek legislation to help make this happen.

“Smart” should be defined as “VMT-reducing”. This will allow strategies that are proposed or required at such developments to be evaluated for value. Unbundling the cost of parking should also be developed and required, as described in Reference 3 (Reference 3 was presented by our Transportation Chair in Calgary, Canada, at the Sustainable Land Use and Transportation Session of the Air and Waste Management Association's 103rd Conference and Exposition, in the summer of 2010. It is therefore published and peer reviewed.) This will give consumers, residents and employees more control over their money. It will also reduce driving, as shown in Reference 3's Table 1.

Zoning within the qualifying areas should eliminate density and height limitations, as well as minimum parking requirements. Investors will respect the market limitations as there will be poor demand for developments that don't work for those that buy, rent or lease in such developments. Besides this, when projects are proposed, good modeling will determine functionality. Meeting the relaxed zoning does not have to mean automatic approval. The political process will litigate the tension between neighborhood concerns and the need to reduce driving. The off-street parking ordinance should require that the parking costs are unbundled, using either the method of parking operating as its own profit center or using the methods describe in Reference 3.

### **3.2 Comments on T 1, “Increase Transit Use”**

Many of the comments of Section 3.1 apply. Given that the CAP must achieve the year 2035 driving reductions shown at the end of this letter's Section 2.0; in particular, a net driving reduction of 17.3%, compared to year 2005; the TransNet tax money allocated to highway expansion needs to be reallocated to transit. Although this is a SANDAG Board decision, it should be pointed out by our County Board at every opportunity. However, it is still doubtful that great transit service can be expanded out to cover all of the unincorporated areas, and the unbundling proposals are important.

### **3.3 Comments on T 2, “Increase Walking and Biking”**

Most of this section is valuable. However, its reliance on the regional plans, including the Regional Bicycle Plan, should be reduced and the need to improve those plans should be stated. The primary problem with these plans stems from the reluctance of the SANDAG Board to require that expenditures be ranked on their estimated ability to decrease driving. The ranking should be based on driving reduction per dollar spent. This point has been made many times by our Transportation Chair and it has been ignored by the SANDAG's Board and Executive Director.

### **Education and Projects to Support Bicycle Transportation**

As stated, the criteria for spending money for bicycle transportation should be to maximize the resulting estimated reductions in driving. The following strategies will probably do this.

## Projects

Each of SANDAG's smart growth place types, both existing and planned, shown on SANDAG's well-documented Smart-Growth Concept Map, should be checked to see if bicycle access could be substantially improved with either a traffic calming project, a "complete streets" project, more shoulder width, or a project to overcome some natural or made-made obstacle. These projects should be prioritized using a cost/benefit ratio metric.

It is hereby assumed that 80% of the money available for the Regional Bicycle Plan (over a billion dollars) should be used to fund the projects. They should be selected for implementation, from top of the list (lowest cost/benefit ratio) down, until the money is used up. An example of one of these projects, for the proposed town center near the corner of I-5 and SR-78, is to devise a method to restore the shortest-distance route from Vista Way to Vista Way, which is currently broken by Interstate 5. This would connect a large South Oceanside coastal neighborhood with a regional shopping center, which includes a large grocery store, avoiding a circuitous and hilly current route.

Building recreational bike paths is generally not a cost-effective expenditure. It sends a message that bikes do not belong on the road.

## Education

The remaining 20% of the money should be used to do the following.

1.) Teach interested adults about bicycle accident statistics (most serious injuries occur to cyclists in accidents that do not involve a motor vehicle), car-bike accident statistics (most are caused by wrong-way riding and errors in intersections; clear cut hit-from-behind is rare), and how to ride in all conditions, to minimize problems.

2.) Teach riding-in-traffic skills and how to ride in other challenging conditions, by having the class members and instructor go out and ride in real conditions, until proficiency is achieved.

Students that pass a rigorous written test and demonstrate proficiency in traffic and other challenging conditions are paid for their time and effort.

These classes should be based on the curriculum developed by the League of American Bicyclists and taught by instructors certified by the League.

Assuming a class size of 3 riders per instructor and that each rider passes both tests and earns \$100 and that the instructor, with overhead, costs \$500 dollars, for a total of \$800 for each 3 students, means that \$200M (computed as 20% of \$1B) could educate  $\$200M/\$800 = 250,000$  classes of 3 students, for a total of 750,000 students, out to year 2050. This is about 20% of the population of San Diego County.

### **3.4 Comments on T3, "Increase Ridesharing"**

By taking the position that transportation demand management must only be programs that reduce driving, the CAP is helping to foster the widespread belief that driving levels are the result of free economic choice, and that this free choice must be made less likely by offering some new incentive to not drive or causing drivers to suffer some sort of punitive measure when they insist on driving. That approach to TDM is conventional but it is also misleading.

To engender objectivity, please generalize the concept and go beyond the conventional. More specifically, please state that TDM is the adoption of policies that affect the amount of driving. These 3 classifications of TDM are suggested in Reference 3:

- "Positive", which reduces driving, such as charging for parking at a higher rate than what is justified by its cost,
- "Zero", which is neutral in its effect on driving, such as charging for parking at the rate which is justified by its cost, and
- "Negative", which increases driving, such as charging for parking at a lower rate than what could be justified by its cost.

It should then be pointed out that so called "free parking" is a widespread form of a (significantly) negative TDM. The only way to make this TDM more negative would be to pay people for parking their car.

This treatment will increase objectivity towards the idea of "TDM". After all, who really wants their demand for anything to be "managed". However, many current policies manage demand for driving by encouraging driving. If we could just get all the "levers" adjusted to "Zero TDM", all of our congestion and driving-related climate destabilization problems would be greatly reduced. Besides this, there is a basic fairness issue. Having at least "Zero TDM" should be the law of the land. This is true, even without the challenge and mandate of climate stabilization. One of the best TDM measures would be to unbundle the cost of parking in all locations, as explained in Reference 3. After these systems are installed, it would be possible to adjust the charge above the zero TDM level. It is important to note that the earnings go back to those for whom the parking is built. This makes the positive TDM more popular since everyone likes getting monthly earnings.

### **3.5 Comments on T4, "Alternative Fuel Vehicles"**

This is a state program. The county should urge CARB to take actions to increase the GHG reductions it can achieve. It is also correct to work for enough charging stations. However, the estimate derived from Figure 3's green line is all that can be assumed at this time. If at some later time CARB believes that it can do better than Figure 3's green line, then at that time, perhaps the calculation shown in Section 2.2 can be updated. However, there is nothing wrong with achieving more GHG reductions than what is required by the S-3-05 trajectories. Most of the driving reductions will come from increased equity, in any case.

### **3.6 Comments on an Additional "Community Measure and Action"**

In Section 2.2 it was shown that the per-capita driving needs to be at least reduced by 37.0% by 2035. Reforming transportation to increase economic equity should not wait. For these reasons, LU-1, T-1, T-2, and T-3 are insufficient. This measure is needed as soon as it can be developed and instituted.

### **Unbundling the Cost of Car Parking**

For the vast majority of destinations in California, the cost of car parking is hidden within other costs. This has serious consequences. For example, at most places of employment, parking costs reduce the wages that can be paid to all the employees, even those that never use the parking. Similarly, at most apartment complexes, bundled parking costs increase the rent and this is true, even for families that do not own a car. Bundled parking costs routinely increase the costs of goods, such as groceries, for all customers. Again, this is even true for those that do not drive. Since governments require businesses to provide minimum levels of parking, they are involved in this economic discrimination towards those that drive less.

Driving less is, to some degree, a lifestyle choice. Since government has no valid reason to encourage driving, the lifestyle choice of less driving deserves constitutional, or at least legal,

protection from any practices that discriminate against it, economically. So far, the County has not taken an active role in educating its citizens on how parking policy affects economic fairness or how parking policies that are more fair could reduce driving.

On June 22<sup>nd</sup> 2010, our Transportation Chair presented a paper on how parking could be operated to unbundle parking costs in a way that supports the sharing of parking. This was at the 101<sup>st</sup> Conference and Exhibit of the Air and Waste Management Association, in Calgary, Canada. The session, *Sustainable Land Use and Transportation*, included the paper, *A Plan to Efficiently and Conveniently Unbundle Car Parking Costs*. The paper was extremely well received. It was published as a proceeding of the Conference. See Attachment 6.

The following points, taken from Attachment 6, apply.

- Vehicle miles traveled (VMT) are a major cause of global warming and pollution.
- California's Metropolitan Planning Organizations (MPOs) need to adopt strategies that reduce vehicle miles traveled (VMT), in order to at least meet the S-3-05 trajectory, for years 2020 and 2035.
- The appropriate pricing of parking is one of the least costly tools documented to reduce VMT.
- New technologies, such as sensors feeding computer-generated billing, offer the potential to efficiently bill drivers for parking and alert law enforcement of trespassers.
- Reformed parking policies can increase fairness, so that, for example, people who use transit or walk do not have to pay higher prices or suffer reduced wages, due to parking.
- Methods to unbundle parking cost are inefficient, unless they support the spontaneous sharing of parking spaces. Shared parking, with unbundled cost, would ultimately allow the county to require significantly less parking.
- Typical current systems of timed parking and metered parking are far from ideal. Such parking has no automated record keeping, so it is difficult to know where there is too much or too little parking.
- Good policies will eventually let cities and the county to turn parking minimums into parking maximums.

Less land and resources devoted to parking will support mixed use and make "smart growth" more economically viable. It should therefore be a key ingredient supporting the CAP's LU-1.

Here is a copy of the abstract of Attachment 6.

The *Introduction* shows documented driving reductions due to the pricing of parking. It notes that although the benefits of priced and shared parking are known, such parking has not been widely implemented, due to various concerns. It states that a solution, called "*Intelligent Parking*," will overcome some of these concerns, because it is easy to use and naturally transparent. It asserts that this description will support a "Request for Proposal" (RFP) process. Eight background information items are provided, including how priced parking would help California achieve greenhouse gas reduction targets. A story demonstrates some of the key features of *Intelligent Parking*. Arguments for less parking, shared parking, and priced parking are made. Barriers to progress are identified. The fair pricing of parking is described. New ways to characterize transportation demand management are presented. Seven goals of

*Intelligent Parking* are listed. Eleven definitions and concepts, that together define *Intelligent Parking*, are described. This includes a method to compute a baseline price of parking and how to adjust that price instantaneously to keep the vacancy above 15% (“Congestion Pricing”). An implementation strategy is described.

This abstract aroused enough interest among those responsible for A&WMA’s *Sustainable Land Use and Parking* session that they requested that a manuscript, which was ultimately selected to become part of the written Conference Proceedings and for presentation.

The County could also play a pivotal role by helping to find a demonstration project, probably at a school or an office. Attachment 7 sets forth specific solutions. Attachment 6 describes an implementation strategy in its Implementation Section, on Page 16. The County has the authority, in its off-street parking ordinances, to require cooperation with an agency implementing unbundling and this would be the correct action, after a sufficient number of successful demonstrations have been achieved. “Successful” would need to mean that nearly all stakeholders would be pleased with the program.

If fully implemented, this strategy, by itself, would probably decrease driving throughout California by between 15% and 25%. This is shown in Table 1 of Attachment 6.

Below is an email indicating that the basic features of enforcement, charging, distributing earnings, and sending out monthly statements would not be difficult.

**Email Showing that the Basic Required Technology Could Be Easily Developed**

----- Original Message -----

**From:** [David Carta](#)

**To:** '[Lisa Rodman](#)'; '[Mark Tanner](#)'; '[Kelli](#)'; '[Nicole](#)'; '[Mark S.](#)'; '[John](#)'

**Cc:** '[Mike Bullock](#)'

**Sent:** Wednesday, January 13, 2010 5:40 PM

**Subject:** RE: RFID\_ParkingNewCalsbadHS

Dear Carlsbad School Board,

I wanted to send a quick note discussing the technical feasibility of tracking cars into a lot without impacting students or requiring the need for gates. Mike Bullock and I have discussed this project; it can be accomplished straightforwardly by utilizing Radio Frequency Identification and/or Video Cameras integrated with automated license recognition systems. The cars would need to register with the system at the start, but it would be fairly painless for the users after the initial installation. The back end database system can also be implemented both straightforwardly and at a reasonable price.

This is not necessarily a recommendation of the proposal for unbundled parking. Rather it is strictly an unbiased view of the technical feasibility of the proposal to easily and unobtrusively track cars, both registered and unregistered, into a fixed lot.

Best regards,

David R. Carta, PhD  
CEO Telaeris Inc.  
858-449-3454

### **3.7 Comments on an Additional State-Wide “Community Measure and Action”, Unbundling the Costs of Driving and a Summary of Results of All Additions**

This measure would require a state and/or federal government action. Therefore, like advocating for cleaner cars, the role of the County would be to understand the value and then advocate for this measure, at the state and federal level.

#### **Unbundling**

“Unbundling”, in the heading above, denotes that the money collected should be paid out to those that are losing money under the current system. This means, for example, that the money collected to account for increased health-care costs, caused by the air pollution the public must breathe, would go to reduce the cost of health care, not to build or even maintain roads.

#### **3.7.1 A Comprehensive Road-Use-Fee Pricing System**

**Abstract** This section contains a listing of road pricing principles. It provides an example of a road-use fee structure that supports the listed principles. Useful background information is provided. Arguments in favor of the presented example are presented.

**Initial Note** For many reasons, including the climate crisis, a comprehensive road-use fee pricing system is needed. It would be optimal for the state to implement the type of system described in this section. However, the state has a long history of irresponsibility in pricing road use. It is hoped that global warming will change this. Certainly, all the MPO’s in the state should be urging our state government to wake up and take action. If these efforts fail, the MPO’s will have to proceed as best they can to implement as much of these road-use pricing system components as possible.

#### **Road-Use Fee Principles**

1. The first principle is that of “full-cost pricing”. Driving has enjoyed a favored status in this state and in this country, resulting in sprawl, health-damaging pollution, global warming emissions, and congestion. We should advocate for the elimination of that favoritism in California, primarily by adopting this first principle.
2. Secondly, the current economic rewards for good mileage vehicles must not be eroded. Due to global warming, motorists need to “go electric” as soon as possible.
3. In addition, road-wear factors (primarily weight), the noise generated, and the pollution generated by each individual vehicle must be taken into account. This will increase fairness and support a shift to lighter, cleaner, and quieter vehicles.
4. The time and place of travel must be incorporated to reduce congestion.
5. Any road-use fee structure must do no economic harm to low-income drivers.
6. As road-use fee technologies evolve, privacy must be protected at each step.

#### **An Example of a Conforming Road-Use Fee Structure**

##### **Condition 1**

100% of the funding for all of the expenses of public roads, *excluding* those costs associated with future expansion (covered in Condition 3), comes from a road-use fee (that may include a fuel excise tax), that ultimately (as affordable technology can support) would contain the following **Features**:

**1. VMT Fee** A base, per-mile (VMT) component fee paid by all motorized vehicles for road construction and maintenance. It would vary by model so that the incentive to drive efficient vehicles is at least as large as for our current fuel excise tax. This means that a Prius would be much cheaper, per mile, than a Hummer.

**2. Carbon Fee** An additional per-mile carbon component part is computed using an effective fee per gallon that is equal or larger than the fuel tax that this per-mile carbon fee might replace, to correlate with the amount of CO<sub>2</sub> emitted. This could either be charged at the pump, as it is now done, or could be added to the VMT fee by using a price per mile computed by dividing the effective price per gallon by the charged vehicle's (year and model) average mileage, in the units of mile per gallon.

**3. Road Wear Fee** An additional per-mile component part that is proportional to the vehicle's (year and model) average weight, or other road-wear variable of the vehicle being charged.

**4. Air Pollution Fee** An additional per-mile component part proportional to the charged vehicle's (year and model) average pollution level, to be used to compensate people, schools, businesses, governments, and corporations harmed by pollution, with this rate set for full compensation.

**5. Noise Pollution Fee** An additional per-mile component part proportional to the average noise pollution level of the charged vehicle, to compensate people, schools, businesses, governments, and corporations harmed by noise pollution, with the rate set for full compensation.

**6. Congestion Fee** An additional per-mile component part or, alternatively a multiplier, to account for either time and place, or instantaneous traffic flow rate, to reduce or eliminate congestion, with the proceeds of this fee (collection minus collection cost) used for either the expansion or the operation of transit systems that would tend to reduce this congestion.

**7. Low Income Relief** A fractional multiplier that would reduce the total per-mile cost for drivers with a sufficiently low income and a sufficiently high need to drive, but only available for a period of calendar time sufficient for the driver to change their circumstance creating the need to drive, unless this is impossible. Section V's Section 7 has more detail.

**8. Privacy** Privacy protections so that where and when people drive, the vehicle they drive, and any Feature 7 advantage, is fully protected, unless a warrant is issued by a judge in response to substantiated allegations of a serious, felony crime.

## **Condition 2**

The per-mile charges of Condition 1 must be large enough to fund yearly payments to the municipalities having large, limited access roads (AKA "freeways") within their boundaries (thereby keeping land off of their property-tax rolls), with these yearly payments equal to the average yearly property tax per acre of the adjacent land, multiplied by the total acreage covered by the road's right of way, including frontage roads.

## **Condition 3**

No expansion of the system of public roads should be done unless market research and traffic modeling show that the net revenue of the proposed road or additional lanes will fund all the expenses identified in Conditions 1 and 2.

## **Condition 4**

No expansion of the system of public roads should be done unless it is shown that the expansion will not negatively impact the state's AB32 and S-3-05 goals and responsibilities.

### **Condition 5**

The sales tax on gasoline and diesel fuel should remain. Its revenue can be used as is the revenue from any other sales tax that is collected on consumer items.

### **Background Material**

This section provides information about the current level of the fuel tax, the difficulty of raising the fuel tax, the use of the fuel *sales* tax, lane performance during times of high demand, demand under the condition of "full cost pricing", political "push back" to full cost pricing, other opinions that a pure fuel tax is becoming obsolete, and finally, information indicating that a road-use fee could be raised by a simple majority in the state legislature.

#### **1. Current Level of Fuel Excise Tax**

A full accounting of the fuel excise tax and what it currently pays for is not our responsibility. A significant segment of the population probably believes that current fuel tax rates are high enough. However, a San Diego County newspaper, the North County Times (NCT), in a February 9, 2009 article, reported that the Chair of the California Transportation Commission (CTC) recently wrote that the fuel tax currently contributes nothing to road construction **and only provides half of the money needed annually for repairs:**

<http://www.nctimes.com/articles/2009/02/09/news/columnists/downey/z8591536f3e7332da882575510076fa1e.txt>

Increasing the state gas and diesel taxes, unchanged at 18-cents per gallon since 1994—when the final one-cent increase mandated by Proposition 111 (June, 1990 that doubled the nine-cent excise fuel tax over a 5-year period) was added, is long overdue.

#### **2. The Difficulty of Raising the Fuel Tax**

To raise the fuel tax would require a 2/3<sup>rd</sup> majority vote of the legislature. In addition, according to a CNN report, <http://www.cnn.com/2009/POLITICS/02/20/driving.tax/>

"Officials including [Secretary of Transportation] LaHood have opposed raising the national gas tax, particularly in the current recession, and have said a new system is needed."

#### **3. Use of the Fuel Sales Tax**

California has a sales tax on all consumer items sold in the state, except food and medicine. The revenues from sales taxes are generally placed in our state's general fund. However, an exception to the general rule has been made for the sales tax on gasoline and diesel. By the conditions of a successful ballot measure, the sales tax on fuel must be used to support roads, which supplements the excise tax on fuel (also known as the "gas tax"), allowing the excise tax to be lower than necessary.

#### **4. Lane Performance During Times of High Demand**

From the DOT's Freeway Management and Operations Handbook:

[http://ops.fhwa.dot.gov/freewaymgmt/publications/frwy\\_mgmt\\_handbook/fmoh\\_complete\\_all.pdf](http://ops.fhwa.dot.gov/freewaymgmt/publications/frwy_mgmt_handbook/fmoh_complete_all.pdf), Page 1-18, comes the following:

As flow increases from zero, density also increases, since more vehicles are on the roadway. When this happens, speed declines because of the interaction of vehicles.

This decline is negligible at low and medium densities and flow rates. As the density further increases, these generalized curves suggest that speed decreases significantly just before capacity is achieved, with capacity being defined as the product of density and speed resulting in the maximum flow rate. This condition is shown as optimum speed  $S_o$  (often called critical speed), optimum density  $D_o$  (sometimes referred to as critical density), and maximum flow  $V_m$ . (7). In general, this maximum flow (i.e. capacity) occurs at a speed between 35 and 50 mph.

Efficient freeway operation depends on the balance between capacity and demand. In the simplest terms, highway congestion results when traffic demand approaches or exceeds the available capacity of the highway system. As vehicle demand approaches highway capacity, traffic flow begins to deteriorate. Flow is interrupted by spots of turbulence and shock waves, which disrupt efficiency. Then, traffic flow begins to break down rapidly, followed by further deterioration of operational efficiency.

Therefore, when demand is allowed to significantly exceed capacity, the flow rate drops well below optimum. In fact, speed can drop to nearly zero. With no intervention, freeway lanes can be counted on to fail, just when they are needed the most.

### **5. Demand, Under the Condition of “Full-Cost” Pricing**

The price-setting stipulations of “An Example of a Conforming Road-Use Fee Structure”, Features 1 through 6 of Condition 1, in conjunction with Condition 2, could be described as “full cost pricing”. It is not our responsibility to do an analysis to calculate what the average price per mile would need to be or to then determine how much driving would be reduced in reaction to this price. It could be that driving would decrease so much that congestion would disappear and the new problem would be to figure out what to do with the excess land buried under unneeded highway lanes and how to meet the large new demand for transit.

### **6. Political Pushback to the Notion of Full-Cost Pricing**

There are many, well-funded “think tanks” and political figures and institutions that argue against raising the cost of driving. So far they have been largely successful in keeping the taxes on driving low.

### **7. Other Opinions That a Pure Fuel Tax Is Becoming Obsolete**

There are many indications that more decision makers are adopting the view that the fuel tax either needs to be replaced or supplemented. We have undertaken no comprehensive search and evaluation to quantify this. However the following examples are presented, with the first three being taken from the same NCT article identified in Section-1 of this Section.

First the Chair of the CTC pointed out that, “People are driving more-fuel-efficient cars and ones that run on alternative fuels and buying less gas. As a result, they are paying less in gas taxes”. The author of the NCT article states that the CTC Chair and others are calling for “phasing out the gas tax,” in favor of a VMT fee.

Second, Will Kempton, director of the California Department of Transportation, told local officials in Valley Center recently “we need to make a transition to a new way of collecting transportation funds.” Kempton also said the state should consider following the lead of Oregon, which is exploring a tax based on the number of miles a person drives.

Third, Jim Earp, a California Transportation Commission member from Roseville, added, “Either that or we're going to have to jack up the gas tax considerably.”

Fourth, the Christian Science Monitor editorial, February 27, 2009, "A road map to better US roads," says, "Congress should heed a panel that suggests replacing a tax on gas with one on miles driven."

<http://www.csmonitor.com/2009/0227/p08s01-comv.html> It goes on to say, "In Europe, the Netherlands will transition to a VMT by 2014 and Denmark by 2016. Changing behavior is the key to 21st century transport that must unclog crowded highways and reduce dependence on fossil fuels. Taxing miles alerts drivers to the real cost of using roads and can better motivate them to drive less. A VMT (fee) is the more reliable and efficient way to pay for transport. Its time has come."

Finally, according to a CNN report, <http://www.cnn.com/2009/POLITICS/02/20/driving.tax/>, Speaking to The Associated Press, Transportation Secretary LaHood, an Illinois Republican, said, "We should look at the vehicular miles program where people are actually clocked on the number of miles that they traveled."

### **8. Raising a Road-Use Fee Could Be Done By a Simple Majority**

The Sacramento Bee printed an article by Dan Walters, on January 20<sup>th</sup>, 2009, describing a proposal to help close California's budget gap.

<http://www.nctimes.com/articles/2009/01/20/opinion/walters/zd5e9d64561b6efd78825753e006c951a.tx>.

The key elements from the article are as follows.

- 1.) Senate President Pro Tem Darrell Steinberg, the scheme's father, insists that it's legal, basing that assertion on a 5-year-old opinion from the Legislature's legal office.
- 2.) The plan would eliminate excise and sales taxes on gasoline and raise other taxes to help close the budget deficit, then "backfill" the gasoline taxes with a new "fee" that would actually increase the bite on motorists by 50 percent, from 26 cents a gallon to 39 cents. **A "fee" can be imposed by a simple majority vote as long as it relates to actual services rendered by government.**

Note that this fee approach is relatively far from meeting all of the stipulations of this letter. However, it would represent significant progress.

### **Arguments in Favor of Road Use Fees**

This Section provides an analogy demonstrating why roads should be operated for the equal benefit of all. It presents some of the consequences of the current level of our state fuel tax. It argues that a road-use fee should include a vehicle miles traveled (VMT) component and that furthermore, a component should relate to congestion pricing (i.e. needs to account for *specific* time and place of travel). A road-use fee should account for environmental impacts, should protect low-income families, and contain privacy protections. It explains why revenue from a road use fee should be used to pay an effective property tax to municipalities. It argues that this resolution offers methods that would help to alleviate the state's budget problems. It states that it is easier to discuss setting a road use fee than it is to discuss increasing an excise tax on fuel. Finally, it briefly discusses some of the emerging technologies and the relationship between technology and this resolution.

#### **1. Full-Cost Pricing**

Roads should be priced so that they are no longer an economic burden on those that choose to drive less than average. Yet, it is hard to be objective about roads. Here's an analogy.

Assume that California owned a large number of 2-bedroom apartments that it allowed families to live in if they paid a tax of \$500 a month, even though the market rental value of the apartments was \$1000 a month. Clearly, the people living in the apartments are the winners and all the other citizens of California are the losers, because if the state set the price to the market value, it would have additional money that it could either use for the benefit of all citizens or it could return the money to everyone as a tax rebate. Some might note that since there are a large number of these apartments, almost everyone that wants one could get one, so those that don't live in these 2-bedroom apartments are losing out because of their own poor choice. However, since not every citizen wants to live in these apartments, the State's practice is indefensible. The correct thing for the state to do would be to allow low-income citizens to remain in the rental units at the subsidized price of \$500 a month, stop calling the price-per-month a "tax" and instead call the price-per-month a "user fee", and set the price for the families that are not low income to the market value of \$1000 per month. In this case, the low-income families remain winners. Even though all the others are losers, they are losing much less than before. This assumes that the state takes the additional earnings and uses it in a way that benefits all citizens. Buying more 2-bedroom apartments would not qualify. This analogy's original operation is similar to what California does by underpricing road use fees, as described below.

## **2. Consequences of the Current Level of Fuel Tax**

### **a. Economic Inequity**

Because our state fuel tax is too low, funds derived from taxes (and fees) that are not related to the choice of driving a car must be used to support our system of public roads. Examples are our sales tax, our income tax, our property tax, and the development fees that increase many of our costs. In effect what is happening is that money is systematically *being taken* from those that drive less and *being given* to support those that drive more.

This violates a fundamental principle of our free market system. People should pay for what they use and, conversely, people should not be forced to pay for what they do not use. It is true that we often willingly violate this principle, for some higher purpose. Education, mass transit, and Section 8 housing are good examples. However, there is no valid reason to increase driving by making it artificially cheap to drive, or for that matter, to park a car. The facts about global warming suggest quite the opposite.

### **b. Global Warming Threat and the California Example of Road-Use Pricing**

From <http://www.sandiego.edu/EPIC/ghginventory/GHG-On-Road1.pdf.pdf>, we learn that in San Diego County, emissions from on-road vehicles are about 46% of regional GHG emissions. Many world leaders know that many of our citizens have taken all of the time and cost variables into account and then built their life around their automobiles. How can we expect the world to do its part to reduce GHG emissions, if they see us unwilling to reform the way we price the use of roads, so as to conform to the basic free-market principles that we claim to hold dear?

### **c. Other Pollution**

Besides GHG emissions it is well known that on-road transportation contributes significantly (around 50% by some accounts) to our air and noise pollution. Cars cause air and water pollution directly and indirectly. This occurs when they are manufactured, when their fuel is transported and refined (refineries are, by far, the biggest cause of ground-water contamination in California), and when they are driven.

#### **d. Urban Sprawl**

The dominance of the automobile is the primary reason for our sprawling, urban land-use patterns. For example, it is well known that a simple 4-lane freeway, with frontage roads, can consume 26 acres per mile. An acre of land can only park 117 cars. Sprawl has taken valuable farm land, wet lands, and wild-life habitat. It makes it more difficult to walk or to bicycle. It also makes it more difficult to provide or to use transit.

#### **e. Summary Statement**

GHG emissions, urban sprawl and air, water, and noise pollution are made worse by making driving seem artificially inexpensive to the public. Note that for every penny earned by raising the price per mile to drive to its correct value, a penny could be cut from other taxes and fees that are unrelated to driving. Secretary of Transportation Ray LaHood's statement ("we can't raise the gas tax in a recession") shows that he misses this important point. This point has been made by the Sierra Club, as shown in <http://www.sierraclub.org/policy/conservation/trans.aspx>, where it says, of subsidies to driving, "These subsidies should be publicly scrutinized and eliminated by appropriate fuel and carbon taxes, parking and road user charges, . . ."

### **3. The Use of the Gasoline Sales Tax**

As stated in Section III. 3, currently the *sales* tax on fuel must be used for the same purposes as the *excise* tax on fuel. This is contrary to the normal rule for sales taxes, whereby sales taxes are used for general-fund purposes, unrelated to the item sold. For example, the sales taxes from running shoes are not removed from the general fund to be used to build running facilities. Likewise, the sales tax on alcoholic beverages is not separated out to be used to subsidize the building of more drinking establishments. If we are going to end our unfortunate favoritism towards roads, we need to end the practice of using the sales tax from gasoline as if it were an additional fuel excise tax. This practice would be ended if the implied recommendations of this report were enacted. The sales tax on gasoline should continue, but the tax on the sale of gasoline should go to the general fund, as does the tax on the sale of other consumer items.

### **4. Reasons to Adopt a VMT Based, Road-Use Fee**

From a Global Warming perspective, there is a hierarchy of favored transportation modes.

Mode 0: Telecommuting (no need to leave the house)

Mode 1: Walking

Mode 2: Cycling (skate boarding and any other device-aided, non-motorized transportation mode)

Mode 3: Transit

Mode 4: Electric cars or cars that get great mileage

Mode 5: Other cars

In terms of reducing pressure to expand road capacity, Modes 0, 1 and 2 are many times more desirable than even Mode 4, which is many times better than Mode 5. The point here is that as much as we want to see more electric cars and more cars that get exceptional mileage, we should not lose sight of the fact that unless all road users pay their fair share, those people using Modes 0, 1 and 2 are not being fully rewarded for not using road capacity, and this is

poor environmental policy, based on the desirability factors suggested. All cars are large, manufactured devices with a finite life. They promote sprawl. People that routinely use Modes 0, 1 and 2 have often set up their lives so that they could drive less. Those life-style choices need to be fully rewarded. The statements of Sections 2a and 2d of this Section apply.

## **5. Reasons to Adopt Road-Use Pricing Methods Tied to *Specific* VMT**

### **a. Need to Support Section II's Feature 6**

The current fuel tax is simple and, in theory it could be raised to cover the costs of driving, for those vehicles that use fuel. Alternatively, it is easy to imagine odometers that transmit their values at scheduled times to a billing computer. With vehicle-recognition schemes, implemented at the pump or within the billing computer containing odometer data, it would be possible to expand these simple methods to support Features 1 through 5, Feature 7, and Feature 8. However, these simple methods would not support congestion pricing, Feature 6, which is sufficiently important that it must be identified and supported.

### **b. Value Feature 6: Congestion Pricing**

Various names have been proposed for Feature 6, including "congestion pricing" or "convenience pricing". Regardless of the name, it is a powerful way to reduce our society's propensity for expanding highways. Proponents of freeway expansion frequently mention the fact that highway "gridlock" harms our public safety because it can significantly delay emergency vehicles. Individuals in society see this in personal terms. We can all imagine a need to get home to attend to a child, or to get to an emergency room. The consequences of congestion can go well beyond being just a frustrating inconvenience. Sometimes people feel that they would pay almost anything to be able to drive at higher speeds. How many people have missed a plane, or a train, or a critical business meeting, "stuck in traffic"? Besides this, lanes also often support transit. Transit success requires dependable and reasonably fast bus travel. In addition, stop and go traffic wastes fuel, increases GHG, and increases unhealthy emissions.

"Convenience Lanes" could provide an option for drivers when they feel it is worth the extra money to drive beyond congestion speeds. This pricing also provides a means to keep one or more lanes operating close to their theoretical capacity, instead of at the greatly reduced flow rate that comes when demand is large. The pricing can adjust automatically so as to keep demand below capacity, on one or more lanes. This means that congestion in parallel lanes will clear sooner than if all lanes were allowed to stay severely congested.

"Convenience Lanes" also offer the hope of significant revenue generation, if enough people are willing to, in effect, bid up the price. (This will probably happen if the price of driving is kept low enough in regular lanes that there are still times and places where congestion is significant.) Feature 6 would require that proceeds (collection minus collection costs) be used for transit systems that would tend to reduce the congestion. The lanes and roads that are parallel to the "convenience priced" lanes can be counted on to fail to carry their capacity when serious congestion strikes. Fortunately, there is no comparable effect for transit. Although it is conceivable that transit demand could exceed transit carrying capacity, when this happens, the transit can be counted on to continue to carry its full capacity.

### **c. Feature 6 and Road Price Variability**

Some roads are relatively expensive to build; others are relatively inexpensive. There is no reason we have to settle for charging the same per-mile price for all roads. Similarly, driving at different times should be priced differently. It is well understood that freeways are sized and

expanded to facilitate peak driving times. Since it is more costly to provide the added capacity needed at peak times, it is reasonable to charge peak-time drivers more. Charging more at the times that demand is high will tend to smooth out traffic demand over various times of the day.

#### **d. Feature 6 and Pollution**

Feature 6 can reduce congestion. This is important because stop-and-go traffic emits more pollution and GHG emissions than lanes operating at “optimum speed” as identified above.

#### **e. Feature 6 Supported by the CTC**

These powerful arguments have evidently been recognized by the CTC. In their *Addendum to the 2007 Regional Transportation Plan Guidelines, Addressing Climate Change and Greenhouse Gas Emissions During the RTP Process*, adopted on May 29, 2008, they provide strong support to lane pricing.

[http://www.catc.ca.gov/programs/rtp/Adopted\\_Addendum\\_2007\\_RTP\\_Guidelines.pdf](http://www.catc.ca.gov/programs/rtp/Adopted_Addendum_2007_RTP_Guidelines.pdf),

In the CTC’s Pricing Strategies Section (Page 3), the CTC instructs Metropolitan Planning Organizations to “model adding pricing **to existing lanes**, not just as a means for additional expansion. **Variable/congestion pricing should be considered.**”

Variable/congestion pricing cannot be done without Section II’s Feature 6 of its Condition 1.

#### **f. Arguments to Support Road-Pricing Guideline**

There is widespread confusion regarding who owns existing lanes and what promises were made. Converting existing, “free” lanes to be lanes that are priced can be justified by explaining that fuel taxes have always been road-use fees and that any stated or implied promise that paying fuel tax entitled drivers, for all time forward, to drive free on the roads that the fuel taxes may have been used to fund was specious. Specifically, the claim that drivers “already paid” for roads through the payment of fuel taxes is incorrect because (i) many drivers have just started driving; (ii) many drivers that paid fuel tax for many years have died; and (iii) paying a fee to use a public road is no different than paying rent to use property and paying rent does not lead to quasi ownership. These same arguments can be used against statements supporting the idea that drivers can forever drive free over a bridge because the tolls have paid off the loan for the bridge.

### **6. Reasons for Features 2 – 5**

These features charge vehicles for their environmental impacts.

### **7. Reasons for Feature 7**

The ability of low-income families to be able to drive to work and other essential family errands must be protected. However, given our challenge of global warming, this needs to be “constructive charity”. The features shown in Section II suggest that a billing computer will probably be involved. If so, that computer’s database can, perhaps at the individual’s discretion, be supported with information such as current housing details, current salary, job location, occupation and job skills to include a full resume, childcare, location of family and friends, hobbies, or recreational pursuits, and other items that could be related to the individual’s current need to drive. When the software determines that the person qualifies for a reduced multiplier of the full cost of driving (a subsidy), it could then also run various programs to offer, in creative, tailored, form letters, suggestions for changing circumstances to reduce driving. This could involve a search for jobs, a search for suitable housing, a search for daycare, and a search for better locations to pursue hobbies or recreational pursuits. The

availability of transit would be considered in the software and would be offered. Job training could be suggested or offered at a discount. If circumstances support it, the person could also be asked if they would be interested in a class on riding a bicycle in traffic. Taking such a class could earn the person a financial award, perhaps to include a new or used bicycle. The software would put a high priority on helping the person achieve a lifestyle that requires less driving. As a last resort the software would take into account the congestion level of various routes and offer a driving route that requires a reduced subsidy. If no billing computer is involved, the person receiving the subsidy might be required to send in data to support the running of these programs to reduce driving and the subsidy to driving.

### **8. Reasons for Feature 8**

Privacy must be protected, unless confidential disclosure to law enforcement agencies is ordered by a judge based on reasonable cause. We currently rely on laws and judges to protect our privacy regarding what we say on the telephone, our emails, our internet activities, and the information we provide on our tax forms. This information could be both politically revealing and highly embarrassing, to the point where it could seriously degrade our personal and professional lives. In terms of protecting our democracy, it is especially important that our political activities be protected. Where we drive and park a car is also somewhat sensitive in this regard. However, in most cases it is less sensitive than our emails and what we say on the phone. Cell phone companies already have information about our travel. Many locations, such as Dallas, have “toll-tags” that record every time someone goes through a toll plaza and charges them accordingly. The conclusion is that the argument that many people will never accept a computer, with built in privacy protections, from having information about where we drive is overblown and not supported by the facts.

### **9. Reasons for Condition 2**

Railroads pay property tax on the land under their tracks. Utility companies pay property taxes on the land under their transmission lines. There is no reason that large highways should not pay a property tax for the land they take off the tax rolls in each community. The favored status of roads should be eliminated.

### **10. California’s Budget Problem**

California currently has a large budget gap. Children may lose their health care and education cuts will probably be severe. State parks may close. Most state funding for transit may be cut. This strategy might help to reduce some of these cuts.

### **11. Raising the Fuel Tax vs. Pricing a Road-Use Fee**

There are advantages in reframing the question from should we raise the fuel tax to: Should we replace the fuel tax with a road-use fee and, if so, how should we set the price of the road-use fee? Section III. 2 showed that a 2/3rds vote is needed in the state legislature to raise a tax; while, as shown in Section III. 8, only a simple majority is needed to set and then raise a user fee. Besides this, there are a lot of common misunderstandings about our fuel taxes. Many think they are a mechanism whereby drivers somehow buy new roads. This confusion was discussed in detail in this Section’s Subsection 5f. If we can move the discussion to one of how to properly set the price of road use, we will have already made large gains in framing the question to the advantage of environmentalists and everyone that recognizes that it is time to stop favoring driving.

### **12. Technology**

It is not our responsibility to pick the technologies that will ultimately be used in the implementation of the road-use pricing described. Email and phone conversations with employees of “Skymeter”, <http://www.grushhour.blogspot.com/>, indicate that they were ready to respond to a Request For Proposal (RFP) to implement VMT pricing in the Netherlands, to include every road in the country. Their proposal would have been that each car will have a GPS unit, about as large as an eye-glasses case, sitting on the dash. It will contain a database of roads and a variable set of pricing coefficients. The GPS software will determine the car’s location with sufficient accuracy so as to support software computing a running tabulation of charges, as the car is driven. They state that the final challenge was to design the software so that the unit would function when the car was being driven in the presence of GPS reflections, such as in city “canyons” which is to say around multiple large buildings. They have solved this problem with additional algorithms and have demonstrated this in the most severe conditions they could find. However, they don’t want to have to distinguish between lanes, suggesting that congestion pricing on large multi-lane roads, where pricing varies between parallel lanes, may require a Radio Frequency Identification (RFID) overlay pricing scheme, such as is currently used for “toll tags.”

There are probably several, perhaps even many, ways to accomplish road-use pricing that has the features described in this Section.

### **3.7.2 Conclusions**

The best strategies to reduce VMT are shown here, with the estimated driving reductions for each one shown in square brackets:

- Comprehensive (equitable and environmentally sound) road use fee pricing system, as could be installed by *Skymeter*; [15%]
- Unbundling the cost of car parking; [15%] (This estimate is based on Table 1 of Reference 3.)
- Good bicycle projects and bicycle education; [5%,] (This estimate should be checked by the League of American Bicyclists.)
- Stopping all freeway expansions and reconfiguring TRANSNET to be 67% for transit and 33% for road maintenance [10%]

These strategies could be implemented by 2020, not 2035, and would decrease per capita driving by a sum of at least 45% (15+15+5+10). The strategies to do this are primarily those that increase fairness for all, especially families that drive less than average.

# REFERENCE 8

# A Plan to Efficiently and Conveniently Unbundle Car Parking Costs

Air and Waste Management Association Paper 2010-A-554-AWMA

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## ABSTRACT

The *Introduction* shows documented driving reductions due to the pricing of parking. It notes that although the benefits of priced and shared parking are known, such parking has not been widely implemented, due to various concerns. It states that a solution, called “*Intelligent Parking*,” will overcome some of these concerns, because it is easy to use and naturally transparent. It asserts that this description will support a “Request for Proposal” (RFP) process. Eight background information items are provided, including how priced parking would help California achieve greenhouse gas reduction targets. A story demonstrates some of the key features of *Intelligent Parking*. Arguments for less parking, shared parking, and priced parking are made. Barriers to progress are identified. The fair pricing of parking is described. New ways to characterize transportation demand management are presented. Seven goals of *Intelligent Parking* are listed. Eleven definitions and concepts, that together define *Intelligent Parking*, are described. This includes a method to compute a baseline price of parking and how to adjust that price instantaneously to keep the vacancy above 15% (“Congestion Pricing”). An implementation strategy is described.

## INTRODUCTION:

It has been well established that appropriately priced parking will significantly reduce driving<sup>1</sup>. Most case studies presented in Table 1 are evaluations of the most general type of “car-parking cash-out”: *a program that pays employees extra money each time they get to work without driving*. They show that a price differential between using parking and not using parking will significantly reduce driving, even when transit is described as poor. Since driving *must* be reduced<sup>2</sup>, the pricing of parking is desirable.

Shared parking is also recognized as desirable because it can sometimes result in less parking being needed.

Although the advantages of pricing and sharing parking have been recognized for many years, these practices are still rare. This paper identifies some of the reasons for this lack of progress. The pricing and sharing method of this paper has a natural transparency and ease of use that would reduce many of the concerns. This paper also suggests that those governments that have the necessary resources can take the lead role in developing and implementing the described systems. These governments will recover their investments, over time.

This paper describes how parking facilities could be tied together and operated in an optimum system, named *Intelligent Parking*. The description of *Intelligent Parking* is sufficient to support a “Request for Proposal” process, leading to full implementation.

There are two distinct parts to *Intelligent Parking*. The first is how to set the price. The second is how to distribute the earnings. Briefly, the earnings go to the individuals in the group for whom the parking is built.

**Table 1      Eleven Cases of Pricing Impact on Parking Demand**

| <b>Location</b>                                              | <b>Number of Workers<br/>@ Number of Firms</b> | <b>1995 \$'s<br/>Per Mo.</b> | <b>Parking Use<br/>Decrease</b> |
|--------------------------------------------------------------|------------------------------------------------|------------------------------|---------------------------------|
| <b><i>Group A: Areas with poor public transportation</i></b> |                                                |                              |                                 |
| West Los Angeles                                             | 3500 @ 100+                                    | \$81                         | 15%                             |
| Cornell University, Ithaca, NY                               | 9000 Faculty & Staff                           | \$34                         | 26%                             |
| San Fernando Valley, Los Angeles                             | 850 @ 1                                        | \$37                         | 30%                             |
| Costa Mesa, CA                                               | Not Shown                                      | \$37                         | 22%                             |
| <b>Average for Group</b>                                     |                                                | <b>\$47</b>                  | <b>23%</b>                      |
| <b><i>Group B: Areas with fair public transportation</i></b> |                                                |                              |                                 |
| Los Angeles Civic Center                                     | 10,000+ @ "Several"                            | \$125                        | 36%                             |
| Mid-Wilshire Blvd, Los Angeles                               | 1 "Mid-Size" Firm                              | \$89                         | 38%                             |
| Washington DC Suburbs                                        | 5,500 @ 3                                      | \$68                         | 26%                             |
| Downtown Los Angeles                                         | 5,000 @ 118                                    | \$126                        | 25%                             |
| <b>Average for Group</b>                                     |                                                | <b>\$102</b>                 | <b>31%</b>                      |
| <b><i>Group C: Areas with good public transportation</i></b> |                                                |                              |                                 |
| U. of Washington, Seattle, WA                                | 50,000 employees, students                     | \$18                         | 24%                             |
| Downtown Ottawa, Canada                                      | 3,500 government staff                         | \$72                         | 18%                             |
| Bellevue, WA                                                 | 430 @ 1                                        | \$54                         | 39%*                            |
| <b>Average for Group, except Bellevue, WA Case*</b>          |                                                | <b>\$45</b>                  | <b>21%</b>                      |
| <b>Overall Average, Excluding Bellevue, WA Case*</b>         |                                                |                              | <b>25%</b>                      |

\* Bellevue, WA case was not used in the averages because its walk/bike facilities also improved and those improvements could have caused part of the decrease in driving.

## **PERTINENT BACKGROUND INFORMATION**

- Vehicle miles traveled (VMT) are a major cause of global warming and pollution<sup>2,3</sup>.
- California's Metropolitan Planning Organizations (MPOs) will need to adopt strategies that reduce vehicle miles traveled (VMT), in order to meet SB375 GHG reduction targets, to be issued by the California Air Resources Board in late 2010, for years 2020 and 2035<sup>2</sup>.
- The appropriate pricing of parking is one of the least costly documented tools to reduce VMT.
- New technologies, such as sensors feeding computer-generated billing, offer the potential to efficiently bill drivers for parking and alert law enforcement of trespassers.
- Reformed parking policies can increase fairness, so that, for example, people who use transit or walk do not have to pay higher prices or suffer reduced wages, due to parking.

- Methods to unbundle parking cost are inefficient unless they support the spontaneous sharing of parking spaces. Shared parking with unbundled cost would ultimately allow cities to require significantly less parking.
- Typical systems of timed parking and metered parking are far from ideal. Parking has no automated record keeping, so it is difficult to know where there is too much or too little.
- Good policies will eventually let cities turn parking minimums into parking maximums.

## **A GLIMPSE INTO A POSSIBLE FUTURE**

Jason is driving to work for the first time in several years. He has decided to save money by carrying home a new 3-D, big-screen computer, which he plans to purchase at a store near his office after work. He wanted to avoid paying delivery charges.

Things have been changing around his office development since they unbundled the cost of parking at the near-by train station. Many people who caught the early trains and lived close to the station stopped driving and parking in the best parking spaces; demand for housing close to the station went up; and wealthy riders, who insisted on driving, did so, confident that they could always find parking as close to the platform as their schedules required, due to congestion pricing. Who would have guessed how much those people were willing to pay? It was shocking. Parking-lot earnings, paid to round-trip train riders, meant that the net cost to ride the train went significantly down. Ridership and neighborhood vitality both went significantly up. All Jason knew was that the price to park at his office had been going up yearly because of increased land values. His parking-lot earnings from his office had been increasing almost every month, due to the ripple effect of train riders parking off-site at cheaper parking. Some of them were using his office parking.

As he pulls out of his driveway, he tells his GPS navigation unit his work hours (it already knew his office location), the location of the store where he plans to buy the computer, and his estimated arrival and departure times at the store. He tells the GPS unit he wants to park once, park no more than 1 block from the store, walk no more than 1 mile total, and pay no more than an average of \$2 per hour to park. He is not surprised to hear the GPS tell him that his request is impossible. He tells the GPS he will pay an average of \$3 per hour and learns that the GPS has located parking.

It guides him into a church parking lot. He hopes the church will use his money wisely. The GPS tells him the location of a bus stop he could use to get to work and the bus's next arrival time at the stop. With automatic passenger identification and billing, the bus has become easy to use, except that it is often crowded. Jason gets out of the car and walks to work, with no action required regarding the parking.

Three weeks later, when Jason gets his monthly statement for his charges and income for automotive road use, transit use, parking charges, and parking earnings, he finds that the day's parking did indeed cost about \$30 for the 10 total hours that he parked. He notes that the parking-lot earnings for his office parking averaged about \$10 per day that month. He then notices the parking lot earnings from the store, where he spent about \$1000 dollars. He sees that the parking-lot earnings percent for the store that month was 1.7%, giving him about \$17. So for the day, Jason only spent a net of about \$3 on parking. Then he realized that he should have had the computer delivered after all. If he would have bicycled that day, as he usually did, he would have still gotten the \$27 earnings from the two parking facilities and he would have paid nothing

for parking. So the choice to drive cost him \$30. He remembers that the delivery would have only been \$25 dollars. Oh well. He enjoyed his before-work and after-work walks.

## **THE CASE FOR LESS PARKING**

Less parking will support more compact development.<sup>1</sup> This makes walking and biking more enjoyable and less time consuming. There would certainly be less “dead space”, which is how parking lots feel to people, whether they arrive by car or not, after they become pedestrians.

Since parking can be expensive, less parking can reduce overhead costs significantly, such as leasing expense and parking-lot maintenance cost. Less overhead means more profit and less expense for everyone. A need for less parking can create redevelopment opportunities at existing developments and reduce project cost at new developments.

At new developments, car-parking costs could prevent a project from getting built.<sup>2</sup>

## **THE CASE FOR SHARED PARKING**

Shared parking for mixed uses means that less parking is needed. For example, shared parking could be used mostly by employees during the day and mostly by residents at night.

Fully shared parking means that very little parking would be off limits to anyone. In a central business district with shared parking, drivers would be more likely to park one time per visit, even when going to several locations. Pedestrian activity adds vitality to any area.

## **THE CASE FOR APPROPRIATELY-PRICED PARKING**

### **To Reduce Driving Relative to Zero Pricing**

#### *Traditional Charging or Paying Cash-out Payments*

As shown in the Introduction, this relationship (pricing parking reduces driving) is not new.<sup>3</sup>

Using results like Table 1, at least one study<sup>4</sup> has used an assumption of widespread pricing to show how driving reductions could help meet greenhouse gas (GHG) target reductions. Dr. Silva Send of EPIC <http://www.sandiego.edu/epic/ghgpolicy/> assumes that all work locations with 100 employees or more in San Diego County will implement cash-out, to result in 12% less driving to work. Currently, almost all employees in San Diego County “park for free”, unless they happen to work in a downtown core area.

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<sup>1</sup> This is especially true of surface parking, which only accommodates 120 cars per acre.

<sup>2</sup> On September 23, 2008, a panel of developers reviewed the Oceanside, Ca. “Coast Highway Vision” [http://www.ci.oceanside.ca.us/pdf/chv\\_finalvisionstrategicplan.pdf](http://www.ci.oceanside.ca.us/pdf/chv_finalvisionstrategicplan.pdf). Parts of this plan were described as smart growth.

At the review, developer Tom Wiegel said, “Parking is the number 1 reason to do nothing,” where “do nothing” meant “build no project.” The other developers at the meeting agreed.

<sup>3</sup> For many years the Victoria Transport Policy Institute (VTPI) has been recognized as a source of reliable information on “Transportation Demand Management”, or TDM.

From [http://www.vtpi.org/tdm/tdm72.htm#\\_Price\\_Parking](http://www.vtpi.org/tdm/tdm72.htm#_Price_Parking):

Even a relatively small parking fee can cause significant travel impacts and provide significant TDM benefits. “TDM Benefits” refers to the many public and private benefits of having fewer people choosing to drive.

### ***Current, Best-Practice “Unbundling”***

The “best-practice” use of the phrase, “unbundled parking cost”, is to describe the case where either the cost of parking, for the case of a condominium, or the rent for parking, for the case of an apartment, is separated from either the purchase price and common fees or the rent of the dwelling unit.

This gives the resident families the choice of selecting the number of parking spaces they would like to rent or buy, including the choice of zero. This would tend to reduce the average number of cars owned per dwelling unit and, in this way, would also tend to reduce driving. Its major drawback is that this method does not encourage sharing.

### **To Increase Fairness and Protect the US Economy**

It is stated above that almost all employees in San Diego County “park for free”. Of course there is really no such thing as “parking for free”. So-called “free parking” always reduces wages or increases costs. At a work site, it reduces everyone’s wage, even those employees that never drive. At an apartment complex, so-called “free parking” increases the rent. Therefore, “free parking” at work or at apartments violates the fundamental rule of the free market, which is that people should pay for what they use and not be forced to pay for what they do not use. Parking should at least be priced to achieve fairness to non-drivers.

The US economy would also benefit. Reductions in driving would lead to reductions in oil imports, which would reduce the US trade deficit.<sup>4</sup>

### **BARRIERS TO PROGRESS**

Given all this, it might seem that the widespread pricing of parking should have happened by now. However there are barriers. In 2007, a majority of the City Council of Cupertino, Ca. indicated that they wanted their City Manger to negotiate reduced parking requirements with any company that would agree to pay sufficient cash-out payments. To this date, no company, including Apple Inc., has expressed an interest. Most companies probably perceive cash-out as expensive. Even if they realize they could get a reduced parking requirement in exchange for paying sufficient cash-out amounts and even if the economics worked in support of this action (quite possible where land is expensive), they want to stay focused on their core business, instead of getting involved in new approaches to parking, real estate, and redevelopment.

On the other hand, simply charging for parking and then giving all the employees a pay raise is probably going to run into opposition from the employees, who will feel that they would be losing a useful benefit.

In addition, neighbors fear the intrusion of parked cars on their streets. Permit parking, which could offer protection, is not always embraced. City Council members know that a sizable fraction of voting citizens believe that there can actually never be too much “free parking”,

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<sup>4</sup> From [http://en.wikipedia.org/wiki/Balance\\_of\\_trade#Warren\\_Buffett\\_on\\_trade\\_deficits](http://en.wikipedia.org/wiki/Balance_of_trade#Warren_Buffett_on_trade_deficits), Warren Buffet wrote in 2006,

“The U.S. trade deficit is a bigger threat to the domestic economy than either the federal budget deficit or consumer debt and could lead to political turmoil. Right now, the rest of the world owns \$3 trillion more of us than we own of them.”

Professor Shoup's famous book<sup>5</sup> notwithstanding. Some Council members probably feel that way themselves.

It doesn't help that current methods of charging for downtown parking are often very inefficient.<sup>5</sup> For example, downtown Oceanside, California has parking meters that will only accept coins. Besides this, all their on-street, downtown parking is timed, with maximums from 10 minutes to 4 hours. These time limits are enforced by a city employee, who applies chalk from a tire to the street and then records the time. However, by watching the time and moving their car soon enough, drivers can avoid getting a ticket. Of course, they could instead drive to the mall and not have to worry about having coins or elapsed time since parking. It is not surprising that downtown merchants often object to charging for parking.

In summary, those that resist charging for parking, *based on their perceptions*, include

- Companies, *who fear the complexity and expense of paying cash-out payments*;
- Employees, *who fear of losing a current benefit*;
- City leaders, *who fear the political repercussions*;
- Downtown patrons, *who dislike the inconvenience and worry*;
- Downtown business owners, *who fear that it will drive away customers*.

## **THE COST, VALUE, AND FAIR PRICE OF PARKING**

### **Estimated and Actual Capital Cost**

#### ***Surface Parking***

One acre of surface parking will accommodate 120 cars. Land zoned for mixed use is sometimes expensive. At \$1.2 million per acre, the land for a single parking space costs \$10,000.

Construction cost should be added to this to get the actual, as-built cost of each parking space. Estimated cost can be determined by using appraised land value and construction estimates. For new developments, after the parking is constructed, it is important to note the actual, as-built cost.

#### ***Parking-Garage Parking***

One acre of parking-garage will accommodate considerably more than 120 cars. The construction cost of the garage and the value of its land can be added together to get the total cost. Dividing that total cost by the number of parking spaces yields the total, as-built cost of each parking space. Adding levels to a parking garage may seem like a way to cut the cost of each parking space, for the case of expensive land. However, there is a limit to the usefulness of this strategy because the taller the parking garage, the more massive the supporting structural members must be on the lower levels, which increases total cost. Parking-garage parking spaces are often said to cost between \$20,000 and \$40,000. The actual costs should be noted.

#### ***Underground Parking***

In order to compute an estimate for the cost of a parking space that is under a building, it is necessary to get an estimate of the building cost with and without the underground parking. The difference, divided by the number of parking spaces, yields the cost of each parking space. The

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<sup>5</sup> According to Bern Grush, Chief Scientist of Skymeter Corporation <http://www.skymetercorp.com/cms/index.php>, often two-thirds of the money collected from parking meters is used for collection and enforcement costs.

cost or value of land plays no role in the cost of this parking. However, it does not follow that this parking is cheap. Underground parking spaces are often said to cost between \$60,000 and \$90,000 dollars each. Although there will be an “as built” cost of the building with the parking, there will never be an “as built” cost of the building without the parking. However, after the construction is done, the estimate for the cost of the underground parking should be reconsidered and re-estimated if that is needed. The final, best-estimate cost should be noted.

## **Value**

Initially, value and cost are the same. For surface parking and parking-garage parking, the value would initially be the same as the as-built cost. For underground parking, the value would initially be the same as the best-estimate cost. However, over time, the value must be updated. Both construction costs and land-value costs will change. The value assigned to a parking place should always be based on the current conditions.

## **Fair Pricing**

Parking space “values”, as described above, must first be converted to a yearly price by using a reasonable conversion factor. This conversion factor could be based on either the “cost of money” or the “earnings potential of money”. It is expected that this conversion factor would be 2% to 5% during times of low interest rates and slow growth; but could be over 10% during times of high-interest and high growth. For example, if the surface parking value is \$12,000 and it is agreed upon to use 5% as the conversion factor, then each parking spot should generate \$600 per year, just to cover capital costs. The amount needed for operations, collection, maintenance, depreciation, and any special applicable tax is then added to the amount that covers capital cost. This sum is the amount that needs to be generated in a year, by the parking space.

The yearly amount of money to cover capital cost needs to be re-calculated every year or so, since both the value and the conversion factor will, in general, change each year. The cost of operations, collection, maintenance, depreciation, and any special applicable tax will also need to be reconsidered.

Once the amount generated per year is known, the base price, per unit year, can be computed by dividing it (the amount generated per year) by the estimated fraction of time that the space will be occupied, over a year. For example, if a parking space needs to generate \$900 per year but it will only be occupied 50% of the time, the time rate charge is \$1800 per year. This charge rate per year can then be converted to an hourly or even a per-minute rate. The estimated fraction of time that the parking is occupied over a year will need to be reconsidered at least yearly.

## **NEW DEFINITIONS TO PROMOTE AN OBJECTIVE VIEW OF PRICING**

- The “fair price” means the price that accounts for all costs.
- The “baseline amount of driving” means the driving that results from the application of the fair price.
- “Zero transportation demand management” (“zero TDM”) is the amount of demand management that results when the fair price is used. It will result in the baseline amount of driving.
- “Negative TDM” refers to the case where the price is set below the fair price. This will cause driving to exceed the baseline amount. Since TDM is commonly thought to be an action that reduces driving, it follows that negative TDM would have the opposite effect.
- “Positive TDM” refers to the case where the price is set above the fair price. This would cause the amount of driving to fall below the baseline amount.

Clearly, so-called “free parking” is an extreme case of negative TDM. The only way to further encourage driving would be to have a system that pays a driver for the time their car is parked.

## **THE GOALS OF *INTELLIGENT PARKING***

- There is only one agency operating all parking. (“All parking” does not include driveways and garages in single-family homes.) *Intelligent Parking* is designed and installed by regional or state government, using low-bid contractors, with design and start-up costs covered by the overhead portion of collection fees.
- Nearly all parking is shared. Almost always, anyone can park anywhere. Those who want exclusive rights to parking will pay “24/7” (all day, every day).
- Parking is operated so that the potential users of parking will escape the expense of parking by choosing to not use the parking. This characteristic is named “unbundled” because the cost of parking is effectively unbundled from other costs.
- Parking is priced and marketed to eliminate the need to drive around looking for parking.
- Parking at any desired price is made as easy as possible to find and use.
- Records of the use of each parking space are kept, to facilitate decisions to either add or subtract parking spaces.
- The special needs of disabled drivers, the privacy of all drivers, and, if desired, the economic interests of low-income drivers are protected.

## **DEFINITIONS & CONCEPTS OF *INTELLIGENT PARKING***

### **Parking Beneficiary Groups**

There are at least 7 types of beneficiary groups. Note that in all cases, members of beneficiary groups must be old enough to drive.

- 1.) People who have already paid for the capital cost of parking. An example of this type of beneficiary group would be the owners of condominiums, where parking has been built and the cost is included in the price of the condominium. Note that although they have technically already paid for the parking, if they borrowed money to pay for some portion of the price, the cost is built into their monthly payment. This illustrates why the value of parking and the cost of borrowing money (rate of return on money) are key input variables to use to compute the appropriate base, hourly charge for parking.
- 2.) People who are incurring on-going costs of parking. An example of this type of beneficiary group is a set of office workers, where the cost of “their” parking is contained in either the building lease or the cost of the building. Either way, the parking costs are reducing the wages that can be paid to these employees.<sup>6</sup>
- 3.) People who are purchasing or renting something where the cost of the parking is included in the price. Examples of this beneficiary group are people that rent hotel rooms, rent an apartment, buy items, or dine in establishments that have parking.

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<sup>6</sup> Such parking is often said to be “for the benefit of the employees”. Defining this beneficiary group will tend to make this statement true, as opposed to the common situation where the employees benefit only in proportion to their use of the parking.

- 4.) People who own off-street parking as a business. They could be the individual investors or could be a government or government-formed entity.
- 5.) People who are said to benefit from parking, even though the money for the parking has been supplied by a source that may have very little relationship to those that are said to benefit. An example of this group would be train riders that make round trips from a station which has parking that is said to be “for riders”. Students at a school with parking would be another example.
- 6.) People who are considered by many to be the logical beneficiaries of on-street parking. Owners of single-family homes are the beneficiaries of the parking that is along the boundaries of their property. The same status is given to residents of multi-family housing.
- 7.) Governments. Since they build and maintain the streets, they should get a significant benefit from on-street parking.

## **Unbundled Cost and Spontaneous Sharing**

“Unbundled cost” means those who use the parking can see exactly what it costs and those who don’t use the parking will either avoid its cost entirely or will get earnings to make up for the hidden parking cost they had to pay. This conforms to the usual rule of the free market where a person only pays for what they choose to use. Unbundled cost is fair.

“Spontaneous sharing” means that anyone can park anywhere at any time and for any length of time. Proper pricing makes this feasible.

### ***How to Unbundle***

The method of unbundling can be simply stated, using the concept of “beneficiary group” as discussed above. First, the fair price for the parking is charged. The resulting earnings<sup>7</sup> amount is given to the members of the beneficiary group in a manner that is fair to each member. Methods are described below.

### ***Why this Supports Sharing***

Members of a beneficiary group benefit financially when “their” parking is used. They will appreciate users increasing their earnings. They are also not obligated to park in “their” parking. If there is less-expensive parking within a reasonable distance, they might park there, to save money. This is fine, because all parking is included in the *Intelligent Parking* system.

### ***Computing the Earnings for Individuals***

*Intelligent Parking* must be rigorous in paying out earnings<sup>7</sup>. For a mixed use, the total number of parking spaces must first be allocated to the various beneficiary groups. For example in an office/housing complex, 63.5% of the parking might have been sold with the office. If so, the housing portion must be paying for the other 36.5%. For this case, it would follow that the first step is to allocate 63.5% of the earnings to the workers and 36.5% to the residents.

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<sup>7</sup> The earnings amount is the revenue collected minus the collection cost and any other costs that will have to be paid due to the implementation of *Intelligent Parking*. The costs associated with the parking, paid *before* the implementation of *Intelligent Parking*, should *not* be subtracted from the revenue because they will continue to be paid as they were before the implementation of *Intelligent Parking*. Therefore, these costs will continue to reduce wages and increase the prices of goods and services.

How the monthly earnings are divided up among the members of the beneficiary group depends on the beneficiary group type. For each member, the group's total monthly earnings amount is always multiplied by a quantity and divided by the sum (the sum is the denominator) of that quantity, for all members.

For example, for each employee, the multiplier is the number of hours that the employee worked over the month while the denominator is the total number of hours worked by all employees over the month. At a school, for each student, the numerator is the total time spent at the school, over the month, while the denominator is the sum of the same quantity, for all the students.

For a train station with parking being supplied for passengers that ride on round trips of one day or less, the numerator is the passenger's monthly hours spent on such round trips, over the month; while the denominator is the total number of hours spent by all passengers on such round trips, over the month. Radio Frequency Identification (RFID) units on passengers could support an automated calculation of monthly charges for fares, as well as monthly hours on round trips.

At a shopping center, the numerator is the sum of the money spent by the shopper, over the month, while the denominator is the total amount of money spent by all shoppers over the month.

At a condominium, the numerator is the number of parking places that were paid for (directly or indirectly) by the resident family and the denominator is the total number of parking places at the condominium project; similarly, for apartment complexes.

### ***Where Earnings Are Low***

The goal is that if someone doesn't park, they don't pay, either directly or indirectly, because the earnings that they get will balance out their losses (like reduced wages, for example). However, charging for parking that few want to use will not sufficiently compensate the people that have been forced, or are being forced, to pay for such parking. The only remedy in this case is to redevelop the parking or lease the parking in some other way, for storage, for example. The earnings from the new use should go to those that are in the beneficiary group that was associated with the low-performing parking.

### ***Why This Method of Unbundling Will Feel Familiar to Leaders***

Developers will still be required to provide parking and will still pass this cost on, as has been discussed. There will be no need to force an owner of an exiting office with parking to break his single business into two separate businesses (office and parking).

Parking beneficiaries are identified that conform to traditional ideas about who should benefit from parking.<sup>8</sup>

### ***Unbundling the Cost of On-Street Parking***

The revenue from on-street parking in front of businesses will be split evenly between the city and the business's parking beneficiaries. All of the earnings from on-street parking in front of apartments or single-family homes will be given to the resident families.<sup>9</sup>

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<sup>8</sup> Showing exactly where parking earnings go will reduce the political difficulties of adopting pay parking in a democracy where the high cost of parking is often hidden and rarely discussed.

<sup>9</sup> Although governments own the streets, often, back in history, developers paid for them and this cost became embedded in property values. Admittedly, how to allocate on-street parking earnings is somewhat arbitrary. With

### ***Special Considerations for Condominiums***

Unbundling for a condominium owner means that, although their allocated amount of parking has added to their initial cost, their allocated amount of parking also earns money for them. Unbundling for a condominium could also mean that an owner can choose to have control over a single or several parking places. Such parking spaces could be equipped with a red light and a green light. If the red light is lit, this will mean that the space is not available for parking, except for the person who is controlling the spot. If the green light is lit, it will mean that the space is available to anyone. A space that is being reserved with a red light is charged at the full price to the condominium owner that has control over the space. The owner that controls these spaces can change the state of the parking space (available or not available) by either a phone call, on line, or at any pay station system that might be in use for the system. After condominium owners experience the cost of reserving a space for themselves, they might give up on the idea of having their own, personal, unshared parking space; especially since *Intelligent Parking* will give most owners and their guests all the flexibility they need in terms of parking their cars.

Some people think that condominium parking should be gated, for security reasons. However, parking within parking garages needs to be patrolled at the same frequency level as on-street parking, which is enough to ensure that crime around either type of parking is very rare. Cameras can help make parking garages that are open to the public safe from criminal activity.

### ***Special Considerations for Renters***

Unbundling for renters means that, although their allocated amount of parking increases their rent, their allocated amount of parking also earns money for them. Therefore, their traditional rent (includes parking) is effectively reduced by the money earned by those parking spaces allocated to them. Renters will be motivated to either not own a car or to park in a cheaper location. Parking in a cheaper location is not a problem because all parking is part of the *Intelligent Parking* system. Renters will welcome anyone to park in “their” parking, because it will increase their earnings.

### ***Special Considerations for Employers***

At first, companies may want the option of offering “free parking” to their employees so as to be able to compete with traditional job sites. This means giving employees that drive every single day an “add-in” amount of pay so that the sum of the add-in and their parking-lot earnings equals their charge, for any given monthly statement. The operator of the parking, which sends out statements, can pay out the “add in” amount, in accordance with the company’s instruction. The company will then be billed for these amounts. There could be no requirement for the company to provide any such “add-in” amount to the employees that don’t drive every day. This would allow the company to treat its every-day drivers better than other employees and so this would be a negative TDM. However, this economic discrimination would be substantially less than the current, status-quo, economic discrimination, where drivers get “free” parking and non-drivers get nothing.

## **Clusters of Parking**

Clusters are a contiguous set of parking spaces that are nearly equal in desirability and thus can be assigned the same price. They should probably consist of from 20 to 40 spaces. For off-street

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congestion pricing and efficient methods, governments may earn significantly more than they are under current practices.

parking, they could be on either side of the access lane to the parking spaces, so that an observer could see the 20 to 40 cars, and get a feel for the vacancy rate. At a train station, clusters will normally be organized so that their parking spaces are approximately an equal distance from the boarding area. On-street clusters would normally conform to our current understanding of what a block is, which is to say from one cross street to the next cross street. The width of the street and the length of the block should be taken into account in defining on-street clusters of parking and in deciding if the parking on either side of the street should or should not be in the same cluster of parking spaces.

## **Examples of Good and Bad Technology**

### ***Parking Meters or Pay Stations***

Parking meters are a relic of an earlier period, before computers. Pay stations do not add enough usefulness to merit their inclusion in *Intelligent Parking*, except as a bridge technology. Once good systems are set up, pay stations should cost additional money to use because of their expense. It would be best to devise an implementation strategy that will minimize their use when the system is first put into effect and will take them out of service as soon as possible.

### ***Radio Frequency Identification Backed Up by Video-Based “Car Present” and License Recognition***

Government will eventually enter into an RFID (Radio Frequency Identification) age. Organizers of large athletic events already have. Organizers that put on large open-water swims, foot races, and bike rides have routinely used RFID for many years.<sup>10</sup> An RFID vendor in San Diego<sup>11</sup> states that passive RFID units cost less than \$5, are reliable, are durable, and they could be used to identify cars as well as people. He also sees no problem in implementing most of the features of *Intelligent Parking*.<sup>12</sup>

### ***Automatic Data Collection and Sending Out Statements***

Note that the “back end database” of Dr. Carta’s written statement<sup>12</sup> refers to the ability to send statements of earnings and billing to students.<sup>13</sup>

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<sup>10</sup> For example, over 20,000 people ran the 2008 Bay-to-Breakers foot race in San Francisco. Each runner had a “chip” in their shoe lace. Each runner’s start time and finish time were recorded and all results were available as soon as the last runner crossed the finish line.

<sup>11</sup>David R. Carta, PhD, CEO Telaeris Inc., 858-449-3454

<sup>12</sup> Concerning a Final Environmental Impact Report-approved and funded new high school in Carlsbad, California, where the School Board has signed a *Settlement Agreement* to consider “*unbundled parking*”, “*cash-out*”, and “*pricing*”, Dr. Carta wrote, in a January 13<sup>th</sup>, 2010 written statement to the Board,

I wanted to send a quick note discussing the technical feasibility of tracking cars into a lot without impacting students or requiring the need for gates. Mike Bullock and I have discussed this project; it can be accomplished straightforwardly by utilizing Radio Frequency Identification and/or Video Cameras integrated with automated license recognition systems. The cars would need to register with the system at the start, but it would be fairly painless for the users after the initial installation. The back end database system can also be implemented both straightforwardly and at a reasonable price.

This is not necessarily a recommendation of the proposal for unbundled parking. Rather it is strictly an unbiased view of the technical feasibility of the proposal to easily and unobtrusively track cars, both registered and unregistered, into a fixed lot.

<sup>13</sup> In an earlier email on this subject, Dr. Carta wrote,

## ***Putting it Together***

Certainly, government, and in particular transit agencies and parking agencies, could use RFID-based technology. For example, when a person with an RFID unit which is tied to a billable address or a credit card with an open account gets on a bus or a train, they should not have to pay at that time, visit a pay station, or “swipe a card” that has a positive balance. Utility customers that pay their bills are not required to pre-pay. The same courtesy should be extended to transit riders, people that drive on roads, people that get parking-lot earnings, and people that park cars. There should be one monthly bill or statement, for all four activities.

## ***Global Positioning Systems GPS***

An alternative model is to have GPS systems in cars that would detect the car’s parking location, that location’s current charge rate, and would perform all of the charging functions in the car. The only information the parking-lot-enforcement system would need is whether or not a car being parked is owned by a bill-paying owner. The car owner’s responsibility would be to pay the bills indicated by the box in the car. The box would need to process a signal that a bill had been paid. It would also need to process pricing signals.

## ***Not Picking Winners***

The purpose of this report is to describe what an ideal system would do, *not* how it is done. How a proposed system works is left to the systems, software, and hardware engineers that work together to submit a proposal based on this description of what an ideal system does.

## **Privacy**

Privacy means that no one can see where someone has parked, without a search warrant. Also, the level of the detail of information that appears on a bill is selected by the customer.<sup>14</sup>

## **Ease of Use for Drivers**

For credit-worthy drivers that have followed the rules of the system, pay parking will not require any actions other than parking. Paying for all parking fees over a month is then done in response to a monthly billing statement. Parking will feel to the consumer like a service provided by a municipality, such as water, energy, or garbage. One important difference is that users belonging to a “beneficiary group” will get an earnings amount in their monthly statement. Those that earn more than what they are charged will receive a check for the difference. This ease of use will make all parking less stressful.

## **Base Price**

### ***Off-Street***

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This is not too tough - we probably would integrate with a service that already sends physical mail from an electronic submission instead of re-inventing this wheel.

<sup>14</sup> License plates that have no RFID tags fail to use the best technology to accomplish the primary purpose of license plates, which is to identify and help intercept cars used in a crime. Identifying cars is a legitimate government goal. Protecting privacy is also a legitimate goal. Both goals can be realized with good laws, good enforcement, and good systems engineering.

Off-street parking is priced so that even if demand does not threaten to fill the parking beyond 85%, the money generated will at least equate to an agreed-upon return on the parking value and pay all yearly costs. Equation 1 shows the calculation of the hourly rate.

$$r_{BaselineHourly} = \frac{(r_{Investment} \times v_{Parking}) + c_{YOPD}}{(n_{HoursPerYear} \times f_{TO})} \quad (\text{Eq. 1})$$

where:

|                      |   |                                                                             |
|----------------------|---|-----------------------------------------------------------------------------|
| $r_{BaselineHourly}$ | = | the computed baseline hourly rate to park                                   |
| $r_{Investment}$     | = | yearly return on investment, such as .06                                    |
| $v_{Parking}$        | = | value of a parking space, such as (parking garage) \$40,000                 |
| $c_{YOPD}$           | = | yearly operations <sup>15</sup> plus depreciation, per space, such as \$100 |
| $n_{HoursPerYear}$   | = | number of hours per year, 24 x 365 = 8760 Hours per Year                    |
| $f_{TO}$             | = | fraction of time occupied, such as 0.55.                                    |

For the example values given, the base hourly rate of parking, to cover the cost of the investment, operations<sup>15</sup>, and depreciation is \$0.519 per hour. This could be rounded up to \$0.52 per hour. This price could also be increased to result in positive TDM, to reduce driving more than the fair-price, zero-TDM amount.

### ***On-Street***

If on-street parking is located within walking distance (one-quarter mile) of off-street parking, its base price is set equal to the closest off-street parking's base price. Otherwise, it is set to some agreed-upon value, like fifty cents per hour. However, on-street parking has a special meaning for downtown merchants and for neighborhoods, two powerful political forces in any city. Merchants that have few cars parking on their street, even though it is permitted, are probably failing in their businesses. They would like free parking to help draw visitors to their store front. Neighborhoods that are not impacted by parking would probably prefer no pricing. For these reasons, for any on-street parking cluster, no price is charged until the cluster occupancy reaches 50%. (Time of day is irrelevant.)

### **Congestion Pricing**

The time-rate price of parking is dynamically set on each cluster of parking, to prevent the occupancy rate from exceeding 85% (to reduce the need to drive around looking for parking). An 85% occupancy rate (15% vacancy) results in just over one vacant parking space per city block<sup>5</sup>. If the vacancy rate is above 30%, the price is left at the baseline hourly rate. If vacancies fall below 30%, the price can be calculated in a stair-step method, such as shown in Table 2.

Equation 2 is an alternative method.

In either case, the total charge is time parked, multiplied by the time-averaged, time-rate price. The base multiplier would be adjusted to be just large enough to keep the vacancy rate from falling below a desired level, such as 15%, so it is always easy to find parking.

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<sup>15</sup> This includes money for policing, cleaning, maintenance, any applicable parking tax, and all collection costs. Collection costs will need to include an amount to recover the development and installation costs of *Intelligent Parking*.

**Table 2 Hourly Rates for 2 Base Multipliers and a Baseline Hourly Rate of \$0.52**

| Vacancy Rate | Base Multiplier = 2 |       |             | Base Multiplier = 2.5 |          |             |
|--------------|---------------------|-------|-------------|-----------------------|----------|-------------|
|              | Multiplication      |       | Hourly Rate | Multiplication        |          | Hourly Rate |
|              | Formula             | Value |             | Formula               | Value    |             |
| Above 30%    | $r_0$               | 1     | \$0.52      | $r_{50}$              | 1        | \$0.52      |
| 25% to 30%   | $r_1$               | 2     | \$1.04      | $r_{51}$              | 2.5      | \$1.30      |
| 20% to 25%   | $r_2$               | 4     | \$2.08      | $r_{52}$              | 6.25     | \$3.25      |
| 15% to 20%   | $r_3$               | 8     | \$4.16      | $r_{53}$              | 15.625   | \$8.13      |
| 10% to 15%   | $r_4$               | 16    | \$8.32      | $r_{54}$              | 39.0625  | \$20.31     |
| 5% to 10%    | $r_5$               | 32    | \$16.64     | $r_{55}$              | 97.6563  | \$50.78     |
| Below 5%     | $r_6$               | 64    | \$33.28     | $r_{56}$              | 244.1406 | \$126.95    |

$$r_{HourlyRate} = r_{BaselineHourly} \times (B^{(30-V)/5}), \text{ for } V < 30; r_{BaselineHourly}, \text{ otherwise (Eq. 2)}$$

where:

$r_{HourlyRate}$  = the congestion-priced hourly rate to park

$r_{BaselineHourly}$  = the baseline hourly rate to park, such as \$0.52 per hour (taken from from Eq. 1).

$B$  = the base of the multiplier being computed, such as 2.50

$V$  = the vacancy rate percent, such as 17.5, for 7 vacancies in a cluster of 40 spaces,  $100*(7/40) = 17.5$

For the example values given, the hourly rate of parking would be \$9.88 per hour.

### Pricing Predictions and Notifications

Drivers will develop strategies for their routine trips. The computer system that keeps records of parking use will also provide help for users. The *Intelligent Parking* website will direct a user to an appropriate cluster of parking if the user provides the destination location or locations, the time and date, and the hourly rate they wish to pay. If the walk is going to be long, the website could suggest using transit to get from the cheaply-priced parking to the destination. In such cases, the website may also suggest using transit for the entire trip.

Another user option is to specify the time, location, and the distance the user is willing to walk. In this case, the computer would give the cheapest cluster of parking available at the specified walk distance. The price prediction would be provided.

All price predictions would also have a probability of correctness associated with them. If a user can show that a computer has predicted a much lower price than what actually occurred, with a sufficiently high probability, it would be reasonable to charge the user the predicted price rather than the actual price.

Websites could routinely inform viewers when occupancy rates are expected to be unusually high, due to a special event (for example, a sporting event). The parking system website will always give current and predicted hourly rates for all locations. The hourly rates of parking will

also be available at a phone number and possibly at pay stations. The base-price hourly rate, for any parking cluster, would be stable and could therefore be shown on signs. Parking garage entrances could have large video screens showing both predicted and existing price. Users will also learn to look at parking and judge whether congestion pricing applies, or could apply, while their car is parked. It would not be long before these capabilities are added into GPS navigation systems.

## **Prepaid RFID**

To be inclusive, pay stations or convenience stores will offer a pre-paid RFID that can be set on the dashboard of a car. This will support drivers with poor credit or drivers who have not obtained the necessary equipment to support the normal, trouble-free methods. This will also work for drivers that do not trust the system to protect their privacy for a certain trip (by removing or disabling the permanent RFID) or for all trips. No billing would occur.

## **Enforcement**

The system would notify the appropriate law enforcement agency if an unauthorized car was parked. Authorized cars would need either a pre-paid RFID or equipment indicating that their owners had *Intelligent Parking* accounts and were sufficiently paid up on their bills.

## **IMPLEMENTATION**

This description of *Intelligent Parking* will help to implement efficient parking systems. Parking at train stations, schools, and government buildings could introduce many of these concepts. This description of *Intelligent Parking* is sufficient to support a “Request for Proposal” process, which could lead to full implementation. Widespread installation should be done by a government agency, to minimize actions required on the part of the private sector. Laws would simply require the cooperation of all private-sector and government entities.

## **SUMMARY**

A parking plan, *Intelligent Parking* has been described.

1. Technology will make it easy to use for most drivers.
2. Its parking is almost always shared, to support mixed uses.
3. It unbundles cost by charging and having earnings go to the parking beneficiaries.
4. Traditional groups, such as single-family home owners, employees, tenants, train riders, and students benefit from parking. The benefit is equal for drivers and non-drivers.
5. Baseline prices are computed primarily from the value of the parking and an agreed-upon rate of return. On-street parking is free until it is half full, at which time its base price often matches that of the closest off-street parking.
6. For all parking, price is dynamically increased to guarantee availability. Earnings are therefore only limited by what people are willing to pay.
7. Technology helps drivers find parking and decide if they want to drive or use transit.
8. Prepaid RFIDs provide service to those who have poor credit or don't want to be billed.
9. Disabled and perhaps low-income drivers will have accounts that allow them to park at reduced prices and perhaps avoid congestion pricing. Specially designated spots might also be required for disabled drivers.

10. The system will provide reports showing where additional parking would be a good investment and where it would be wise to convert existing parking to some other use.
11. Privacy will be protected. Law enforcement officials would need a search warrant to see where someone's car has been parked. The level of detail on billing would be selected by the car's owner.
12. Implementations could begin in carefully selected locations and expand.

Global warming, air pollution, trade deficits, and fairness are some of the significant reasons that governments have a responsibility to implement *Intelligent Parking*.

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## REFERENCES

- 1 Siegman, P. *How to Get Paid to Bike to Work: A Guide to Low-traffic, High-profit Development; Pro Bike Pro Walk Resource Book*; from the Ninth International Conference on Bicycle & Pedestrian Programs; Sept. 3-6, 1996, Portland, Maine; Bicycle Federation of America Pedestrian Federation of America; pp 171-175.
- 2 Adams, T.; Eaken, A.; Notthoff, A.; *Communities Tackle Global Warming, A Guide to California's SB 375*, June 2009, NRDC; <http://www.nrdc.org/globalWarming/sb375/files/sb375.pdf>.
- 3 Anders, S. J.; De Haan, D. O.; Silva-Send, N.; Tanaka, S.T.; Tyner, L.; *San Diego County Greenhouse Gas Inventory*, September 2008. <http://www.sandiego.edu/epic/ghginventory/>
- 4 Silva-Send, N.; *Reducing Greenhouse Gases from On-Road Transportation in San Diego County*, October 2009. [http://www.sandiego.edu/epic/ghgpolicy/documents/ES\\_GHG\\_Policy\\_On-Road\\_FINAL.pdf](http://www.sandiego.edu/epic/ghgpolicy/documents/ES_GHG_Policy_On-Road_FINAL.pdf)
- 5 Shoup, D. *The High Cost of Free Parking*. Chicago University Press, June 7, 2005.

## KEYWORDS

A&WMA, Parking, Unbundled, Shared, TDM, cash-out, pricing, beneficiary, greenhouse gas, GHG, GPS, RFID

# REFERENCE 9

# Equitable and Environmentally-Sound Car-Parking Policy at a Work Site

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## Introduction

This paper describes a parking policy that distributes the benefit of parking to all employees, regardless of how often they choose to drive. It does this by

- Charging a fair price for the parking, per unit of time parked, and by
- Giving the total earnings (*total parking-lot earnings*) to the employees, such that each employee's share of the *total parking-lot earnings* is proportion to the time they spend at the work site served by the parking.

The following, additional, optional action would guarantee that no driver loses money under the policy:

- Adding a *must-drive bonus* to each driver's share of the *parking-lot earnings*, if it happened that their share of the *parking-lot earnings* is less than their parking-lot charge. This means that the employee's *must-drive bonus* would be equal to their *parking-lot charge* minus their share of the *parking-lot earnings*.

If an employer decided to pay a *must-drive bonus* to its employees, it would be possible to allow employees to effectively "opt out" of the program so they would not need to be mailed the car-parking statements. The system would feel like "free parking" to them.

Reference 1 describes a more comprehensive policy that will efficiently and conveniently unbundle the cost (or the benefit) of parking in all circumstances. It is available at the following URL: <http://sierraclub.typepad.com/files/mike-bullock-parking-paper.pdf>.

The system described herein is less complex because it does not include congestion pricing, price predictions, or policies that are unique to on-street parking. These features can be eliminated, because it is assumed that there will be an adequate supply of parking, so no congestion pricing is needed; that the price can be relatively stable, so no price predictions are needed; and finally, that employees can be successfully required to park only in their employee parking, so there is no need for new, on-street parking policies, designed to protect adjoining neighborhoods from the intrusion of additional parked cars. If the adjoining neighborhoods had permit parking with a 2-hour limit for cars with no permit, very few employees would ever park in those neighborhoods, in any case.

## **Rationale**

This system of “unbundled parking cost” will allow all stakeholders to see the actual value of the parking. It will reduce single-occupancy driving to work. Less driving will reduce traffic congestion, air pollution and greenhouse gas (GHG) emissions.

Parking is expensive to provide. Therefore, if no parking had been provided, the saved money could have been invested to increase employee salaries. The method described in this paper allows employees to gain some of that lost salary back, by driving less.

Providing free or underpriced parking only benefits employees that would drive every day, even if they had a method to recover some of their lost salary.

## **Methods**

The parking is operated on the behalf of the employees, as if it were their own business. Those that drive to work are therefore their own customers.

*Charge* for parking is proportional to time parked and is charged to the employee associated with the car. (A charge rate that is acceptable to all must be established.) For example, if sixty cents per hour is selected, the charging software could round off the parking duration time to the nearest minute and apply a one-cent-per-minute charge. The data-collection method could be implemented with RFID’s on cars being detected at parking-lot entrances and exits. Unauthorized cars coming into the employee parking facility would be identified with license-plate detection and, if a car belonging to a felon is driven into the parking lot, a warning notice could be sent to authorities, if this is desired by the company leaders.

*Earnings* (net revenue, minus the cost of collection and distribution) are given to the employees; in proportion to the time they spend at the work site. This could be based on an employee’s schedule or, for more accuracy, could be based on “time-at-the-work-site” data, collected using personal radio frequency identification units (RFIDs) and detectors that are tied to a central, implementing computer. The variables used to compute the amount of money to be paid to an employee are shown in Table 1. The corresponding formula is shown in Figure 1.

*Parking statements* are automatically sent out monthly, showing the individual’s charges and earnings. If desired, the statements could include a *must-drive bonus*, so that no driver losses money under the system. The *must drive bonus* would probably need to come from funds available for employee compensation.

## Implementation

Since this is a new system, it would be prudent for the company leaders to have the vendor take the full responsibility for operating the system, for the first 10 years. This arrangement would ensure that the vendor would debug the system and continue to look for operational efficiencies, over the 10 year period. A sliding scale of vendor-compensation could be specified in the contract, as follows: The vendor could operate the system for 10% of the revenue, for the first 5 years; 5% of the revenue, for the next 3 years; and 2% of the revenue, for the final 2 years. For example, if it is assumed that, on average, 600 cars are parked for 8 hours, for 200 days per year, at a rate of 50 cents per hour, then the yearly revenue would be \$480,000 per year. The vendor would therefore collect \$240,000 over the first 5 years, \$72,000 over the next 3 years, and \$28,800 over the last two years. Figure 2 shows contact information and excerpts of received emails, from a San Diego vendor. This vendor has stated that the design and installation of a fully-automated system would be easy to perform.

**Table 1 Variables Used to Compute an Employee's Monthly Earnings**

| <b>Definitions to Compute an Employee's Monthly Earnings</b> |                                                    |
|--------------------------------------------------------------|----------------------------------------------------|
| $T_{Employee}$                                               | The Employee's Monthly Time at the Work Site       |
| $T_{AllEmployees}$                                           | Total Monthly Time at the Work Site, All Employees |
| $E_{AllEmployees}$                                           | Total Monthly Earnings from the Employee Parking   |

**Figure 1 Formula Used to Compute an Employee's Monthly Earnings**

$$E_{Employee} = T_{Employee} * ( E_{AllEmployees} / T_{AllEmployees} )$$

## Introducing a New Price Differential, for Driving, Compared to Not Driving

Table 2 shows that introducing a price differential into the choice of how often to drive will decrease the amount of driving.

## Other Benefits

Depending on the work site's location and the size of its access roads, there could be a substantial decrease in local congestion, improving the health of all employees and those living near the congestion. This parking policy will show neighbors that the company is working to be a good citizen. This program will encourage active transportation, meaning

modes that provide exercise for the employees. It will also teach the employees the value of parking. It is recommended that the method of determining the selected rate of charge be shared with both the employees and the community at large. This program can be thought of as a demonstration project of a new approach to parking.

**Figure 2 One Set of Identified-Vendor Information**

|                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>David R. Carta, Ph.D., CEO</b><br/><b>TELAERIS Inc.</b><br/><b>Innovative Solutions and Rapid Development</b><br/><b>9123 Chesapeake Dr., San Diego, CA 92123</b><br/><b>+1.858.627.9708 : Office</b><br/><b>+1.858.627.9702 : Fax</b><br/><b>+1.858.449.3454 : Mobile</b><br/>e-<br/><b>mail: <a href="mailto:David.Carta@Telaeris.com">David.Carta@Telaeris.com</a></b><br/><b>skype: davidcarta</b></p> | <p>I reviewed your Intelligent Parking proposal and presentation in their entirety. The identification of vehicles which you suggest for student parking using commercially available RFID technologies is a fairly straightforward process. There are numerous, inexpensive passive (no battery required) RFID tags which have been specifically designed for use on cars and trucks. These tags are installed directly on license plates or windshields, can be read from up to 30 meters away, and can be read as cars drive up to 60 mph. Additionally, automatic license recognition systems, used in conjunction with RFID, can provide a high level of enforcement making it difficult to cheat the system, similar to the Fast Track system which allows tolls to be automatically collected.</p> |
| <p>This is not too tough - we probably would integrate with a service that already sends physical mail from a electronic submission instead of re-inventing this wheel.</p>                                                                                                                                                                                                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

### **Green House Gas Impacts**

S-3-05 is a California Governor's Executive Order to drop the state's Year 2020 levels of greenhouse gas (GHG) emissions to the state's level of 1990 emissions and to drop the state's Year 2050 level of GHG emissions to 80% *below* the state's 1990 levels. If the world were to achieve similar reductions, the earth's level of atmospheric CO2 would be capped at 450 parts per million (PPM). Figures 3, 4, and 5 show how large 450 PPM is, compared to values over the last 800 thousand years. Reference 2 shows that the goal of S-3-05 is to limit atmospheric CO2 to 450 PPM and it also shows that even if this cap is achieved, the risk of a human catastrophe caused by global warming is significant. Reference 3's Figure 1 shows that a significant reduction in driving is critically needed.

### **Conclusion**

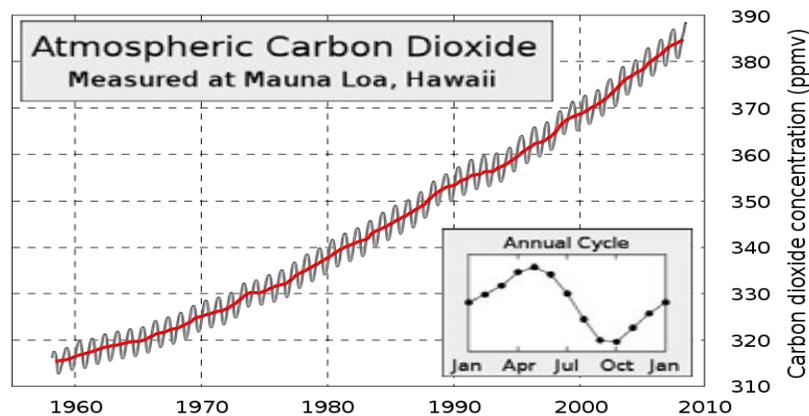
Adopting this program would benefit the employer, the employees, and the community, in many ways. They will all gain an added understanding of economics, technology, and the power of the free-market principle that sometimes it is better to have people pay for what they use and not force people to lose money for something they don't use. All the members

of the work-place community could take pride in being part of this pioneering effort to reduce driving and greenhouse gas emissions. It would be a demonstration of the fundamental features of Reference 1. It would set an example for other employers.

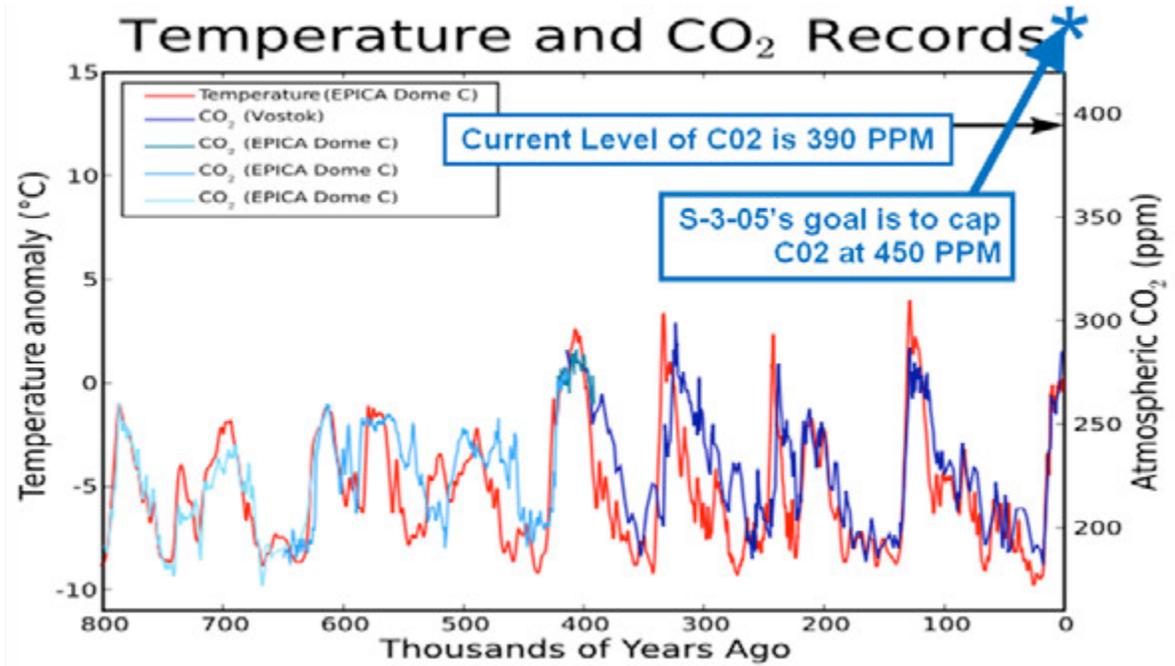
**Table 2                      Eleven Cases of Pricing Impact on the Amount of Driving**

| <b>Impact of Financial Incentives on Parking Demand</b>                                                                  |                                  |                             |                             |
|--------------------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------------------|-----------------------------|
| <b>Location</b>                                                                                                          | <b>Scope</b>                     | <b>1995 dollars per mo.</b> | <b>Parking Use Decrease</b> |
| <b><i>Group A: Areas with little or no public transportation</i></b>                                                     |                                  |                             |                             |
| CenturyCityDistrict, West Los Angeles                                                                                    | 3500 employees at 100+ firms     | \$81                        | 15%                         |
| Cornell University, Ithaca, NY                                                                                           | 9000 faculty & staff             | \$34                        | 26%                         |
| San Fernando Valley, Los Angeles                                                                                         | 1 employer, 850 employees        | \$37                        | 30%                         |
| Costa Mesa, CA                                                                                                           |                                  | \$37                        | 22%                         |
| <b>Average for Group</b>                                                                                                 |                                  | <b>\$47</b>                 | <b>23%</b>                  |
| <b><i>Group B: Areas with fair public transportation</i></b>                                                             |                                  |                             |                             |
| Los Angeles Civic Center                                                                                                 | 10000+ employees, several firms  | \$125                       | 36%                         |
| Mid-Wilshire Blvd., Los Angeles                                                                                          | 1 mid-size firm                  | \$89                        | 38%                         |
| Washington DC Suburbs                                                                                                    | 5500 employees at 3 worksites    | \$68                        | 26%                         |
| Downtown Los Angeles                                                                                                     | 5000 employees, 118 firms        | \$126                       | 25%                         |
| <b>Average for Group</b>                                                                                                 |                                  | <b>\$102</b>                | <b>31%</b>                  |
| <b><i>Group C: Areas with good public transportation</i></b>                                                             |                                  |                             |                             |
| University of Washington, Seattle Wa.                                                                                    | 50,000 faculty, staff & students | \$18                        | 24%                         |
| Downtown Ottawa, Canada                                                                                                  | 3500+ government staff           | \$72                        | 18%                         |
| Bellevue, WA                                                                                                             | 1 firm with 430 employees        | \$54                        | 39% <sup>2</sup>            |
| <b>Average for Group, but not Bellevue Washington</b>                                                                    |                                  | <b>\$45</b>                 | <b>21%</b>                  |
| <b>Over All Average, Excluding Bellevue Washington</b>                                                                   |                                  |                             | <b>25%</b>                  |
| <sup>1</sup> Parking vacancy would be higher! <sup>2</sup> Not used, since transit & walk/bike facilities also improved. |                                  |                             |                             |

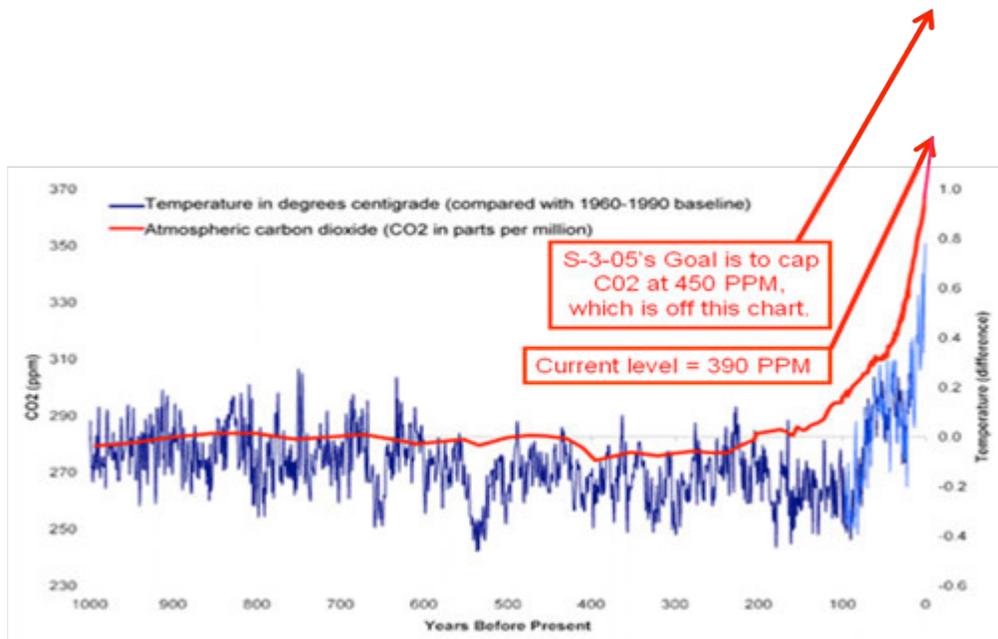
**Figure 3                      Atmospheric CO2, Increasing Over Recent Decades**



**Figure 4 Atmospheric CO<sub>2</sub> and Mean Temperature, 800,000 Years Ago, with 450 PPM CO<sub>2</sub> Shown**



**Figure 5 Atmospheric CO<sub>2</sub> and Mean Temperature, Over the Last 1,000 Years**



## References

- 1.) *A Plan to Efficiently and Conveniently Unbundle Car Parking Costs*, Paper 2010-A-554-AWMA of the proceedings of the 103<sup>rd</sup> Conference and Exhibition of the Air And Waste Management Association; Mike R. Bullock and Jim R. Stewart, PhD; presented on June 22<sup>nd</sup>, 2010. <http://www.sandiego.gov/environmental-services/pdf/sustainable/parkingcosts.pdf>.
- 2.) Letter from *Center for Biological Diversity*, to Elaine Chang, Deputy Executive Officer of Planning, Rule Development, and Area Sources of the South Coast Air Quality Management District; *Comments on CAPCOA's Conceptual Approaches Regarding Potential Significance Thresholds for Greenhouse Gas Emissions*; April 17, 2008. [http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-1/ghg-meeting-1-comment-letter-center-for-biological-diversity.pdf](http://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/year-2008-2009/ghg-meeting-1/ghg-meeting-1-comment-letter-center-for-biological-diversity.pdf)
- 3.) *Communities Tackle Global Warming*, Tom Adams (California League of Conservation Voters), Amanda Eaken, and Ann Notthoff (Eaken and Notthoff are employees of the Natural Resources Defense Council); June 2009. <http://www.nrdc.org/globalwarming/sb375/files/sb375.pdf>

# **REFERENCE 10**

**SUPERIOR COURT OF CALIFORNIA,  
COUNTY OF SAN DIEGO  
CENTRAL**

**MINUTE ORDER**

DATE: 04/19/2013

TIME: 03:36:00 PM

DEPT: C-72

JUDICIAL OFFICER PRESIDING: Timothy Taylor

CLERK: Patricia Ashworth

REPORTER/ERM: Not Reported

BAILIFF/COURT ATTENDANT:

CASE NO: **37-2012-00101054-CU-TT-CTL** CASE INIT.DATE: 07/20/2012

CASE TITLE: **SIERRA CLUB vs. County of San Diego [E-FILE]**

CASE CATEGORY: Civil - Unlimited CASE TYPE: Toxic Tort/Environmental

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**APPEARANCES**

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The Court, having taken the above-entitled matter under submission on 04/19/2013 and having fully considered the arguments of all parties, both written and oral, as well as the evidence presented, now rules as follows:

1. Overview and Procedural Posture.

In this CEQA case, this court for the second time in the last 6 months is required to address the controversial topic of global climate change. The court last addressed this subject in *Cleveland Nat'l. Forest Foundation v. SANDAG*, Case No. 2011-00101593; that case is now on appeal (D063288). As noted in its December 2012 ruling, this court recognizes it is but a way station in the life of most CEQA cases, and it seems this one will likely fit this pattern.

Because the trial courts are not final, it is important that they be prompt, and the court has done its best in that regard. The petition was filed on July 20, 2012. The case was assigned to Judge Hayes, but the Sierra Club challenged her, and the case was reassigned to Dept. 72. ROA 9, 11. The petition was promptly served. ROA 10.

The parties were first before the court on November 6, 2012, when they sought a hearing date and supplied the court with a stipulated briefing schedule. The court granted the requests. ROA 15, 16. The County filed its answer on January 9, 2013 (ROA 19), and the briefing began in February, 2013. ROA 21-25. The 4300+ page Certified Administrative Record (AR) is contained on a compact disk which was lodged on April 4 (the CD lodged with the opening brief, ROA 22, was either blank or incompatible with the court's aging desktop computers). The court has reviewed the briefing and the record.

Sierra Club contends that the County's June 20, 2012 "Climate Action Plan" (CAP), which is AR 002-126, is insufficient and violates CEQA in several respects: it does not comply with mitigation measures spelled out in the County's 2011 Program EIR (PEIR), adopted in connection with the 2011

General Plan Update (GPU)(AR 0441 ff); it fails to satisfy the requirements for adopting thresholds of significance for greenhouse gas emissions (GHG); and it should have been set forth in a stand-alone environmental document rather than in an addendum to the PEIR. The County denies these claims, and asserts the CEQA challenge is time-barred, the CAP complies with all legal requirements, the use of an addendum was appropriate, and that all relief is barred by the Sierra Club's failure to notify the AG as required by Pub. Res. Code section 21167.7. Although briefed by Sierra Club, neither standing nor exhaustion are challenged by the County.

Following publication of a tentative ruling on April 16, the case was argued on the afternoon of April 19 by Cory Briggs, Esq. on behalf of Sierra Club, and Ellen Pilsecker, Deputy County Counsel, on behalf of the County. The arguments were focused and thoughtful. Following the arguments, the court took the matter under submission. The court's ruling follows.

## 2. Overview of the CEQA Process.

### A. The Court's Role in CEQA Cases.

In *Mira Mar Mobile Community v. City of Oceanside*, 119 Cal.App.4th 477, 486 (2004) (*Mira Mar Mobile Community*), the court explained that "[i]n a mandate proceeding to review an agency's decision for compliance with CEQA, [courts] review the administrative record de novo [citation], focusing on the adequacy and completeness of the EIR and whether it reflects a good faith effort at full disclosure. [Citation.] [The court's] role is to determine whether the challenged EIR is sufficient as an information document, not whether its ultimate conclusions are correct. [Citation.]" An EIR is presumed adequate. Pub. Res. Code § 21167.3, subd. (a).

Courts review an agency's action under CEQA for a prejudicial abuse of discretion. Pub. Res. Code § 21168.5. "Abuse of discretion is established if the agency has not proceeded in a manner required by law or if the determination or decision is not supported by substantial evidence." *Id.*; see *Mira Mar Mobile Community*, supra, 119 Cal.App.4th at 486; *County of San Diego v. Grossmont-Cuyamaca Community College Dist. ("Grossmont")*, 141 Cal. App. 4th 86, 96 (2006)(same).

In defining the term "substantial evidence," the CEQA Guidelines state: "'Substantial evidence' ... means enough relevant information and reasonable inferences from this information that a fair argument can be made to support a conclusion, even though other conclusions might also be reached. Whether a fair argument can be made ... is to be determined by examining the whole record before the lead agency. Argument, speculation, unsubstantiated opinion[,] narrative [or] evidence which is clearly erroneous or inaccurate ... does not constitute substantial evidence." CEQA Guidelines, § 15384(a). "In applying the substantial evidence standard, [courts] resolve all reasonable doubts in favor of the administrative finding and decision. [Citation.]" *Mira Mar Mobile Community*, supra, 119 Cal.App.4th at 486; *Grossmont*, supra, 141 Cal. App. 4th at 96.

Although the lead agency's factual determinations are subject to the foregoing deferential rules of review, questions of interpretation or application of the requirements of CEQA are matters of law. While judges may not substitute their judgment for that of the decision makers, they must ensure strict compliance with the procedures and mandates of the statute. *Grossmont*, supra, 141 Cal. App. 4th at 96.

### B. The Three Steps of CEQA.

CEQA establishes "a three-tiered process to ensure that public agencies inform their decisions with

environmental considerations." *Banker's Hill, et al v. City of San Diego*, 139 Cal. App. 4th 249, 257 (2006)("Banker's Hill"); see also CEQA Guidelines, § 15002(k)(describing three-step process).

#### First Step in the CEQA Process.

The first step "is jurisdictional, requiring that an agency conduct a preliminary review in order to determine whether CEQA applies to a proposed activity." *Banker's Hill, supra*, 139 Cal. App. 4th at 257; see also Guidelines, § 15060. The Guidelines give the agency 30 days to conduct this preliminary review. (Guidelines, § 15060.) The agency must first determine if the activity in question amounts to a "project." *Muzzy Ranch Co. v. Solano County Airport Land Use Com.* (2007) 41 Cal.4th 372, 380. "A CEQA ...project falls into one of three categories of activity which may cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment (§ 21065)." *Sunset Sky Ranch Pilots Assn. v. County of Sacramento* (2009) 47 Cal.4th 902, 907.

As part of the preliminary review, the public agency must also determine the application of any statutory exemptions or categorical exemptions that would exempt the proposed project from further review under CEQA. See Guidelines, § 15282 (listing statutory exemptions); Guidelines, §§ 15300–15333 (listing 33 classes of categorical exemptions). The categorical exemptions are contained in the Guidelines and are formulated by the Secretary under authority conferred by CEQA section 21084(a). If, as a result of preliminary review, "the agency finds the project is exempt from CEQA under any of the stated exemptions, no further environmental review is necessary. The agency may prepare and file a notice of exemption, citing the relevant section of the Guidelines and including a brief 'statement of reasons to support the finding.' " *Banker's Hill, supra*, 139 Cal.App.4th at 258, citing Guidelines, §§ 15061(d), 15062(a)(3).

#### Second Step in the CEQA Process.

If the project does not fall within an exemption, the agency proceeds to the second step of the process and conducts an initial study to determine if the project may have a significant effect on the environment. (Guidelines, § 15063.) If, based on the initial study, the public agency determines that "there is substantial evidence, in light of the whole record ... that the project may have a significant effect on the environment, an environmental impact report [(EIR)] shall be prepared." [CEQA, § 21080(d).] On the other hand, if the initial study demonstrates that the project "would not have a significant effect on the environment," either because "[t]here is no substantial evidence, in light of whole record" to that effect or the revisions to the project would avoid such an effect, the agency makes a "negative declaration," briefly describing the basis for its conclusion. (CEQA, § 21080(c)(1); see Guidelines, § 15063(b)(2); *Banker's Hill, supra*, 139 Cal.App.4th at 259.)

The Guidelines and case law further define the standard that an agency uses to determine whether to issue a negative declaration. "[I]f a lead agency is presented with a fair argument that a project may have a significant effect on the environment, the lead agency shall prepare an EIR even though it may also be presented with other substantial evidence that the project will not have a significant effect." (Guidelines, § 15064(f)(1), italics added.) This formulation of the standard for determining whether to issue a negative declaration is often referred to as the "fair argument" standard. See *Laurel Heights Improvement Assn. v. Regents of University of California*, 6 Cal.4th 1112, 1134–1135 (1993). Under the fair argument standard, a project "may" have a significant effect whenever there is a "reasonable possibility" that a significant effect will occur. *No Oil v. City of Los Angeles*, 13 Cal.3d 68, 83-84 (1974). Substantial evidence, for purposes of the fair argument standard, includes "fact, a reasonable assumption predicated upon fact, or expert opinion supported by fact." § 21080, subd. (e)(1).

Substantial evidence is not argument, speculation, unsubstantiated opinion or narrative, evidence that is clearly inaccurate or erroneous, or evidence of social or economic impacts unrelated to physical impacts on the environment. § 21080, subd. (e)(2).

If the initial study reveals no substantial evidence that the project may have a significant environmental effect, the agency may adopt a negative declaration. Pub. Res. Code § 21080, subd. (c)(2); Guidelines, § 15070, subd. (b); Grand Terrace, supra, 160 Cal.App.4th at 1331; Save the Plastic Bag Coalition v. City of Manhattan Beach, 52 Cal. 4th 155, 175 (2011)(holding common sense is part of the substantial evidence analysis). "Alternatively, if there is no substantial evidence of any net significant environmental effect in light of revisions in the project that would mitigate any potentially significant effects, the agency may adopt [an MND]. [Citation.] [An MND] is one in which '(1) the proposed conditions "avoid the effects or mitigate the effects to a point where clearly no significant effect on the environment would occur, and (2) there is no substantial evidence in light of the whole record before the public agency that the project, as revised, may have a significant effect on the environment." (§ 21064.5 . . .)' [Citations.]" Grand Terrace, supra, at 1331-1332. The MND allows the project to go forward subject to the mitigating measures. Pub. Res. Code §§ 21064.5, 21080, subd. (c); see Grand Terrace, supra, 160 Cal. App. 4th at 1331.

### Third Step in the CEQA Process.

If no negative declaration is issued, the preparation of an EIR is the third and final step in the CEQA process. Banker's Hill, supra, 139 Cal. App. 4th at 259; Guidelines, §§ 15063(b)(1), 15080; CEQA, §§ 21100, 21151.

### C. The Environmental Impact Report.

Central to CEQA is the EIR, which has as its purpose informing the public and government officials of the environmental consequences of decisions before they are made. [Citation.] "An EIR must be prepared on any 'project' a local agency intends to approve or carry out which 'may have a significant effect on the environment.' Pub. Res. Code §§ 21100, 21151; Guidelines, § 15002, subd. (f)(1). The term 'project' is broadly defined and includes any activities which have a potential for resulting in a physical change in the environment, directly or ultimately. Pub Res. Code § 21065; Guidelines, §§ 15002, subd. (d), 15378, subd. (a); [Citation].) The definition encompasses a wide spectrum, ranging from the adoption of a general plan, which is by its nature tentative and subject to change, to activities with a more immediate impact, such as the issuance of a conditional use permit for a site-specific development proposal." CREED v. City of San Diego, 134 Cal. App. 4th 598, 604 (2005).

"To accommodate this diversity, the Guidelines describe several types of EIR's, which may be tailored to different situations. The most common is the project EIR, which examines the environmental impacts of a specific development project. (Guidelines, § 15161.) A quite different type is the program EIR, which 'may be prepared on a series of actions that can be characterized as one large project and are related either: (1) Geographically, (2) As logical parts in the chain of contemplated actions, (3) In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or (4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.'" Guidelines, § 15168, subd. (a); CREED, supra, 134 Cal. App. 4th at 605. As the court held in CREED, a program EIR may serve as the EIR for a subsequently proposed project only to the extent it contemplates and adequately analyzes the potential environmental impacts of the project. CREED, supra, 134 Cal. App. 4th at 615.

As noted in part 1 above, the EIR at issue in this case is of the latter variety, a PEIR.

Under CEQA, an EIR is presumed adequate (Pub. Resources Code, § 21167.3), and the plaintiff in a CEQA action has the burden of proving otherwise. (Preserve Wild Santee v. City of Santee, 210 Cal. App. 4th 260, 275 (2012), internal quotation marks omitted, quoting Concerned Citizens of South Central L.A. v. Los Angeles Unified School Dist. (1994) 24 Cal.App.4th 826, 836.) Courts review an agency's determinations and decisions for abuse of discretion. An agency abuses its discretion when it fails to proceed in a manner required by law or there is not substantial evidence to support its determination or decision. [§§ 21168, 21168.5; Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova (2007) 40 Cal.4th 412, 426-427 (2007) ("Vineyard")]. "Judicial review of these two types of error differs significantly: While [courts] determine de novo whether the agency has employed the correct procedures, 'scrupulously enforc[ing] all legislatively mandated CEQA requirements' [citation], [courts] accord greater deference to the agency's substantive factual conclusions." (Vineyard, supra, 40 Cal. 4th at 435.)

Consequently, in reviewing an EIR for CEQA compliance, courts adjust "scrutiny to the nature of the alleged defect, depending on whether the claim is predominantly one of improper procedure or a dispute over the facts." (Vineyard, supra, 40 Cal.4th at 435.) For example, where a petitioner claims an agency failed to include required information in its environmental analysis, the court's task is to determine whether the agency failed to proceed in the manner prescribed by CEQA. Conversely, where a petitioner challenges an agency's conclusion that a project's adverse environmental effects are adequately mitigated, courts review the agency's conclusion for substantial evidence. (Vineyard, supra, 40 Cal. 4th at 435.)

#### D. Further Requirements of CEQA.

In addition to the foregoing public process/decision maker information steps, the Legislature in enacting CEQA also intended to "provide certain substantive measures for protection of the environment. [Citations.] In particular, one court noted [Public Resources Code] section 21002 requires public agencies 'to deny approval of a project with significant adverse effects when feasible alternatives or feasible mitigation measures can substantially lessen such effects.' [Citation.] (Quail Botanical Gardens Foundation, Inc. v. City of Encinitas (1994) 29 Cal.App.4th 1597, 1601-1602, citing No Oil, Inc. v. City of Los Angeles (1974) 13 Cal.3d 68, 75 and Laurel Heights Improvement Assn. v. Regents of University of California (1993) 6 Cal.4th 1112, 1123 . . . ). The Legislature declared its intention in enacting CEQA "that all public agencies responsible for regulating activities affecting the environment give prime consideration to preventing environmental damage when carrying out their duties. [Citations.] CEQA is to be interpreted 'to afford the fullest possible protection to the environment within the reasonable scope of the statutory language.' " (Mountain Lion Foundation v. Fish & Game Com. (1997) 16 Cal.4th 105, 112.)

### 3. RFJN.

Sierra Club, with its reply briefing, filed a Request for Judicial Notice to which was attached a copy of the AG's letter acknowledging receipt of a copy of the petition in July of 2012 (shortly after it was filed). The court grants the request for judicial notice under Evid. Code section 452(c) and (g). This conclusively eliminates the County's third affirmative defense and the argument under Pub. Res. Code section 21167.7 contained on pp. 14-15 of the County's brief. In fact, this argument was meritless from the outset, as Sierra Club filed a proof of service on the AG last July (ROA 8). In other words, the County's

argument that "the case file contains no indication that [the AG notification requirement] was met" was demonstrably untrue when the County's answer was filed and when its brief was filed. County Counsel forthrightly acknowledged this at the April 19 hearing.

#### 4. Discussion and Ruling.

Former Governor Schwarzenegger issued, in 2005, Executive Order S-03-05, which for the first time set a state goal of reducing greenhouse gas emissions. This Executive Order gave rise to the Global Warming Solutions Act of 2006 (AB 32), which is codified at H&S Code section 38500 et seq. Section 38550 provides:

"By January 1, 2008, the [Air Resources Board] shall, after one or more public workshops, with public notice, and an opportunity for all interested parties to comment, determine what the statewide greenhouse gas emissions level was in 1990, and approve in a public hearing, a statewide greenhouse gas emissions limit that is equivalent to that level, to be achieved by 2020. In order to ensure the most accurate determination feasible, the state board shall evaluate the best available scientific, technological, and economic information on greenhouse gas emissions to determine the 1990 level of greenhouse gas emissions."

In the 2011 PEIR for the GPU, the County concluded that the GHG and climate-change impacts from the County's own operations and from community sources were "potentially significant" both in relation to compliance with AB 32 and with regard to the updated general plan itself. AR 488 (end of first paragraph under "Summary"), 493 (end of "Summary" paragraph). Consequently, the County had to adopt a series of mitigation measures to render these impacts insignificant. AR 494-500. Among those mitigation measures was CC-1.2, which is the focus of Sierra Club's attack:

"Prepare a County Climate Change Action Plan with an update[d] baseline inventory of greenhouse gas emissions from all sources, more detailed greenhouse gas emissions reduction targets and deadlines; and a comprehensive and enforceable GHG emissions reduction measures that will achieve a 17% reduction in emissions from County operations from 2006 by 2020 and a 9% reduction in community emissions between 2006 and 2020. Once prepared, implementation of the plan will be monitored and progress reported on a regular basis." [AR 496]

The County undertook to prepare the CAP, in accordance with Mitigation Measure CC-1.2, within six months [AR 313-314]. The County did not do so; the CAP was not approved until nearly a year after the PEIR was certified.

The central questions in this case are whether the CAP was properly approved, and whether it meets the requirements of Mitigation Measure CC-1.2. Thus, the court rejects the County's first affirmative defense which is addressed on pp. 5-7 of the County's brief. These arguments are premised on the notion that because the GPU and PEIR were adopted in the summer of 2011, an action filed in July of 2012 cannot pass muster under the 180 day limitations period of Pub. Res. Code section 21167. But the court agrees with Sierra Club that the gravamen of its petition is not an attack on the PEIR, but rather an effort to enforce the PEIR's requirement of enforceable mitigation measures. The case law relied on by the County all arose in settings in which the mitigation measures themselves were challenged as inadequate, or the cases are otherwise inapplicable. This case was filed 30 days after the June 20, 2012 approval by the County of the CAP, and it is not time-barred.

Regarding the first central question identified above: the court finds the CAP should have been the subject of a supplemental EIR instead of an addendum to the PEIR that concluded the CAP is within the scope of the PEIR. (AR 16:1372, second sentence of last paragraph.) Thus, the CAP was not properly approved and violates CEQA.

There is no explanation and no substantial evidence to justify why the CAP was not subject to a supplemental EIR with public notice and opportunity for comment. There is no showing that the County properly considered whether the CAP is within the scope of the PEIR; a supplemental EIR would require the Board of Supervisors to confront this issue. Further, environmental review is necessary to ascertain whether the CAP met the necessary GHG emission reductions when considering the CAP is merely hortatory and contains no enforcement mechanism for reducing GHG emissions.

In this regard, the case has some similarities to *Center for Sierra Nevada Conservation v. County of El Dorado* (2012) 202 Cal.App.4th 1156 (County of El Dorado). That case, like this one, involved a program EIR for a general plan. *Id.* at 1175. One of the mitigation measures called for implementation of a mitigation fee program. The county later did an initial study for the fee program, and stopped short of a more complete environmental review. The court of appeal held a tiered EIR was required to examine the specific mitigation measures and fee rate, rejecting the argument that the fee program was merely implementation of the general plan. Here, the CAP "provides the specific details associated with the ... General Plan ... strategies and measures for greenhouse gas (GHG) emissions and reductions that were not available during program-level analysis of the General Plan" (AR 16:1357), and as such, the CAP should have been the subject of a supplemental EIR [as opposed to an IS followed by addendum to the PEIR]. Thus, the CAP was not properly approved and violated CEQA.

Turning to the second central question identified above: the court finds that even if the CAP was properly approved, it does not comport with the requirements of Mitigation Measure CC-1.2; thus, the CAP violates CEQA. In this regard, there is no substantial evidence in the AR that the CAP satisfies Mitigation Measure CC-1.2; in fact, the evidence in the AR discloses the reverse is true.

For instance, the AR shows the CAP fails to meet Mitigation Measure CC-1.2 GHG emission reduction goals and targets. The CAP admits "The CAP itself does not itself ensure reductions ..." [AR 2:74]; the CAP regards its goals and strategies as mere recommendations [AR 2:27 - "The goals and strategies recommended in the CAP ..."]; and the CAP describes itself as a "living document," a "working document," and "a platform for the County to build strategies to meet its emission-reduction targets" [AR 2:15, 73.] As the court noted in its December 2012 decision, the County's adoption of the CAP occurs "in a setting in which hundreds of thousands of people in [the County] live in low-lying areas near the coast, and are thus susceptible to rising sea levels associated with global climate change." There is no time for "building strategies" or "living documents;" as the PEIR quite rightly found, enforceable mitigation measures are necessary now.

The AR shows the CAP contains no detailed deadlines for GHG emission reductions. This is borne out by the consultant who prepared the CAP for the County pointing out early on "[t]he Draft CAP neglects to describe how the County will monitor the effectiveness of the plan and its component measures over time" [AR 83:1947, last paragraph]; the County's admission "the CAP did not set such dates" [County's opposition memorandum, page 11:21-22]; and the word "deadline" appears but once in the CAP, in describing Mitigation Measure CC-1.2 [AR 2:76.]

Further, the AR shows the CAP contains no enforcement mechanism for reducing GHG emissions. The

CAP's goals and strategies are mere recommendations [AR 2:27 - "The goals and strategies recommended in the CAP..."]; there is no indication in the CAP how the measures described for community activities (Chapter 3) and the County's operations (Chapter 4) can or will be enforced [AR 2:26-57, 59-63]; the County contends five of the CAP's twenty-seven GHG reduction measures are required under state law and thus enforceable but fails to address the other twenty-two reduction measures [County's opposition memorandum, page 9:1-8; and Exhibit A to County's opposition memorandum]; and no evidence is related in the AR that supports the "belief" of the County staffer that GHG emissions reductions can be achieved through only education and incentives [AR 20:1581 and AR 23:1629 -"It is important to note that, as currently written, none of these measures are mandates. We believe that the emission reduction can be achieved through education and incentives."]

At the April 19 argument, County Counsel suggested that some of the absent benchmarks can be found in the Minutes of the Board reflecting its approval of the CAP. Having reviewed the minutes, the court agrees with Sierra Club that the minutes do not set forth enforceable standards or create any mandatory duty that could later be enforced if not carried out.

As such, the CAP, even if it was properly approved, does not comport with the requirements of Mitigation Measure CC-1.2, and thus violates CEQA.

In view of the foregoing, the court finds it unnecessary to address the subsidiary dispute over whether the guidelines for determining thresholds of significance for GHG were adopted or not. Compare *Natter v. Palm Desert Rent Review Comm'n.*, 190 Cal. App. 3d 994, 1001 (1987); *Young v. Three for One Oil Royalties*, 1 Cal. 2d 639, 647-648 (1934).

Let a writ of mandate issue forthwith, directing respondent the County of San Diego to set aside its June 20, 2012 approval of the CAP. Counsel for petitioners is directed to forthwith submit same to the court for signature.

IT IS SO ORDERED.



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Judge Timothy Taylor

**LL-9**



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March 5, 2018

**VIA EMAIL AND U.S. MAIL**

Ashley Smith  
Planning and Development Services  
County of San Diego  
5510 Overland Avenue, Suite 310  
San Diego, CA 92123

Re: Newland Sierra (Log No. PDS2015-ER-15-08-001; SCH No. 2015021036, Project Numbers: PDS2015-GPA-15-001, PDS2015-SP-15-001, PDS2015-REZ-15-001, PDS2015-TM-5597, PDSXXXX-HLP-XXX) – General Plan Inconsistency of GHG Mitigation

Dear Ms. Smith:

As you know, we represent Golden Door Properties, LLC (“Golden Door”), a world-class resort and agricultural operation in rural Twin Oaks Valley. The Golden Door is an industry leader in sustainability efforts, and has restored farming and beekeeping on its property, including the replanting of many new trees on the property—sharing its bounty at a community Farm Stand and through retail operations. As a local land owner, farmer, and employer, Golden Door honors its responsibility to our community by extending its support to local and regional organizations and well beyond. The Golden Door is committed to environmental stewardship and sustainability, and is proud that California is a leader in efforts to reduce greenhouse gas (“GHG”) emissions to combat the threat of global climate change.

We are writing to share our concern that the proposed Newland Sierra Project, as described in its Draft Environmental Impact Report (“DEIR”), would be inconsistent with existing and newly adopted County General Plan provisions requiring reduction of GHG emissions within unincorporated areas of San Diego County. The Board of Supervisors in its recent actions on February 14<sup>th</sup> has confirmed this inconsistency with the County’s General Plan. (Our comments address only the Newland Sierra Project. Our comments also do not relate to what the County may approve or not approve for new development projects if the County were

to amend its General Plan policies to allow for the use of international or other “out of jurisdiction” offsets and remove the requirement for “local” reductions.<sup>1</sup>)

We request that the County staff suspend further processing of the Newland Sierra Project due to its clear conflict with the County’s General Plan Conservation and Open Space Element. Projects which flatly conflict with the County’s General Plan should not be processed by staff nor should they be presented to the Planning Commission or Board of Supervisors.

If County staff believes that the Newland Sierra Project is consistent with the County General Plan Conservation and Open Space Element, we request that the County staff prepare and release to the public the County staff’s consistency analysis on this issue. No such consistency analysis has yet been provided to the public on this important issue.

## I. BACKGROUND

As you are aware, we have been writing to the County about climate change, the Climate Action Plan (“CAP”), and the Newland Sierra Project since January 2015. The Golden Door has provided extensive comments about GHG issues for the CAP and the Newland Sierra Project and participated in the County’s recent proceedings to approve a CAP. One of the issues consistently raised by the Golden Door over the past several years is that the County’s General Plan requires GHG emissions reductions to occur within the County for the Newland Sierra Project. The 2011 General Plan included Goal COS-20, requiring “local” emissions reductions: “Reduction of local GHG emissions contributing to climate change that meet or exceed requirements of the *Global Warming Solutions Act of 2006*.”

### A. The Golden Door Has Previously Notified the County of this Issue

The Golden Door raised this issue on multiple occasions. In the Golden Door’s August 14, 2017 letter on the Newland Sierra Project’s DEIR, we specifically noted that Newland’s offset program contradicted General Plan Goal COS-20: “The Project contravenes the General Plan EIR’s mitigation measures CC-1.2 and CC-1.8 and General Plan Goal COS-20 because its offsets may come from outside the County.” (Letter from C. Garrett [Latham & Watkins LLP for Golden Door] to A. Smith [County Planning and Development Services], at 38.)<sup>2</sup> We also raised this issue in our September 25, 2017 DSEIR letter on the CAP: “The CAP, therefore, was intended to mitigate impacts from GHG emissions *within San Diego County*. In addition, Goal COS-20 of the General Plan prioritizes ‘[r]eduction of *local* GHG emissions contributing to climate change that meet or exceed requirements of the *Global Warming Solutions Act of 2006*.’ (Emphasis added.)” (See Attachment A at 3 [emphasis in original letter].)

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<sup>1</sup> While CEQA Guidelines Section 15126.4(c)(3) acknowledges that offsite measures, including carbon offsets, may be appropriate to mitigate a project’s GHG emissions, the General Plan imposes additional requirements that such offset reductions must occur locally.

<sup>2</sup> Golden Door’s letter is on file with the County as part of this project’s record.

**B. A Plain Reading of Goal COS-20 Requires Emissions Reductions to Occur Within the County**

Based on the plain language of Goal COS-20, the General Plan requires GHG emissions “reductions” to remain local. It does not allow for purchase of carbon offset credits from outside the County. While purchase of off-site mitigation credits from outside of the County may comply with the California Environmental Quality Act (“CEQA”) if certain criteria are met, the General Plan’s requirements are distinct from requirements under CEQA. Further, these emissions “reductions” are distinct in concept from CEQA’s requirement for “mitigation.” The County’s Conservation and Open Space Element refers to both “reductions” and “mitigation” depending on the context in which they are used. This distinction supports a plain reading that Goal COS-20 requires GHG emissions reductions to occur within the County despite any other permissible methods under CEQA.

**C. Other Provisions of the Conservation and Open Space Element Support the Plain Reading**

In addition, other provisions of the Conservation and Open Space Element support the plain reading of Goal COS-20. The General Plan’s Conservation and Open Space Element’s Guiding Principles discuss GHG emissions and emissions reduction efforts in conjunction with local air pollutants.

Energy production, transportation, and consumption are key contributors to greenhouse gases affecting climate change, poor local air quality, and a variety of other sustainability challenges. The Conservation and Open Space Element *encourages and supports land use development patterns and transportation choices that reduce pollutants and greenhouse gases*. In addition, the Element encourages renewable energy production, along with efficient energy use in buildings and infrastructure and minimizes the impacts of projects that can generate air pollutants.

(County General Plan at 5-3 [emphasis added].) In addition, the “Context” section of the Conservation and Open Space Element relating to Air Quality, Climate Change, and Energy discusses policies to reduce GHG emissions and local air pollutants:

There is a strong correlation between land use planning, transportation system planning, and the emission of air quality pollutants, greenhouse gases (GHG) that contribute to global climate change (GCC) and criteria pollutants that degrade air quality within a region. The primary opportunities to reduce air quality pollutants and GHG emissions are in the urbanized areas of the County where there are land use patterns that can best support the increased use of transit and pedestrian activities since most GHGs and air pollutants result from mobile source emissions. The unincorporated County can also be a part of the solution by producing development patterns that contribute to reducing the dependence on the automobile and by promoting development with lower energy demands.

*The development of sustainable communities contributes to both the reduction in overall air pollutants as well as solving the larger challenges associated with GCC.* A holistic approach to achieving sustainable communities requires the integration of a regionwide multi-modal transportation system with a significant reduction in the reliance on single-occupant motor vehicles, along with buildings that consume less through design and efficient building materials.

(*Id.* at 5-31 [emphasis added].) The Conservation and Open Space Element makes no mention of GHG reduction activities occurring outside of the unincorporated County.

#### **D. Additional General Plan Provisions Support the Plain Reading**

The General Plan's Guiding Principles further support the requirement for local GHG emissions reduction by illustrating the importance of local actions to reduce GHG emissions. Guiding Principle 7 reads as follows:

**Maintain environmentally sustainable communities and reduce greenhouse gas emissions that contribute to climate change.**

...

The County of San Diego can move towards sustainability and a reduction of GHG emissions by managing land development and building construction, conserving habitats and natural resources, providing efficient transportation and mobility systems, and developing its infrastructure and public services. As described for Guiding Principle 2, land should be developed more compactly, resulting in reduced automobile use and increased use of public transit, walking, and bicycling. This will result in less consumption of gasoline, generation of less air pollution and GHG emissions, the preservation of greater amounts of habitat and agricultural lands, and the improvement of the lifestyles and health of community residents. Locating residences closer to retail stores and jobs also increases the economic viability of those commercial entities. Providing new recreational facilities and access to the County's abundant open spaces can improve public health. Similarly, choices for alternative transportation modes including bus and transit systems, pedestrian routes, and bicycle paths should be expanded, as described in Guiding Principle 6. This will result in similar benefits to public health by increasing outdoor activities.

(*Id.* at 2-13 [emphasis in original].)

In addition, Goal LU-5 provides direction on the reduction of "local" GHG emissions through land use planning: "**Climate Change and Land Use.** A land use plan and associated development techniques and patterns that reduce emissions of local greenhouse gases in accordance with state initiatives, while promoting public health." (*Id.* at 3-27 [emphasis in original].)

The General Plan’s guiding principles, goals, and policies support the plain reading of Goal COS-20, requiring GHG emissions reductions to occur locally.

## II. THE COUNTY’S AMENDMENTS TO GENERAL PLAN GOAL COS-20 AND POLICY COS-20.1 ON FEBRUARY 14, 2018, CONFIRM THAT GHG EMISSIONS REDUCTIONS MUST BE OBTAINED WITHIN THE COUNTY

On February 14, 2018, the County approved the CAP. Over the Golden Door’s objection—and similar objections of many other members of the public—the County approved a new program as part of the CAP that would allow General Plan Amendment projects to rely almost exclusively on carbon offset credit purchases from anywhere in the world. This program is inconsistent with General Plan policies requiring GHG reductions to occur within the unincorporated County.

At this same time in February, the County had the ability to amend the General Plan to allow for these non-“local” offset credit purchases. In fact, the Golden Door sent a letter to the County prior to approval of the CAP offering alternative language for the amendments to General Plan Goal COS-20 and Policy COS-20.1 that set forth the type of language that would be required for any General Plan Amendment projects to allow for international offset credits to satisfy the County’s criteria for GHG emissions reductions.<sup>3</sup> (This February 13 letter from the Golden Door is attached hereto as Attachment B.)

The County, however, rejected the Golden Door’s alternative language. Instead, the County doubled down on the pre-existing General Plan policy to require “local” emissions “reductions”. In conjunction with its approval of the CAP, the County amended Goal COS-20 and Policy COS-20.1 to clarify that the “local” reductions required by the General Plan must occur within the “unincorporated County.” The amended version of Goal COS-20 in strikethrough and underline form reads as follows:

Reduction of ~~local~~ community-wide (i.e., unincorporated County) and County Operations GHG greenhouse gas emissions contributing to climate change that meet or exceed requirements of the Global Warming Solutions Act of 2006, as amended by Senate Bill 32 (as amended, Pavley, California Global Warming Solutions Act of 2006; emissions limit).

Because the County removed the word “local” from Goal COS-20 and replaced it with “community-wide (i.e., unincorporated County) and County Operations,” the County confirmed

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<sup>3</sup> If the County staff had accepted our proposed language, and proposed other conforming changes to the other related Conservation and Open Space Element and other General Plan policies, this would have addressed the issue of San Diego County General Plan consistency for the use of international offsets. As we have noted in other correspondence, CARB has approved of other land use projects which have utilized emissions from outside the local County or jurisdiction.

the Golden Door's repeated position that the County General plan contains a specific policy requiring that "local" reductions are meant to be within the unincorporated County.

Moreover, the County amended Policy COS-20.1 – which requires preparation of the CAP – to add a similar requirement that emissions reductions occur within the unincorporated County. The amended version of Policy COS-20.1 in strikethrough and underline form reads as follows:

Prepare, maintain, and implement a ~~climate change action plan with a baseline inventory of GHG emissions from all sources; GHG emissions reduction targets and deadlines, and enforceable GHG emissions reduction measures.~~ Climate Action Plan for the reduction of community-wide (i.e., unincorporated County) and County Operations greenhouse gas emissions consistent with the California Environmental Quality Act (CEQA) Guidelines section 15183.5.

These amendments to General Plan Goal COS-20 and Policy COS-20.1 remove any ambiguity (if it existed before) about the geographic scope of the word "local" and clarify that the County's GHG emissions reductions are to occur within the unincorporated County. This action confirms the concerns previously raised by the Golden Door and creates an impasse of inconsistency for any attempt to rely on out-of-County offset credits for GHG emissions reductions.

It is difficult to understand all of the precise motivations of County staff, the Planning Commission and the Board of Supervisors in adopting this newly amended Conservation and Open Space General Plan language. We are certain, however, that a key motivating factor for this amendment to the General Plan language was the desire to reassure the public and California state officials that the County's General Plan goals and policies would in fact require a reduction in local emission within the unincorporated area of the County, rather than result in increases in those emissions.

As noted in multiple provisions of the County's General Plan, keeping GHG emissions reductions within the unincorporated would result in important co-benefits for County residents. These could include improved air quality and public health as well as decreased traffic congestion and economic stimulus. The California Air Resources Board ("CARB") has recognized the importance of these local co-benefits in its 2017 Scoping Plan. CARB's 2017 Scoping Plan emphasizes the importance of offset programs relying on local projects for emissions offsets:

To the degree a project relies on GHG mitigation measures, ***CARB recommends that lead agencies prioritize on-site design features that reduce emissions, especially from VMT, and direct investments in GHG reductions within the project's region that contribute potential air quality, health, and economic co-benefits locally.*** For example, on-site design features to be considered at the planning stage include land use and community design options that reduce VMT, promote transit oriented development, promote street

design policies that prioritize transit, biking, and walking, and increase low carbon mobility choices, including improved access to viable and affordable public transportation, and active transportation opportunities. Regionally, additional GHG reductions can be achieved through direct investment in local building retrofit programs that can pay for cool roofs, solar panels, solar water heaters, smart meters, energy efficient lighting, energy efficient appliances, energy efficient windows, insulation, and water conservation measures for homes within the geographic area of the project.

(CARB, 2017 Climate Change Scoping Plan at p. 102 [emphasis added]; attached hereto as Attachment C.) Keeping the reductions local would also help ensure enforcement and could stimulate growth by investing in the local green economy.

### **III. THE GENERAL PLAN'S REQUIREMENT THE GHG REDUCTIONS MUST BE OBTAINED WITHIN THE UNINCORPORATED COUNTY APPLIES TO THE NEWLAND SIERRA PROJECT**

County staff has made clear that the Climate Action Plan does not apply to General Plan Amendment projects, such as the Newland Sierra Project. The following exchange between County staff and Supervisor Diane Jacob occurred at the February 14, 2018 meeting at which the Board of Supervisors approved the CAP:

County Staff Member: *That checklist is not used by General Plan Amendments. General Plan Amendments do not tier from the cap or are not afforded any streamlining benefits from the cap.* General Plan Amendments are not in the baseline inventory or the projections for the cap. They're simply analyzed as cumulative impacts and the county has feasible mitigation and we must apply feasible mitigation when there are cumulative impacts.

Supervisor Diane Jacob: Okay. I hear what you're saying. Explain to me: Number one on the checklist is "The proposed project, consistent with the existing General Plan, regional category land use designations and zoning designations." That's pretty clear. And then, also, "If yes, proceed to step two, which is 'Cap Measures Consistency of the Checklist.'" But then it does say, "If no, proceed to question two below." And then question two below, "Does the project include a land use element under a zoning designation amendment that would result in an equivalent or less GHG-intensive project when compared to the existing designations?" That doesn't seem to be consistent, to me, with what you just said.

County Staff Member: Supervisor Jacob, that piece of the checklist – So, what the checklist is meant to capture is general plan, consistent projects that are consistent with the density or intensity in the General Plan. *We recognize General Plan*

*Amendments in process excluded*, that there may be certain scenarios where a GPA comes into, for example, become consistent with or requires a rezone to be consistent with land use or vice-versa, that would afford those projects that aren't increasing any density or intensity an ability to use the checklist as well, because they would stay below that density that was approved in the 2011 General Plan.

(County Board of Supervisors Meeting Transcript at 114:15-116:5 (Feb. 14, 2018) [attached hereto as Attachment D].)

Although the CAP's checklist may not apply to the General Plan Amendment projects as described by County staff in their discussion with Supervisor Jacob,<sup>4</sup> and such projects may not be eligible to tier off the CAP, amended General Plan Goal COS-20 and Policy COS-20.1 are part of the General Plan and apply to all projects in the County. Newly amended General Plan Goal COS-20 and Policy COS-20.1 must be applied to the Newland Sierra Project, and the County must make a finding that the project is consistent with those goals and policies prior to any decision on the Project. The Newland Sierra Project must analyze consistency with General Plan Goal COS-20 and Policy COS-20.1 – as amended – even if the staff has indicated that the remainder of the Board's February 14<sup>th</sup> actions on the CAP do not apply to General Plan Amendment projects.

It should be noted that the Newland Sierra Project does not now include any proposed amendment to County General Plan Conservation and Open Space Goal COS-20 and Policy COS-20.1 to create an exception to allow Newland Sierra to increase GHG emissions in unincorporated San Diego County so long as such local GHG emissions increases are offset by promised GHG reductions somewhere else in the United States or internationally. If Newland Sierra now intends to amend its project to include such an applicant proposed amendment to the Conservation and Open Space Element, the County's EIR for the project needs to be revised and recirculated to provide for such a proposed amendment, as well as to allow for public comment and environmental analysis of such an amendment.

#### **IV. THE NEWLAND SIERRA PROJECT'S GHG MITIGATION IS INCONSISTENT WITH GENERAL PLAN GOAL COS-20 AND POLICY COS-20.1 BECAUSE IT ALLOWS FOR OUT-OF-COUNTY OFFSET CREDIT PURCHASES**

The GHG mitigation proposed in the Newland DEIR is inconsistent with Goal COS-20 and Policy COS-20.1, because it relies on the purchase of carbon offset credits from outside the unincorporated County. M-GHG-1 in the Newland DEIR requires Newland to "purchase and retire carbon offsets in a quantity sufficient to offset 100 percent of the project's construction emissions." M-GHG-2 in the Newland DEIR requires Newland to "purchase and retire carbon offsets for the incremental portion of the project within the Site Plan in a quantity sufficient to

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<sup>4</sup> This is especially pertinent for projects such as the Newland Sierra Project, which increases proposed development intensities and densities above those set forth in the current General Plan (including the intensities and densities included in SANDAG's regional growth and VMT analysis).

offset, for a 30-year period, the operational GHG emissions from that incremental amount of development to net zero.” Both M-GHG-1 and M-GHG-2 provide the following geographic priority scheme for GHG emissions reductions:

- 1) project design features/on-site reduction measures; 2) off-site within the unincorporated areas of the County of San Diego; 3) off-site within the County of San Diego; 4) off-site within the State of California; 5) off-site within the United States; and 6) off-site internationally.

(Newland Sierra DEIR at 2.7-48, 2.7-51.)

The Newland DEIR further indicates that only 18 percent of its operational emissions reductions will occur on-site; therefore, 82 percent will derive from off-site carbon credit purchases.<sup>5</sup> (Newland Sierra DEIR at 2.7-47.) Further, the County has admitted in proceedings on the CAP that no off-site credits are currently available within the unincorporated County. As a result, 82 percent of Newland’s GHG emissions reductions for operational emissions will be obtained through off-site offset purchases outside of the unincorporated County—i.e., from geographic priority levels three through six. Moreover, the Newland Sierra DEIR only requires offset credits to be purchased from local sources to the extent such credits are “financially competitive in the global offset market.” This criteria essentially eliminates any prioritization of local offsets and allows the developer to purchase the least expensive credits available regardless of the potential benefits of local projects. This approach is inconsistent with General Plan Goal COS-20 and Policy COS-20.1.

For the Newland Sierra Project to be consistent with General Plan Goal COS-20 and Policy COS-20.1’s requirement that GHG emissions “reductions” be obtained within the unincorporated County, the County must either revise the DEIR’s mitigation measures or amend its General Plan. The County could revise the geographic priority levels in M-GHG-1 and M-GHG-2 to eliminate levels three through six. (See e.g., Attachment B at “Option Two” of Attachment B, Options.) This approach would clarify that the Project could only obtain off-site reductions within the unincorporated County. Additional analysis would be required to demonstrate that sufficient emissions reductions can be achieved in geographic priority levels one and two.

On the other hand, if the County allows Newland to obtain GHG emissions reductions from all six geographic priority levels, then Newland must revise its project application to include an applicant proposal to amend General Plan Goal COS-20 and Policy COS-20.1. (See e.g., Attachment B at “Option One” of Attachment B, Options.) In addition, the County would be required to amend the other relevant General Plan policies cited in this letter – and any other applicable General Plan policies – to specifically state that GHG emissions reductions may be obtained from international sources. In that event, analysis of the County-wide impacts of such a policy change would be required, as would a full analysis of vertical and horizontal General Plan

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<sup>5</sup> The Newland DEIR does not quantify on-site GHG emissions reduction for construction emissions.

consistency. In any event, the Newland Sierra Project cannot be approved with Mitigation Measures M-GHG-1 and M-GHG-2 as currently drafted, because they are inconsistent with the plain language of General Plan Goal COS-20 and Policy COS-20.1.

It is important to note that this letter only addresses the consistency of the Newland Sierra Project with the County of San Diego's General Plan policies. This letter does apply to other County proposals or decisions. The Golden Door's position on whether, to what extent, and under what conditions GHG offsets may be used in the absence of a conflict with the County's General Plan has been described in other letters.<sup>6</sup> Our concern noted in this letter is that the County has decided to adopt or reaffirm General Plan provisions which require local GHG emissions reduction and do not allow for local GHG emissions increases, while at the same time the County is continuing to process a contradictory project which provides for the use of international offsets to allow for local GHG emission increases in violation of the General Plan.

Thank you for your time and attention to our comments. Please do not hesitate to contact us should you have any questions or comments.

Best regards,

*Christopher W. Garrett*

Christopher W. Garrett  
of LATHAM & WATKINS LLP

cc: Kathy Van Ness, Golden Door  
County Board of Supervisors  
County Planning Commission  
Darin Neufeld, County Planning and Development Services  
Mark Slovick, County Planning and Development Services  
William W. Witt, Office of County Counsel  
Claudia Silva, Office of County Counsel  
Dan Silver, Endangered Habitats League  
George Courser, Sierra Club  
Duncan McFetridge, Cleveland National Forest Foundation  
Stephanie Saathoff, Clay Co.  
Denise Price, Clay Co.  
Andrew Yancey, Latham & Watkins

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<sup>6</sup> Indeed, the Golden Door has previously noted other projects using "out of jurisdiction offsets" under specified terms and conditions which have been approved by the California Air Resources Board.

Attachment A

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**LATHAM & WATKINS** LLP

September 25, 2017

Maggie Soffel  
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Re: San Diego County Draft Climate Action Plan

Dear Ms. Soffel:

We represent the Golden Door Properties LLC (the “Golden Door”), an award-winning spa and resort that opened in 1958. This historic haven is situated on approximately 600 acres on the south side of Deer Springs Road in northern San Diego County (“North County”). It was the highest rated establishment in *Travel and Leisure*’s recent list of world’s best destination spas. Its property encompasses a peaceful array of hiking trails, luxurious spa amenities, tranquil Japanese gardens, and a bamboo forest. Agricultural cultivation on the property includes avocado groves and fresh vegetable gardens as well as citrus and olive trees.

The Golden Door is committed to environmental stewardship and sustainability. It uses sustainable and bio-intensive agriculture practices and has eliminated guests’ use of plastic water bottles. The owners are not seeking to expand the Golden Door, but are seeking to further enhance the Golden Door according to guiding principles, including the extensive sustainable agriculture on the surrounding acres. Reducing greenhouse gas (“GHG”) emissions to combat the threat of global climate change is an important issue for the Golden Door.

As such, we appreciate the opportunity to participate in the Climate Action Plan (“CAP”) process and provide input on the County’s efforts to reduce GHG emissions. The Golden Door is particularly concerned about GHG emissions from the proposed Newland “Sierra” Project (the “Newland Project”), a revised Merriam Mountains project on property located near Deer Springs Road. The Newland Project would implement urban residential density in a rural area of the unincorporated County, far from job and urban centers and from transit infrastructure. This unplanned development would contradict modern planning principles and the County’s General Plan and would result in long single-occupant vehicle trips causing significant GHG emissions in contrast to the County’s stated goal in the CAP. We submit the following comments on the draft CAP and draft Supplemental Environmental Impact Report (“DSEIR”).

## I. THE COUNTY SHOULD HALT PROCESSING PROJECTS UNTIL THE CAP IS COMPLETED

As an initial matter, the County should cease processing and approving projects until the CAP is completed. While the CAP provides avenues for General Plan Amendments not already considered within the CAP and considers pending projects within its cumulative impacts analysis, the CAP is in draft form and is subject to revisions following the public comment process.

In particular, the County should refrain from processing the Newland Project prior to the adoption of the CAP, as doing so may result in impermissible tiering. We are concerned that the Newland Project may be attempting to tier off the CAP prior to its approval. An environmental impact report (“EIR”) may not tier off of an incomplete or future environmental document. (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 440.) Newland’s proposed “net zero” mitigation measures—in its draft EIR published in June—do not meet the requirements of the CAP’s offset mitigation measures as currently drafted. Further, the CAP’s offset measures may be revised to provide stronger environmental protection prior to approval. As such, the Newland Project should not be allowed to tier off of the unapproved CAP, and the County should refrain from processing the Newland Project until the CAP is completed.

The Newland Project purports to be “net zero” but does not provide adequate assurances that its offsets will actually achieve the required emissions reductions. The Golden Door provided more fulsome comments on the Newland Project’s draft EIR and its various deficiencies in its August 14, 2017 comment letter on the Newland Project’s draft EIR.

In particular, the CAP’s offset mitigation measures provides geographic priorities for GHG offset projects, beginning with: “1) project design features/on-site reduction measures; 2) off-site within the unincorporated areas of the County of San Diego; 3) off-site within the County of San Diego; 4) off-site within the State of California; 5) off-site within the United States; and 6) off-site internationally.” (DSEIR at p. 2.7-37.) The Newland draft EIR provides a list of priorities for projects, including a “true up” provision for its operational GHG emissions offset requirement. The Newland EIR’s “true up” provision allows the County’s Planning & Development Services (“PDS”) Director to, after Project approval and without additional public input, decrease the volume of operational emissions that Newland is required to offset. This “true up” provision renders the Newland Project’s offset mitigation measure illusory.

In contrast, the CAP does not contain any such illusory “true up” provision. The Newland Project should not be allowed to bypass more stringent offset requirements in the CAP simply by being approved prior to the adoption of the CAP. Such an approach would be improper here, where the CAP is required mitigation for the County’s General Plan EIR from 2011. (*Lincoln Place Tenants Assn. v. City of Los Angeles* (2007) 155 Cal.App.4th 425, 445 [mitigation measures must be implemented, not “merely adopted and then neglected or disregarded”].) Sprawl projects, such as the Newland Project, that cause significant GHG emissions from long automobile trips in contrast to modern planning principles, should not be allowed to bypass any GHG reduction measures in the CAP simply by seeking approval

subsequent to the time in which the County set the requirement for the CAP but prior to actual approval almost seven years later.

The offset requirements and assurances in the CAP provide more certainty of achieving GHG emissions reductions than in Newland's flawed "net zero" approach. Thus, the County should abstain from processing the Newland Project until the CAP is completed.

## II. GHG REDUCTIONS SHOULD BE PRIORITIZED WITHIN THE COUNTY

The County's General Plan prioritizes GHG emissions reductions within San Diego County. In 2011, following approximately ten years of substantial input from numerous stakeholders and citizen groups, the County approved an update to its General Plan. (San Diego County General Plan at pp. 1-2.) In the EIR for the General Plan, the County concluded that the GHG and climate change impacts from the County's operations and from community sources were "potentially significant"—that without mitigation the County would fail to comply with AB 32, which requires the State to lower its GHG emissions to 1990 levels by 2020. As a result, the General Plan EIR included mitigation measures for GHG and climate change impacts, including the adoption of a CAP. (San Diego County General Plan, Mitigation Measure CC-1.2.) The CAP, therefore, was intended to mitigate impacts from GHG emissions *within San Diego County*. In addition, Goal COS-20 of the General Plan prioritizes "[r]eduction of *local* GHG emissions contributing to climate change that meet or exceed requirements of the Global Warming Solutions Act of 2006." (Emphasis added.)

The CAP provides the following 2020 and 2030 adjusted reduction targets and 2050 goal for emissions *in the County*: two percent below 2014 levels by 2020; 40% below 2014 levels by 2030; and 77 percent below 2014 levels by 2050. (CAP at 2-11.) "[T]o meet the 2030 target and 2050 goal, the County will need to achieve a reduction of 897,237 MTCO<sub>2</sub>e by 2030 and 2,253,066 MTCO<sub>2</sub>e by 2050 beyond legislative-adjusted projections. To close the emissions gap shown in Figure 2.3, this CAP proposes 11 strategies and 29 measures that the County would implement to reduce GHG emissions." (CAP at 2-14.)

The State of California has set an example for all other jurisdictions by making bold commitments to reduce greenhouse gas emissions. The County has explicitly made commitments to reduce emissions in the County consistent with its share of reductions needed for the State to achieve its goals. However, we note that the County has not demonstrated substantial evidence to support the availability of offsets within the County. While the language in the CAP states that the County will fund and implement investment projects, there is no evidence or assurance to suggest that the County is making the investment. Allowing payment for offsets to occur outside of the County is akin to the medieval payment for indulgences. A one-time payment should not absolve emitters for their GHG emissions that occur within the County. The County made a promise to reduce emissions within the County; it should uphold that promise for the benefit of its residents who expect a local reduction in GHGs and copollutants based on the County's plans. There must be some assurance that offset projects will occur within the project site or the County. While we understand each project is unique, the County should incorporate a standard into its offset priorities to promote GHG reductions within the County; otherwise project proponents may be incentivized to devote all or almost all of the

resources to offsets occurring outside of the County. The County should consider at least the following methods for ensuring a certain level of offsets occur within the County in addition to any others that would promote offsets within the County:

- A bright-line percentage requirement for offsets to occur within San Diego County, or if this is deemed infeasible, a proportionate dollar amount or fee paid to facilitate GHG emissions reductions within the County;
- A bonus structure similar to a density bonus approach, that allows greater use of offsets for projects located in infill areas or close to existing transit;
- A more regimented set of findings describing the infeasibility of on-site offsets or offsets within the County that the County must make for a proposed project before it is allowed to use offsets outside of the County;
- A requirement that each project must specifically identify available offsets that the project will use within the County prior to approval; or
- A requirement that each project must meet a defined, impartial criteria, such as LEED Platinum.

### **III. THE CAP MUST PROVIDE ASSURANCES FOR OFFSETS**

Regardless of where offsets occur, the County must provide assurances that the offset projects will achieve their projected reductions. The CAP provides, “[a]fter adoption, the CAP will continue to be maintained by the County Department of Planning & Development Services (PDS). Key staff in PDS, with active participation and assistance from the Sustainability Task Force, will facilitate and oversee implementation, monitoring, and reporting on the progress of each measure.” (CAP at 5-2.) It is unclear if such monitoring extends to the offsets, or how the County staff will be able to monitor offset projects that may occur on the other side of the world. In addition, it is unclear if the County has any mechanism to enforce offsets in other jurisdictions; therefore, it is unclear if the mitigation is actually enforceable. The CAP should provide detailed information on how the County will ensure monitoring and reporting of the mitigation projects funded by offsets, as mere funding by itself does not equate to mitigation. (See *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692.)

Moreover, the CAP should ensure that the County is able to meet its 2050 emissions reduction goals that extend to 2050. (CAP at 1-2.) While the CAP maintains that it “demonstrates how the County will achieve GHG emissions targets for 2020 and 2030, and demonstrate progress to 2050,” (CAP at 1-13) it is unclear how the 2050 target will be met if General Plan Amendments approved in the near future only provide mitigation assurances to 2048 (assuming approval of the CAP in 2018). The Appendix B to the DSEIR provides:

Adherence to the protocols listed in this Appendix, as well as any additional protocols subject to the same standards as the protocols

herein, ensures that the carbon reductions generated by CAP Measure T-4.1 are real, permanent, quantifiable, verifiable, and enforceable. Carbon offset registries require projects to comply with approved protocols using rigorous, standardized review processes. The protocols contain rules and procedures governing the retirement or cancellation of carbon offsets. Protocols and processes ensure that offsets retired from County direct investment projects pursuant to CAP Measure T-4.1 and listed on an offset registry satisfy the environmental integrity criteria established by the offset protocols. Carbon offsets achieved through implementation of Measure T-4.1 must be complete and retired before the County can take reduction credits. A registry will ensure that carbon offsets are retired in perpetuity.

(Appendix B at p. i.)

The County should provide similar assurances for General Plan Amendments approved using offsets. The CAP prioritizes “local projects that would offset carbon emissions within the unincorporated county.” (Strategy T-4, DSEIR at p. 2.7-17.) The County must ensure General Plan Amendments are held to the same standards as the County’s own offset projects. Moreover, the County should consider whether and how to ensure mitigation for General Plan Amendment offset projects is continued beyond the 30-year out year. If there are no assurances that the offset projects will continue beyond their specified expiration date or for the full term of the County’s planning period specified in the proposed CAP then, the County is not accurately calculating what the projects’ overall GHG impacts will be for the full term of the County’s planning period specified in the CAP. If the offset projects are no longer operational after their prescribed term or potential expiration date, then the County should carefully consider whether it is still accurate for the County to assume that the GHG emissions from the offset projects can be counted as part of any project’s overall reduction in GHG emissions during the County’s full planning period specified in the CAP.

As such, the County should consider whether to provide assurances that funding for offset mitigation projects will continue, lest the County experience a significant spike in GHG emissions once the funding for offset projects has concluded and they are no longer operational. (See *Cleveland National Forest v. San Diego Assn. of Governments* (2017) 3 Cal.5th 497, 514 [an EIR must adequately describe the nature and magnitude of the adverse effect].) In any event, if the County is proposing to allow offset projects which expire or may no longer be enforceable before the end of the County’s planning period used in the CAP, then the potential increases when these offset project may “expire” should be counted in the County’s overall numerical calculations in the CAP including expected GHG increases due to expiring offset agreements. As the Court of Appeal stated in *Sierra Club v. County of San Diego* (2015) 231 Cal.App.4th 1152, 1170: “Quantifying GHG reduction measures is not synonymous with implementing them. Whether a measure is effective requires not just quantification, but also an assessment of the likelihood of implementation.” Likewise, if offsets counted on by the CAP as a GHG reduction measure are likely or possibly going to expire before the end of the CAP’s planning

period in 2050, or shortly thereafter, this should be disclosed to the public, since it is relevant to whether the mitigation measure will be implemented for the full planning period.

#### **IV. GHG INVENTORY AND REDUCTION STRATEGIES**

##### **A. GHG Inventory**

The CAP's business as usual projections include "[g]rowth from General Plan Amendments "GPAs" adopted since adoption of the 2011 General Plan Update are also included in the projections." (CAP at 2-7.) "The GHG emissions inventory for the CAP does not include emissions attributable to proposed GPAs that would increase density/intensity above what is allowed in the General Plan. Even though there were GPAs that were adopted between 2011 (adoption of 2011 General Plan Update) and 2014 (inventory baseline year), none of these GPAs were constructed by 2014 and; therefore, their GHG emissions are not included in the 2014 inventory. The 2014 inventory is based on emissions-generating activities that existed on the ground in 2014." (CAP at 2-14.)

The Draft SEIR's Mitigation Measure GHG-1 applies to all future General Plan Amendments, including those discussed in the cumulative impacts section. The County maintains that with the inclusion of this mitigation measure, all future GPAs will not interfere with the County's reduction targets or 2050 goal. (CAP at 2-14.) The County thus concludes that "General Plan Amendments would, therefore, comply with the threshold of significance, which is consistency with the CAP." (CAP at 2-14.) However, there is not enough information presented in the DSEIR or CAP to ascertain the veracity of this conclusion. A project-by-project breakdown of emissions from each project appears to be missing from the CAP and DSEIR.

##### **B. Transportation Reductions**

The County concludes that it "has limited options under its control for implementing transportation-based strategies," despite acknowledging that on-road transportation is the largest source of GHG emissions in the County. (CAP at 3-3.) The County should ensure future projects are located in infill locations close to existing transit, in addition to exploring additional methods of implementing transportation-based strategies to reduce the County's reliance on single-occupant vehicles. The CAP provides strategies to reduce VMTs, and notes that the General Plan provides "a framework to accommodate future development in an efficient and sustainable manner that is compatible with the character of unincorporated communities and the protection of valuable and sensitive natural resources. In accommodating growth, the County focuses on the provision of diverse housing choices while protecting the established character of existing urban and rural neighborhoods." (CAP at 3-9.)

Further, Strategy T-1 provides, "This strategy focuses on preserving open space and agricultural lands, and focusing density in the county villages. By not developing housing in the more remote areas, the county will avoid GHG emissions from transportation and energy use associated with conveyance of water and solid waste services. Reductions in Vehicle Miles Traveled (VMT) resulting from this strategy will also improve air quality through reduced

vehicle emissions and contribute to public health improvements by creating opportunities for active transportation choices.” (CAP at 3-9.)

The County should ensure such strategies are appropriately implemented in all pending and future projects. In particular, the County should not allow the Newland Project, which would add over 28,000 daily trips in an area located far from existing transit, to move forward before the CAP is approved. This contravenes the CAP’s stated strategies and risks thwarting the CAP’s comprehensive approach. If the County allows the Newland Project to progress prior to adoption of the CAP, the County enables the Newland Project to avoid the CAP’s goal of “preserving open space and agricultural lands” by developing on a parcel currently zoned for a much lower level of density—primarily RL-20—than the project currently proposes.

The CAP should also include requirements that land use decisions support smart growth development near existing infrastructure and transit and placing housing near jobs in order decrease GHG emissions from long automobile trips. One potential tool to support this approach would be to require General Plan Amendment projects to be consistent with the land use patterns used by SANDAG to general its Regional Transportation Plan and Sustainable Communities Strategy, which is intended reduce GHG emissions by linking land use and transportation planning pursuant to SB 375.

### **C. Acquire Open Space Conservation Land**

The CAP provides:

Acquisition of land by the County under the MSCP would reduce GHG emissions through preservation of land which can otherwise be developed. GHG emissions reductions are realized from reductions in transportation, energy use, waste, and water consumption. Preservation of these lands also helps protect watersheds, improve water quality, and preserves vegetation, which provides carbon sequestration benefits. Reductions for this measure are quantified based on the reduced development potential associated with preservation of lands. Future acquisitions beyond those targeted in this measure will reduce GHG emissions in the county, the benefit of which will be reflected in the County’s biennial GHG inventory updates.

(CAP at 3-10.)

Additional details for this measure are required. For instance, how will the County calculate the reductions from this measure, but allow GPAs such as the Newland Project to move forward? Further, will the County count implementation of the North County MSCP as a potential reduction? If so, would this include a developed Newland Project? Doing so may amount to de facto project approval for the Newland Project prior to the completion of the environmental process, as the MSCP is currently in draft form. Further, the NC MSCP has not been approved and is not scheduled to go before the Board of Supervisors for a decision for

several more years. The NC MSCP must also be approved by the State and Federal Wildlife Agencies before taking effect. It is improper for the CAP to take credit for emissions reductions to be achieved by a plan or program that has not been approved. (*Vineyard Area Citizens for Responsible Growth, Inc.*, *supra*, 40 Cal.4th at 440.)

We thank you for your time and attention to our comments. Please do not hesitate to contact us should you have any questions or comments.

Best regards,

*Christopher W. Garrett*

Christopher W. Garrett  
of LATHAM & WATKINS LLP

cc: Kathy Van Ness, Golden Door  
Mark Slovick, County Planning and Development Services  
Ashley Smith, County Planning and Development Services  
William W. Witt, Office of County Counsel  
Claudia Silva, Office of County Counsel  
Dan Silver, Endangered Habitats League  
Stephanie Saathoff, Clay Co.  
Denise Price, Clay Co.  
Andrew Yancey, Latham & Watkins

Attachment B

FIRM / AFFILIATE OFFICES

|              |                  |
|--------------|------------------|
| Barcelona    | Moscow           |
| Beijing      | Munich           |
| Boston       | New York         |
| Brussels     | Orange County    |
| Century City | Paris            |
| Chicago      | Riyadh           |
| Dubai        | Rome             |
| Düsseldorf   | San Diego        |
| Frankfurt    | San Francisco    |
| Hamburg      | Seoul            |
| Hong Kong    | Shanghai         |
| Houston      | Silicon Valley   |
| London       | Singapore        |
| Los Angeles  | Tokyo            |
| Madrid       | Washington, D.C. |
| Milan        |                  |

February 13, 2018

**VIA EMAIL AND HAND DELIVERY**

San Diego County Board of Supervisors  
County Board of Supervisors  
1600 Pacific Highway, Room 402  
San Diego, CA 92101  
Attn: Clerk of the Board of Operations

Re: Comments re Climate Action Plan (Agenda Item No. 1)

Dear Supervisors Cox, Jacob, Gaspar, Roberts, and Horn:

We represent Golden Door Properties, LLC (“Golden Door”), a world-class resort and agricultural operation in rural Twin Oaks Valley. The Golden Door is an industry leader in sustainability efforts, and has restored farming and beekeeping on its property—sharing its bounty at a community Farm Stand and through retail operations. As a local land owner, farmer, and employer, Golden Door honors its responsibility to our community by extending its support to local and regional organizations and well beyond.

The Golden Door is committed to environmental stewardship and sustainability, and is proud that California is a leader in efforts to reduce greenhouse gas (“GHG”) emissions to combat the threat of global climate change. This is an important issue for the Golden Door, and we have been in communication with the County about its Climate Action Plan (“CAP”) and potential GHG emissions from the proposed Newland Sierra project since January 2015. We submitted comments on the CAP’s draft supplemental environmental impact report (“DSEIR”) and the draft environmental impact report for the proposed Newland Sierra project. We also submitted comments to the Planning Commission in advance of the hearing on the Final CAP and its final supplemental environmental impact report (“FSEIR”).

The Golden Door supports efforts to reduce GHG emissions in San Diego County and the intent of the County’s CAP. Many of the CAP’s provisions could result in beneficial emissions reductions. The Golden Door, however, is concerned that the version of the CAP recommended by the Planning Commission contains several fatal flaws and is inconsistent with the California Environmental Quality Act (“CEQA”) and the County’s General Plan. These flaws must be corrected before the CAP may be approved.

In particular, the Golden Door is concerned about the CAP’s mitigation measure for cumulative GHG impacts caused by General Plan Amendment projects. This mitigation measure, known as GHG-1, would allow findings of no significant impacts based on the

purchase of GHG offset credits derived from mitigation projects around the world. We are concerned that the language provided in the CAP's FSEIR does not do enough to ensure GHG reductions – and their valuable co-benefits – remain local in accordance with the County's General Plan and guidance from expert State agencies. As you are aware, the CAP is required to mitigate GHG impacts from the County's 2011 General Plan Update. Mitigation measure GHG-1, however, extends the purview of the CAP far beyond this legal requirement and sets forth a program for all future General Plan Amendment projects. Mitigation Measure GHG-1, therefore, constitutes its own separate project requiring review and analysis under CEQA. As detailed below, such analysis has not been performed. We are concerned that failure to perform this environmental review results in a failure to disclose significant environmental impacts to the Supervisors and to the public.

Because the flaws in Mitigation Measure GHG-1 would become set policy that later General Plan Amendment projects could rely on, we must express our concerns now so the Board can fix this problem. Otherwise, General Plan Amendment projects would be able to rely on this flawed approach to GHG mitigation without further review of whether the underlying mitigation program complies with CEQA or causes environmental impacts. Now is the appropriate time to perform the required analysis and revise or remove the CAP's Mitigation Measure GHG-1.

#### **I. MITIGATION MEASURE GHG-1 IS A “PROJECT” AND SHOULD BE REVIEWED AND ANALYZED UNDER CEQA**

Mitigation Measure GHG-1 allows for the purchase of carbon offset credits in order to mitigate the GHG emissions impacts from all subsequently approved General Plan Amendment projects. While this plan was not required to be part of the CAP, it will have its own impacts and should be analyzed as a “project” under CEQA. Previously, the Court of Appeal determined that the invalidated 2011 CAP and its thresholds of significance was a separate project from the 2011 General Plan Update (“2011 GPU”) and constituted a separate project under CEQA. It held that the County failed to proceed in a manner required by law when it considered the CAP, thresholds, and 2011 GPU as the same project. (*Sierra Club v. County of San Diego* (2014) 231 Cal.App.4th 1152, 1170–71.) The 2018 CAP falls victim to the same error. The offset program outlined in Mitigation Measure GHG-1 constitutes its own separate and distinct project.

Under CEQA, a “project” has two essential elements. First, it is an activity that may cause a direct (or reasonably foreseeable indirect) physical environmental change. (Pub. Res. Code § 21065; 14 Cal. Code Regs § 15378.) Here, the offset program will undoubtedly cause a direct physical environmental change because it inherently involves the use or creation of mitigation projects all over the world. It would also impact the pattern of unplanned growth in the County, causing a variety of impacts, including traffic, air quality, and GHG impacts. Second, the potential project must be an activity directly undertaken by a public agency, an activity supported in whole or in part by a public agency, or an activity involving the issuance by a public agency of some form of entitlement, permit, or other authorization. (*Id.*; *San Lorenzo Valley Community Advocates for Responsible Educ. v San Lorenzo Valley Unified Sch. Dist.* (2006) 139 Cal.App.4th 1356, 1377.) Here, the County is a public agency undertaking the

proposed activity – an offset program to mitigate any potential GHG impacts from General Plan Amendments approved after the adoption of the CAP.

Mitigation Measure GHG-1 is proposed as a mitigation measure in the CAP’s DSEIR—just as the CAP itself was proposed as a mitigation measure for the 2011 GPU. However, at the Planning Commission hearing on the CAP, County staff repeatedly and incorrectly assured the commissioners that the offset program was not part of the CAP:

The Climate Action Plan that is before the Commission today does not rely on offset credits, carbon credits outside of the county. You are – and I think what is confusing to this discussion is the reference to pending General Plan Amendments. Those are clearly not a subject of this Climate Action Plan. This Climate Action Plan is mitigating the land uses and activities that were programmed in the General Plan. So the relevancy of General Plan amendments to this item, there is none.

(Planning Commission Hearing Transcript at pp. 63:23 to 64:11.)

If, indeed, the General Plan Amendments and the Mitigation Measure GHG-1 are not part of the CAP – why were they included in the discussion and presented as a mitigation measure? If County staff is to be taken seriously, Mitigation Measure GHG-1 should be analyzed as a separate and discrete project from the CAP. However, the County has failed to do so. By including the CAP and the offset program for General Plan Amendments as the same project, the County has failed to analyze the environmental impacts of the offset program. (*Sierra Club, supra*, 231 Cal.App.4th at 1171; see also *Natural Resources Defense Council, Inc. v. City of Los Angeles* (2002) 103 Cal.App.4th 268, 283 [holding that CEQA was violated where there was “no evidence that the [County] formally addressed whether or not the ... project fell within the concept of a ‘tiered’ EIR”].)

Here, the County was not required to create a complete framework for all GHG mitigation for all General Plan Amendment projects in perpetuity. But it did. Mitigation Measure GHG-1 is its own project and may not forego environmental review by bootstrapping onto the CAP’s environmental review and failing to analyze its own impacts.

In addition, the CAP checklist is a separate environmental document that we do not believe has been properly analyzed under CEQA. Similarly, any subsequent General Plan Amendment pursuant to Mitigation Measure GHG-1 has not been adequately analyzed under CEQA and for horizontal and vertical consistency with the General Plan.

## II. MITIGATION MEASURE GHG-1 IS INCONSISTENT WITH STATE AGENCY GUIDANCE AND REGIONAL PLANNING

### A. The State's Expert Agency on GHGs Emphasizes the Need for On-Site Emissions Reductions and Local Mitigation Projects

The CAP's proposed mitigation program for General Plan Amendment projects (GHG-1) relies on the purchase of offset credits. Mitigation Measure GHG-1 provides geographic priorities for these offset projects, beginning with 1) project design features/on-site reduction measures; 2) off-site within the unincorporated areas of the County of San Diego; 3) off-site within the County of San Diego; 4) off-site within the State of California; 5) off-site within the United States; and 6) off-site internationally. (FSEIR at p. 8-52.) The expert State agency for GHG and air quality issues emphasizes the high priority of on-site and local measures for such a GHG mitigation program. The California Air Resource Board's ("CARB") 2017 Scoping Plan Update emphasizes the importance of offset programs relying on local projects for emissions offsets:

To the degree a project relies on GHG mitigation measures, **CARB recommends that lead agencies prioritize on-site design features that reduce emissions, especially from VMT, and direct investments in GHG reductions within the project's region that contribute potential air quality, health, and economic co-benefits locally.** For example, on-site design features to be considered at the planning stage include land use and community design options that reduce VMT, promote transit oriented development, promote street design policies that prioritize transit, biking, and walking, and increase low carbon mobility choices, including improved access to viable and affordable public transportation, and active transportation opportunities. Regionally, additional GHG reductions can be achieved through direct investment in local building retrofit programs that can pay for cool roofs, solar panels, solar water heaters, smart meters, energy efficient lighting, energy efficient appliances, energy efficient windows, insulation, and water conservation measures for homes within the geographic area of the project.

(CARB, 2017 Climate Change Scoping Plan at p. 102 [emphasis added].) It is important that the CAP ensures on-site GHG-reduction features are exhausted before continuing to off-site measures, and similarly that local off-site projects are exhausted before any consideration is given to allowing offsets from projects throughout the State, nation, and world.

The County has attempted to frame Mitigation Measure GHG-1 as consistent with CARB's guidance for location of GHG mitigation. In fact, in response to the Golden Door's comments to the Planning Commission, County staff states that its geographic priorities are consistent with CARB's guidance and with the recently approved Newhall Ranch project in Los Angeles County. (See Response to Comments X29-3.) As discussed in more detail below, this

is simply inaccurate. In particular, the Newhall Ranch project required 53 percent of emissions reductions to be obtained through on-site measures and set specific percentage requirements for emissions reductions to be obtained locally. Newhall Ranch allowed for only 20 percent of emissions reductions to be obtained internationally. The CAP's Mitigation Measure GHG-1 provides no such local requirements and would allow for 100 percent of reductions to be obtained internationally – based on only a *post hoc* determination by County staff that would be made outside of any public process.

Moreover, the Newhall Ranch project obtained a letter from CARB specifically approving of its GHG mitigation approach. The County, however, has provided no similar evidence that CARB approves of Mitigation Measure GHG-1. The County's attempt to frame its approach to GHG mitigation for General Plan Amendment projects as consistent with CARB's guidance rings hollow.

## **B. State Guidance and Regional Planning Emphasize VMT Reduction**

In October 2017, CARB proposed updates to regional passenger GHG emissions reduction targets for California's metropolitan planning organizations ("MPOs"). In December 2018, CARB approved an updated Climate Change Scoping Plan Update to address the use of GHG offset credits. Both documents emphasize the need to reduce VMT in order to meet statewide climate change goals.

### **1. CARB 2017 Scoping Plan Update**

CARB's 2017 Scoping Plan Update emphasizes the importance of reducing VMT as an integral component of GHG emissions reductions efforts:

To the degree a project relies on GHG mitigation measures, ***CARB recommends that lead agencies prioritize on-site design features that reduce emissions, especially from VMT, and direct investments in GHG reductions within the project's region that contribute potential air quality, health, and economic co-benefits locally.*** For example, on-site design features to be considered at the planning stage include land use and community design options that reduce VMT, promote transit oriented development, promote street design policies that prioritize transit, biking, and walking, and increase low carbon mobility choices, including improved access to viable and affordable public transportation, and active transportation opportunities. Regionally, additional GHG reductions can be achieved through direct investment in local building retrofit programs that can pay for cool roofs, solar panels, solar water heaters, smart meters, energy efficient lighting, energy efficient appliances, energy efficient windows, insulation, and water conservation measures for homes within the geographic area of the project.

(CARB, 2017 Climate Change Scoping Plan at p. 102 [emphasis added].) CARB’s 2017 Scoping Plan Update also emphasizes the need to address VMT as an integral piece of GHG mitigation. “CARB staff is *more convinced than ever* that, in addition to achieving GHG reductions from cleaner fuels and vehicles, *California must also reduce VMT.*” (CARB, 2017 Climate Change Scoping Plan at p. 101 [emphasis added].) Further, the 2017 Scoping Plan Update emphasizes the co-benefits of VMT reduction, including reduction of toxic air pollutants, improved public health, decreased traffic congestion, and increased environmental justice. These important quality of life factors are important to consider along with the GHG emissions reduction benefits of policies to reduce VMT.

## 2. CARB’s Staff Proposal for Increasing MPOs’ SB 375 GHG Emissions Reduction Targets

CARB staff has recommended increased GHG emissions reduction targets under SB 375 for the State’s MPOs and has emphasized the importance of VMT reduction in reaching those targets. CARB staff is currently holding public workshops about the recommended target increases prior to CARB Board consideration early this year.

The revised targets call for “greater per capita GHG emission reductions from SB 375 than are currently in place, which for 2035, translate into targets that either match or exceed the emission reduction levels contained in the MPOs’ currently adopted SCSs. CARB staff believes that to achieve the intent of the legislation and to maximize community co-benefits, the *per capita GHG emission reduction targets should be achieved predominantly through strategies that reduce VMT.*” (CARB SB 375 Staff Proposal at p. 19.) In fact, “CARB’s recommended targets are equivalent to reducing VMT a half a mile per person per day.” (*Id.* at p. 28.) CARB recognized that SB 375 and other VMT reduction strategies “need to provide a 25 percent reduction in statewide per capita greenhouse gas emissions relative to 2005 by 2035” to meet the statewide goals. (*Id.* at p. 29.) For the San Diego Association of Governments (“SANDAG”), CARB staff has recommended a 2035 reduction target of 21%, which is higher than the 2035 target in SANDAG’s current RTP/SCS and higher than the 18% target requested by SANDAG.

SANDAG’s RTP/SCS model for the unincorporated County is based on land use inputs from the County’s approved 2011 GPU. The land use designations in the 2011 GPU are the product of over a decade of community input and stakeholder negotiations and are generally considered to adhere to smart growth principles of locating density near existing infrastructure and transit. Any amendment to the County’s 2011 GPU would necessarily alter the VMT modelling performed by SANDAG to determine its VMT reductions in the current RTP/SCS. General Plan Amendments proposed on unincorporated County lands typically require densification of rural lands farther from existing infrastructure and transit than the 2011 GPU’s planned density.

For example, the Newland Sierra project is a proposed General Plan Amendment being processed by the County that would add over 2,100 homes to an area currently zoned for 99 homes and is located between Escondido and the Riverside County line more than six miles from the nearest transit center. The General Plan Amendments proposed in the unincorporated County necessarily add long vehicle trips over and above those considered in the RTP/SCS model, which

relied on the 2011 GPU's land use designations. The CAP's Mitigation Measure GHG-1 does not consider project siting or VMT reduction strategies as mitigation for General Plan Amendment projects; instead, Mitigation Measure GHG-1 allows the General Plan Amendment projects to meet their GHG mitigation requirement by merely purchasing carbon offset credits from anywhere in the world. The County has not analyzed the impacts of this approach on County-wide VMT or on SANDAG's ability to meet its SB 375 requirements.

SANDAG has analyzed the impact of aggressive land use policies to increase densification and determined that these policies would have minimal benefit for GHG emissions reduction efforts. Neither SANDAG nor the County, however, has analyzed the impacts of a *less* dense development pattern on unincorporated County lands and how such sprawl planning would inhibit VMT-reduction efforts. Yet, Mitigation Measure GHG-1 would pre-approve a GHG mitigation program for sprawl projects that relies on purchasing carbon offset credits while ignoring local VMT reduction and consistency with SANDAG's VMT-reduction plans.

3. The County Should Analyze Potential VMT Impacts According to a Separate Model

No analysis has been performed to determine if the addition of sprawl development projects would inhibit SANDAG's efforts to reduce VMT and meet its SB 375 targets through its RTP/SCS. SANDAG submitted a comment letter to the County regarding the CAP and specifically requested that the CAP consider smart growth policies. In response to this comment, the County indicated that its CAP adheres to smart growth principles because it is consistent with the existing General Plan. The County's response, however, ignored that the CAP's mitigation plan for General Plan Amendments would allow for new sprawl projects to contradict the underlying smart growth principles in the General Plan. Rather than addressing any VMT reduction goals or requirements, or demonstrating their consistency with SANDAG's existing adopted VMT reduction strategy, the County has indicated that these new General Plan Amendments would address GHG mitigation solely through the purchase of carbon offset credits for their onsite emissions from anywhere in the world.<sup>1</sup> No mitigation would be provided for any General Plan Amendment project's VMT impacts or increased GHG emissions associated with those VMT impacts.

Because these General Plan Amendment projects would necessarily alter the underlying inputs for SANDAG's previous VMT analysis and because no VMT reduction is required by the CAP for General Plan Amendment projects, the County should analyze VMT according to a separate model, adding the land use densities for the General Plan Amendments currently in process with the County and any other relevant scenarios. Only then will the public and decision makers be able to understand the impacts of the CAP's offset program for General Plan Amendment projects on SANDAG's VMT-reduction efforts.

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<sup>1</sup> See Comment and Response L4-3 at <https://www.sandiegocounty.gov/content/dam/sdc/pds/advance/cap/publicreviewdocuments/FinalPublicReviewDocs/RTCs/L4.pdf>.

This information must be provided by the County to the public and other agencies through the CEQA process. As the California Supreme Court emphasized last year in *Banning Ranch Conservancy v. City of Newport Beach* (2017) 2 Cal.5th 918, 942, public agencies must provide relevant information about “related regulations” of other agencies and their impacts on a proposed project, rather than ignore those agencies and their regulations. Contrary to that ruling, the County has simply chosen to ignore the impact of its CAP and its “offsets for everyone from anywhere in the world” mitigation strategy upon the regulatory program for reduction of VMT administered by SANDAG. As the Supreme Court stated in *Banning Ranch Conservancy*:

To be prejudicial, a failure to account for related regulations must substantially impair the EIR’s informational function. Here, the City’s failure to discuss ESHA requirements and impacts was neither insubstantial nor merely technical. The omission resulted in inadequate evaluation of project alternatives and mitigation measures.

(2 Cal.5th, *supra*, at 942.)

Likewise, the County’s failure to analyze how its expected new projects (that are allowed to move forward with GHG offsets alone) could increase VMT and interfere with the “related regulations” of SANDAG’s attainment of VMT reductions required by CARB’s goals was a prejudicial information deficiency. With the proper information about the impact of these project’s on SANDAG’s efforts to reduce VMT, the County could have considered mitigation measures and alternatives in its CAP which would support SANDAG’s efforts, rather than thwart them. Instead, with this VMT information missing, no such mitigation measures or alternatives were considered. Indeed, no analysis was conducted to determine the extent that increased VMT resulting from the contemplated new projects would increase associated GHG emissions inevitably resulting from increased VMT.

#### 4. The County’s Approach Spurns VMT Reduction

A starting point for any consideration of SANDAG’s efforts to attain VMT reduction goals is an analysis of how the expected General Plan Amendments noted by the County in its cumulative impacts analysis, may change SANDAG’s current VMT conclusions. However, the County’s EIR contains absolutely no analysis of this issue.

Recent public statements from County Supervisor Ron Roberts and County Planning Director Mark Wardlaw indicate an approach that supplants VMT reduction measures with vehicle and fuel technology programs. At the CARB Board of Directors meeting approving the 2017 Scoping Plan Update, San Diego County Supervisor Ron Roberts, who is also a member of the CARB Board, vehemently opposed the use of VMT as a metric:

I think it’s one of the worst metrics. I said that when I was first here in 1995. It’s a pathetic metric for anything. It’s a political metric. It’s not a performance metric. As we increasingly electrify vehicles, cars, and trucks, and buses, and everything else, you’ll

see that clearly. And I think you'll still — I think you'll see it today. We've seen it in San Diego County the relationship is an inverse one. And there's a lot of reasons for that. And this Air Board has been a strong part of that, and I'm very proud that that's the case. But I think it's something that we need to have a better understanding. And when you're measuring the wrong thing, it seems to me your chances of success are far more limited. So I've registered that concern in the past. A lot of people keep hanging their hat on it.

(CARB Board of Directors Meeting Transcript, December 14, 2017 at p. 80:6-21.) Similarly, Supervisor Ron Roberts called VMT a “stupid metric” at a February 2, 2018 SANDAG meeting.

In addition, at the San Diego County Planning Commission's January 18 hearing on the CAP, Planning Director Mark Wardlaw stated that “electric vehicle and fuel cell vehicle programs shift that fuel from the carbon-based to a non-carbon-based which addresses the intent of VMT reduction.”

These comments by Supervisor Roberts and Director Wardlaw indicate a lack of concern regarding increased VMT within San Diego County from sprawl development projects. This approach contradicts CARB's emphasis on reducing VMT as an integral component of meeting the State's GHG emissions reduction targets. We encourage CARB to coordinate with SANDAG and the County to ensure VMT reductions remain a priority in land use planning and GHG mitigation. If VMT is to be discarded as a guidepost for GHG emission reduction policies in San Diego County or Statewide – as is preferred by Supervisor Roberts and Director Wardlaw – analysis of this policy shift should be performed and presented to the public and decision makers prior to implementation.

If the County decides that it no longer cares about VMT as a metric for its General Plan policies, this will put SANDAG in the impossible position of attempting to meet VMT reduction targets in the face of the County's plan to allow unlimited new development in rural areas so long as GHG offsets are purchased from some location around the globe. The County has not provided an analysis of the specific VMT impacts from the CAP's Mitigation Measure GHG-1. The County includes sprawl projects, which are currently being processed by the County, in its model that are not included in SANDAG's model, which was based on the 2011 County General Plan and used for the 2015 SANDAG RTP/SCS. Such a shift in County policy must be analyzed prior to Board approval to understand the impacts not only on unincorporated County lands, but also on Countywide VMT and SANDAG's ability to meet its targets under SB 375.

5. The CAP Should Evaluate a Mitigation Measure or Alternative Requiring General Plan Amendment Projects to Be Located in Smart Growth Areas

SANDAG submitted a comment letter on the Draft CAP, which included a comment encouraging the CAP to embrace smart growth policies. The FSEIR's response indicates that the CAP is consistent with SANDAG's RTP/SCS because the CAP does not propose land use changes to the 2011 General Plan. (FSEIR, Response to Comments L4-3.) A similar statement

is included in Master Response 2. (*Id.* at p. 8-15.) The response from the County does not say anything about the impact of the County's new GHG offset policies contained in the Climate Action Plan on vehicle miles traveled or SANDAG's smart growth policies. The response does not describe the impact on GHG emissions associated with increased vehicle miles traveled from allowing growth in the County's rural areas. These responses lead to the conclusion that General Plan Amendment projects would cause an inconsistency with SANDAG's RTP/SCS. They also fail to adequately respond to SANDAG's comment.

Curiously, Master Response 2 also includes a contradictory statement that Mitigation Measure GHG-1 "would ensure" that General Plan Amendment projects are consistent with the RTP/SCS. This is not accurate. Mitigation Measure GHG-1 does not include any requirements for measuring or monitoring the impacts of General Plan Amendments on VMT, nor does it provide for any policy to encourage VMT reduction, and the FSEIR admits that adherence to approved land uses in the 2011 General Plan is necessary for consistency with the RTP/SCS.

Responses to comments are an important part of the CEQA process. "The primary reason for soliciting comments from interested parties is to allow the lead agency to identify, at the earliest possible time, the potential significant adverse effects of the project and alternatives and mitigation measures that would substantially reduce these effects." (*Laurel Heights Improvement Assn. v. Regents of University of California* (1993) 6 Cal.4th 1112, 1129 [citation omitted]; see also *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 735 ["Comments are an integral part of the EIR and should be relied upon by the decisionmakers."] [citation omitted].) Responses to comments must be in good faith and rely on factual information. (*Ballona Wetlands Land Trust v. City of Los Angeles* (2011) 201 Cal.App.4th 455, 475 ["An agency must evaluate and respond to timely comments on the draft EIR that raise significant environmental issues. Responses must describe the disposition of the issues raised in the comments. If the agency rejects a recommendation or objection concerning a significant environmental issue, the response must explain the reasons why. Responses must articulate 'good faith, reasoned analysis in response,' and not mere '[c]onclusory statements unsupported by factual information.'"] [citations omitted].)

The inaccurate statement in Master Response 2 that Mitigation Measure GHG-1 "would ensure" that General Plan Amendment projects are consistent with the RTP/SCS does not comply with CEQA's requirements. Rather than a good faith response, this response contains a clear inaccuracy and provides no response regarding why the County might believe that its plan is consistent with the RTP/SCS. Although the RTP/SCS is not under the County's jurisdiction, recent case law from the California Supreme Court holds that a lead agency must analyze a project's environmental impacts affecting a different jurisdiction. (See *Banning Ranch Conservancy, supra*, 2 Cal.5th at 937 ["To the fullest extent possible, the lead agency should integrate CEQA review with these related environmental review and consultation requirements."].)

The County should also study a mitigation measure or alternative to limit General Plan Amendments to areas identified by SANDAG as "smart growth" areas as identified by urban area transit boundaries on SANDAG's Smart Growth Concept Map. (See **Attachment A.**) SANDAG's RTP/SCS notes that approximately half of its emissions reductions would result

from transit and transportation demand management projects, while a quarter of the reductions result from changing land uses and a quarter from increasing the cost of driving. (SANDAG, San Diego Forward: Regional Plan at Appendix C at 3 (2015)<sup>2</sup>.) As such, it is vital to locate unplanned residential development in smart growth areas near transit and jobs. Changing land use patterns must favor smart growth over sprawl to be consistent with the RTP/SCS.

Recent opinions from the Supreme Court and Court of Appeal addressing the adequacy of SANDAG's previous RTP/SCS emphasized the importance of analyzing a "smart growth" mitigation measure or alternative. (*Cleveland Nat'l Forest Found. v. San Diego Assn. of Governments* (2017) 3 Cal.5th 497, 506 ["The reductions mandated by Senate Bill 375 may be achieved through a variety of means, including 'smart growth' planning to maximize building densities at locations served by public transit and to locate residences near needed services and shopping to reduce automobile dependency."]; *Cleveland Nat'l Forest Found. v. San Diego Assn. of Governments* (2017) 17 Cal.App.5th 413, 433–34 [failure to address smart growth in mitigation and alternatives].)

The FSEIR admits that "the nature of the unincorporated county is low-density development that is not conducive to non-driving trips" and that "[t]rip distances are longer in the unincorporated county." (FSEIR at 8-29.) Consequently, limiting unplanned development to smart growth areas is even more important for ensuring consistency with the RTP/SCS's VMT reduction goals.

The CAP indicates that proposed GHG emissions reductions from the transportation sector are disproportionately low compared to emissions generated by on-road transportation because the County lacks authority to regulate transportation. The County, however, has plenary authority over land use and could achieve greater emissions reductions from on-road transportation by committing to only allow increased density from General Plan Amendments in smart growth areas that will not increase VMT. To the contrary, many of the currently proposed General Plan Amendment projects, such as Newland Sierra, add density to rural lands, creating sprawl and increasing the County's VMTs.

In addition to exercising its land use authority to require or emphasize siting General Plan Amendment projects in smart growth areas, Mitigation Measure GHG-1 could be amended to address VMT. It could require a specific percentage of a project's emissions reductions derive from VMT or require that a General Plan Amendment project not increase Countywide VMT. Such mitigation or alternatives should be analyzed by the County prior to project approval.

### **III. MITIGATION MEASURE GHG-1 IS INCONSISTENT WITH THE COUNTY'S GENERAL PLAN**

The State Planning and Zoning Law requires the County's project approvals to be consistent with the General Plan. (*Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 570–71.) "A project is inconsistent with a general plan 'if it conflicts with a general

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<sup>2</sup> San Diego Forward: The Regional Plan, including Appendix C, may be accessed at <http://www.sdfoward.com/previous-plan>.

plan policy that is fundamental, mandatory, and clear.” (*Spring Valley Lake Assn. v. City of Victorville* (2016) 248 Cal.App.4th 91, 100 [citing *Endangered Habitats League, Inc. v. County of Orange* (2005) 131 Cal.App.4th 777, 782]; see also *California Native Plant Society v. City of Rancho Cordova* (2009) 172 Cal.App.4th 603, 635–636 [finding General Plan inconsistency for failure to abide by its “mandatory” policy requiring coordination with State and federal wildlife agencies to mitigate impacts to special status species].)

The County’s General Plan prioritizes GHG emissions reductions within San Diego County. The General Plan’s EIR found that the GHG and climate change impacts from the County’s operations and from community sources were “potentially significant” – that without mitigation the County would fail to comply with AB 32. As a result, the General Plan EIR includes mitigation measures for GHG and climate change impacts, including the adoption of a CAP. (County General Plan EIR, Mitigation Measure CC-1.2 (2011).) The CAP, therefore, is intended to mitigate impacts from GHG emissions *within San Diego County*.

The County’s General Plan requires the County to exercise its land use jurisdiction to site projects in areas that will reduce VMT. Policy COS-14.1 states as follows: “Land Use Development Form. Require that development be located and designed to reduce vehicular trips (and associated air pollution) by utilizing compact regional and community-level development patterns while maintaining community character.” As discussed above, however, Mitigation Measure GHG-1 has no requirements for project siting or VMT-reduction.

County staff maintains that the CAP is not a land use plan. This statement draws a false distinction. The County has plenary land use authority for unincorporated lands and may constrain land use decisions – even if the document doing so is not labeled a “land use plan.” For example, the Conservation and Open Space Element requires project siting to avoid sensitive habitat areas and species. (See e.g., Policy COS-2.2: “Habitat Protection through Site Design. Require development to be sited in the least biologically sensitive areas and minimize the loss of natural habitat through site design.”) In addition, the Safety Element requires project siting to avoid high fire risk areas. (See, e.g., Policy S-1.1: “Minimize Exposure to Hazards. Minimize the population exposed to hazards by assigning land use designations and density allowances that reflect site specific constraints and hazards.”) County staff’s claim that no land use provisions may be included in the CAP because it is not explicitly labeled a “land use plan,” therefore, is inaccurate and does not relieve the County of its obligation to comply with Policy COS-14.1 and site projects in a way that limits VMT.

The General Plan also includes provisions requiring GHG reductions to be local. While the CAP proposes to amend these provisions to remove the word “local,” it continues to require emissions reductions to be within the unincorporated County. The CAP’s proposal for Goal COS-20 in strikethrough and underline form reads as follows: “Reduction of ~~local~~ community-wide (i.e., unincorporated County) and County Operations ~~GHG~~ greenhouse gas emissions contributing to climate change that meet or exceed requirements of the Global Warming Solutions Act of 2006, as amended by Senate Bill 32 (as amended, Pavley, California Global Warming Solutions Act of 2006; emissions limit).” In addition the CAP’s proposed changes to Policy COS 20.1 reads as follows: “Prepare, maintain, and implement a ~~climate change action plan with a baseline inventory of GHG emissions from all sources; GHG emissions reduction~~

targets and deadlines, and enforceable GHG emissions reduction measures. Climate Action Plan for the reduction of community-wide (i.e., unincorporated County) and County Operations greenhouse gas emissions consistent with the California Environmental Quality Act (CEQA) Guidelines section 15183.5.” In any event, even with the CAP’s proposed amendments to these General Plan provisions, emissions reductions should remain within the unincorporated County.

Mitigation Measure GHG-1, however, would allow for the purchase of unlimited carbon credits from other continents. If the County is changing its policy to eliminate the requirement that GHG emissions reductions are must be obtained locally, it must amend its General Plan to make this policy change explicit and must perform the requisite accompanying environmental analysis to determine the impacts of this change in policy. This has not been done.

Finally, several General Plan provisions require inter-jurisdictional coordination.

- Goal LU-4: “Inter-jurisdictional Coordination. Coordination with the plans and activities of other agencies and tribal governments that relate to issues such as land use, community character, transportation, energy, other infrastructure, public safety, and resource conservation and management in the unincorporated County and the region.”
- Policy LU-4.1: “Regional Planning. Participate in regional planning to ensure that the unique communities, assets, and challenges of the unincorporated lands are appropriately addressed with the implementation of the planning principles and land use requirements, including the provisions of SB375.”
- Policy COS-20.3: “Regional Collaboration. Coordinate air quality planning efforts with federal and State agencies, SANDAG, and other jurisdictions.”

These policies mandate coordination of regional planning and explicitly require coordination with SANDAG and to ensure planning adheres to SB 375’s principles. A General Plan requirement for “coordination” cannot be satisfied by mere solicitation and rejection of input from the agencies; instead, it requires greater engagement. (*California Native Plant Society v. City of Rancho Cordova, supra*, 172 Cal.App.4th. at 642.) Here, no such coordination occurred. Despite Golden Door’s requests, the County has not sought input from SANDAG about the impact of Mitigation Measure GHG-1 on SANDAG’s VMT-reduction policies or ability to meet existing and proposed SB 375 targets. The County has not modeled potential VMT increases to determine the impact of Mitigation Measure GHG-1 on SANDAG’s RTP/SCS. The County even admits no coordination has occurred with SANDAG in its response to the Golden Door’s comments on this issue. (See Response to Comments X29-5: “The County acknowledges that as a jurisdiction with land use authority, it is important to coordinate on regional planning matters, and as a matter of course it has previously coordinated with SANDAG on the County’s existing General Plan and continues to coordinate with SANDAG and other agencies on regional planning efforts.”) This response does not state that the County has coordinated with SANDAG with respect to the CAP.

Mitigation Measure GHG-1's inconsistencies with the County's General Plan represent a fatal flaw that must be addressed prior to approval of the CAP.

#### **IV. MITIGATION MEASURE GHG-1 SHOULD INCORPORATE CEQA'S STANDARD FOR FEASIBILITY IN DETERMINING GEOGRAPHIC PRIORITIES FOR EMISSIONS REDUCTIONS**

Mitigation Measure GHG-1 does not provide quantitative limits on the emissions reductions that must be achieved by any of the listed geographic priority levels. As such, 100 percent of emissions reductions may be achieved by purchase of offset credits from international sources. The County's response to this concern is to require all "feasible" mitigation to be achieved in each geographic priority area before allowing emissions reductions to be obtained from a subsequent geographic priority area on the list.

The County, however, has been inconsistent in describing how it will determine when feasible mitigation has been exhausted for each geographic priority. At the Planning Commission hearing, County Counsel William Witt stated that feasibility determinations would be made consistent with CEQA's standard for feasibility. At the same time, County staff described a process whereby County staff members would determine feasibility of potential mitigation measures after project approvals and without public input and review—which contradicts settled CEQA law regarding feasibility. The County's response to written comments made to the Planning Commission doubles down on its contradiction to settled CEQA law to reiterate that feasibility findings will not be made by the Board in a public proceeding pursuant to CEQA's requirements.

"Feasibility" and its counterpart, "infeasibility," are terms of art under the California Environmental Quality Act ("CEQA"). An agency may reject a proposed project alternative or mitigation measure and approve a project, despite significant environmental impacts, only if the agency makes appropriate findings that the mitigation is infeasible. (Pub. Res. Code § 21081.5; *Cal. Native Plant Soc'y v. City of Santa Cruz* (2009) 177 Cal.App.4th 957, 982–83.) This finding must appear in the CEQA findings, not merely in the statement of overriding considerations. (*Cal. Native Plant Soc'y, supra*, 177 Cal.App.4th at 983; *Rialto Citizens for Responsible Growth v. City of Rialto* (2012) 208 Cal.App.4th 899, 948 n.20.) A measure is "infeasible" if it is incapable of being accomplished in a successful manner within a reasonable time. (Pub. Res. Code § 21061.1.) A finding of infeasibility must be supported by substantial evidence. (*Cal. Native Plant Soc'y, supra*, 177 Cal.App.4th at 982; *Preservation Action Council v. City of San Jose* (2006) 141 Cal.App.4th 1336, 1352–53; *Ctr. for Biological Diversity v. Cty. of San Bernardino* (2010) 185 Cal.App.4th 866, 883–85.) A finding of feasibility or infeasibility must be made at the time of project approval, and may not be deferred to a later date or to the agency staff for their own determination.

We encourage the County to revise the CAP in order to clarify that meeting CEQA's infeasibility standards is required for a General Plan Amendment project to move from one geographic priority level to the next in Mitigation Measure GHG-1. Given the ample confusion caused by the County's contradictory response thus far, explicit clarification is necessary to ensure the public that the County's approach to offsets will comply with CEQA's feasibility

requirements and allow the public to review and comment on mitigation for General Plan Amendment projects prior to the Board's consideration, rather than leaving such determinations to staff after project approval and without any public process. To be consistent with CEQA and the General Plan, one of the two options we have attached hereto as **Attachment B** should be considered.<sup>3</sup>

Project applicants and the public should be aware of the high standard required to make a finding of "economic" infeasibility. We are concerned that the CAP's focus on cost-benefit analyses may cause confusion with respect to findings of economic infeasibility. Specifically, the statement on page 8-41 of the FSEIR that "[r]elative costs are also used as a feasibility metric for County deliberation" is misleading with regard to CEQA's standards for findings of economic infeasibility. Mere loss of profitability is insufficient to demonstrate economic infeasibility. "What is required is evidence that the additional costs or lost profitability are sufficiently severe so as to render it impractical to proceed with the project." (*Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587, 599 [quoting *Citizens of Goleta Valley v. Bd. of Supervisors* (1988) 197 Cal.App.3d 1167, 1181].) Economic infeasibility findings must be supported by adequate, relevant economic evidence. (*Uphold Our Heritage, supra*, 147 Cal.App.4th at 601-602; *see also Save Round Valley Alliance v. Cty. of Inyo* (2007) 157 Cal.App.4th 1437, 1462; *Cty. of San Diego v. Grossmont-Cuyamaca Cmty. College* (2006) 141 Cal.App.4th 86, 108.)

## V. CONCERNS REGARDING AVAILABILITY OF LOCAL PROJECTS FOR OFFSET CREDIT

While we encourage and support every effort to provide GHG mitigation on-site, we are also concerned about the availability of GHG reduction projects in local communities if on-site mitigation is found to be infeasible. The CAP's Master Response 12 notes that only one project within San Diego County is included on the approved registries for offset projects. At this time, however, credits are not available from that project – a reforestation project – because the trees have not reached maturity. (FSEIR at 8-52.)

We understand that the CAP's GHG Reduction Measure T-4.1 requires the development of local direct investment projects. In fact, well over half of the CAP's anticipated emissions reductions would result from this measure. Proposals for potential local projects, however, will not be available in 2020. At this time, therefore, the amount of emissions reductions that could be obtained by this measure is unknown, and none will be available until 2020 at the earliest. Moreover, because Measure T-4.1 is included in the CAP's GHG reduction strategies, it is required mitigation for the General Plan's *approved* land uses pursuant to General Plan Mitigation Measure CC-1.2. Measure T-4.1's local direct investment projects may not be "double counted" for General Plan Amendment projects' reductions under Mitigation Measure GHG-1. As a result, these potential future local projects may not be relied upon to satisfy geographic priority levels within the County. Even if local projects become available eventually,

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<sup>3</sup> In addition, the County did not make readily available the proposed General Plan Amendment text for the CAP in time to satisfy Brown Act requirements. We independently contacted the County to receive the proper resolution.

they will not be available to offset emissions from General Plan Amendment projects unless and until enough local projects are developed to satisfy all of the mitigation required for the existing General Plan's emissions and an excess remains to be allocated to General Plan Amendments. This is highly speculative. Consideration of geographic priority levels for local offsets, therefore, is illusory.

As the Board is aware, there are large General Plan Amendment projects expected to be presented to the Board later this year for approval. For example, Newland Sierra proposes over 2,100 residential units and the Property Specific Requests propose over 1,800 residential units. The Newland Sierra Draft EIR proposes to reduce only 18 percent of its emissions reductions on-site, and the PSRs do not provide specific proposals for on-site mitigation. Because the County admittedly has zero local projects from which offset credits may be purchased, these large projects will necessarily have to rely on purchase of carbon offset credits from far away sources.

The County should make a considerable effort to promote development of local mitigation projects. Only once sufficient projects have been developed to satisfy Measures T-4.1, T-3.5, and other measures relying on local projects, should additional local projects be considered as mitigation for General Plan Amendment projects' GHG impacts. The CAP should clarify that development of such local projects is a prerequisite to processing General Plan Amendments relying on off-site mitigation. Without the development of such projects, geographic priority levels 2 and 3 of the Mitigation Measure GHG-1 are illusory. In that case, any off-site mitigation could only occur outside the County, which would be inconsistent with the County's General Plan and CARB's guidance.

## **VI. THE CAP'S GHG REDUCTION MEASURES MUST MEET CEQA'S CRITERIA FOR DEFINITE AND ENFORCEABLE MITIGATION**

Mitigation measures must be feasible and enforceable (14 Cal. Code Regs. § 15126.4, subd. (a)(1), (2)) and must provide adequate information to ascertain their enforceability. (*Sierra Club v. Cty of Fresno* (2014) 226 Cal.App.4th 704, 750–51.) Development of mitigation measures cannot be deferred to a later date. “Impermissible deferral of mitigation measures occurs when an EIR puts off analysis or orders a report without either setting standards or demonstrating how the impact can be mitigated in the manner described in the EIR.” (*City of Long Beach v. Los Angeles Unified School Dist.* (2009) 176 Cal.App.4th 889, 915, 916 [citations omitted].) The purpose of CEQA's mitigation requirements “*is to ensure that feasible mitigation measures will actually be implemented as a condition of development, and not merely adopted and then neglected or disregarded.*” (*Federation of Hillside & Canyon Associations v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261 [emphasis in original] [citing Pub. Res. Code § 21002.1, subd. (b)]; see also *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 93 [invalidating mitigation measures that are “nonexclusive, undefined, untested and of unknown efficacy”].)

Here, the CAP itself is a mitigation measure. The General Plan's EIR found significant impacts to climate change and proposed preparation of the CAP as Mitigation Measure CC-1.2. CEQA's requirements for mitigation measures, therefore, apply to all GHG emissions-reducing measures within the CAP. The FSEIR errs in Master Response 13 by stating that the CAP's

GHG reduction measures are not mitigation measures under CEQA. (See FSEIR at p. 8-53.) This response should be revised and clarified.

In addition, as we expressed in a previous letter, we are concerned that consideration of the cost-benefit analyses completed after the Planning Commission's October hearing on the CAP results in deferral of mitigation and a shifting project description. CEQA requires a stable project description. (*County of Inyo v. City of Los Angeles* (1977) 71 Cal.App.3d 185, 192, 193.) The County should clarify which measures are being implemented to meet the CAP's emissions reduction requirements under Mitigation Measure CC-1.2. CEQA does not permit the "weight" or "emphasis" of various mitigation measures to be considered after project approval and public review, but instead requires definite and enforceable mitigation measures that meet defined criteria for reducing a project's impacts. (See *Federation of Hillside & Canyon Associations*, *supra*, 83 Cal.App.4th at 1261.)

Additionally, we are concerned that GHG offset projects included in the CAP will not be enforceable. It is not clear whether the County has the rights to enforce such projects, including any agreement with the entity producing the offset credits. It is further unclear what regulatory agency will oversee which of the registries listed in the CAP. This lack of oversight could lead to enforcement issues down the road.

Finally, Mitigation Measure GHG-1 fails as mitigation for cumulative impacts from General Plan Amendments because it does not take into account all GHG emissions from General Plan Amendments. Mitigation Measure GHG-1 requires mitigation for emissions from construction and from operations (see FSEIR at 2.7-39, 2.7-40), but does not include other emissions associated with such projects, such as emissions from induced traffic cause by off-site road improvements or other activities. By failing to mitigate for these impacts, the mitigation measure is incomplete.

## **VII. ANALYSIS OF THE CAP'S ENERGY IMPACTS SHOULD BE PROVIDED**

Because Mitigation Measure GHG-1 is only aimed at reducing GHG impacts, the CAP fails to analyze or mitigate any potential energy impacts that may result from General Plan Amendments. Because the CAP provides this plan for allowing purchase of offset credits to mitigate GHG impacts from General Plan Amendment projects, it should include strategies for reducing energy impacts on such project sites. Failure to consider and analyze the potentially significant energy impacts violates the statutory requirement that the mitigation measures in an EIR include "measures to reduce the wasteful, inefficient, and unnecessary consumption of energy." (Pub. Res. Code § 21100(b)(3); see also *People v. County of Kern* (1976) 62 Cal.App.3d 761, 774.)

### **VIII. THE COUNTY’S RESPONSE TO PUBLIC COMMENTS ARE INSUFFICIENT**

The County has failed to adequately respond to public comments on the Draft and Final CAP and the SEIR.<sup>4</sup> The County repeatedly makes conclusory statements that are not supported by specific references to empirical information, scientific authorities, or explanatory information are insufficient as responses to comments made by agencies or the public. (CEQA Guidelines § 15088(c).) For example, the County ignores requests that it account for VMT in its mitigation program for General Plan Amendments by simply stating that the CAP is not a land use plan—despite the Golden Door pointing out that the County has plenary land use authority on unincorporated lands. (See Response X29-5.)

Further, the County has failed to demonstrate a good faith, reasoned analysis of the CAP comments, in violation of CEQA. (CEQA Guidelines § 15088(c).) The Golden Door provided specific recommendations for the County to consider in order to ensure that a General Plan Amendment does not entirely rely on offsets outside of the County rather than reducing GHG emissions on site. (See Golden Door Comment O14-12.) Rather than analyzing these potential recommendations, the County simply stated that the Golden Door provided no evidence that these alternative approaches would be successful. (See County RTC O14-12.) Under CEQA, rejected recommendations major environmental issues must be addressed in detail, and the lead agency should explain its reasons for not accepting those suggestions. (CEQA Guidelines § 15088(c); *County of Kern, supra*, 62 Cal.App.3d at 761.) The County has failed to adequately describe why it would not be accepting the proposed recommendations, beyond a few sentences stating that the proposals are best analyzed at the project level.

### **IX. ENVIRONMENTAL JUSTICE IS AN IMPORTANT CONSIDERATION UNDER CARB’S 2017 SCOPING PLAN**

The 2017 CARB Scoping Plan discusses the importance of GHG reductions benefitting environmental justice communities. We are concerned that due to the lack of consideration for VMT and local offset projects in Mitigation Measure GHG-1 that the County’s CAP does not adequately address CARB’s concerns and provide benefits to the environmental justice communities. The CAP’s GHG mitigation measure for General Plan Amendments should make benefits to environmental justice communities a priority.

---

<sup>4</sup> The County erroneously labels comments on the Final CAP and Final SEIR as “late letters.” Despite that the County released the final documents only ten days prior to the Planning Commission hearing on the CAP, many commenters were able to provide timely comments prior to the Planning Commission’s comment deadline.

Thank you for your time and attention to our comments. Please do not hesitate to contact us should you have any questions or comments.

Best regards,

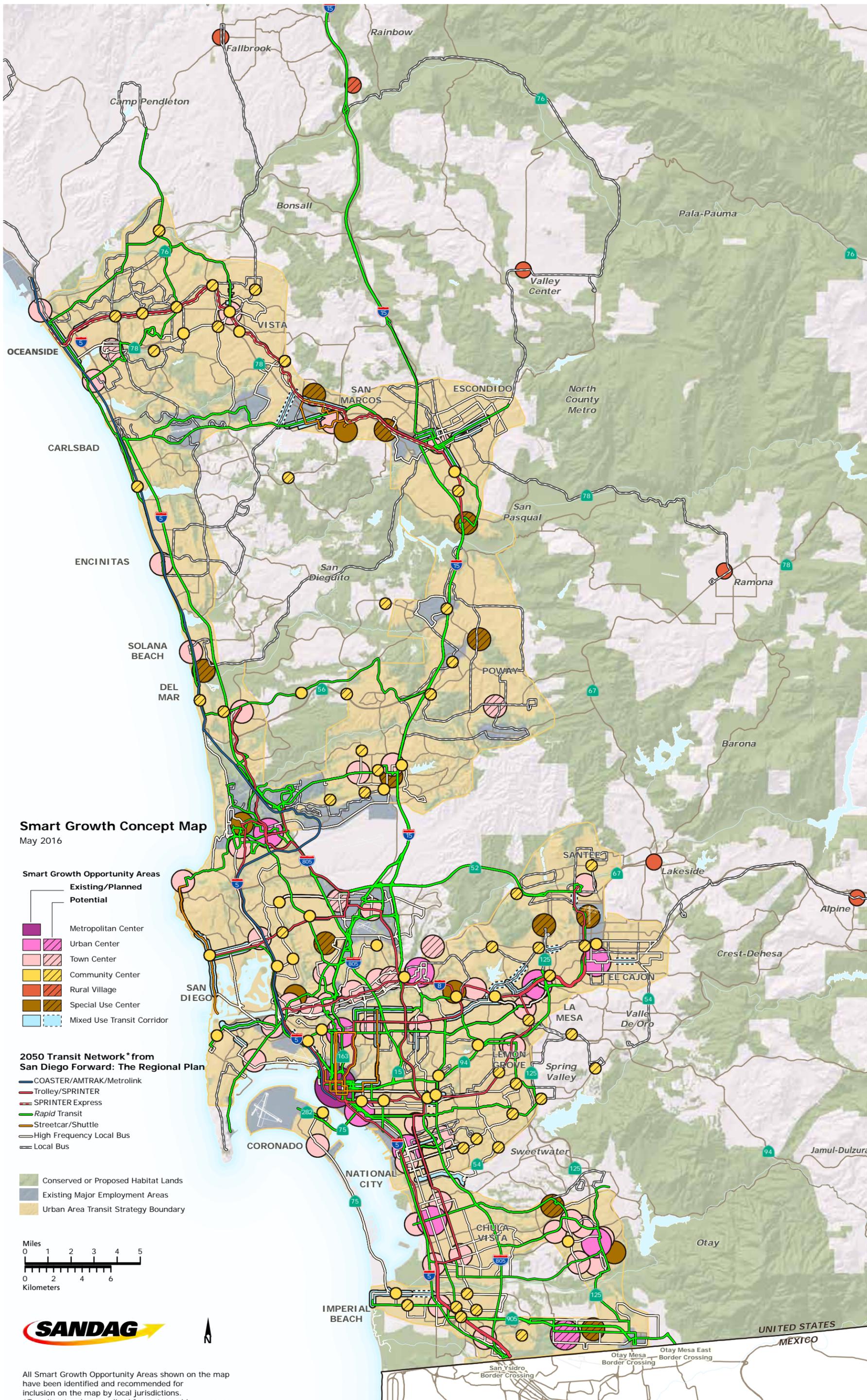
*Christopher W. Garrett*

Christopher W. Garrett  
of LATHAM & WATKINS LLP

cc: Kathy Van Ness, Golden Door  
Darin Neufeld, County Planning and Development Services  
Maggie Soffel, County Planning and Development Services  
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Claudia Silva, Office of County Counsel  
Dan Silver, Endangered Habitats League  
George Courser, Sierra Club  
Duncan McFetridge, Cleveland National Forest Foundation  
Stephanie Saathoff, Clay Co.  
Denise Price, Clay Co.  
Andrew Yancey, Latham & Watkins

**ATTACHMENT A**  
**SANDAG SMART GROWTH**

REGIONAL SCALE SMART GROWTH CONCEPT MAP



All Smart Growth Opportunity Areas shown on the map have been identified and recommended for inclusion on the map by local jurisdictions.  
\*Transit network generalized for cartographic purposes.

**ATTACHMENT B**  
**OPTIONS**

## OPTION ONE

RESOLUTION OF THE COUNTY OF SAN DIEGO BOARD OF SUPERVISORS ADOPTING THE GENERAL PLAN AMENDMENT (GPA) PDS2016-GPA-16-007, AMENDING THE 2011 GENERAL PLAN UPDATE GOAL COS-20 AND POLICY COS-20.1; GPA 16-007

WHEREAS, pursuant to Government Code Sections 65350 et seq., GPA 16-007 has been prepared, being the first amendment to the Conservation and Open Space Element of the County General Plan in the Calendar Year 2018; and

WHEREAS, GPA 16-007 has been filed by the County of San Diego, consisting of an amendment to the Conservation and Open Space Element of the County General Plan; and

WHEREAS, the County has determined that it is in its best interest to obtain GHG reductions from global sources; and

WHEREAS, on January 18, 2018, the Planning Commission, pursuant to Government Code Sections 65351 and 65353 held a duly advertised public hearing on GPA 16-007; and

WHEREAS, the Planning Commission has made its detailed recommendations concerning the above item; and

WHEREAS, the Planning Commission reviewed and considered the information contained in the Final Supplemental Environmental Impact Report (SEIR) dated August 2017, on file with Planning & Development Services as Environmental Review Number (ER) PDS2016-ER-16-00-003 prior to making its recommendation to approve the project; and

WHEREAS, on \_\_\_\_\_, \_\_\_\_\_, 2018, the Board of Supervisors, pursuant to Government Code Section 65355 held a duly advertised public hearing on GPA 16-007; and

WHEREAS, on \_\_\_\_\_, \_\_\_\_\_, 2018, the Board of Supervisors has made findings pursuant to Attachment \_\_\_\_\_, Environmental Findings, of the Board of Supervisors Planning Report for the project.

NOW THEREFORE BE IT RESOLVED that the Board of Supervisors takes the following actions:

1. Approve the amendment to the Conservation and Open Space Element of the County General Plan in GPA 16-007, as identified in Exhibit A.

BE IT FURTHER RESOLVED that the amended documents shall be endorsed in the manner provided by the Board of Supervisors.

BE IT FURTHER RESOLVED that the Board of Supervisors finds that the GPA 16-007 is consistent with the San Diego County General Plan and the Program Environmental Impact Report in that the goals, objectives, and policies of all the elements of the plan have been or will be met.

BE IT FURTHER RESOLVED that this Resolution shall take effect and be in force from and after 30 days after its adoption.

Approved as to Form and Legality  
County Counsel

By: William Witt, Senior Deputy



# County of San Diego

MARK WARDLAW  
DIRECTOR

PLANNING & DEVELOPMENT SERVICES  
5510 OVERLAND AVENUE, SUITE 310, SAN DIEGO, CA 92123  
www.sdcounty.ca.gov/pds  
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FAX (858) 694-2555

## GENERAL PLAN AMENDMENT (PDS2016-GPA-16-007) for the CLIMATE ACTION PLAN

January 8, 2018

The changes to the County of San Diego 2011 General Plan Update (GPU) goal and policy, and 2011 General Plan Update Program Environmental Impact Report (EIR) mitigation measures are provided below and shown in underline (underline) for new additions and ~~strikeout~~ for deletions:

### 1) GPU Goal: COS-20 (Governance and Administration)

Reduction of ~~local~~ community-wide (i.e., unincorporated County) and County Operations GHG greenhouse gas emissions contributing to climate change that meet or exceed requirements of the Global Warming Solutions Act of 2006, as amended by Senate Bill 32 (as amended, Pavley, California Global Warming Solutions Act of 2006: emissions limit). ~~Reductions may come from global sources.~~

(Reference: [2011 General Plan Update Page 5-38](#))

### 2) GPU Policy: COS-20.1 (~~Climate Change Action Plan~~)

Prepare, maintain, and implement a ~~climate change action plan with a baseline inventory of GHG emissions from all sources; GHG emissions reduction targets and deadlines, and enforceable GHG emissions reduction measures.~~ Climate Action Plan for the reduction of community-wide (i.e., unincorporated County) and County Operations greenhouse gas emissions consistent with the California Environmental Quality Act (CEQA) Guidelines Section 15183.5. ~~Reductions may come from global sources consistent with following geographic priorities: 1) project design features/on-site reduction measures; 2) off-site within the unincorporated areas of the County of San Diego; 3) off-site within the County of San Diego; 4) off-site within the State of California; 5) off-site within the United States; and 6) off-site internationally. All feasible reductions from one geographic priority must be exhausted before reductions from a subsequent priority may be obtained. Feasibility determinations will be made by the Board of Supervisors pursuant to CEQA section 21081.5.~~

### 3) GPU Program EIR Mitigation Measure (MM) CC-1.2

~~Prepare a County Climate Change Action Plan with an update baseline inventory of greenhouse gas emissions from all sources, more detailed greenhouse gas emissions reduction targets and deadlines; and a comprehensive and enforceable GHG emissions reduction measures that will achieve a 17% reduction in emissions from County operations from 2006 by 2020 and a 9% reduction in community emissions between 2006 and 2020. Once prepared, implementation of the plan will be monitored and progress reported on a regular basis. Climate Action Plan for the reduction of community-wide (i.e., unincorporated County) and County Operations greenhouse gas emissions consistent with State legislative targets, as described in General Plan Goal COS-20, and consistent with CEQA Guidelines Section 15183.5 or as amended, as referenced in General Plan Policy COS-20.1. As described in Section 15183.5, the key elements of the Climate Action Plan would include:~~

“CEQA Guidelines Section 15183.5(b)(1):

(1) Plan Elements. A plan for the reduction of greenhouse gas emissions should:

- (A) Quantify greenhouse gas emissions, both existing and projected over a specified time period, resulting from activities within a defined geographic area;
- (B) Establish a level, based on substantial evidence, below which the contribution to greenhouse gas emissions from activities covered by the plan would not be cumulatively considerable;
- (C) Identify and analyze the greenhouse gas emissions resulting from specific actions or categories of actions anticipated within the geographic area;
- (D) Specify measures or a group of measures, including performance standards, that substantial evidence demonstrates, if implemented on a project-by-project basis, would collectively achieve the specified emissions level;
- (E) Establish a mechanism to monitor the plan’s progress toward achieving the level and to require amendment if the plan is not achieving specified levels;
- (F) Be adopted in a public process following environmental review.”

Once prepared, implementation of the Climate Action Plan will be monitored and progress reported on a regular basis, as follows:

- Implementation Monitoring Report – prepared annually;
- Greenhouse Gas Emissions Inventory – updated every two years; and
- Climate Action Plan – updated every five years.

Mitigation may be obtained from global sources.

(Reference: [2011 General Plan Update Program EIR Page](#))

#### 4) GPU Program EIR MM CC-1.7

~~Incorporate the California ARB's recommendations for a climate change CEQA threshold into the County Guidelines for Determining Significance for Climate Change. These recommendations will include energy, waste, water, and transportation performance measures for new discretionary projects in order to reduce GHG emissions. Should the recommendation not be released in a timely manner, the County will prepare and adopt its own threshold for GHG emissions and shall include this threshold in the County Guidelines for Determining Significance for Climate Change.~~

(Reference: [2011 General Plan Update Program EIR Page 2.17-30 and Page 2.17-31](#))

#### 5) GPU Program EIR MM CC-1.8

~~Revise Prepare County Guidelines for Determining Significance for Climate Change (Guidelines) based on the Climate Change Action Plan. The ~~revisions~~ Guidelines will include guidance for identify the specific actions proposed discretionary projects will need to take to achieve greater energy, water, waste, and transportation efficiency demonstrate consistency with the Climate Action Plan pursuant to Section 15183.5 of the CEQA Guidelines or as amended, as described in the 2011 General Plan Update Program EIR Mitigation Measure CC-1.2, as amended.~~

(Reference: [2011 General Plan Update Program EIR Page 2.17-31](#))

## OPTION 2

The geographic priority list in Mitigation Measure GHG-1, located on pages 2.7-38 and 2.7-39, will be amended as follows (additional text in underline, deleted text in ~~strikethrough~~):

The County will consider, to the satisfaction of the Director of Planning & Development Services (PDS), the following geographic priorities for GHG reduction features, and GHG reduction projects and programs: 1) project design features/on-site reduction measures; 2) off-site within the unincorporated areas of the County of San Diego; and 3) off-site within the County of San Diego; ~~4) off-site within the State of California; 5) off-site within the United States; and 6) off-site internationally~~

Attachment C



# California's 2017 Climate Change Scoping Plan

The strategy for achieving California's  
2030 greenhouse gas target

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# Decades of Leadership

From the first law to protect rivers from the impact of gold mining in 1884, to decades of work to fight smog, the Golden State has set the national – and international – standard for environmental protection. California pushes old boundaries, encounters new ones, and figures out ways to break through those as well. This is part of the reason why California has grown to become both the 6th largest economy in the world, and home to some of the world’s strongest environmental protections. And, we have seen our programs and policies adopted by others as they seek to protect public health and the environment.

California’s approach to climate change channels and continues this spirit of innovation, inclusion, and success. The 2030 target of 40 percent emissions reductions below 1990 levels guides this Scoping Plan, as the economy evolves to reduce greenhouse gas (GHG) emissions in every sector. It also demonstrates that we are doing our part in the global effort under the Paris Agreement to reduce GHGs and limit global temperature rise below 2 degrees Celsius in this century.

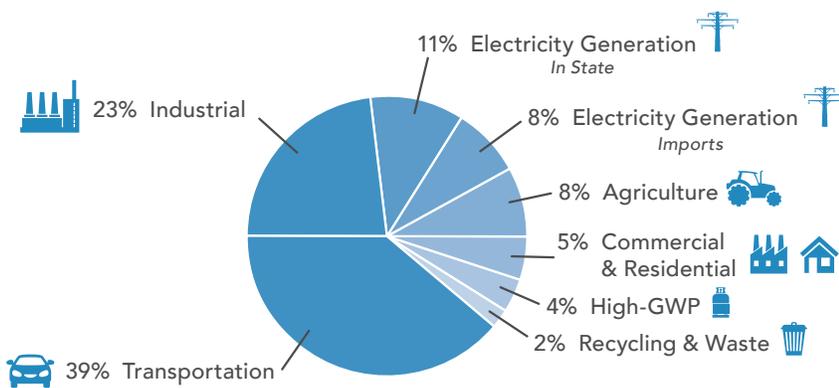
California’s 2017 Climate Change Scoping Plan: The Strategy for Achieving California’s 2030 Greenhouse Gas Target (Plan) builds on the state’s successes to date, proposing to strengthen major programs that have been a hallmark of success, while further integrating efforts to reduce both GHGs and air pollution. California’s climate efforts will:

- Lower GHG emissions on a trajectory to avoid the worst impacts of climate change;
- Support a clean energy economy which provides more opportunities for all Californians;
- Provide a more equitable future with good jobs and less pollution for all communities;
- Improve the health of all Californians by reducing air and water pollution and making it easier to bike and walk; and
- Make California an even better place to live, work, and play by improving our natural and working lands.



Governor Brown signs SB 32 recommitting California’s efforts to curb climate change.

## CALIFORNIA CARBON EMISSIONS



2015 Total Emissions  
440.4 MMTCO<sub>2</sub>e

## The Climate Imperative – We Must Act

---

The evidence that the climate is changing is undeniable. As evidence mounts, the scientific record only becomes more definitive – and makes clear the need to take additional action now.

In California, as in the rest of the world, climate change is contributing to an escalation of serious problems, including raging wildfires, coastal erosion, disruption of water supply,

threats to agriculture, spread of insect-borne diseases, and continuing health threats from air pollution.

The drought that plagued California for years devastated the state's agricultural and rural communities, leaving some of them with no drinking water at all. In 2015 alone, the drought cost agriculture in the Central Valley an estimated \$2.7 billion, and more than 20,000 jobs. Last winter, the drought was broken by record-breaking rains, which led to flooding that tore through freeways, threatened rural communities, and isolated coastal areas. This year, California experienced the deadliest

wildfires in its history. Climate change is making events like these more frequent, more catastrophic and more costly. Climate change impacts all Californians, and the impacts are often disproportionately borne by the state's most vulnerable and disadvantaged populations.



**CALIFORNIA**  
is already experiencing  
the impacts of  
**CLIMATE CHANGE**

---

IN 2015 THE DROUGHT COST THE AGRICULTURE INDUSTRY IN THE CENTRAL VALLEY AN ESTIMATED \$2.7 BILLION & 20,000 JOBS

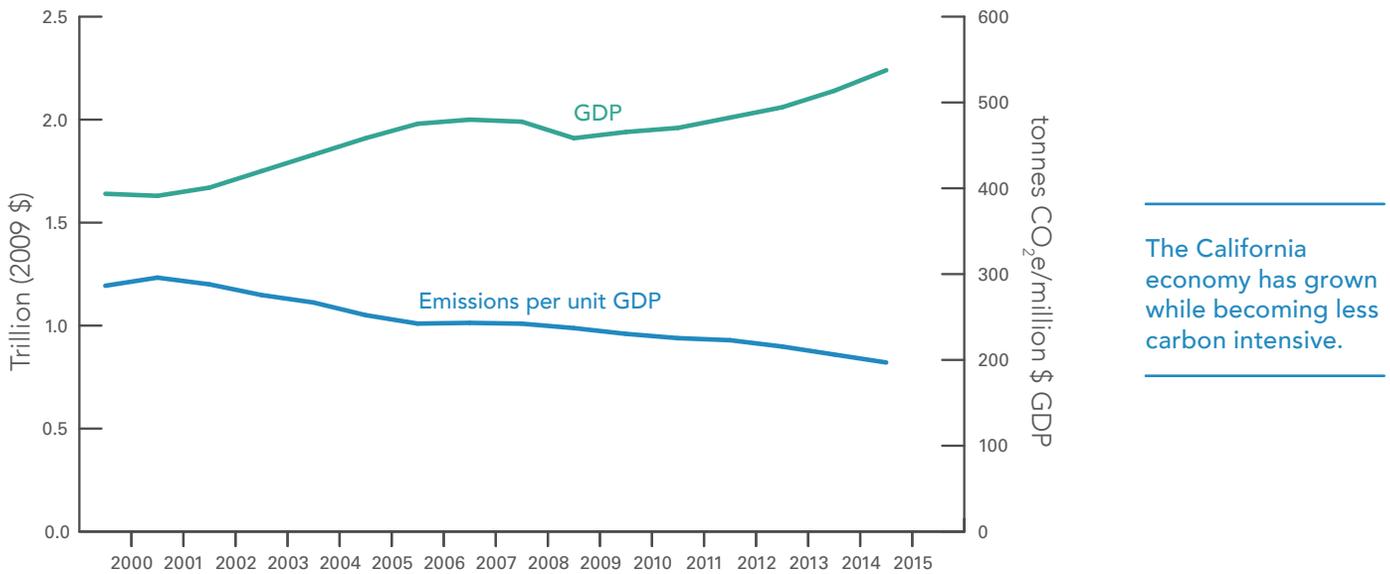
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# California is on Track – But There is More to Do

Although the California Global Warming Solutions Act of 2006 – also known as AB 32 – marked the beginning of an integrated climate change program, California has had programs to reduce GHG emissions for decades. The state’s energy efficiency requirements, Renewable Portfolio Standard, and clean car standards have reduced air pollution and saved consumers money, while also lowering GHG emissions.

## ENVIRONMENTAL PROGRESS AND A RESILIENT ECONOMY

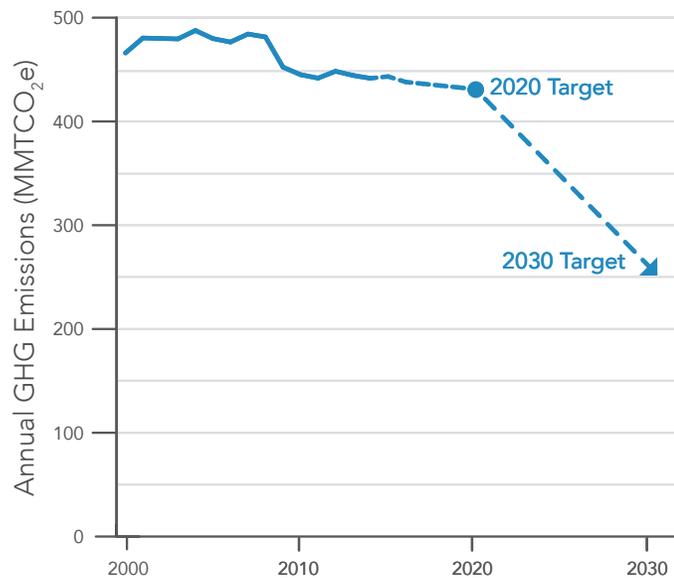


The California economy has grown while becoming less carbon intensive.

AB 32 set California’s first GHG target called on the state to reduce emissions to 1990 levels by 2020. California is on track to exceed its 2020 climate target, while the economy continues to grow. Since the launch of many of the state’s major climate programs, including Cap-and-Trade, economic growth in California has consistently outpaced economic growth in the rest of the country. The state’s average annual growth rate has been double the national average – and ranks second in the country since Cap-and-Trade took effect in 2012. In short, California has succeeded in reducing GHG emissions while also developing a cleaner, resilient economy that uses less energy and generates less pollution.

Importantly, the State’s 2020 and 2030 targets have not been set in isolation. They represent benchmarks, consistent with prevailing climate science, charting an appropriate trajectory forward that is in line with California’s role in stabilizing global warming below dangerous thresholds. As we consider efforts to reduce emissions to meet the State’s near-term requirements, we must do so with an eye toward reductions needed beyond 2030. The Paris Agreement – which calls for limiting global warming to well below 2 degrees Celsius and pursuing efforts to limit it to 1.5 degrees Celsius – frames our path forward.

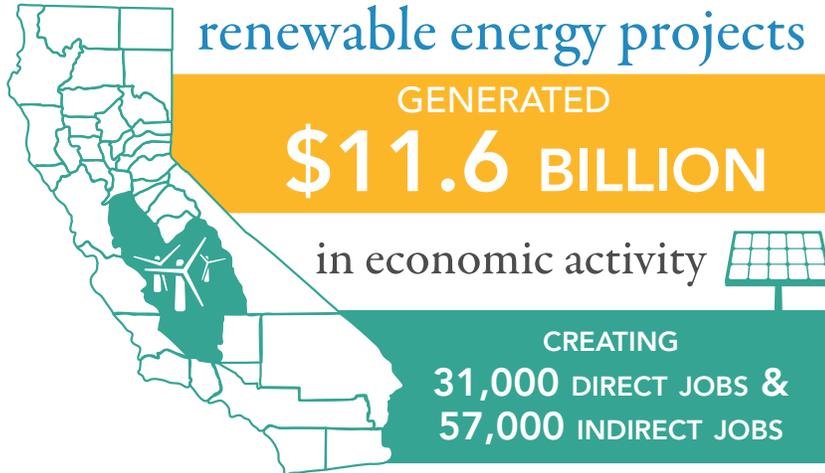
## CALIFORNIA’S PATH FORWARD



# California's Path to 2030

Executive Order B-30-15 and SB 32 extended the goals of AB 32 and set a 2030 goal of reducing emissions 40 percent from 2020 levels. This action keeps California on target to

## FROM 2002-2015 SAN JOAQUIN VALLEY renewable energy projects



achieve the level of reductions scientists say is necessary to meet the Paris Agreement goals. This is an ambitious goal – calling on the State to double the rate of emissions reductions. Nevertheless, it is an achievable goal.

This Plan establishes a path that will get California to its 2030 target. Given our ambitious goals, this Plan is built on unprecedented outreach and coordination. Over 20 state agencies collaborated to produce the Plan, informed by 15 state agency-sponsored workshops and more than 500 public comments. The broad range of state agencies involved reflects the complex nature of addressing climate change, and the need to work across institutional

boundaries and traditional economic sectors to effectively reduce GHG emissions. As part of the Plan development, alternative strategies were considered and evaluated, ranging from carbon taxes to individual facility caps to relying solely on sector-specific regulations. In addition, efforts were made to ensure that the Plan would benefit all Californians. To this end, the Environmental Justice Advisory Committee (EJAC), a Legislatively created advisory body, convened almost 20 community meetings throughout California to discuss the climate strategy, and held 19 meetings of its own to provide recommendations on the Plan.

This Plan draws from the experiences in developing and implementing previous plans to present a path to reaching California's 2030 GHG reduction target. The Plan is a

package of economically viable and technologically feasible actions to not just keep California on track to achieve its 2030 target, but stay on track for a low- to zero-carbon economy by involving every part of the state. Every sector, every local government, every region, every resident is part of the solution. The Plan underscores that there is no single solution but rather a balanced mix of strategies to achieve the GHG target. This Plan highlights the fact that a balanced mix of strategies provides California with the greatest level of certainty in meeting the target at a low cost while also improving public health, investing

in disadvantaged and low-income communities, protecting consumers, and supporting economic growth, jobs and energy diversity. Successful implementation of this Plan relies, in part, on long-term funding plans to inform future appropriations necessary to achieve California's long-term targets.

## CALIFORNIA'S CLIMATE POLICY PORTFOLIO

-  Double building efficiency
-  Cleaner freight and goods movement
-  50% renewable power
-  Slash potent "super-pollutants" from dairies, landfills and refrigerants
-  More clean, renewable fuels
-  Cap emissions from transportation, industry, natural gas, and electricity
-  Cleaner zero or near-zero emission cars, trucks, and buses
-  Invest in communities to reduce emissions
-  Walkable/Bikeable communities with transit

# California's Climate Vision

## Create Inclusive Policies and Broad Support for Clean Technologies

Remarkable progress over the past 10 years has put the global energy and transportation sector on a transformative path to cleaner energy. Far outpacing previous predictions, today solar and wind power are often less expensive than coal or natural gas, and they now comprise the majority of global investment in the power sector. Electric vehicle battery costs have tumbled even more quickly than solar costs, while performance has improved dramatically, and the auto industry is committed to an electric future.

California's policies have created markets for energy efficiency, energy storage, low carbon fuels, renewable power – including utility-scale and residential-scale solar – and zero-emission vehicles. Our companies are thriving, making those markets grow. California is home to nearly half of the zero-emission vehicles in the U.S., 40 percent of North American clean fuels investments, the world's best known electric car manufacturer, and the world's leading ride-sharing services. California is further advancing efficient land use policies that reduce auto dependency. Altogether, we're unleashing nonlinear transitions to clean energy and clean transportation technologies that will put California on the path to meeting our 2030 target and the goals of the Paris Agreement.

California policymaking has succeeded through thoughtful planning, bolstered by an open public process that solicits the best ideas from a wide array of sources, and by integrating effective regulation with targeted investments to provide broad market support for clean technologies. A key element of California's approach continues to be careful monitoring and reporting on the results of our programs and a willingness to make mid-course adjustments. As the State looks to 2030 and beyond, all sectors of the economy must benefit from these ideas to create a new and better future.

California is home to

NEARLY **50%**  
OF THE ZEVs  
IN THE U.S.

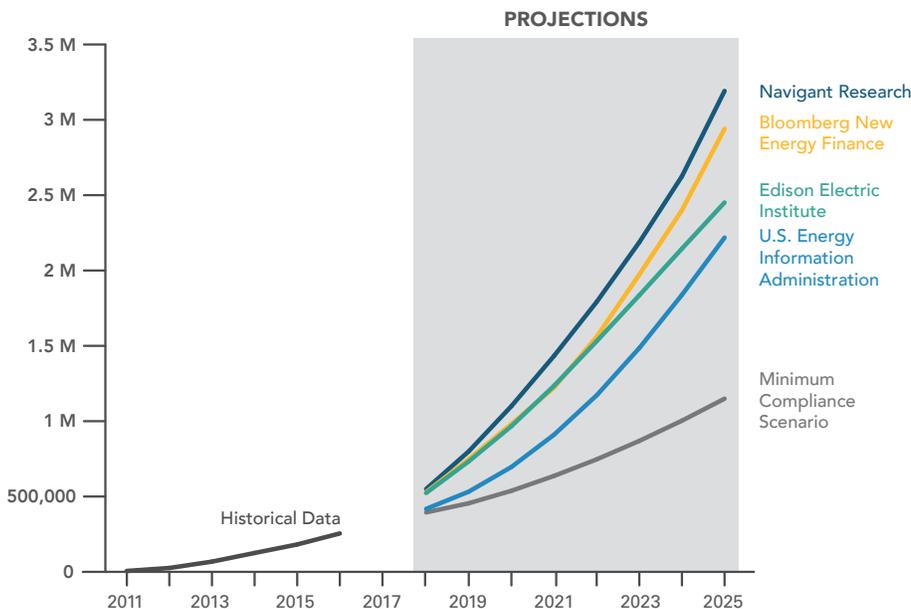


**40%**  
OF NORTH AMERICAN  
**CLEAN FUEL**  
INVESTMENTS




**90%** OF TOTAL U.S. INVESTMENT IN  
**CLEAN TRANSPORTATION**

### CUMULATIVE CALIFORNIA ZEV SALES PROJECTIONS



Experience has shown clean technology and markets continue to outpace expectations.

## LEGISLATIVE LEADERSHIP ON CLIMATE

The California Legislature has shaped the State's climate change program, setting out clear policy objectives over the next decade:

- 40% reduction in GHG emissions by 2030;
- 50% renewable electricity;
- Double energy efficiency savings;
- Support for clean cars;
- Integrate land use, transit, and affordable housing to curb auto trips;
- Prioritize direct reductions;
- Identify air pollution, health, and social benefits of climate policies;
- Slash "super pollutants";
- Protect and manage natural and working lands;
- Invest in disadvantaged communities; and
- Strong support for Cap-and-Trade.

The benefits of innovative technologies need to reach all residents and businesses. Air pollution reductions and the associated health benefits should be targeted to communities where they are needed most. All Californians need access to clean transportation options that enable healthy communities to develop and thrive, including walking, cycling, transit, rail, and clean vehicle options.

Although GHG reductions can help to reduce harmful air pollution, California must concurrently employ other strategies to accelerate reductions of pollutants from large industrial sources that adversely impact communities. Newly passed AB 617 strengthens existing criteria and toxic air pollutant programs and our partnerships with local air districts to further reduce harmful air pollutants and protect communities. More fundamentally, AB 617 establishes a comprehensive statewide program – the first of its kind – to address air pollution where it matters most: in neighborhoods with the most heavily polluted air.

## CALIFORNIA'S GOALS



California's environmental justice and equity movement is establishing a blueprint for the nation and world. The State is pioneering targeted environmental and economic development programs to help those most in need. So far, half of all California Climate Investments, stemming from the State's Cap-and-Trade-Program, have been used to provide benefits in the 25 percent of California communities that are most disadvantaged by environmental and socio-economic burdens. By increasingly engaging with, and investing in, these communities – investing in technical assistance resources, holding listening sessions, improving our programs, and accelerating our efforts to bring the cleanest technologies to mass market – all California residents can have clean air to breathe, clean water to drink, and opportunities to participate in the cleaner economy.

## ACHIEVING SUCCESS IN EQUITY AND ACCESS

- Continue to engage local organizations and invest in disadvantaged communities to ensure broad access to clean technologies;
- Ensure air pollution reductions happen where they are needed the most;
- Integrate across programs and agencies to ensure complementary policies provide maximum benefits to disadvantaged communities;
- Implement California Energy Commission and CARB recommendations to overcome barriers to clean energy and clean transportation options for low-income residents;
- Provide energy-efficient affordable housing near job centers and transit; and
- Implement AB 617 to dramatically improve air quality in local communities through targeted action plans.



## Enhance Industrial Efficiency & Competitiveness

---

California leads the country in manufacturing and industrial efficiency. For every dollar spent on electricity, our manufacturers produce 55 percent more value than the national average. And the efficiency of California industry continues to grow at rates faster than the national average. High efficiency rates, coupled with the Cap-and-Trade Program's firm emission cap, allow economic activity to increase without corresponding increases in GHG emissions. In other words, the more California produces, the better it is for the planet. Maintaining and extending our successful programs – from the Cap-and-Trade Program and Low Carbon Fuel Standard to zero-emission, renewable energy and energy efficiency programs – will reduce GHGs, increase energy cost savings, offer businesses flexibility to reduce emissions at low cost and provide clear policy and market direction, and certainty, for business planning and investment. This will encourage continued research, evaluation, and deployment of innovative strategies and technology to further reduce emissions in the industrial sector through advances in energy efficiency and productivity, increased access to cleaner fuels, and carbon capture, utilization and storage.

### ACTION ON HFCs

Hydrofluorocarbons (HFCs) represent one of the biggest opportunities to reduce GHGs in the State through 2030 due to their high climate impacts, and in many cases, offer energy efficiency and financial savings, as well. The world recently agreed to phase down their use, but California has committed to move more quickly, in line with the scope of the opportunity for cost-effective emissions reductions in the State.

### ACHIEVING SUCCESS IN INDUSTRIAL EFFICIENCY AND COMPETITIVENESS

- Evaluate and implement policies and measures to continue reducing GHG, criteria, and toxic air contaminant emissions from sources such as refineries;
- Improve productivity and strengthen economic competitiveness by further improving energy efficiency and diversifying fuel supplies with low carbon alternatives;
- Prioritize procurement of goods that have lower carbon footprints
- Support and attract industry that produces goods needed to reduce GHGs; and
- Cut energy costs and GHG emissions by quickly transitioning to efficient HFC alternatives.

## Prioritize Transportation Sustainability

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California's transportation system underpins our economy. The extensive freight system moves trillions of dollars of goods each year and supports nearly one-third of the state economy and more than 5 million jobs. The way we plan our communities impacts everything from household budgets to infrastructure needs, productivity lost to congestion, protection of natural and working landscapes, and our overall health and well-being. And transportation is the largest source of GHG, criteria, and toxic diesel particulate matter emissions in the state.

### RENEWABLE DIESEL USE

*has increased 7000% since 2011*

California's ability to remain an economic powerhouse and environmental leader requires additional efforts to improve transportation sustainability with a comprehensive approach that includes regulation, incentives, and investment.

This approach addresses a full range of

transportation system improvements relating to efficient land use, affordable housing, infrastructure for cyclists and pedestrians, public transit, new vehicle technologies, fuels and freight. One example is the deployment of the nation's first high-speed rail system, which will include seamless connections to local transit.

The approach is working: California is home to nearly half of the country's zero-emission vehicles. Innovative alternative fuel producers and oil companies are bringing more low carbon fuels to market than required by the Low Carbon Fuel Standard. And, the State has committed to investing billions in zero-emission vehicles and infrastructure, land use planning, and active transportation options such as walking and biking. In fact, renewable fuels in the heavy-duty vehicle sector are displacing diesel fossil fuel as quickly as renewable power is replacing fossil fuels on the electricity grid. California's climate policies will also reduce fossil fuel use and decouple the state from volatile global oil prices. CARB's analyses show fossil fuel demand will decrease by more than 45 percent by 2030, which means Californians will be using less gasoline and diesel resulting in healthier air and cost-savings on transportation fuels. These benefits will be further amplified as we move away from light-duty combustion vehicles.

By re-doubling our efforts, California can make sure that markets tip quickly and definitively in the favor of electric cars, trucks, buses, and equipment, while increasing the use of clean, low carbon fuels where zero-emissions options are not yet available. Local transportation planning can make communities become healthier and more vibrant and connected – encouraging housing, walking, biking and transit policies that reduce GHGs and promote good quality of life. And, we can work to ensure that an efficient sustainable freight system continues to power our ever-growing economy.





## ACHIEVING SUCCESS IN TRANSPORTATION SUSTAINABILITY

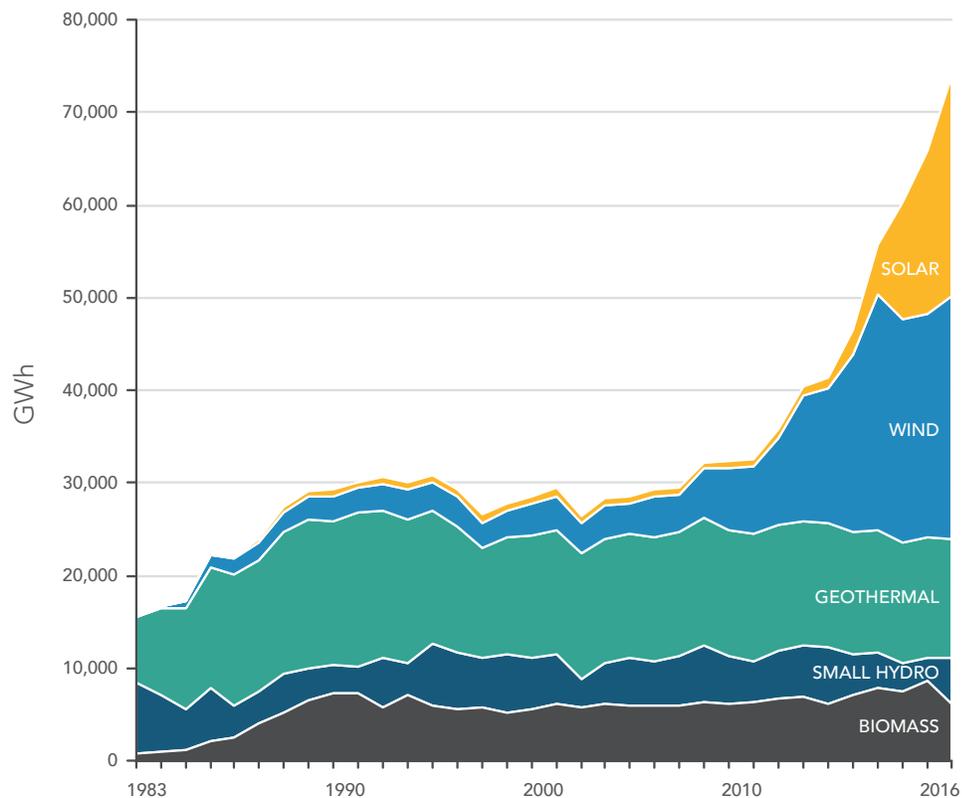
- Connect California's communities with a state-of-the-art high-speed rail system;
- Promote vibrant communities and landscapes through better planning efforts to curb vehicle-miles-traveled and increase walking, biking and transit;
- Build on the State's successful regulatory and incentive-based policies to quickly make clean cars, trucks, buses, and fuels definitive market winners;
- Coordinate agency activities to ensure that emerging automated and connected vehicle technologies reduce emissions; and
- Improve freight and goods movement efficiency and sustainability to enable California's continued economic growth.



## Continue Leading on Clean Energy

California is well ahead of schedule in meeting its renewable energy targets. Wind and solar generation have grown exponentially in recent years, while hydroelectric, geothermal, and biomass have consistently contributed renewable power to our energy supply. Californians are the ones who will take action to meet energy efficiency targets, integrate renewable power through demand response, and drive demand for net zero energy buildings. This includes self-generation which also grew exponentially in recent years with installed solar totaling 2,000 megawatts (MW) in 2014 and 5,100 MW of the total statewide self-generation installed solar in 2015. By June 2017, solar installed in California was about 5,800 MW, far exceeding the State's goals.

**INCREASING RENEWABLE ELECTRICITY GENERATION (IN & OUT OF STATE)**



The Renewable Portfolio Standard, Carbon Pricing, and lower costs for renewable technology are delivering real environmental benefits.



While at this time natural gas is an important energy source, we must move toward cleaner heating fuels and replicate the progress underway for electricity. As with electricity, this starts with efficiency and demand reduction, including building and appliance electrification where these advancements make sense. It calls for minimizing fugitive methane leaks throughout the system, including beyond California’s borders where 90 percent of the natural gas used here originates. And, it includes using more renewable gas – a valuable in-state resource made from waste products – especially in the transportation sector. Replacing fossil fuels with renewable gas can reduce potent short-

## Reaching California’s Clean Electricity Goals



The State’s 3 largest investor-owned utilities are on track to achieve a 50% RPS by 2020.

lived climate pollutants, and state policies should support this effort. Reducing demand for natural gas, and moving toward renewable natural gas, will help California achieve its 2030 climate target. However, switching from natural gas to electricity – where feasible and demonstrated to reduce GHGs – is needed to stay on track to achieve our long-term goals.

### ACHIEVING SUCCESS IN CLEAN ENERGY

- Effectively integrate at least 50 percent renewables as the primary source of power in the State through coordinated planning, additional deployments of energy storage, and grid regionalization;
- Utilize distributed resources and engage customers by making net zero energy buildings standard, implement Existing Buildings Energy Efficiency Action Plan to double existing building efficiency, and increase access to energy efficiency, renewable energy, and energy use data; and
- Reduce the use of heating fuels while concurrently making what is used cleaner by minimizing fugitive methane leaks, prioritizing natural gas efficiency and demand reduction, and enabling cost-effective access to renewable gas.



## Put Waste Resources to Beneficial Use

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Effectively managing waste streams is perhaps the most basic of environmental tenets. “Reduce, re-use, and recycle” is a mantra known even to elementary school students. For decades California law has reduced waste reaching landfills and recaptured value from waste streams through recycling and composting. California law requires reducing, recycling, or composting 75 percent of solid waste generated by 2020. The State also has specific goals for diverting organic waste, which decomposes in landfills to produce the super pollutant methane. State law also directs edible food to hungry families rather than having it discarded.

Capturing value from waste makes sense. As described in the Healthy Soils Initiative, compost from organic matter provides soil amendments to revitalize farmland, reduces irrigation and landscaping water demand, and potentially increases long-term carbon storage in rangelands. Organic matter can also provide a clean, renewable energy source in the form of bioenergy, biofuels, or renewable natural gas.

California should take ownership of its waste and adhere to a waste “loading order” that prioritizes waste reduction, re-use, and material recovery over landfilling. The State can take steps to reduce waste from packaging, which constitutes about one-quarter of California’s waste stream. It can invest in and streamline in-state infrastructure development to support recycling, remanufacturing, composting, anaerobic digestion, and other beneficial uses of organic waste. And, it can help communities in their efforts to recover food for those in need.

### ACHIEVING SUCCESS IN PUTTING WASTE RESOURCES TO BENEFICIAL USE

- Develop and implement programs, including edible food waste recovery, to divert organics from landfills and reduce methane emissions;
- Develop and implement a packaging reduction program; and
- Identify a sustainable funding mechanism to support waste management programs, including infrastructure development to support organics diversion.

# Support Resilient Agricultural and Rural Economies and Natural and Working Lands

California’s natural and working landscapes, like forests and farms, are home to the most diverse sources of food, fiber, and renewable energy in the country. They underpin the state’s water supply and support clean air, wildlife habitat, and local and regional economies. They are also the frontiers of climate change. They are often the first to experience the impacts of climate change, and they hold the ultimate solution to addressing climate change and its impacts. In order to stabilize the climate, natural and working lands must play a key role.

Work to better quantify the carbon stored in natural and working lands is continuing, but given the long timelines to change landscapes, action must begin now to restore and conserve these lands. We should aim to manage our natural and working lands in California to reduce GHG emissions from business-as-usual by at least 15-20 million metric tons in 2030, to complement the measures described in this Plan.

Natural and working lands can be better incorporated into California’s climate change mitigation efforts by encouraging collaboration with local and regional organizations and increasing investment to protect, enhance, and innovate in our rural landscapes and communities. The State is partnering with tribes to preserve carbon, protect tribal forest lands and increase their land base. Transportation and land use planning should minimize the footprint of the built environment, while supporting and investing in efforts to restore, conserve and strengthen natural and working lands. California’s forests should be healthy carbon sinks that minimize black carbon emissions where appropriate, supply new markets for woody waste and non-merchantable timber, and provide multiple ecosystem benefits. Rehabilitating and strengthening wetlands and tidal environments, and incorporating natural landscapes into urban environments will also help make natural and working lands part of the state’s climate solution. Finally, California farmers can be a powerful force in the fight against climate change, in how they manage their lands, tend their crops, and husband their livestock.



Improved forest management on tribal lands has preserved almost 3 million metric tons of carbon in California and the revenues from the carbon offsets have been used to secure ownership of ancestral lands.

## ACHIEVING SUCCESS IN SUPPORTING RESILIENT AGRICULTURAL AND RURAL ECONOMIES AND NATURAL AND WORKING LANDS

- Protect, enhance and innovate on California’s natural and working lands to ensure natural and working lands become a net carbon sink over the long-term;
- Develop and implement the Natural and Working Lands Implementation Plan to maintain these lands as a net carbon sink and avoid at least 15-20 metric tons of GHG emissions by 2030;
- Measure and monitor progress by completing CARB’s Natural and Working Lands Inventory and implementing tracking and performance monitoring systems; and
- Unleash opportunity in the agricultural sector by improving manure management, boosting soil health, generating renewable power, electrifying operations, utilizing waste biomass, and increasing water, fertilizer, and energy use efficiency to reduce super pollutants.



## Secure California's Water Supplies

Water is California's lifeblood. It sustains communities and drives the economy. An elaborate network of storage and delivery systems has enabled the state to prosper and grow. But this aging system was built for a previous time and is increasingly challenged by the realities of climate change and population growth.

### THE WATER-ENERGY NEXUS

- About 12% of the total energy used in the state is related to water, with 2% for conveyance, treatment and distribution, and 10% for end-customer uses like heating and cooling.
- The water-energy nexus provides opportunities for conservation of these natural resources as well as reduction of GHGs.

Producing, moving, heating and treating water demands significant energy and produces commensurately significant emissions. As California looks to the future, meeting new demands and sustaining prosperity requires increased water conservation and efficiency, improved coordination and management of various water supplies, greater understanding of the water-energy nexus, and deployment of new technologies in drinking water treatment, groundwater remediation and recharge, and potentially brackish and seawater desalination. State efforts must support systemic shifts toward conservation, efficiency, and renewable energy in the water sector.

### ACHIEVING SUCCESS IN SECURING CALIFORNIA'S WATER SUPPLIES

- Increase water savings by certifying innovative technologies for water conservation and developing and implementing new conservation targets, updated agricultural water management plans, and long term conservation regulations;
- Develop a voluntary registry for GHG emissions from energy use associated with water; and
- Continue to increase the use of renewable energy to operate the State Water Project.

# Cleaning the Air and Public Health

The benefits of this Plan are broader than just climate change – implementation of the Plan will also help improve public health. The Plan incorporates freight and mobile source strategies which will deliver reductions in criteria and toxic air pollutants to improve air quality.

## Climate Plan Provides Health Benefits in 2030

AVOIDED  
PREMATURE DEATHS



~ 3,300

VALUE OF AVOIDED  
HEALTH IMPACTS



\$1.2-1.8 billion

VALUE OF AVOIDED  
DAMAGES USING  
SOCIAL COST OF CARBON



\$1.9-11.2 billion

California continues to seek ways to improve implementation of its climate program and its ability to address the unique set of impacts facing the state's most pollution burdened communities. In addition, CARB's environmental justice efforts are intended to reach far beyond climate change. While this Plan provides a path for reducing GHG emissions in disadvantaged communities, it also includes new tools that will complement the Plan and lead to further air quality improvements.

In particular, implementation of AB 617 will improve air quality in local communities, in partnership with local air districts, using targeted investments in neighborhood-level air monitoring and the development of air pollution reduction action plans with strong enforcement programs. These plans will require pollution reductions from both mobile and stationary sources. Through these efforts, CARB anticipates, and will work for, increased data transparency and the adoption of new statewide air pollutant emission controls that will not only confer short-term benefits to those most in need of improvement, but which will ultimately benefit all Californians.

Under the leadership of CARB's first executive-level environmental justice liaison, the agency is also laying a roadmap to better serve California's environmental justice communities in the design and implementation across its broader programs.



# Successful Example of Carbon Pricing and Investment

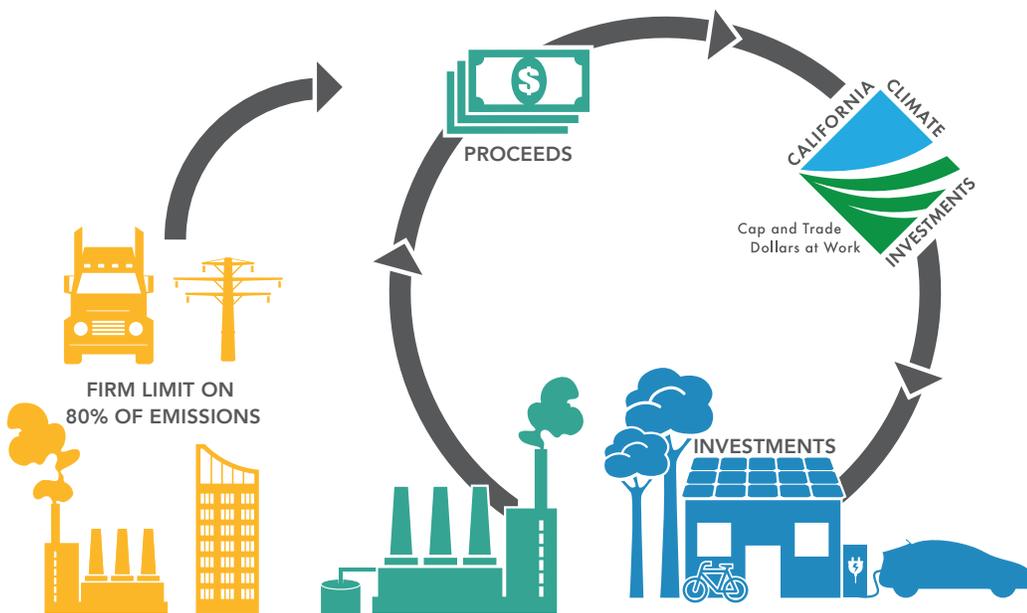
The Cap-and-Trade Program is fundamental to meeting California’s long-range climate targets at low cost. The Cap-and-Trade Program includes GHG emissions from transportation, electricity, industrial, agricultural, waste, residential and commercial sources, and caps them while complementing the other measures needed to meet the 2030 GHG target. Altogether, the emissions covered by the Cap-and-Trade program total 80 percent of all GHG emissions in California. California’s response to climate change has led to many innovative programs designed to reduce GHG emissions, including the Renewable Portfolio and Low Carbon Transportation Standards, but the Cap-and-Trade Program guarantees GHG emissions reductions through a strict overall emissions limit that decreases each year, while trading provides businesses with flexibility in their approach to reducing emissions. The Cap-and-Trade Program also generates revenue when the allowances to emit pollution are auctioned. Some of the revenue is returned directly to electricity ratepayers, and the rest is dedicated to reducing GHG emissions by making Legislatively directed investments in California with an emphasis on programs or projects that benefit disadvantaged and low-income communities.

## CAP-AND-TRADE PROGRAM

- Firm, declining cap provides highest certainty to achieve 2030 target.
- Low cost GHG emission reductions minimize impact on consumers and economy.
- Flexibility for businesses
- Can be linked with similar programs worldwide.

Including the latest budget, approximately \$5 billion has been appropriated to reduce GHG emissions, reduce air pollutant emissions where reductions are needed most, grow markets for clean technologies, and spur emissions reductions in sectors not covered by Cap-and-Trade. These investments are strengthening the economy and improving public health – especially in the areas of the state most burdened by pollution. So far, half of the \$1.2 billion spent provides benefits to disadvantaged communities, and one-third of those investments were made directly in those communities.

## CALIFORNIA’S CARBON PRICING & INVESTMENTS OVERVIEW



## CAP-AND-TRADE DOLLARS AT WORK (2017)

California's Cap-and-Trade Program is the most comprehensive, effective, and well-designed carbon market on the planet. Today, the Program is linked with a similar program in Quebec and will link with a similar program in Ontario beginning in 2018. Nearly 40 countries and over 20 subnational entities – altogether representing nearly a quarter of global emissions – have developed, or are developing, emissions trading programs. Each of them looks to California and our linked Western Climate Initiative Partners as they design, implement, and refine their own programs.



Nearly 30,000 projects installing efficiency measures in homes



105,000+ rebates issued for zero-emission and plug-in hybrid vehicles



16,000+ acres of land preserved or restored



200+ transit agency projects funded, adding or expanding transit options



6,200+ trees planted in urban areas



1,100+ new affordable housing units under contract



50% of projects benefiting Disadvantaged Communities (\$614M)



140,000+ total projects implemented

## Fostering Global Action

Through the State's leadership in the Cap-and-Trade Program, innovative sector-specific policies that are reducing technology costs and GHG emissions, and community-scale engagement and investments to reduce GHGs and promote equity, California is playing a significant role in addressing global climate change.

Governor Brown has stated that climate change is the most important issue of our lifetime, and has promoted scientifically sound approaches to address climate change in California and beyond. He has participated in international climate discussions at the United Nations headquarters in New York, the United Nations Climate Change Conference in Paris, the Vatican, and the Climate Summit of the Americas in Canada – calling on other subnational and national leaders to join California in the fight against climate change. He has signed climate change agreements with leaders from Chile, China, the Czech Republic, Israel, Japan, Mexico, the Netherlands, other North American states and provinces, and Peru. He has joined an unprecedented alliance of heads of state, city and state leaders – convened by the World Bank Group and International Monetary Fund – to urge countries and companies around the globe to put a price on carbon. And California is a founding member of the International Zero Emission Vehicle (ZEV) Alliance, a coalition of national and subnational governments working to accelerate the adoption of ZEVs and make all new



cars zero emissions. Delegations from around the world travel to Sacramento to meet with the architects and implementers of California's climate policies to learn how to successfully combine strong greenhouse gas policies with a strong economy.

Perhaps most significant is the Under2Coalition. It is a global climate pact – spearheaded by Governor Brown – among states, provinces, countries, and cities all committing to do their part to limit the increase in global average temperatures below the dangerous levels. Signatories commit to either reducing greenhouse gas emissions 80 to 95 percent below 1990 levels by 2050 or achieving a per capita annual emission target of less than 2 metric tons by 2050. More than 200 jurisdictions from 38 countries and six continents have now signed or endorsed the agreement. Together, members of the Under2Coalition represent more than 1.2 billion people and \$28.8 trillion in GDP, equivalent to 39 percent of the global economy.

## Unleashing the California Spirit

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This Plan is a declaration of California's path forward. It builds on the State's successful approach to addressing climate change and harnesses the California spirit to propel a cleaner economy, while serving as an example for others.

But this Plan will not be successful on its own. Our collective, and individual, efforts must reach every sector of California's economy, and every community in the state. As California faces the challenge of climate change, it will succeed as it always has – through open, inclusive processes, through support of clean technology markets, and through a relentless pursuit of a healthy California for all.

There should be no doubt that California is united in understanding the need to act, and in the will to act. Investments in clean, low-carbon options will pay off – for the environment and the economy. Investments and training in education and workforce development for a lower carbon economy are a critical part of this transition.

This Plan is only the beginning. All of the measures in the Plan will be developed in their own public process, shaped not just by the vision of this Plan, but also by the best understanding of the technology, costs and impacts on communities – and by input from a broad range of stakeholders and perspectives with the recognition that achieving the 2030 target is a milestone on our way to the deeper GHG reductions needed to protect the environment and our way of life. The Plan also proposes developing a long-term funding plan to inform future appropriations necessary to achieve our long-term targets, which will send clear market and workforce development signals.

Climate change presents unprecedented challenges, but just as we have always done, Californians will tackle them with innovation, inclusion and ultimately, success.

# Chapter 1

## INTRODUCTION

### Background

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In November 2016, California Governor Edmund G. Brown affirmed California’s role in the fight against climate change in the United States, noting, “We will protect the precious rights of our people and continue to confront the existential threat of our time–devastating climate change.” By working to reduce the threat facing the State and setting an example, California continues to lead in the climate arena. This Scoping Plan for Achieving California’s 2030 Greenhouse Gas Target (Scoping Plan or 2017 Scoping Plan) identifies how the State can reach our 2030 climate target to reduce greenhouse gas (GHG) emissions by 40 percent from 1990 levels, and substantially advance toward our 2050 climate goal to reduce GHG emissions by 80 percent below 1990 levels. By selecting and pursuing a sustainable and clean economy path for 2030, the State will continue to successfully execute existing programs, demonstrate the coupling of economic growth and environmental progress, and enhance new opportunities for engagement within the State to address and prepare for climate change.

This Scoping Plan builds on and integrates efforts already underway to reduce the State’s GHG, criteria pollutant, and toxic air contaminant emissions. Successful implementation of existing programs has put California on track to achieve the 2020 target. Programs such as the Low Carbon Fuel Standard and Renewables Portfolio Standard are delivering cleaner fuels and energy, the Advanced Clean Cars Program has put more than a quarter million clean vehicles on the road, and the Sustainable Freight Action Plan will result in efficient and cleaner systems to move goods throughout the State. Enhancing and implementing these ongoing efforts puts California on the path to achieving the 2030 target. This Scoping Plan relies on these, and other, foundational programs paired with an extended, more stringent Cap-and-Trade Program, to deliver climate, air quality, and other benefits.

In developing this Scoping Plan, it is paramount that we continue to build on California’s success by taking effective actions. We must rapidly produce real results to avoid the most catastrophic impacts of climate change. The Scoping Plan identifies policies based on solid science and identifies additional research needs, while also recognizing the need for flexibility in the face of a changing climate. Ongoing research to better understand systems where our knowledge is weaker will allow for additional opportunities to set targets and identify actionable policies. Further, a long-term funding plan to inform future appropriations is critical to achieve our long-term targets, which will send clear market and workforce development signals.

### Climate Legislation and Directives

California has made progress on addressing climate change during periods of both Republican and Democratic national and State administrations. California’s governors and legislature prioritize public health and the environment. A series of executive orders and laws have generated policies and actions across State government, among local and regional governments, and within industry. These policies also have encouraged collaboration with federal agencies and spurred partnerships with many jurisdictions beyond California’s borders. Moving forward, California will continue its pursuit of collaborations and advocacy for action to address climate change. The following list provides a summary of major climate legislation and executive orders that have shaped California’s climate programs.

Assembly Bill 32 (AB 32) (Nuñez, Chapter 488, Statutes of 2006), the California Global Warming Solutions Act of 2006.

- Cut the State’s GHG emissions to 1990 levels by 2020 with maintained and continued reductions post 2020.
- First comprehensive climate bill in California, a defining moment in the State’s long history of environmental stewardship.

- Secured the State’s role as a national and global leader in reducing GHGs.

Pursuant to AB 32, the California Air Resources Board (CARB or Board) prepared and adopted the initial Scoping Plan to *“identify and make recommendations on direct emissions reductions measures, alternative compliance mechanisms, market-based compliance mechanisms, and potential monetary and non-monetary incentives”* in order to achieve the 2020 goal, and to achieve *“the maximum technologically feasible and cost-effective GHG emissions reductions”* by 2020 and maintain and continue reductions beyond 2020. AB 32 requires CARB to update the Scoping Plan at least every five years.

## **Executive Order B-30-15**

In his January 2015 inaugural address, Governor Brown identified actions in five key climate change strategy “pillars” necessary to meet California’s ambitious climate change goals. These five pillars are:

- Reducing today’s petroleum use in cars and trucks by up to 50 percent.
- Increasing from one-third to 50 percent our electricity derived from renewable sources.
- Doubling the efficiency savings achieved at existing buildings and making heating fuels cleaner.
- Reducing the release of methane, black carbon, and other short-lived climate pollutants.
- Managing farm and rangelands, forests, and wetlands so they can store carbon.

Consistent with these goals, Governor Brown signed Executive Order B-30-15 in April 2015:

- Establishing a California GHG reduction target of 40 percent below 1990 levels by 2030.
- Calling on CARB, in coordination with sister agencies, to update the AB 32 Climate Change Scoping Plan to incorporate the 2030 target.
- Building out the “sixth pillar” of the Governor’s strategy—to safeguard California in the face of a changing climate—highlighting the need to prioritize actions to reduce GHG emissions and build resilience in the face of a changing climate.

## **Senate Bill 350 (SB 350) (De Leon, Chapter 547, Statutes of 2015), Golden State Standards**

- Required the State to set GHG reduction planning targets through Integrated Resource Planning in the electricity sector as a whole and among individual utilities and other electricity providers (collectively known as load serving entities).
- Codified an increase in the Renewables Portfolio Standard (RPS) to 50 percent by 2030<sup>1</sup> and doubled the energy savings required in electricity and natural gas end uses as discussed in the Governor’s inaugural address.

## **Senate Bill 32 (SB 32) (Pavley, Chapter 249, Statutes of 2016), California Global Warming Solutions Act of 2016: emissions limit and Assembly Bill 197 (AB 197) (E. Garcia, Chapter 250, Statutes of 2016), State Air Resources Board: greenhouse gases: regulations.**

SB 32 affirms the importance of addressing climate change by codifying into statute the GHG emissions reductions target of at least 40 percent below 1990 levels by 2030 contained in Governor Brown’s Executive Order B-30-15. The 2030 target reflects the same science that informs the agreement reached in Paris by the 2015 Conference of Parties to the United Nations Framework Convention on Climate Change (UNFCCC), aimed at keeping the global temperature increase below 2 degrees Celsius (°C). The California 2030 target represents the most ambitious GHG reduction goal for North America. Based on the emissions reductions directed by SB 32, the annual 2030 statewide target emissions level for California is 260 million metric tons of carbon dioxide equivalent (MMTCO<sub>2</sub>e).

The companion bill to SB 32, AB 197, provides additional direction to CARB on the following areas related to the adoption of strategies to reduce GHG emissions.

- Requires annual posting of GHG, criteria, and toxic air contaminant data throughout the State, organized by local and sub-county level for stationary sources and by at least a county level for mobile sources.
- Requires CARB, when adopting rules and regulations to achieve emissions reductions

<sup>1</sup> <http://www.cpuc.ca.gov/renewables/>

and to protect the State's most affected and disadvantaged communities, to consider the social costs of GHG emissions and prioritize both of the following:

- Emissions reductions rules and regulations that result in direct GHG emissions reductions at large stationary sources of GHG emissions and direct emissions reductions from mobile sources.
- Emissions reductions rules and regulations that result in direct GHG emissions reductions from sources other than those listed above.
- Directs CARB, in the development of each scoping plan, to identify for each emissions reduction measure:
  - The range of projected GHG emissions reductions that result from the measure.
  - The range of projected air pollution reductions that result from the measure.
  - The cost-effectiveness, including avoided social costs, of the measure.

CARB has begun the process to implement the provisions of AB 197. For instance, CARB is already posting GHG, criteria pollutant and toxic air contaminant data. CARB also incorporated air emissions data into a visualization tool in December 2016 in response to direction in AB 197 to provide easier access to this data.<sup>2</sup>

### **Senate Bill 1383 (SB 1383) (Lara, Chapter 395, Statutes of 2016), Short-lived climate pollutants: methane emissions: dairy and livestock: organic waste: landfills**

- Requires the development, adoption, and implementation of a Short-Lived Climate Pollutant Strategy.<sup>3, 4</sup>
- Includes the following specific goals for 2030 from 2013 levels:
  - 40 percent reduction in methane.
  - 40 percent reduction in hydrofluorocarbon gases.
  - 50 percent reduction in anthropogenic black carbon.<sup>5</sup>

Short-lived climate pollutants (SLCPs), such as black carbon, fluorinated gases, and methane, are powerful climate forcers that have a dramatic and detrimental effect on air quality, public health, and climate change. These pollutants create a warming influence on the climate that is many times more potent than that of carbon dioxide. In March 2017, the Board adopted the Short-Lived Climate Pollutant Reduction Strategy (SLCP Strategy) establishing a path to decrease GHG emissions and displace fossil-based natural gas use. Strategies include avoiding landfill methane emissions by reducing the disposal of organics through edible food recovery, composting, in-vessel digestion, and other processes; and recovering methane from wastewater treatment facilities, and manure methane at dairies, and using the methane as a renewable source of natural gas to fuel vehicles or generate electricity. The SLCP Strategy also identifies steps to reduce natural gas leaks from oil and gas wells, pipelines, valves, and pumps to improve safety, avoid energy losses, and reduce methane emissions associated with natural gas use. Lastly, the SLCP Strategy also identifies measures that can reduce hydrofluorocarbon (HFC) emissions at national and international levels, in addition to State-level action that includes an incentive program to encourage the use of low-Global Warming Potential (GWP) refrigerants, and limitations on the use of high-GWP refrigerants in new refrigeration and air-conditioning equipment.

### **Assembly Bill 1504 (AB 1504) (Skinner, Chapter 534, Statutes of 2010): Forest resources: carbon sequestration**

- Requires the Board of Forestry and Fire Protection to adopt district forest practice rules and regulations in accordance with specified policies to, among other things, assure the continuous growing and harvesting of commercial forest tree species.
- Requires the Board of Forestry and Fire Protection to ensure that its rules and regulations that govern the harvesting of commercial forest tree species consider the capacity of forest resources to sequester carbon dioxide emissions sufficient to meet or exceed the sequestration target of 5 million metric tons of carbon dioxide annually, as established in the first AB 32 Climate Change Scoping Plan.

<sup>2</sup> CARB. 2016. CARB's Emission Inventory Activities. [www.arb.ca.gov/ei/ei.htm](http://www.arb.ca.gov/ei/ei.htm)

<sup>3</sup> CARB. Reducing Short-Lived Climate Pollutants in California. [www.arb.ca.gov/cc/shortlived/shortlived.htm](http://www.arb.ca.gov/cc/shortlived/shortlived.htm)

<sup>4</sup> Senate Bill No. 605. [leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=201320140SB605](http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140SB605)

<sup>5</sup> Senate Bill No.1383. [leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=201520160SB1383](http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB1383)

## **Senate Bill 1386 (SB 1386) (Wolk, Chapter 545, Statutes of 2016): Resource conservation, natural and working lands**

- Declares it the policy of the State that protection and management of natural and working lands, as defined, is an important strategy in meeting the State's GHG reduction goals.
- Requires State agencies to consider protection and management of natural and working lands in establishing policies and grant criteria, and in making expenditures, and "implement this requirement in conjunction with the State's other strategies to meet its greenhouse gas emissions reduction goals."

## **Assembly Bill 398 (AB 398) (E. Garcia, Chapter 135, Statutes of 2017): California Global Warming Solutions Act of 2006: market-based compliance mechanisms: fire prevention fees: sales and use tax manufacturing exemption**

- Clarifies the role of the State's Cap-and-Trade Program from January 1, 2021, through December 31, 2030, continuing elements of the current program, but requiring CARB to make some post-2020 refinements.
- Establishes a Compliance Offsets Protocol Task Force to provide guidance to CARB in approving new offset protocols that increase projects with direct, in-state environmental benefits.
- Establishes the Independent Emissions Market Advisory Committee to report annually on the environmental and economic performance of the Cap-and-Trade Program and other climate policies.
- Identifies legislative priorities for allocating auction revenue proceeds, to include but not be limited to: air toxic and criteria air pollutants from stationary and mobile sources; low- and zero-carbon transportation alternatives; sustainable agricultural practices that promote transition to clean technology, water efficiency, and improved air quality; healthy forests and urban greening; short-lived climate pollutants; climate adaptation and resiliency; and climate and clean energy research.

In addition, AB 398 requires CARB to designate the Cap-and-Trade Program as the mechanism for reducing GHG emissions from petroleum refineries and oil and gas production facilities in this update to the Scoping Plan. With respect to local air districts, AB 398 states that it does not limit or expand the district's existing authority, including the authority to regulate criteria pollutants and toxic air contaminants, except that it prohibits an air district from adopting or implementing a rule for the specific purpose of reducing emissions of carbon dioxide from stationary sources that are subject to the Cap-and-Trade Program.

## **Assembly Bill 617 (AB 617) (C. Garcia, Chapter 136, Statutes of 2017): Nonvehicular air pollution: criteria air pollutants and toxic air contaminants.**

This bill was passed as a companion to AB 398 (E. Garcia, 2017) to strengthen air quality monitoring and reduce air pollution at a community level, in communities affected by a high cumulative burden of exposure to pollution. CARB is required to prepare a monitoring plan by October 1, 2018, that assesses the State's current air monitoring network with recommendations for a set of high-priority locations around the State to deploy community focused air monitoring systems. Local air districts must deploy air monitoring systems in the selected high priority locations by July 1, 2019. Thereafter, CARB will evaluate and select additional locations for community air monitoring on an annual basis. The air districts must also deploy air monitoring systems within one year of CARB's selection of the high-priority locations. In addition to the monitoring plan, the bill requires CARB to develop a statewide strategy to reduce criteria pollutants and toxic air contaminants (TACs) in communities affected by high cumulative exposure burdens through approved community emissions reduction programs developed by local air districts, in partnership with residents in the affected communities; requires CARB to establish a uniform system of annual reporting of criteria pollutants and TACs for the existing statewide air monitoring network; and expedites implementation of best available retrofit control technology in non-attainment areas.

Tables summarizing the legislation described in this section, along with other climate related legislation and programs are included in Appendix H and organized by sector.

## Initial Scoping Plan and First Update to the Scoping Plan

The Initial Scoping Plan<sup>6</sup> in 2008 presented the first economy-wide approach to reducing emissions and highlighted the value of combining both carbon pricing with other complementary programs to meet California's 2020 GHG emissions target while ensuring progress in all sectors. The coordinated set of policies in the Initial Scoping Plan employed strategies tailored to specific needs, including market-based compliance mechanisms, performance standards, technology requirements, and voluntary reductions. The Initial Scoping Plan also described a conceptual design for a cap-and-trade program that included eventual linkage to other cap-and-trade programs to form a larger regional trading program.

AB 32 requires CARB to update the scoping plan at least every five years. The First Update to the Scoping Plan<sup>7</sup> (First Update), approved in 2014, presented an update on the program and its progress toward meeting the 2020 limit. It also developed the first vision for long-term progress beyond 2020. In doing so, the First Update laid the groundwork for the goals set forth in Executive Orders S-3-05<sup>8</sup> and B-16-2012<sup>9</sup>. It also identified the need for a 2030 mid-term target to establish a continuum of actions to maintain and continue reductions, rather than only focusing on targets for 2020 or 2050.

## Building on California's Environmental Legacy

California's successful climate policies and programs have already delivered emissions reductions resulting from cleaner, more fuel-efficient cars and zero emission vehicles (ZEVs), low carbon fuels, increased renewable energy, and greater waste diversion from landfills; water conservation; improved forest management; and improved energy efficiency of homes and businesses. Beyond GHG reductions, these policies and programs also provide an array of benefits including improved public health, green jobs, and more clean energy choices. The 2030 GHG emissions reduction target in SB 32 will ensure that the State maintains this momentum beyond 2020, mindful of the State's population growth and needs. This Scoping Plan identifies a path to simultaneously make progress on the State's climate goals as well as complement other efforts such as the State Implementation Plans (SIPs) and community emissions reduction programs to help improve air quality in all parts of the State.

California's future climate strategy will require continued contributions from all sectors of the economy, including enhanced focus on zero- and near-zero emission (ZE/NZE) vehicle technologies; continued investment in renewables, such as solar roofs, wind, and other types of distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (methane, black carbon, and fluorinated gases); and an increased focus on integrated land use planning to support livable, transit-connected communities and conservation of agricultural and other lands. Requirements for GHG reductions at stationary sources complement efforts of local air pollution control and air quality management districts (air districts) to tighten criteria and toxics air pollution emission limits on a broad spectrum of industrial sources, including in disadvantaged communities historically located adjacent to large stationary sources. Finally, meeting the State's climate, public health, and environmental goals will entail understanding, quantifying, and addressing emissions impacts from land use decisions at all governmental levels.

## Purpose of the 2017 Scoping Plan

This Scoping Plan incorporates, coordinates, and leverages many existing and ongoing efforts and identifies new policies and actions to accomplish the State's climate goals. Chapter 2 of this document includes a description of a suite of specific actions to meet the State's 2030 GHG limit. In addition, Chapter 4 provides a broader description of the many actions and proposals being explored across the sectors, including the natural resources sector, to achieve the State's mid and long-term climate goals.

Guided by legislative direction, the actions identified in this Scoping Plan reduce overall GHG emissions in California and deliver policy signals that will continue to drive investment and certainty in a low carbon

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6 CARB. Initial AB 32 Climate Change Scoping Plan. Available at: [www.arb.ca.gov/cc/scopingplan/document/adopted\\_scoping\\_plan.pdf](http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf)

7 CARB. First Update to the AB 32 Scoping Plan. Available at: [www.arb.ca.gov/cc/scopingplan/document/updatedscopingplan2013.htm](http://www.arb.ca.gov/cc/scopingplan/document/updatedscopingplan2013.htm)

8 [www.gov.ca.gov/news.php?id=1861](http://www.gov.ca.gov/news.php?id=1861)

9 [www.gov.ca.gov/news.php?id=17472](http://www.gov.ca.gov/news.php?id=17472)

economy. This Scoping Plan builds upon the successful framework established by the Initial Scoping Plan and First Update, while identifying new, technologically feasible, and cost-effective strategies to ensure that California meets its GHG reduction targets in a way that promotes and rewards innovation, continues to foster economic growth, and delivers improvements to the environment and public health, including in disadvantaged communities. The Plan includes policies to require direct GHG reductions at some of the State's largest stationary sources and mobile sources. These policies include the use of lower GHG fuels, efficiency regulations, and the Cap-and-Trade Program, which constrains and reduces emissions at covered sources.

## Process for Developing the 2017 Scoping Plan

This Scoping Plan was developed in coordination with State agencies, through engagement with the Legislature, and with open and transparent opportunities for stakeholders and the public to engage in workshops and other meetings. Development also included careful consideration of, and coordination with, other State agency plans and regulations, including the Cap-and-Trade Program, Low Carbon Fuel Standard (LCFS), State Implementation Plan, California Sustainable Freight Action Plan, California Transportation Plan 2040, Forest Carbon Plan, and the Short-Lived Climate Pollutant Strategy, among others.

To inform this Scoping Plan, CARB, in collaboration with the Governor's Office and other State agencies, solicited comments and feedback from affected stakeholders, including the public, and the Environmental Justice Advisory Committee (EJAC or Committee). The process to update the 2017 Scoping Plan began with the Governor's Office Pillar Symposia, which included over a dozen public workshops, and featured a series of Committee and environmental justice community meetings.<sup>10</sup>

One key message conveyed to CARB during engagement with the legislature, EJAC, and environmental justice communities was the need to emphasize reductions at large stationary sources, with a particular focus on multi-pollutant strategies for these sources to reduce GHGs and harmful criteria and toxic air pollutants that result in localized health impacts, especially in disadvantaged communities. Other consistent feedback for CARB included the need for built and natural infrastructure improvements that enhance quality of life, increase access to safe and viable transportation options, and improve physical activity and related health outcomes.

## Updated Climate Science Supports the Need for More Action

Climate scientists agree that global warming and other shifts in the climate system observed over the past century are caused by human activities. These recorded changes are occurring at an unprecedented rate.<sup>11</sup> According to new research, unabated GHG emissions could allow sea levels to rise up to ten feet by the end of this century—an outcome that could devastate coastal communities in California and around the world.<sup>12</sup>

California is already feeling the effects of climate change, and projections show that these effects will continue and worsen over the coming centuries. The impacts of climate change have been documented by the Office of Environmental Health Hazard Assessment (OEHHA) in the Indicators of Climate Change Report, which details the following changes that are occurring already:<sup>13</sup>

- A recorded increase in annual average temperatures, as well as increases in daily minimum and maximum temperatures.
- An increase in the occurrence of extreme events, including wildfire and heat waves.
- A reduction in spring runoff volumes, as a result of declining snowpack.
- A decrease in winter chill hours, necessary for the production of high-value fruit and nut crops.
- Changes in the timing and location of species sightings, including migration upslope of flora and fauna, and earlier appearance of Central Valley butterflies.

<sup>10</sup> [www.arb.ca.gov/cc/scopingplan/scopingplan.htm](http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm)

<sup>11</sup> Cook, J., et al. 2016. Consensus on consensus: A synthesis of consensus estimates on human-caused global warming. *Environmental Research Letters* 11:048002 doi:10.1088/1748-9326/11/4/048002. [iopscience.iop.org/article/10.1088/1748-9326/11/4/048002](http://iopscience.iop.org/article/10.1088/1748-9326/11/4/048002).

<sup>12</sup> California Ocean Protection Council. 2017. Rising Seas in California: An Update On Sea-Level Rise Science. [www.opc.ca.gov/webmaster/ftp/pdf/docs/rising-seas-in-california-an-update-on-sea-level-rise-science.pdf](http://www.opc.ca.gov/webmaster/ftp/pdf/docs/rising-seas-in-california-an-update-on-sea-level-rise-science.pdf)

<sup>13</sup> Office of Environmental Health Hazard Assessment, Indicators of Climate Change (website): [oehha.ca.gov/climate-change/document/indicators-climate-change-california](http://oehha.ca.gov/climate-change/document/indicators-climate-change-california)

In addition to these trends, the State's current conditions point to a changing climate. California's recent historic drought incited land subsidence, pest invasions that killed over 100 million trees, and water shortages throughout the State. Recent scientific studies show that such extreme drought conditions are more likely to occur under a changing climate.<sup>14,15</sup> The total statewide economic cost of the 2013–2014 drought was estimated at \$2.2 billion, with a total loss of 17,100 jobs.<sup>16</sup> In the Central Valley, the drought cost California agriculture about \$2.7 billion and more than 20,000 jobs in 2015, which highlights the critical need for developing drought resilience.<sup>17</sup> Drought affects other sectors as well. An analysis of the amount of water consumed in meeting California's energy needs between 1990 and 2012 shows that while California's energy policies have supported climate mitigation efforts, the performance of these policies have increased vulnerability to climate impacts, especially greater hydrologic uncertainty.<sup>18</sup>

Several publications carefully examined the potential role of climate change in the recent California drought. One study examined both precipitation and runoff in the Sacramento and San Joaquin River basins, and found that 10 of the past 14 years between 2000 and 2014 have been below normal, and recent years have been the driest and hottest in the full instrumental record from 1895 through November 2014.<sup>19</sup> In another study, the authors show that the increasing co-occurrence of dry years with warm years raises the risk of drought, highlighting the critical role of elevated temperatures in altering water availability and increasing overall drought intensity and impact.<sup>20</sup> Generally, there is growing risk of unprecedented drought in the western United States driven primarily by rising temperatures, regardless of whether or not there is a clear precipitation trend.<sup>21</sup>

According to the U.S. Forest Service report, National Insect and Disease Forest Risk Assessment, 2013–2027,<sup>22</sup> California is at risk of losing 12 percent of the total area of forests and woodlands in the State due to insects and disease, or over 5.7 million acres. Some species are expected to lose significant amounts of their total basal area (e.g., whitebark pine is projected to lose 60 percent of its basal area; and lodgepole pine is projected to lose 40 percent). While future climate change is not modeled within the risk assessment, and current drought conditions are not accounted for in these estimates, the projected climate changes over a 15 year period (2013–2027) are expected to significantly increase the number of acres at risk, and will increase the risk from already highly destructive pests such as the mountain pine beetle. Extensive tree mortality is already prevalent in California. The western pine beetle and other bark beetles have killed a majority of the ponderosa pine in the foothills of the central and southern Sierra Nevada Mountains. A recent aerial survey by the U.S. Forest Service identified more than 100 million dead trees in California.<sup>23</sup> As there is usually a lag time between drought years and tree mortality, we are now beginning to see a sharp rise in mortality from the past four years of drought. In response to the very high levels of tree mortality, Governor Brown issued an Emergency Proclamation on October 30, 2015, that directed state agencies to identify and take action to reduce wildfire risk through the removal and use of the dead trees.

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14 Diffenbaugh, N., D. L. Swain, and D. Touma. 2015. Anthropogenic Warming has Increased Drought Risk in California. *Proceedings of the National Academy of Sciences* 112(13): 3931–3936.

15 Cayan, D., T. Das, D. W. Pierce, T. P. Barnett, M. Tyree, and A. Gershunov. 2010. Future Dryness in the Southwest US and Hydrology of the Early 21<sup>st</sup> Century Drought. *Proceedings of the National Academy of Sciences* 107(50): 21272–21276.

16 Howitt, R., J. Medellin-Azuara, D. MacEwan, J. Lund, and D. Summer. 2014. Economic Impacts of 2014 Drought on California Agriculture. [watershed.ucdavis.edu/files/biblio/DroughtReport\\_23July2014\\_0.pdf](http://watershed.ucdavis.edu/files/biblio/DroughtReport_23July2014_0.pdf).

17 Williams, A. P., et al. 2015. Contribution of anthropogenic warming to California drought during 2012–2014. *Geophysical Research Letters* <http://onlinelibrary.wiley.com/doi/10.1002/2015GL064924/abstract>.

18 Fulton, J., and H. Cooley. 2015. The water footprint of California's energy system, 1990–2012. *Environmental Science & Technology* 49(6):3314–3321. [pubs.acs.org/doi/abs/10.1021/es505034x](http://pubs.acs.org/doi/abs/10.1021/es505034x).

19 Mann, M. E., and P. H. Gleick. 2015. Climate change and California drought in the 21<sup>st</sup> century. *Proceedings of the National Academy of Sciences of the United States of America*, 112(13):3858–3859. [doi.org/10.1073/pnas.1503667112](http://doi.org/10.1073/pnas.1503667112).

20 Diffenbaugh, N. S., D. L. Swain, and D. Touma. 2015. Anthropogenic warming has increased drought risk in California. *Proceedings of the National Academy of Sciences of the United States of America*. 10.1073/pnas.1422385112. [www.pnas.org/content/112/13/3931.full.pdf](http://www.pnas.org/content/112/13/3931.full.pdf)

21 Cook, B. I., T. R. Ault, and J. E. Smerdon. 2015. Unprecedented 21<sup>st</sup> century drought risk in the American Southwest and Central Plains. *Science Advances* 1(1), e1400082, doi:10.1126/sciadv.1400082.

22 Krist, F.J. Jr., J.R. Ellenwood, M.E. Woods, A.J. McMahan, J.P. Cowardin, D.E. Ryerson, F.J. Sapio, M.O. Zweifler, S.A. Romero. 2014. FHTET 2013 – 2027 National Insect & and Disease Forest Risk Assessment. FHTET-14-01 January 2014. Available at: [http://www.fs.fed.us/foresthealth/technology/pdfs/2012\\_RiskMap\\_Report\\_web.pdf](http://www.fs.fed.us/foresthealth/technology/pdfs/2012_RiskMap_Report_web.pdf)

23 USDA. 2016. New Aerial Survey Identifies More Than 100 Million Dead Trees in California. [www.usda.gov/wps/portal/usda/usdahome?contentid=2016/11/0246.xml&contentidonly=true](http://www.usda.gov/wps/portal/usda/usdahome?contentid=2016/11/0246.xml&contentidonly=true)



## CLIMATE IMPACTS AT THE COMMUNITY LEVEL

The California Energy Commission Cal-Adapt tool provides information about future climate conditions to help better understand how climate will impact local communities.

[cal-adapt.org](http://cal-adapt.org)

A warming climate also causes sea level to rise; first, by warming the oceans which causes the water to expand, and second, by melting land ice which transfers water to the ocean. Even if storms do not become more intense or frequent, sea level rise itself will magnify the adverse impact of any storm surge and high waves on the California coast. Some observational studies report that the largest waves are already getting higher and winds are getting stronger.<sup>24</sup> Further, as temperatures warm and GHG concentrations increase more carbon dioxide dissolves in the ocean, making it more acidic. More acidic ocean water affects a wide variety of marine species, including species that people rely on for food. Recent projections indicate that if no significant GHG mitigation efforts are taken, the San Francisco Bay Area may experience sea level rise between 1.6 to 3.4 feet, and in an extreme scenario involving the rapid loss of the Antarctic ice sheet, sea levels along California's coastline could rise up to 10 feet by 2100.<sup>25</sup> This change is likely to have substantial ecological and economic consequences in California and worldwide.<sup>26</sup>

While more intense dry periods are anticipated under warmer conditions, extremes on the wet end of the spectrum are also expected to increase due to more frequent warm, wet atmospheric river events and a higher proportion of precipitation falling as rain instead of snow. In recent years, atmospheric rivers have also been recognized as the cause of the large majority of major floods in rivers

all along the U.S. West Coast and as the source of 30-50 percent of all precipitation in the same region.<sup>27</sup> These extreme precipitation events, together with the rising snowline, often cause devastating floods in major river basins (e.g., California's Russian River). It was estimated that the top 50 observed floods in the U.S. Pacific Northwest were due to atmospheric rivers.<sup>28</sup> Looking ahead, the frequency and severity of atmospheric rivers on the U.S. West Coast will increase due to higher atmospheric water vapor that occurs with rising temperature, leading to more frequent flooding.<sup>29, 30</sup>

Climate change can drive extreme weather events such as coastal storm surges, drought, wildfires, floods, and heat waves, and disrupt environmental systems including our forests and oceans. As GHG emissions continue to accumulate and climate disruption grows, such destructive events will become more frequent. Several recent studies project increased precipitation within hurricanes over ocean regions.<sup>31, 32</sup> The primary physical mechanism for this increase is higher water vapor in the warmer atmosphere, which enhances moisture convergence in a storm for a given circulation strength. Since hurricanes are responsible for many of the most extreme precipitation events, such events are likely to become more extreme. Anthropogenic warming by

24 National Research Council of the National Academy of Sciences. 2012. Sea-Level Rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future. National Academies Press.

25 California Ocean Protection Council. 2017. Rising Seas in California: An Update On Sea-Level Rise Science. [www.opc.ca.gov/webmaster/ftp/pdf/docs/rising-seas-in-california-an-update-on-sea-level-rise-science.pdf](http://www.opc.ca.gov/webmaster/ftp/pdf/docs/rising-seas-in-california-an-update-on-sea-level-rise-science.pdf)

26 Chan, F., et al. 2016. The West Coast Ocean Acidification and Hypoxia Science Panel: Major Findings, Recommendations, and Actions. California Ocean Science Trust, Oakland, California, USA.

27 Dettinger, M. D. 2013. Atmospheric rivers as drought busters on the U.S. West Coast. *Journal of Hydrometeorology* 14:1721-1732, doi:10.1175/JHM-D-13-02.1. [journals.ametsoc.org/doi/abs/10.1175/JHM-D-13-02.1](http://journals.ametsoc.org/doi/abs/10.1175/JHM-D-13-02.1).

28 Warner, M. D., C. F. Mass, and E. P. Salathé. 2012. Wintertime extreme precipitation events along the Pacific Northwest coast: Climatology and synoptic evolution. *Monthly Weather Review* 140:2021-43. <http://journals.ametsoc.org/doi/abs/10.1175/MWR-D-11-00197.1>.

29 Hagos, S. M., L. R. Leung, J.-H. Yoon, J. Lu, and Y. Gao, 2016: A projection of changes in landfalling atmospheric river frequency and extreme precipitation over western North America from the Large Ensemble CESM simulations. *Geophysical Research Letters*, 43 (3), 357-1363, <http://onlinelibrary.wiley.com/doi/10.1002/2015GL067392/epdf>.

30 Payne, A. E., and G. Magnusdottir, 2015: An evaluation of atmospheric rivers over the North Pacific in CMIP5 and their response to warming under RCP 8.5. *Journal of Geophysical Research: Atmospheres*, 120 (21), 11,173-11,190, <http://onlinelibrary.wiley.com/doi/10.1002/2015JD023586/epdf>.

31 Easterling, D.R., K.E. Kunkel, M.F. Wehner, and L. Sun, 2016: Detection and attribution of climate extremes in the observed record. *Weather and Climate Extremes*, 11, 17-27. <http://dx.doi.org/10.1016/j.wace.2016.01.001>.

32 NAS, 2016: Attribution of Extreme Weather Events in the Context of Climate Change. The National Academies Press, Washington, DC, 186 pp. <http://dx.doi.org/10.17226/21852>.

the end of the 21<sup>st</sup> century will likely cause tropical cyclones globally to become more intense on average. This change implies an even larger percentage increase in the destructive potential per storm, assuming no changes in storm size.<sup>33,34</sup> Thus, the historical record, which once set our expectations for the traditional range of weather and other natural events, is becoming an increasingly unreliable predictor of the conditions we will face in the future. Consequently, the best available science must drive effective climate policy.

California is committed to further supporting new research on ways to mitigate climate change and how to understand its ongoing and projected impacts. California's Fourth Climate Change Assessment and Indicators of Change Report will further update our understanding of the many impacts from climate change in a way that directly informs State agencies' efforts to safeguard the State's people, economy, and environment.<sup>35, 36</sup>

Together, historical data, current conditions, and future projections provide a picture of California's changing climate, with two important messages:

- Change is already being experienced and documented across California, and some of these changes have been directly linked to changing climatic conditions.
- Even with the uncertainty in future climate conditions, every scenario estimates further change in future conditions.

It is critical that California continue to take steps to reduce GHG emissions in order to avoid the worst of the projected impacts of climate change. At the same time, the State is taking steps to make the State more resilient to ongoing and projected climate impacts as laid out by the Safeguarding California Plan.<sup>37</sup> The Safeguarding California Plan is being updated in 2017 to present new policy recommendations and provide a roadmap of all the actions and next steps that state government is taking to adapt to the ongoing and inevitable effects of climate change. The Draft Safeguarding California Plan<sup>38</sup> is available and will be finalized after workshops and public comments. California's continuing efforts are vital steps toward minimizing the impact of GHG emissions and a three-pronged approach of reducing emissions, preparing for impacts, and conducting cutting-edge research can serve as a model for action.

## California's Greenhouse Gas Emissions and the 2030 Target

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### Progress Toward Achieving the 2020 Limit

AB 32 directs CARB to develop and track GHG emissions and progress toward the 2020 statewide GHG target. California is on track to achieve the target while also reducing criteria pollutants and toxic air contaminants and supporting economic growth. As shown in Figure 1, in 2015, total GHG emissions decreased by 1.5 MMTCO<sub>2</sub>e compared to 2014, representing an overall decrease of 10 percent since peak levels in 2004. The 2015 GHG Emission Inventory and a description of the methodology updates can be accessed at: [www.arb.ca.gov/cc/inventory/inventory.htm](http://www.arb.ca.gov/cc/inventory/inventory.htm).

Per California Health and Safety Code section 38505, CARB monitors and regulates seven GHGs to reduce emissions: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), sulfur hexafluoride (SF<sub>6</sub>), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and nitrogen trifluoride (NF<sub>3</sub>). The fluorinated gases are also referred to as "high global warming potential gases" (high-GWP gases). California's annual statewide GHG emission inventory has historically been the primary tool for tracking GHG emissions trends. Figure 1 provides the GHG inventory trend. Additional information on the methodology for the GHG inventory can also be found at: [www.arb.ca.gov/cc/inventory/data/data.htm](http://www.arb.ca.gov/cc/inventory/data/data.htm).

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33 Sobel, A.H., S.J. Camargo, T.M. Hall, C.-Y. Lee, M.K. Tippett, and A.A. Wing, 2016: Human influence on tropical cyclone intensity. *Science*, 353, 242-246.

34 Kossin, J. P., K. A. Emanuel, and S. J. Camargo, 2016: Past and projected changes in western North Pacific tropical cyclone exposure. *Journal of Climate*, 29 (16), 5725-5739, <https://doi.org/10.1175/JCLI-D-16-0076.1>.

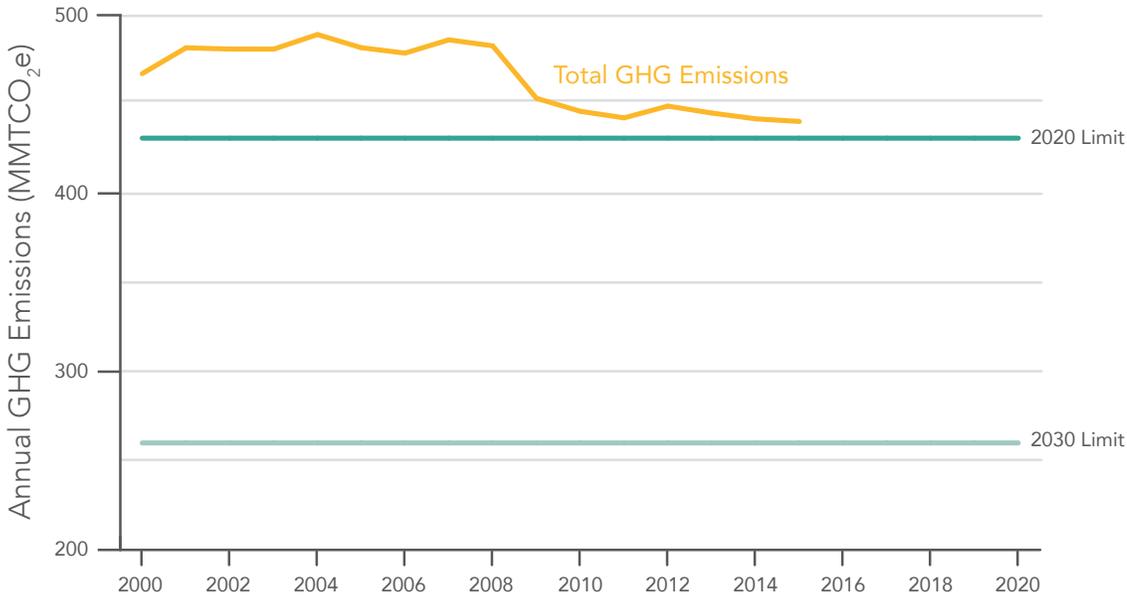
35 California's Fourth Climate Change Assessment. <http://resources.ca.gov/climate/safeguarding/research/>

36 Office of Environmental Health Hazard Assessment, Indicators of Climate Change (website): <https://oehha.ca.gov/climate-change/document/indicators-climate-change-california>

37 California Natural Resources Agency. 2017. Safeguarding California. <http://resources.ca.gov/climate/safeguarding/>

38 <http://resources.ca.gov/climate/safeguarding/>

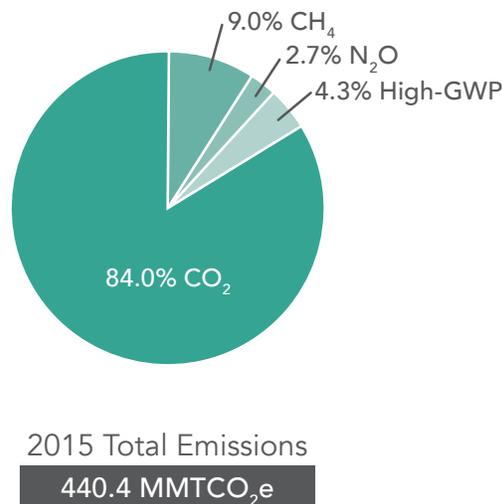
**FIGURE 1: CALIFORNIA GHG INVENTORY TREND**



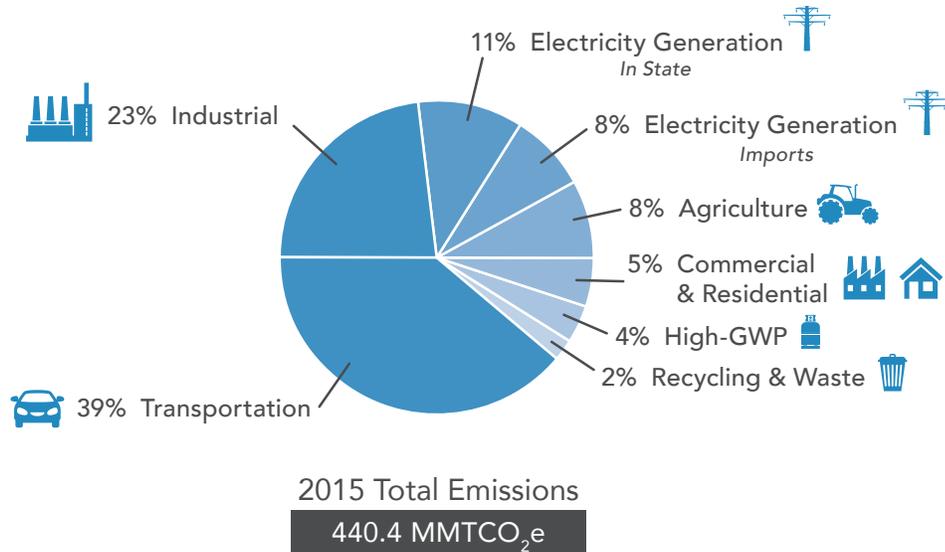
Carbon dioxide is the primary GHG emitted in California, accounting for 84 percent of total GHG emissions in 2015, as shown in Figure 2 below. Figure 3 illustrates that transportation, primarily on-road travel, is the single largest source of CO<sub>2</sub> emissions in the State. Upstream transportation emissions from the refinery and oil and gas sectors are categorized as CO<sub>2</sub> emissions from industrial sources and constitute about 50 percent of the industrial source emissions. When these emissions sources are attributed to the transportation sector, the emissions from that sector amount to approximately half of statewide GHG emissions. In addition to transportation, electricity production, and industrial and residential sources also are important contributors to CO<sub>2</sub> emissions.

Figures 2 and 3 show State GHG emission contributions by GHG and sector based on the 2015 GHG Emission Inventory.

**FIGURE 2: EMISSIONS BY GHG**

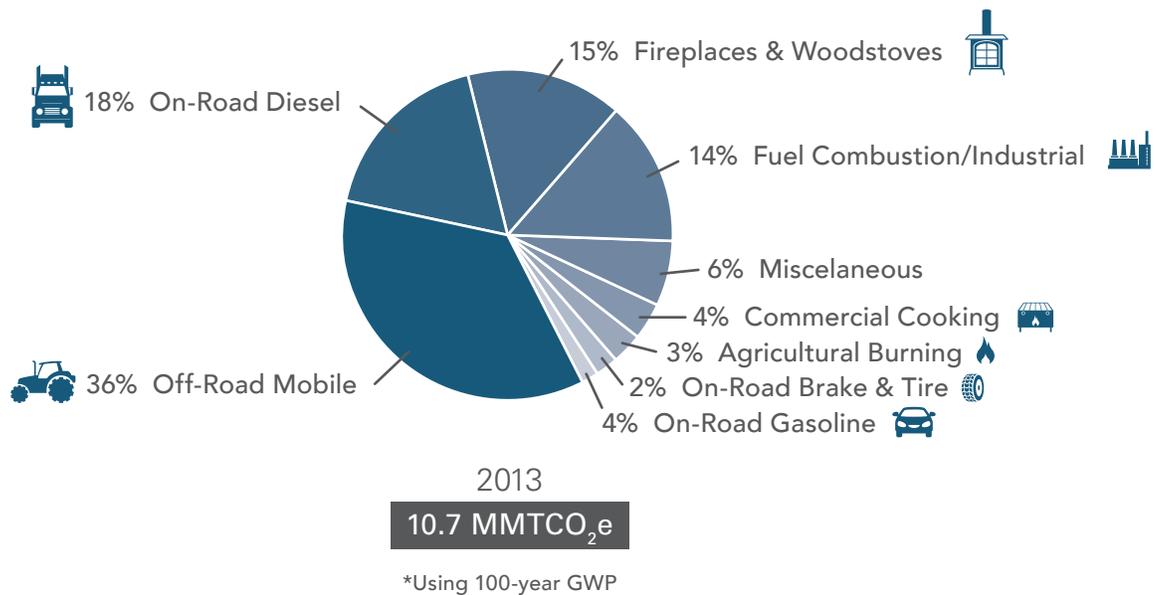


**FIGURE 3: EMISSIONS BY SECTOR**



In addition, CARB has developed a statewide emission inventory for black carbon in support of the SLCP Strategy, which is reported in two categories: non-forestry (anthropogenic) sources and forestry sources.<sup>39</sup> The black carbon inventory will help support implementation of the SLCP Strategy, but is not part of the State’s GHG Inventory that tracks progress towards the State’s climate targets. The State’s major anthropogenic sources of black carbon include off-road transportation, on-road transportation, residential wood burning, fuel combustion, and industrial processes (Figure 4). The forestry category includes non-agricultural prescribed burning and wildfire emissions.

**FIGURE 4: CALIFORNIA 2013 ANTHROPOGENIC BLACK CARBON EMISSION SOURCES\***



The exchange of CO<sub>2</sub> between the atmosphere and California’s natural and working lands sector is currently unquantified and therefore, excluded from the State’s GHG Inventory. A natural and working lands carbon inventory is essential for monitoring land-based activities that may increase or decrease carbon sequestration over time. CARB staff is working to develop a comprehensive inventory of GHG fluxes from all of California’s

<sup>39</sup> Per SB 1383, the SLCP Strategy only addresses anthropogenic black carbon.

natural and working lands using the Intergovernmental Panel on Climate Change (IPCC) design principles. CARB released the Natural and Working Lands Inventory with the 2030 Target Scoping Plan Update Discussion Draft.<sup>40</sup> This inventory provides an estimate of GHG emissions reductions and changes in carbon stock from some carbon pools in agricultural and natural and working lands. The CARB Natural and Working Lands Inventory includes an inventory of carbon stocks, stock-change (and by extension GHG flux associated with stock-change) with some attribution by disturbance process for the analysis period 2001-2010. Disturbance processes include activities such as conversion from one land category to a different category, fire, and harvest. The CARB Natural and Working Lands Inventory covers varieties of forests and woodlands, grasslands, and wetlands (biomass-stock-change only). The Inventory includes default carbon densities for croplands and urban/developed lands to facilitate stock-change estimation for natural lands that convert to cropland, natural lands that convert to developed lands, and for croplands that convert to developed lands.

## Greenhouse Gas Emissions Tracking

As described above, California maintains an economy-wide GHG inventory for the State that is consistent with IPCC practices to allow for comparison of statewide GHG emissions with those at the national level and with other international GHG inventories. Statewide GHG emissions calculations use many data sources, including data from other State and federal agencies. However, the primary source of data comes from reports submitted to CARB through the Regulation for the Mandatory Reporting of GHG Emissions (MRR). MRR requires facilities and entities with more than 10,000 metric tons of carbon dioxide equivalent (MTCO<sub>2</sub>e) of combustion and process emissions, all facilities belonging to certain industries, and all electric power entities to submit an annual GHG emissions data report directly to CARB. Reports from facilities and entities that emit more than 25,000 MTCO<sub>2</sub>e are verified by a CARB-accredited third-party verification body. More information on MRR emissions reports can be found at: [www.arb.ca.gov/cc/reporting/ghg-rep/reported-data/ghg-reports.htm](http://www.arb.ca.gov/cc/reporting/ghg-rep/reported-data/ghg-reports.htm).

All data sources used to develop the GHG Emission Inventory are listed in inventory supporting documentation at: [www.arb.ca.gov/cc/inventory/data/data.htm](http://www.arb.ca.gov/cc/inventory/data/data.htm).

Other State agencies, nonprofit organizations, and research institutions are developing and testing methodologies and models to quantify GHG fluxes from California's natural and working lands. CARB's ongoing work on the Natural and Working Lands Inventory will serve as one source of data to gauge the scope of GHG reduction potential from California's natural and working lands and monitor progress over time. CARB will evaluate other data sources and methodologies to validate or support the CARB inventory or project-scale tracking. Interagency work is also underway to integrate and account for the land use and management impacts of development, transportation, housing, and energy policies.

Greenhouse gas mitigation action may cross geographic borders as part of international and subnational collaboration, or as a natural result of implementation of regional policies. In addition to the State's existing GHG inventory, CARB has begun exploring how to build an accounting framework that also utilizes existing program data to better reflect the broader benefits of our policies that may be happening outside of the State. For GHG reductions outside of the State to be attributed to our programs, those reductions must be real and quantifiable, without any double counting, including claims to those reductions by other jurisdictions. CARB is collaborating with other jurisdictions to ensure GHG accounting rules are consistent with international best practices. Robust accounting rules will instill confidence in the reductions claimed and maintain support for joint action across jurisdictions. Consistency and transparency are critical as we work together with other jurisdictions on our parallel paths to achieve our GHG targets.

## California's Approach to Addressing Climate Change

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### Integrated Systems

The State's climate goals require a comprehensive approach that integrates and builds upon multiple ongoing State efforts. As we address future mobility, we identify how existing efforts – such as the California Sustainable Freight Action Plan, Mobile Source Strategy, California Transportation Plan 2040, High-Speed

<sup>40</sup> CARB. 2016. California Greenhouse Gas Inventory - Forests and Other Lands. [www.arb.ca.gov/cc/inventory/sectors/forest/forest.htm](http://www.arb.ca.gov/cc/inventory/sectors/forest/forest.htm)

Rail,<sup>41</sup> urban planning, housing, and goals for enhancement of the natural environment – can complement each other while providing multiple environmental benefits, including air quality and climate benefits. The collective consideration of these efforts illuminates the synergies and conflicts between policies. For example, land disturbance due to increased renewables through utility scale wind and solar and transmission can release GHGs from soil and disturb grasslands and rangelands that have the potential to sequester carbon. Further, policies that support sustainable land use not only reduce vehicle miles traveled (VMT) and its related emissions, but may also avoid land disturbance that could result in GHG emissions or loss of sequestration potential in the natural environment. Identifying these types of trade-offs, and designing policies and implementation strategies to support goals across all sectors, will require ongoing efforts at the local, regional, and State level to ensure that sustainable action across both the built and natural environments help to achieve the State’s long-term climate goals.

## Promoting Resilient Economic Growth

California’s strategic vision for achieving at least a 40 percent reduction in GHG emissions by 2030 is based on the principle that economic prosperity and environmental sustainability can be achieved together. Policies, strategies, plans and regulations to reduce GHG emissions help California businesses compete in a global economy and spur new investments, business creation, and jobs to support a clean energy economy. California’s portfolio-based climate strategy can achieve great success when accompanied by consistent and rigorous GHG monitoring and reporting, a robust public process, and an effective enforcement program for the few that attempt to evade rules. The transition to a low-carbon future can strengthen California’s economy and infrastructure and produce other important environmental benefits such as reductions in criteria pollutants and toxic air contaminants, especially in California’s most vulnerable communities.

Actions that are presented in this Scoping Plan provide economic opportunities for the future, but progress toward our goals is already evident today. For example, in 2015, California added more than 20,000 new jobs in the solar sector. This was more than half of the new jobs in this industry across the nation. Employment in the clean economy grew by 20 percent between 2002 and 2012, which included the period of economic recession around 2008.<sup>42</sup> Shifting to clean, local, and efficient uses of energy reinvests our energy expenditures in our local economies and reduces risks to our statewide economy associated with exposure to volatile global and national oil and gas commodity prices. Indeed, a clean economy is a resilient economy.

Successfully driving economic transition will require cleaner and more efficient technologies, policies and incentives that recognize and reward innovation, and prioritizing low carbon investments. Enacting policies and incentives at multiple jurisdictional levels further ensures the advancement of land use and natural resource management objectives for GHG mitigation, climate adaptation, and other co-benefits. Intentional synergistic linkages between technological advances and resource stewardship can result in sustainable development. The development and implementation of Sustainable Communities Strategies (SCSs) pursuant to Senate Bill (SB) 375, which link transportation, housing, and climate policy, are designed to reduce per capita GHG emissions while improving air quality and expanding transportation and housing options. This Scoping Plan identifies additional ways, beyond SB 375, to promote the technologies and infrastructure required to meet our collective climate goals, while also presenting the vision for California’s continuing efforts to foster a sustainable, clean energy economy.

## Increasing Carbon Sequestration in Natural and Working Lands

California’s natural and working lands make the State a global leader in agriculture, a U.S. leader in forest products, and a global biodiversity hotspot. These lands support clean air, wildlife and pollinator habitat, rural economies, and are critical components of California’s water infrastructure. Keeping these lands and waters intact and at high levels of ecological function (including resilient carbon sequestration) is necessary for the well-being and security of Californians in 2030, 2050, and beyond. Forests, rangelands, farms,

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41 California’s High-Speed Rail is part of the International Union of Railways (UIC) and California signed the Railway Climate Responsibility Pledge, which was commended by the Secretary of the UN Framework Convention on Climate Change as part of achieving global 2050 targets.

42 California Business Alliance for a Clean Economy. 2015. Clean Energy and Climate Change Summary of Recent Analyses for California. [clean-economy.org/wp-content/uploads/2015/01/Clean-Energy-Climate-Change-Analyses\\_January2015.pdf](http://clean-economy.org/wp-content/uploads/2015/01/Clean-Energy-Climate-Change-Analyses_January2015.pdf)

wetlands, riparian areas, deserts, coastal areas, and the ocean store substantial carbon in biomass and soils. Natural and working lands are a key sector in the State's climate change strategy. Storing carbon in trees, other vegetation, soils, and aquatic sediment is an effective way to remove carbon dioxide from the atmosphere. This Scoping Plan describes policies and programs that prioritize protection and enhancement of California's landscapes, including urban landscapes, and identifies next steps to ensure management actions are taken to increase the sequestration potential of those resources. We cannot ignore the relationships between energy, transportation, and natural working lands sectors or the adverse impacts that climate change is having on the environment itself. We must consider important trade-offs in developing the State's climate strategy by understanding the near and long-term impacts of various policy scenarios and actions on our State and local communities.

## Improving Public Health

The State's drive to improve air quality and promote community health and well-being as we address climate change remains a priority, as it has for almost 50 years. The State is committed to addressing public health issues, including addressing chronic and infectious diseases, promoting mental health, and protecting communities from exposure to harmful air pollutants and toxins. Several of the strategies included in this Plan were primarily developed to help California achieve federal and State ambient air quality standards for air pollutants with direct health impacts, but they will also deliver GHG reductions. Likewise, some climate strategies, such as GHG reduction measures that decrease diesel combustion from mobile sources, produce air quality co-benefits in the form of concurrent reductions in criteria pollutants and toxic air contaminants.

Climate change itself is already affecting the health of our communities and is exacerbating existing health inequities. Those facing the greatest health burdens include low-income individuals and households, the very young and the very old, communities of color, and those who have been marginalized or discriminated against based on gender or race/ethnicity.<sup>43</sup> Economic factors, such as income, poverty, and wealth, are among the strongest determinants of health. Addressing climate change presents an important opportunity to improve public health for all of California's residents and to further our work toward making our State the healthiest in the nation.

The major provisions of AB 617 (C. Garcia, 2017), to be completed by 2020, will ensure that as the State seeks to advance climate policy to meet the 2030 target, we will also act locally to improve neighborhood air quality. AB 617 requires strengthening and expanding community level air monitoring; expediting equipment retrofits at large industrial sources that are located in areas that are in nonattainment for the federal and State ambient air quality standards; requiring development of a statewide strategy to further reduce criteria pollutants and toxic air contaminants in communities faced with high cumulative exposure levels; and local air district-developed community emissions reductions plans that identify emissions reductions targets, measures, implementation schedules, and enforcement plans for these affected communities. By identifying and addressing the disproportionate impacts felt today and by planning, designing, and implementing actions for a sustainable future that considers both climate and air quality objectives, we can be part of the solution to make public health inequities an issue of the past.

## Environmental Justice

Fair and equitable climate action requires addressing the inequities that create and intensify community vulnerabilities. The capacity for resilience in the face of climate change is driven by living conditions and the forces that shape them. These include, but are not limited to, access to services such as health care, healthy foods, air and water, and safe spaces for physical activity; income; education; housing; transportation; environmental quality; and good health status. Strategies to alleviate poverty, increase access to economic opportunities, improve living conditions, and reduce health and social inequities will result in more climate-resilient communities. The transition to a low carbon California economy provides an opportunity to not only reduce GHG emissions, but also to reduce emissions of criteria pollutants and air toxins, and to create a healthier environment for all of California's residents, especially those living in the State's most disadvantaged communities. Policies designed to facilitate this transition and state-wide, regional, and local reductions,

<sup>43</sup> California Department of Public Health (CDPH). 2015. The Portrait of Promise: The California Statewide Draft Plan to Promote Health and Mental Health Equity. A Report to the Legislature and the People of California by the Office of Health Equity. Sacramento, CA: California Department of Public Health, Office of Health Equity.

must also be appropriately tailored to address the unique characteristics of economically distressed communities throughout the State's diverse geographic regions, including both rural and highly-urbanized areas. Equity considerations must likewise be part of the deliberate and thoughtful process in the design and implementation of all policies and measures included in the Scoping Plan. And CARB must ensure that its ongoing engagement with environmental justice communities will continue beyond the development of the Scoping Plan and be included in all aspects of its various air pollution programs. Additional detail on CARB's efforts to achieve these goals is provided in Chapter 5.

It is critical that communities of color, low-income communities, or both, receive the benefits of the cleaner economy growing in California, including its environmental and economic benefits. Currently, low-income customers enrolled in the California Alternate Rates for Energy (CARE) Program or the Family Electric Rate Assistance (FERA) Program are also eligible to receive a rebate under the California Climate Credit, or a credit on residential and small business electricity bills resulting from the sale of allowances received by investor-owned utilities as part of the Cap-and-Trade Program. SB 1018 (Committee on Budget and Fiscal Review, Chapter 39, Statutes of 2012) and other implementing legislation requires that Cap-and-Trade Program auction monies deposited into the Greenhouse Gas Reduction Fund (GGRF) be used to further the purposes of AB 32 and facilitate reduction of GHG emissions. Investments made with these funds not only reduce GHG emissions, but also provide other environmental, health, and economic benefits including, fostering job creation by promoting in-state GHG emissions reduction projects carried out by California workers and businesses.

Further, SB 535 (De Leon, Chapter 830, Statutes of 2012) and AB 1550 (Gomez, Chapter 369, Statutes of 2016) direct State and local agencies to make significant investments using GGRF monies to assist California's most vulnerable communities. Under SB 535 (de León, Chapter 830, Statutes of 2012), a minimum of 25 percent of the total investments were required to benefit disadvantaged communities; of that, a minimum of 10 percent were required to be located within and provide benefits to those communities. Based on cumulative data reported by agencies as of March 2016, the State is exceeding these targets. Indeed, 50 percent of the \$1.2 billion dollars spent on California Climate Investments projects provided benefits to disadvantaged communities; and 34 percent of this funding was used on projects located directly in disadvantaged communities.<sup>44</sup>

## Environmental Justice Advisory Committee

AB 32 calls for CARB to convene an Environmental Justice Advisory Committee (EJAC), to advise the Board in developing the Scoping Plan, and any other pertinent matter in implementing AB 32. It requires that the Committee be comprised of representatives from communities in the State with the most significant exposure to air pollution, including, but not limited to, communities with minority populations or low-income

## ENVIRONMENTAL JUSTICE ADVISORY COMMITTEE

|                                                        |                                               |                   |
|--------------------------------------------------------|-----------------------------------------------|-------------------|
| <b>Martha Dina Argüello</b>                            | Physicians for Social Responsibility          | Los Angeles       |
| <b>Colin Bailey</b>                                    | The Environmental Justice Coalition for Water | Sacramento        |
| <b>Gisele Fong</b>                                     | End Oil                                       | Los Angeles       |
| <b>Tom Frantz</b>                                      | Association of Irrigated Residents            | Central Valley    |
| <b>Katie Valenzuela Garcia (Served until May 2017)</b> | Oak Park Neighborhood Association             | Sacramento        |
| <b>Sekita Grant (Served until June 2017)</b>           | The Greenlining Institute                     | Statewide         |
| <b>Kevin Hamilton</b>                                  | Central California Asthma Collaborative       | Central Valley    |
| <b>Rey León</b>                                        | Valley LEAP                                   | Central Valley    |
| <b>Luis Olmedo</b>                                     | Comité Civico Del Valle                       | Salton Sea Region |
| <b>Kemba Shakur</b>                                    | Urban Releaf                                  | Bay Area          |
| <b>Mari Rose Taruc</b>                                 | Asian Pacific Environmental Network           | Bay Area          |
| <b>Eleanor Torres</b>                                  | The Incredible Edible Community Garden        | Inland Empire     |
| <b>Monica Wilson</b>                                   | Global Alliance for Incinerator Alternatives  | Bay Area          |

44 [www.arb.ca.gov/cc/capandtrade/auctionproceeds/ci\\_annual\\_report\\_2017.pdf](http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/ci_annual_report_2017.pdf)

populations, or both. CARB consulted 13 environmental justice and disadvantaged community representatives for the 2017 Scoping Plan process, starting with the first Committee meeting in December 2015. In February and April 2017, members of the California Air Resources Board held joint public meetings with the EJAC to discuss options for addressing environmental justice and disadvantaged community concerns in the Scoping Plan. The full schedule of Committee meetings and meeting materials is available on CARB's website.<sup>45</sup>

Starting in July 2016, the Committee hosted a robust community engagement process, conducting 19 community meetings throughout the State. To enhance this community engagement, CARB staff coordinated with staff from local government agencies and sister State agencies. At the community meetings, staff from State and local agencies participated in extensive, topic-specific "world café" discussions with local groups and individuals. The extensive dialogue between the EJAC, State agencies, and local agencies provided community residents the opportunity to share concerns and provide input on ways California can meet its 2030 GHG target while addressing a number of environmental and equity issues.

## Environmental Justice Advisory Committee Recommendations

The Committee's recommendations for the Scoping Plan were informed by comments received at community meetings described above and Committee member expertise. Recommendations were provided for the sector focus areas, overarching environmental justice policy, and California Climate Investments. The Committee also sorted their recommendations into five themes: partnership with environmental justice communities, equity, economic opportunity, coordination, and long-term vision. Finally, the Committee provided direction that their recommendations are intended "to be read and implemented holistically and not independently of each other." The EJAC's recommendations, in their entirety, are included in Appendix A and available at [www.arb.ca.gov/cc/ejac/meetings/04262017/ejac-sp-recommendations033017.pdf](http://www.arb.ca.gov/cc/ejac/meetings/04262017/ejac-sp-recommendations033017.pdf).

The Committee's overarching recommendations for partnership with environmental justice communities, equity, coordination, economic opportunity, and long-term vision include the following recommendations:

- Encourage long-term community engagement, a culture shift in California, and neighborhood-level solutions to promote the implementation of the State's climate plans, using strategies identified by the Committee.
- Improve the balance of reducing GHGs and compliance costs with other AB 32 goals of improving air quality in environmental justice communities while maximizing benefits for all Californians.
- Consider public health impacts and equity when examining issues in any sector and have CARB conduct an equity analysis on the Scoping Plan and each sector, with guidance from the Committee.
- Develop metrics to ensure actions are meeting targets and develop contingency plans for mitigation and adjustment if emissions increases occur as programs are implemented.
- Develop a statewide community-based air monitoring network to support regulatory efforts and monitor neighborhood scale pollution in disadvantaged communities.
- Coordinate strategies between State, federal, and local agencies for strong, enforceable, evidence-based policies to prevent and address sprawl with equity at the center.
- Maximize the accessibility of safe jobs, incentives, and economic benefits for Californians and the development of a just transition for workers and communities in and around polluting industries.
- Prioritize improving air quality in environmental justice communities and analyze scenarios at a neighborhood scale for all California communities.
- Ensure that AB 32 economic reviewers come from various areas around the State to represent insights on economic challenges and opportunities from those regions.
- Do not limit the Scoping Plan to examining interventions and impacts until 2030, or even 2050. Plan and analyze on a longer-term scale to prevent short-sighted mistakes and reach the long-term vision, as actions today and for the next 30 years will have impacts for seven generations.
- The Scoping Plan must prioritize GHG reductions and investments in California environmental justice communities first, before other California communities; and the innovation of new technologies or strategies to reach even deeper emissions cuts, whenever possible.
- Convene the Committee beyond the Scoping Plan development process.

The Committee's key Energy sector recommendations include:

- Developing aggressive energy goals toward 100 percent renewable energy by 2030, including a vision for a clean energy economy, and prioritizing actions in disadvantaged communities.

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<sup>45</sup> [www.arb.ca.gov/cc/ejac/ejac.htm](http://www.arb.ca.gov/cc/ejac/ejac.htm)

- Setting goals for green buildings.
- Enforcing GHG reduction targets for existing buildings, and providing upgrades that enable buildings to use renewable energy technologies and water capture.
- Prioritizing and supporting community-owned technologies, such as community-owned solar, for environmental justice communities.

Key Water sector recommendations include:

- Encouraging water conservation and recycling.
- Prioritizing safe drinking water for all.

The Committee's key Industry sector recommendations include:

- Prioritizing direct emissions reductions in environmental justice communities.
- Replacing the Cap-and-Trade Program with a carbon tax or fee and dividend program.
- Eliminating offsets and the allocation of free allowances if the Cap-and-Trade Program continues.
- Analyze where GHG emissions are increasing and identify strategies to prevent and reduce such emissions in environmental justice communities.
- Committing to reductions in petroleum use.

The Committee's key Transportation sector recommendations include:

- Increasing access to affordable, reliable, clean, and safe mobility options in disadvantaged communities.
- Community-engaged land use planning.
- Maximizing electrification.
- Restricting sprawl and examining transportation regionally.
- Considering the development of green transportation hubs that integrate urban greening with transportation options and implement the recommendations of the SB 350 studies.

The Committee's key Natural and Working Lands, Agriculture, and Waste sector recommendations include:

- Reducing waste and mandating that local jurisdictions manage the waste they create.
- Returning carbon to the soil.
- Not burning biomass or considering it a renewable resource.
- Supporting healthy soils as a critical element to land and waste management.
- Integrating urban forestry within local communities.
- Exploring ways to allow and streamline the process for cultural and prescribed burning for land management and to prevent large-scale wildfires.
- Including an annual reduction of 5 million metric tons of CO<sub>2</sub>e from natural and working lands.

The Committee's recommendations for California Climate Investments include:

- Ensuring near-term technologies do not adversely impact communities and long-term investments move toward zero emissions.
- Requiring GGRF projects to be transformative for disadvantaged communities as defined by each community.
- Eliminating funding for AB 32 regulated entities.
- Providing technical assistance to environmental justice communities so they can better access funding and resources.
- Prioritizing projects identified by communities and ensuring all applicants have policies to protect against displacement or gentrification.

In April 2017, EJAC members provided a refined list of priority changes for the Scoping Plan from the full list of EJAC recommendations. CARB staff responded to each priority recommendation, describing additions to the Scoping Plan or suggested next steps for recommendations beyond the level of detail in the Plan. Appendix A includes the Priority EJAC Recommendations with CARB Responses and full list of EJAC Recommendations.

More information about the Committee and its recommendations on the previous Scoping Plans and this Scoping Plan is located at: [www.arb.ca.gov/ejac](http://www.arb.ca.gov/ejac).

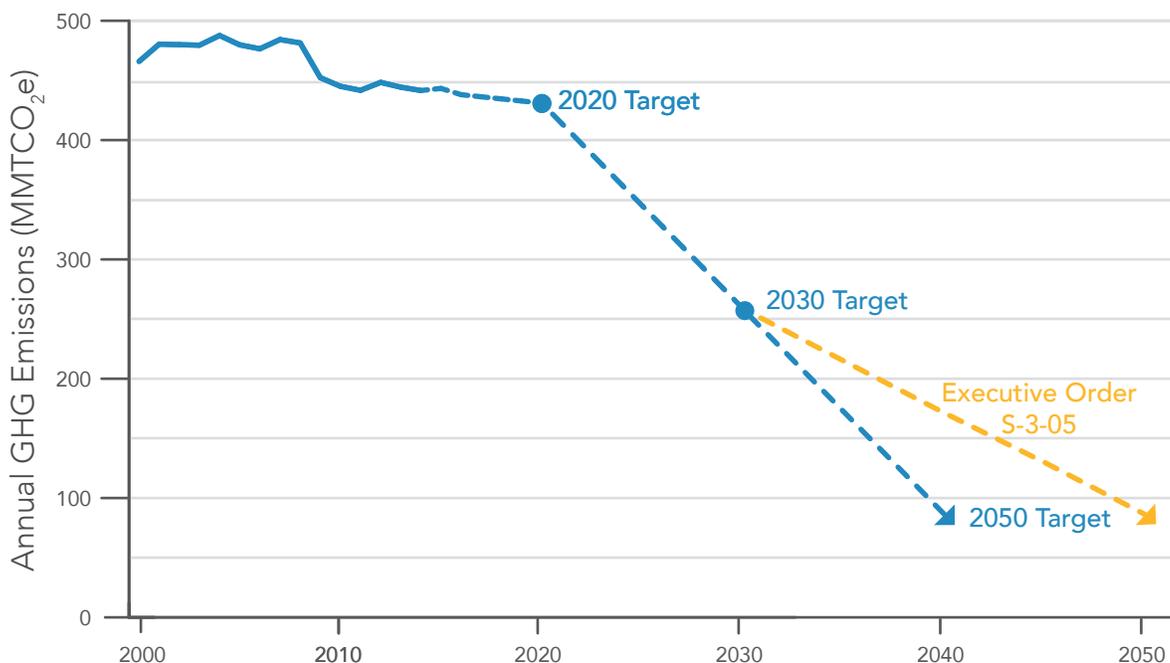
## Setting the Path to 2050

The State's 2020 and 2030 targets have not been set in isolation. They represent benchmarks, consistent with prevailing climate science, charting an appropriate trajectory forward that is in-line with California's role in stabilizing global warming below dangerous thresholds. As we consider efforts to reduce emissions to meet the State's near-term requirements, we must do so with an eye toward reductions needed beyond 2030, as well. The Paris Agreement – which calls for limiting global warming to well below 2 degrees Celsius and aiming to limit it below a 1.5 degrees Celsius – frames our path forward.

While the Scoping Plan charts the path to achieving the 2030 GHG emissions reduction target, we also need momentum to propel us to the 2050 statewide GHG target (80 percent below 1990 levels). In developing this Scoping Plan, we considered what policies are needed to meet our mid-term and long-term goals. For example, though Zero Net Carbon Buildings are not feasible at this time and more work needs to be done in this area, they will be necessary to achieve the 2050 target. To that end, work must begin now to review and evaluate research in this area, establish a planning horizon for targets, and identify implementation mechanisms. Concurrently, we must consider and implement policies that not only deliver critical reductions in 2030 and continue to help support the State's long-term climate objectives, but that also deliver other health, environmental and economic benefits. We should not just be planning to put 1.5 million ZEVs on the road by 2025 or 4.2 million on the road by 2030 – but rather, we should be comprehensively facilitating the market-wide transition to electric drive that we need to see materialize as soon as possible. This means that we need to be working towards making all fuels low carbon as quickly as possible, even as we incrementally ramp up volume requirements through the Low Carbon Fuel Standard. And it means that we need to support the broad array of actions and strategies identified in Chapter 4, and new ones that may emerge – to keep us on track to achieve deeper GHG reductions to protect the environment and our way of life. As with all investments, the approach taken must balance risk, reward, longevity, and timing.

Figure 5 illustrates the potential GHG reductions that are possible by making consistent progress between 2020 and 2050, versus an approach that begins with the 2030 target and then makes progress toward the 2050 level included in Executive Order S-3-05. Depending on our success in achieving the 2030 target, taking a consistent approach may be possible. It would achieve the 2050 target earlier, and together with similar actions globally, would have a greater chance of preventing global warming of 2°C. The strategy for achieving the 2050 target should leave open the possibility for both paths. Note that Figure 5 does not include emissions or sequestration potential from the natural and working lands sector or black carbon.

**FIGURE 5: PLOTTING CALIFORNIA'S PATH FORWARD**



## Intergovernmental Collaboration

Federal, state, Tribal, and local action can be complementary. We have seen federal action through the Clean Air Act, regulations for GHG emissions from passenger cars and trucks, development of the Clean Power Plan to limit GHGs from power plants, and the advancement of methane rules for oil and gas production. We have also seen recent federal efforts to delay or reverse some of these actions. As we have done in the past, California, working with other climate leaders, can take steps to advance more ambitious federal action and protect the ability of states to move forward to address climate change. Both collaboration and advocacy will mark the road ahead. However, to the extent that California cannot implement policies or measures included in the Scoping Plan because of the lack of federal action, we will develop alternative measures to achieve the reductions from the same sectors to ensure we meet our GHG reduction targets.

Regional, Tribal, and local governments and agencies are critical leaders in reducing emissions through actions that reduce demand for electricity, transportation fuels, and natural gas, and improved natural and working lands management. Many local governments already employ efforts to reduce GHG emissions beyond those required by the State. For example, many cities and counties improve their municipal operations by upgrading vehicle fleets, retrofitting government buildings and streetlights, purchasing greener products, and implementing waste-reduction policies. In addition, they may adopt more sustainable codes, standards, and general plan improvements to reduce their community's footprints and emissions. Many Tribes within and outside of California have engaged in consultations with CARB to develop robust carbon offset projects under California's Cap-and-Trade Program, in particular forest projects. In fact, Tribal forest projects represent a significant percentage of offset credits issued under the Program. These consultations and carbon sequestration projects are in addition to other Tribal climate-related efforts. The State will provide a supportive framework to advance these and other local efforts, while also recognizing the need to build on, and export, this success to other regional, Tribal, and local governments throughout California and beyond.

Local actions are critical for implementation of California's ambitious climate agenda. State policies, programs, and actions—such as many of those identified throughout this Scoping Plan—can help to support, incentivize, and accelerate local actions to achieve mutual goals for more sustainable and resilient communities. Local municipal code changes, zoning changes, or policy directions that apply broadly to the community within the general plan or climate action plan area can promote the deployment of renewable, zero emission, and low carbon technologies such as zero net energy buildings, renewable fuel production facilities, and zero emission charging stations. Local decision-making has an especially important role in achieving reductions of GHG emissions generated from transportation. Over the last 60 years, development patterns have led to sprawling suburban neighborhoods, a vast highway system, growth in automobile ownership, and under-prioritization of infrastructure for public transit and active transportation. Local decisions about these policies today can establish a more sustainable built environment for the future.

## International Efforts

California is not alone in its efforts to address climate change at the international level to reduce global GHG emissions. The agreement reached in Paris by the 2015 Conference of Parties to the United Nations Framework Convention on Climate Change (UNFCCC), aimed at keeping the global temperature rise below 2°C, is spurring worldwide action to reduce GHGs and support decarbonization across the global economy. In recent years, subnational governments have emerged to take on a prominent role. With the establishment of the Under 2 Memorandum of Understanding (MOU),<sup>46,47</sup> the Governors' Climate and Forests Task Force,<sup>48</sup> and the Western Climate Initiative,<sup>49</sup> among other partnership initiatives, subnational jurisdictions from the around the world are collaborating and leading on how best to address climate change.

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46 Under 2 MOU website: [under2mou.org/](http://under2mou.org/)

47 One of the Brown Administration's priorities is to highlight California's climate leadership on the subnational level, and to ensure that subnational activity is recognized at the international level. In the year preceding the Paris negotiations, the Governor's Office recruited subnational jurisdictions to sign onto the Memorandum of Understanding on Subnational Global Climate Leadership (Under 2 MOU), which brings together states and regions willing to commit to reducing their GHG emissions by 80 to 95 percent, or to limit emissions to 2 metric tons CO<sub>2</sub>-equivalent per capita, by 2050. The governor led a California delegation to the Paris negotiations to highlight our successful climate programs and to champion subnational action and international cooperation on meeting the challenge of reducing GHG emissions. As of October 2017, 188 jurisdictions representing more than 1.2 billion people and more than one-third of the global economy had joined California in the Under 2 MOU.

48 Governors' Climate and Forests Task Force website: [www.gcftaskforce.org/](http://www.gcftaskforce.org/)

49 Western Climate Initiative website: [www.wci-inc.org/](http://www.wci-inc.org/)

From its inception, AB 32 recognized the importance of California’s climate leadership and engagement with other jurisdictions, and directed CARB to consult with the federal government and other nations to identify the most effective strategies and methods to reduce GHGs, manage GHG control programs, and facilitate the development of integrated and cost-effective regional, national, and international GHG reduction programs. California undertook a two-pronged approach: first, we assessed our State-specific circumstances to develop measures that would apply specifically in California; and second, we assessed which measures might lend themselves, through careful design and collaboration with other interested jurisdictions, toward linked or collaborative GHG reduction programs. Under the Clean Air Act, California has a special role as an innovator and leader in the area of motor vehicle emission regulations, which allows our State to adopt motor vehicle emission standards that are stricter than federal requirements. Partners around the country and the world emulate these motor vehicle standards, leading to widespread health benefits. Similarly, by enacting a comprehensive climate strategy that appeals to national and international partners, California can help lead the world in tackling climate change.

Today, the State’s Cap-and-Trade Program is linked with Québec’s program and scheduled to link with Ontario’s emissions trading system on January 1, 2018. Low carbon fuel mandates similar to California’s LCFS have been adopted by the United States Environmental Protection Agency (U.S. EPA) and by other jurisdictions including Oregon, British Columbia, the European Union, and the United Kingdom. Over two-dozen states have a renewables portfolio standard. California is a member of the Pacific Coast Collaborative with British Columbia, Oregon, and Washington, who collaborate on issues such as energy and sustainable resource management, among others.<sup>50</sup> California continues to discuss carbon pricing through a cap-and-trade program with international delegations. We have seen design features of the State’s Cap-and-Trade Program incorporated into other emerging and existing programs, such as the European Union Emissions Trading System, the Regional Greenhouse Gas Initiative, China’s emerging national trading program, and Mexico’s emerging pilot emission trading program.

Recognizing the need to address the substantial GHG emissions caused by the deforestation and degradation of tropical and other forests, California worked with a group of subnational governments to form the Governors’ Climate and Forests Task Force (GCF) in 2008.<sup>51</sup> The GCF is currently comprised of 38 different subnational jurisdictions— including states and provinces in Brazil, Colombia, Ecuador, Indonesia, Ivory Coast, Mexico, Nigeria, Peru, Spain, and the United States—that are contemplating or enacting programs for low-emissions rural development and reduced emissions from deforestation and land use. GCF members continue to engage in discussions to share information and experiences about the design of such programs and how the programs could potentially interact with carbon markets. Ongoing engagement between California and its GCF partners, as well as ongoing discussions with other stakeholders, continues to provide lessons on how such programs could complement California’s climate programs.<sup>52</sup>

Further, California’s High-Speed Rail is part of the International Union of Railways (UIC), and California has signed the Railway Climate Responsibility Pledge, which was commended by the Secretary of the UNFCCC as part of achieving the global 2050 targets. This initiative is to demonstrate that rail transport is part of the solution for sustainable and carbon free mobility.

California will continue to engage in multi-lateral forums that develop the policy foundation and technical infrastructure for GHG regulations in multiple jurisdictions through entities such as the International Carbon Action Partnership (ICAP), established by California and other partners in 2007. Members of the ICAP that have already implemented or are actively pursuing market-based GHG programs<sup>53</sup> share experiences and knowledge. California also participates in the Partnership for Market Readiness (PMR), a multilateral World Bank initiative that brings together more than 30 developed and developing countries to share experiences and build capacity for climate change mitigation efforts, particularly those implemented using market instruments.<sup>54</sup> In November 2014, CARB became a Technical Partner of the PMR, and CARB staff members have provided technical information on the design and implementation of the Cap-and-Trade Program at several PMR meetings.

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50 Pacific Coast Collaborative website: [pacificcoastcollaborative.org/](http://pacificcoastcollaborative.org/)

51 Governors’ Climate and Forests Task Force Website: [www.gcftaskforce.org/](http://www.gcftaskforce.org/)

52 Continued collaboration on efforts to reduce emissions from tropical deforestation and to evaluate sector-based offset programs, such as the jurisdictional program in Acre, Brazil, further demonstrates California’s ongoing climate leadership and fosters partnerships on mutually beneficial low emissions development initiatives, including measures to encourage sustainable supply chain efforts by public and private entities.

53 International Carbon Action Partnership website: [icapcarbonaction.com/](http://icapcarbonaction.com/)

54 Partnership for Market Readiness website: [www.thepmr.org/](http://www.thepmr.org/)

Many foreign jurisdictions seek out California's expertise because of our history of success in addressing air pollution and climate change. California also benefits from these interactions. Expanding global action to fight air pollution and climate change expands markets for clean technology. This can bolster business for companies in California developing clean energy products and services and help to bring down the cost of those products globally and in California. Additionally, innovative policies and lessons learned from our partners' jurisdictions can help to inform future climate policies in California.

Governor Brown's focus on subnational collaborations on climate change and air quality has strengthened and deepened California's existing international relationships and forged new ones. These relationships are a critical component of reducing emissions of GHGs and other pollutants worldwide. As we move forward, CARB and other State agencies will continue to communicate and collaborate with international partners to find the most cost-effective ways to improve air quality, fight climate change, and share California's experience and expertise in reducing air pollution and GHGs while growing a strong economy. To highlight the State's resolve and support of other governments committed to action and tackling the threat of the global warming, on July 6, 2017, Governor Brown announced a major initiative to host world leaders at a Global Climate Action Summit planned for September 2018 in San Francisco.

## Chapter 2

### THE SCOPING PLAN SCENARIO

This chapter describes the State strategy for meeting the 2030 GHG target (also called the Scoping Plan Scenario), along with a short description of the four alternative scenarios, which were evaluated but ultimately rejected when compared against statutory and policy criteria and priorities that the State’s comprehensive climate action must deliver. All scenarios are set against the business-as-usual (BAU or Reference Scenario) scenario—what would GHG emissions look like if we did nothing beyond the existing policies that are required and already in place to achieve the 2020 limit. BAU includes the existing renewables requirements, advanced clean cars, the 10 percent reduction in carbon intensity Low Carbon Fuel Standard, and the SB 375 program for sustainable communities, among others. However, it does not include a range of new policies or measures that have been developed or put into statute over the past two years.

The Reference Scenario (BAU) shows continuing, but modest, reductions followed by a later rise of GHG emissions as the economy and population grow. The comprehensive analysis of all five alternatives indicates that the Scoping Plan Scenario—continuing the Cap-and-Trade Program—is the best choice to achieve the State’s climate and clean air goals. It also protects public health, provides a solid foundation for continued economic growth, and supports California’s quality of life.

All of the alternative scenarios briefly described in this chapter are the product of the Scoping Plan development process and were informed by public input, including that from EJAC, as well as Board and legislative direction over the course of two years. The scenarios all include a range of additional measures developed or required by legislation over the past two years with 2030 as their target date and include: extending the LCFS to an 18 percent reduction in carbon intensity beyond 2020, and the requirements of SB 350 to increase renewables to 50 percent and to double energy efficiency savings. They also all include the Mobile Source Strategy targets for more zero emission vehicles and much cleaner trucks and transit, the Sustainable Freight Action Plan to improve freight efficiency and transition to zero emission freight handling technologies, and the requirements under SB 1383 to reduce anthropogenic black carbon 50 percent and hydrofluorocarbon and methane emissions by 40 percent below 2013 levels by 2030. The recent adoption of AB 398 into State law on July 25, 2017, clarifies the role of the Cap-and-Trade Program through December 31, 2030.

Work is still underway on how to quantify the GHG emissions within the natural and working lands sector. As such, the analyses in this chapter do not include any estimates from this sector. Additional information on the current efforts to better understand GHG emissions fluxes and model the actions needed to support the goal of net carbon sequestration in natural and working lands can be found in Chapter 4. Even absent quantification data, the importance of this sector in achieving the State’s climate goals should be considered in conjunction with any efforts to reduce GHG emissions in the energy and industrial sectors.

During the development of the Scoping Plan, stakeholders suggested alternative scenarios to achieve the 2030 target. While countless scenarios could potentially be developed and evaluated, the four below were considered, as they were most often included in comments by stakeholders and they bracket the range of potential scenarios. Several of these alternative scenarios were also evaluated in the Initial AB 32 Scoping Plan in 2008 (All Regulations, Carbon Tax).<sup>55</sup> Since the adoption of the Initial AB 32 Scoping Plan, some of the alternative scenarios have been implemented or contemplated by other jurisdictions, which has helped in the analysis and the development of this Scoping Plan. This section provides a brief description of the alternatives. A full description of the alternatives and staff’s AB 197 and policy analyses are included in Appendix G.

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55 CARB. 2009. Initial AB 32 Climate Change Scoping Plan Document.  
[www.arb.ca.gov/cc/scopingplan/document/scopingplandocument.htm](http://www.arb.ca.gov/cc/scopingplan/document/scopingplandocument.htm)

**Scoping Plan Scenario:** Ongoing and statutorily required programs and continuing the Cap-and-Trade Program. This scenario was modified from the January 2017 Proposed Scoping Plan to reflect AB 398, including removal of the 20 percent refinery measure.

**Alternative 1:** No Cap-and-Trade. Includes additional activities in a wide variety of sectors, such as specific required reductions for all large GHG sources, and more extensive requirements for renewable energy. Industrial sources would be regulated through command and control strategies.

**Alternative 2:** Carbon Tax. A carbon tax to put a price, but not limit, on carbon, instead of the Cap-and-Trade Program.

**Alternative 3:** All Cap-and-Trade. This alternative is the same as the Scoping Plan Scenario, while maintaining the LCFS at a 10 percent reduction in carbon intensity past 2020.

**Alternative 4:** Cap-and-Tax. This would place a declining cap on individual industrial facilities, and individual natural gas and fuel suppliers, while also requiring them to pay a tax on each metric ton of GHGs emitted.

Since the statutory direction on meeting a 2030 GHG target is clear, the issue of certainty of reductions is paramount. These alternatives vary greatly as to the certainty of meeting the target. The declining mass emissions cap under a cap-and-trade program provides certain and measurable reductions over time; a carbon tax, meanwhile, establishes some carbon price certainty, but does not provide an assurance on reductions and instead assumes that some degree of reductions will occur if costs are high enough to alter behavior.

There are also other considerations: to what extent does an alternative meet the target, but also deliver clean air benefits, prioritize reductions at large stationary sources, and allow for continued investment in disadvantaged communities? What is the cost of an alternative and what will be the impact on California consumers? Does an alternative allow for California to link with other jurisdictions, and support the Clean Power Plan<sup>56</sup> and other federal and international climate programs? Does an alternative provide for flexibility for regulated entities, and a cost-effective approach to reduce greenhouse gases?

The Scoping Plan Scenario provides a portfolio of policies and measures that balances this combination of objectives, including the highest certainty to achieve the 2030 target, while protecting the California economy and consumers. A more detailed analyses of the alternatives is provided in Appendix G.

## Scoping Plan Scenario

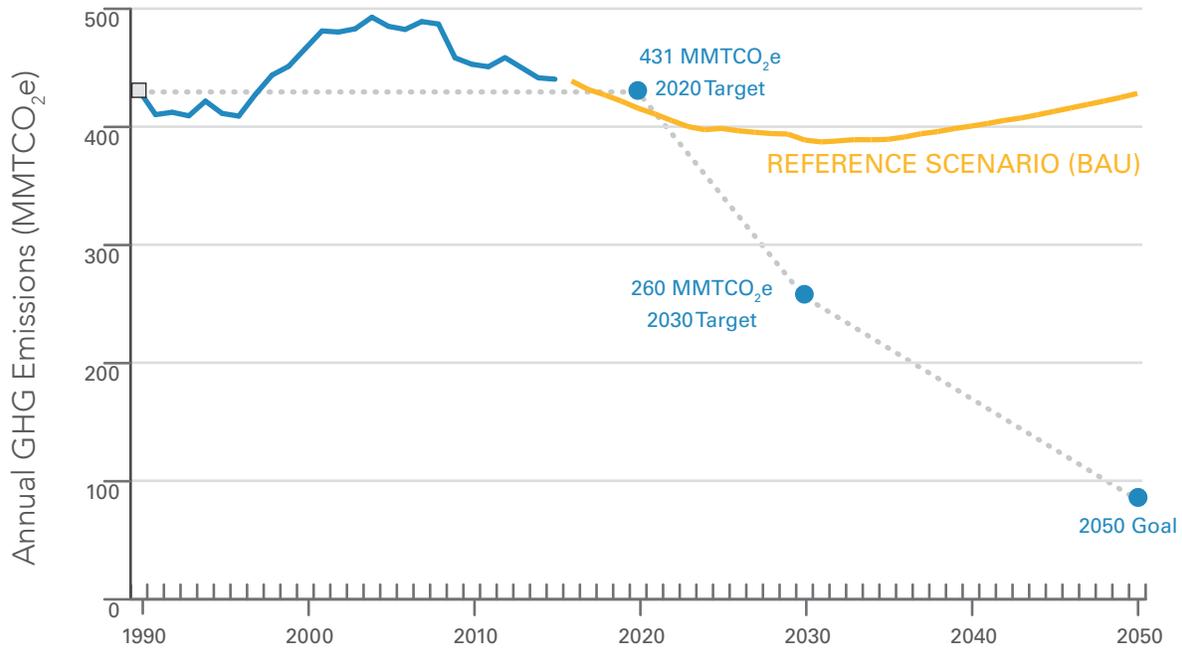
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The development of the Scoping Plan began by first modeling a Reference Scenario (BAU). The Reference Scenario is the forecasted statewide GHG emissions through 2030 with existing policies and programs, but without any further action to reduce GHGs. Figure 6 provides the modeling results for a Reference Scenario for this Scoping Plan. The graph shows the State is expected to reduce emissions below the 2020 statewide GHG target, but additional effort will be needed to maintain and continue GHG reductions to meet the mid- (2030) and long-term (2050) targets. Figure 6 depicts a linear, straight-line path to the 2030 target. It should be noted that in any year, GHG emissions may be higher or lower than the straight line. That is to be expected as periods of economic recession or increased economic activity, annual variations in hydropower, and many other factors may influence a single or several years of GHG emissions in the State. CARB's annual GHG reporting and inventory will provide data on progress towards achieving the 2030 target. More details about the modeling for the Reference Scenario can be found in Appendix D.

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<sup>56</sup> Although the Clean Power Plan is being challenged in legal and administrative processes, its requirements reflect U.S. EPA's statutory obligation to regulate greenhouse gases from the power sector. Thus it, and other federal programs, are a key consideration for Scoping Plan development.

**FIGURE 6: 2017 SCOPING PLAN REFERENCE SCENARIO**



The Scoping Plan Scenario is summarized in Table 1. As shown in the table, most of the measures are identified as “known commitments” (marked with “\*”), meaning that they are existing programs or required by statute. These commitments are not part of the Reference Scenario (BAU) in Figure 6 since their passage and implementation is related to meeting the Governor’s climate pillars, the 2030 climate target, or other long-term climate and air quality objectives. In addition to the known commitments, the Scoping Plan Scenario includes a post-2020 Cap-and-Trade Program.

**TABLE 1: SCOPING PLAN SCENARIO**

| Policy                                                                              | Primary Objective                                                                                                                                                                                                                                                 | Highlights                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Implementation Time Frame |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| SB 350 <sup>57*</sup>                                                               | Reduce GHG emissions in the electricity sector through the implementation of the 50 percent RPS, doubling of energy savings, and other actions as appropriate to achieve GHG emissions reductions planning targets in the Integrated Resource Plan (IRP) process. | <ul style="list-style-type: none"> <li>• Load-serving entities file plans to achieve GHG emissions reductions planning targets while ensuring reliability and meeting the State’s other policy goals cost-effectively.</li> <li>• 50 percent RPS.</li> <li>• Doubling of energy efficiency savings in natural gas and electricity end uses statewide.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2030                      |
| Low Carbon Fuel Standard (LCFS)*                                                    | Transition to cleaner/less-polluting fuels that have a lower carbon footprint.                                                                                                                                                                                    | <ul style="list-style-type: none"> <li>• At least 18 percent reduction in carbon intensity, as included in the Mobile Source Strategy.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 2030                      |
| Mobile Source Strategy (Cleaner Technology and Fuels [CTF] Scenario) <sup>58*</sup> | Reduce GHGs and other pollutants from the transportation sector through transition to zero-emission and low-emission vehicles, cleaner transit systems and reduction of vehicle miles traveled.                                                                   | <ul style="list-style-type: none"> <li>• 1.5 million zero emission vehicles (ZEV), including plug-in hybrid electric, battery-electric, and hydrogen fuel cell vehicles by 2025 and 4.2 million ZEVs by 2030.</li> <li>• Continue ramp up of GHG stringency for all light-duty vehicles beyond 2025.</li> <li>• Reductions in GHGs from medium-duty and heavy-duty vehicles via the Phase 2 Medium and Heavy-Duty GHG Standards.</li> <li>• Innovative Clean Transit: Transition to a suite of innovative clean transit options. Assumed 20 percent of new urban buses purchased beginning in 2018 will be zero emission buses with the penetration of zero-emission technology ramped up to 100 percent of new bus sales in 2030. Also, new natural gas buses, starting in 2018, and diesel buses, starting in 2020, meet the optional heavy-duty low-NO<sub>x</sub> standard.</li> <li>• Last Mile Delivery: New regulation that would result in the use of low NO<sub>x</sub> or cleaner engines and the deployment of increasing numbers of zero-emission trucks primarily for class 3-7 last mile delivery trucks in California. This measure assumes ZEVs comprise 2.5 percent of new Class 3–7 truck sales in local fleets starting in 2020, increasing to 10 percent in 2025.</li> <li>• Reduction in vehicle miles traveled (VMT), to be achieved in part by continued implementation of SB 375 and regional Sustainable Community Strategies; forthcoming statewide implementation of SB 743; and potential additional VMT reduction strategies not specified in the Mobile Source Strategy, but included in the document “Potential VMT Reduction Strategies for Discussion” in Appendix C.<sup>59</sup></li> </ul> | Various                   |
| SB 1383*                                                                            | Approve and Implement Short-Lived Climate Pollutant strategy <sup>60</sup> to reduce highly potent GHGs                                                                                                                                                           | <ul style="list-style-type: none"> <li>• 40 percent reduction in methane and hydrofluorocarbon (HFC) emissions below 2013 levels by 2030.</li> <li>• 50 percent reduction in anthropogenic black carbon emissions below 2013 levels by 2030.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 2030                      |
| California Sustainable Freight Action Plan <sup>61*</sup>                           | Improve freight efficiency, transition to zero emission technologies, and increase competitiveness of California’s freight system.                                                                                                                                | <ul style="list-style-type: none"> <li>• Improve freight system efficiency by 25 percent by 2030.</li> <li>• Deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 2030                      |
| Post-2020 Cap-and-Trade Program                                                     | Reduce GHGs across largest GHG emissions sources                                                                                                                                                                                                                  | <ul style="list-style-type: none"> <li>• Continue the existing Cap-and-Trade Program with declining caps to ensure the State’s 2030 target is achieved.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                           |
| * These measures and policies are referred to as “known commitments.”               |                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                           |

57 SB 350 Clean Energy and Pollution Reduction Act of 2015 (De León, Chapter 547, Statutes of 2015). [leginfo.legislature.ca.gov/faces/billNavClient.xhtml?billid=201520160SB350](http://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?billid=201520160SB350) This policy also includes increased demand response and PV.

58 CARB. 2016. 2016 Mobile Source Strategy. [www.arb.ca.gov/planning/sip/2016sip/2016mobsrca.pdf](http://www.arb.ca.gov/planning/sip/2016sip/2016mobsrca.pdf)

59 CARB. Potential State-Level Strategies to Advance Sustainable, Equitable Communities and Reduce Vehicle Miles of Travel (VMT)--for Discussion. [www.arb.ca.gov/cc/scopingplan/meetings/091316/Potential%20VMT%20Measures%20For%20Discussion\\_9.13.16.pdf](http://www.arb.ca.gov/cc/scopingplan/meetings/091316/Potential%20VMT%20Measures%20For%20Discussion_9.13.16.pdf)

60 CARB. 2016. Reducing Short-Lived Climate Pollutants in California. [www.arb.ca.gov/cc/shortlived/shortlived.htm](http://www.arb.ca.gov/cc/shortlived/shortlived.htm)

61 State of California. California Sustainable Freight Action Plan website. [www.casustainablefreight.org/](http://www.casustainablefreight.org/)

Table 2 summarizes the results of the modeling for the Reference Scenario and known commitments. Per SB 32, the 2030 limit is 260 MMTCO<sub>2</sub>e. That is a limit on total GHG emissions in a single year. At approximately 389 MMTCO<sub>2</sub>e, the Reference Scenario is expected to exceed the 2030 limit by about 129 MMTCO<sub>2</sub>e.

Table 2 also compares the Reference Scenario 2030 emissions estimate of 389 MMTCO<sub>2</sub>e to the 2030 target of 260 MMTCO<sub>2</sub>e and the level of 2030 emissions with the known commitments, estimated to be 320 MMTCO<sub>2</sub>e. And, in the context of a linear path to achieve the 2030 target, there is also a need to achieve cumulative emissions reductions of 621 MMTCO<sub>2</sub>e from 2021 to 2030 to reach the 2030 limit. While there is no statutory limit on cumulative emissions, the analysis considers and presents some results in cumulative form for several reasons. It should be recognized that policies and measures may perform differently over time. For example, in early years, a policy or measure may be slow to be deployed, but over time it has greater impact. If you were to look at its performance in 2021 versus 2030, you would see that it may not seem important and may not deliver significant reductions in the early years, but is critical for later years as it results in greater reductions over time. Further, once GHGs are emitted into the atmosphere, they can have long lifetimes that contribute to global warming for decades. Policies that reduce both cumulative GHG emissions and achieve the single-year 2030 target provide the most effective path to reducing climate change impacts. A cumulative construct provides a more complete way to evaluate the effectiveness of any measure over time, instead of just considering a snapshot for a single year.

**TABLE 2: 2030 MODELING GHG RESULTS FOR THE REFERENCE SCENARIO AND KNOWN COMMITMENTS**

| Modeling Scenario                      | 2030 GHG Emissions (MMTCO <sub>2</sub> e) | Cumulative GHG Reductions 2021–2030 (MMTCO <sub>2</sub> e) | Cumulative Gap to 2030 Target (MMTCO <sub>2</sub> e) |
|----------------------------------------|-------------------------------------------|------------------------------------------------------------|------------------------------------------------------|
| Reference Scenario (Business-as-Usual) | 389                                       | n/a                                                        | 621                                                  |
| Known Commitments                      | 320                                       | 385                                                        | 236                                                  |

As noted above, the known commitments are expected to result in emissions that are 60 MMTCO<sub>2</sub>e above the target in 2030, and have a cumulative emissions reduction gap of about 236 MMTCO<sub>2</sub>e. This means the known commitments do not decline fast enough to achieve the 2030 target. The remaining 236 MMTCO<sub>2</sub>e of estimated GHG emissions reductions would not be achieved unless further action is taken to reduce GHGs. Consequently, for the Scoping Plan Scenario, the Post-2020 Cap-and-Trade Program would need to deliver 236 MMTCO<sub>2</sub>e cumulative GHG emissions reductions from 2021 through 2030. If the estimated GHG reductions from the known commitments are not realized due to delays in implementation or technology deployment, the post-2020 Cap-and-Trade Program would deliver the additional GHG reductions in the sectors it covers to ensure the 2030 target is achieved. Figure 7 illustrates the cumulative emissions reductions contributions of the known commitments and the Cap-and-Trade Program from 2021 to 2030.

### Post-2020 Cap-and-Trade Program with Declining Caps

This measure would continue the Cap-and-Trade Program post-2020 pursuant to legislative direction in AB 398. The program is up and running and has a five-year-long record of auctions and successful compliance. In the face of a growing economy, dry winters, and the closing of a nuclear plant, it is delivering GHG reductions. This is not to say that California should continue on this road simply because the Cap-and-Trade Program is already in place. The analyses in this chapter, and the economic analysis in Chapter 3, clearly demonstrate that continuing the Cap-and-Trade Program through 2030 will provide the most secure, reliable, and feasible clean energy future for California—one that will continue to deliver crucial investments to improve the quality of life and the environment in disadvantaged communities.

Under this measure, funds would also continue to be deposited into the Greenhouse Gas Reduction Fund (GGRF) to support projects that fulfill the goals of AB 32, with AB 398 identifying a list of priorities for the Legislature to consider for future appropriations from GGRF. Investment of the Cap-and-Trade Program proceeds furthers the goals of AB 32 by reducing GHG emissions, providing net GHG sequestration, providing co-benefits, investing in disadvantaged communities and low-income communities, and supporting the long-term, transformative efforts needed to improve public and environmental health and

develop a clean energy economy. These investments support programs and projects that deliver major economic, environmental, and public health benefits for Californians. Importantly, prioritized investments in disadvantaged communities are providing a multitude of meaningful benefits to these communities some of which include increased affordable housing opportunities, reduced transit and transportation costs, access to cleaner vehicles, improved mobility options and air quality, job creation, energy cost savings, and greener and more vibrant communities.

Further, the Cap-and-Trade Program is designed to protect electricity and natural gas residential ratepayers from higher energy prices. The program includes a mechanism for electricity and natural gas utilities to auction their freely allocated allowances, with the auction proceeds benefiting ratepayers. The Climate Credit is a twice-annual bill credit given to investor-owned utility electricity residential customers. The total value of the Climate Credit for vintage 2013 auction allowances alone was over \$400 million. The first of these credits appeared on customer bills in April 2014.<sup>62</sup> Currently, natural gas utilities are permitted to use a portion of their freely allocated allowances to meet their own compliance obligations; however, over time, they must consign a larger percentage of allowances and continue to provide the value back to customers.

Additionally, under this measure, the State would preserve its current linkages with its Canadian partners and support future linkages with other jurisdictions, thus facilitating international action to address climate change. The high compliance rates with the Cap-and-Trade Program also demonstrate that the infrastructure and implementation features of the program are effective and understood by the regulated community. This measure also lends itself to integration with the Clean Power Plan requirements and is flexible to allow expansion to other sectors or regions.

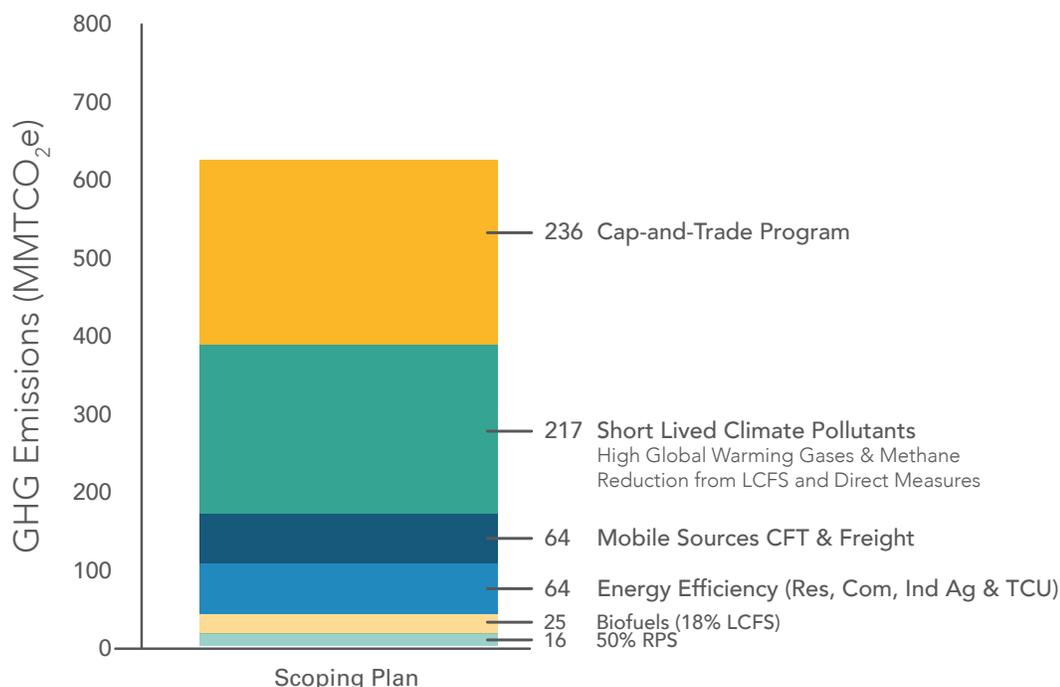
In late 2017, CARB began evaluating changes to program design features for post-2020 in accordance with AB 398.<sup>63</sup> This includes changes to the offset usage limit, direction on allocation, two price containment points, and a price ceiling – which, if in the unlikely event were to be accessed, must result in GHG reductions by compensating for any GHG emissions above the cap, ensuring the environmental integrity of the program. Changes to conform to the requirements of AB 398 will be subject to a public process, coordinated with linked partners, and be part of a future rulemaking that would take effect by January 1, 2021.

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62 [www.arb.ca.gov/cc/capandtrade/allowanceallocation/edu-v2013-allowance-value-report.pdf](http://www.arb.ca.gov/cc/capandtrade/allowanceallocation/edu-v2013-allowance-value-report.pdf)

63 [www.arb.ca.gov/cc/capandtrade/meetings/20171012/ct\\_presentation\\_11oct2017.pdf](http://www.arb.ca.gov/cc/capandtrade/meetings/20171012/ct_presentation_11oct2017.pdf)

**FIGURE 7: SCOPING PLAN SCENARIO – ESTIMATED CUMULATIVE GHG REDUCTIONS BY MEASURE (2021–2030)<sup>64</sup>**



The Scoping Plan Scenario in Figure 7 represents an expected case where current and proposed GHG reduction policies and measures begin as expected and perform as expected, and technology is readily available and deployed on schedule. An Uncertainty Analysis was performed to examine the range of outcomes that could occur under the Scoping Plan policies and measures. The uncertainty in the following factors was characterized and evaluated:

- Economic growth through 2030;
- Emission intensity of the California economy;
- Cumulative emissions reductions (2021 to 2030) achieved by the prescriptive measures, including the known commitments; and
- Cumulative emissions reductions (2021 to 2030) that can be motivated by emission prices under the Cap-and-Trade Program.

The combined effects of these uncertainties are summarized in Figure 8. As shown in Figure 7, the Scoping Plan analysis estimates that the prescriptive measures will achieve cumulative emissions reductions of 385 MMTCO<sub>2</sub>e, the Cap-and-Trade Program will achieve 236 MMTCO<sub>2</sub>e, resulting in total cumulative emissions reductions of 621 MMTCO<sub>2</sub>e. These values are again reflected in the bar on the left of Figure 8. The results of the Uncertainty Analysis are summarized in the three bars on the right of the figure as follows:

- The cumulative emissions reductions required to achieve the 2030 emission limit has the potential to be higher or lower than the Scoping Plan estimate. The uncertainty analysis simulates an average required emissions reductions of about 660 MMTCO<sub>2</sub>e with a range of +130 MMTCO<sub>2</sub>e.<sup>65</sup> This estimate and the range are shown in Figure 8 as the bar on the right. Notably, the estimate of the average required emissions reductions is 40 MMTCO<sub>2</sub>e greater than the estimate in the Scoping Plan analysis.
- The prescriptive measures have the potential to underperform relative to expectations. Based on CARB staff assessments of the potential risk of underperformance of each measure, the average emissions reductions simulated to be achieved was 335 MMTCO<sub>2</sub>e, or about 13 percent below the Scoping Plan estimate. The range for the performance of the measures was about +50 MMTCO<sub>2</sub>e.

<sup>64</sup> The whole number values displayed in Figure 7 do not mathematically sum to 621 MMTCO<sub>2</sub>e, consistent with the modeling results summary in Table 2. This is a result of embedded significant figures and rounding for graphic display purposes. Please refer to the corresponding PATHWAYS modeling data spreadsheets for details.

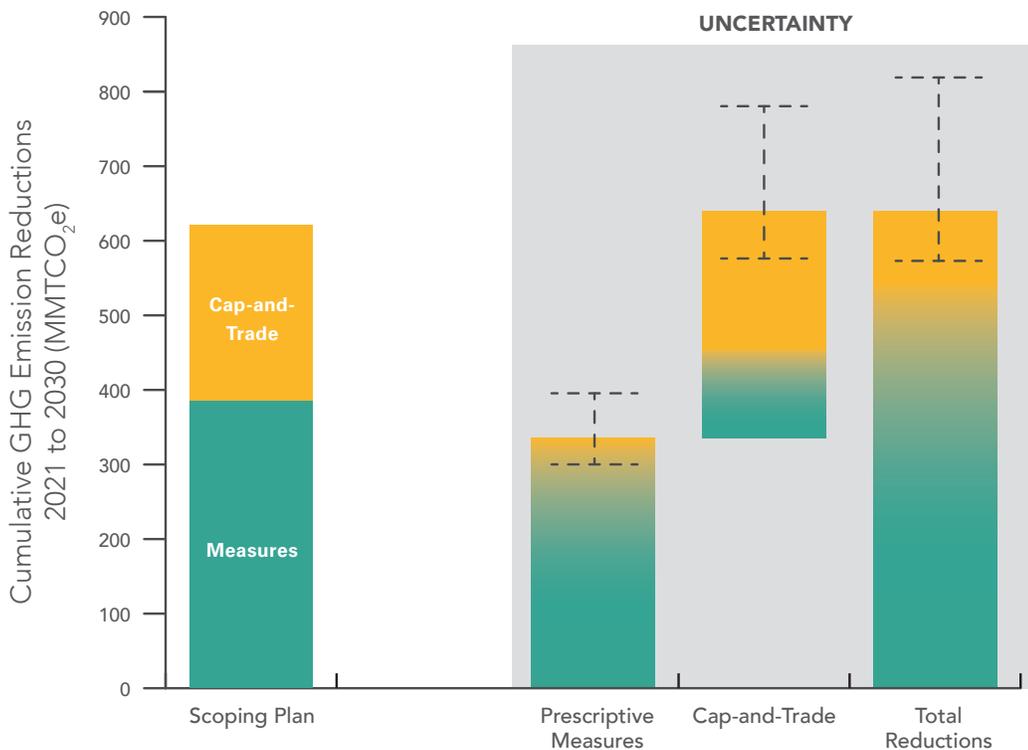
<sup>65</sup> The ranges presented are the 5<sup>th</sup> and 95<sup>th</sup> percentile observations in the Uncertainty Analysis. See Appendix E for details.

These values for the potential reductions achieved by the measures are shown in the figure.

- The Cap-and-Trade program is designed to fill the gap in the required emissions reductions over and above what is achieved by the prescriptive measures. Because the total required emissions reductions are uncertain, and the emissions reductions achieved by the prescriptive measures are uncertain, the required emissions reductions from the Cap-and-Trade Program are also uncertain. The Uncertainty Analysis simulated the average emissions reductions achieved by the Cap-and-Trade Program at about 305 MMTCO<sub>2</sub>e, or about 30 percent higher than the Scoping Plan estimate. The range was simulated to be about +120 MMTCO<sub>2</sub>e. These values for the potential reductions achieved by the Cap-and-Trade Program are shown in the figure.

The Uncertainty Analysis provides insight into the range of potential emissions outcomes that may occur, and demonstrates that the Scoping Plan, with the Cap-and-Trade Program, is extremely effective in the face of uncertainty, assuring that the required emissions reductions are achieved (see Appendix E for more detail). The Uncertainty Analysis also indicates that the Cap-and-Trade Program could contribute a larger or smaller share of the total required cumulative emissions reductions than expected in the Scoping Plan analysis.

**FIGURE 8: UNCERTAINTY ANALYSIS**



While the modeling results provide estimates of the GHG reductions that could be achieved by the measures, the results also provide other insights and highlight the need to ensure successful implementation of each measure. The SLCP Strategy will provide significant reductions with a focus on methane and hydrofluorocarbon gases. To ensure the SLCP Strategy implementation is successful, it will be critical to ensure programs such as LCFS maintain incentives to finance the capture and use of methane as a transportation fuel—further reducing the State’s dependence on fossil fuels. The modeling also shows that actions on energy efficiency could provide the same magnitude of GHG emissions reductions as the mobile source measures, but each effort will provide different magnitudes of air quality improvements and cost-effectiveness as discussed in Chapter 3.

Another way to look at this scenario is to understand the trajectory of GHG reductions over time, relative to the 2030 target. Figure 9 provides the trajectory of GHG emissions modeled for the Scoping Plan Scenario. Again, this depicts a straight-line path to the 2030 target for discussion purposes, but in reality GHG emissions may be above or below the line in any given year(s).

**FIGURE 9: SCOPING PLAN SCENARIO GHG REDUCTIONS**

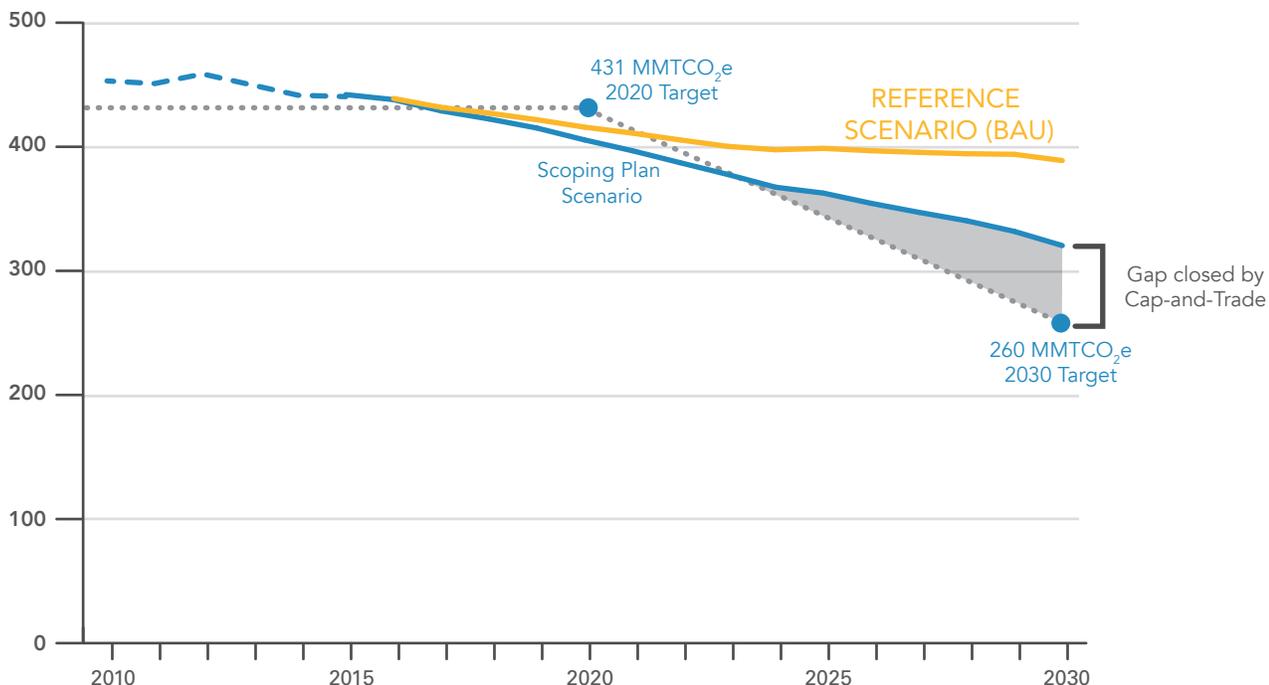


Figure 9 shows the Reference Scenario (yellow) and the version of the Scoping Plan Scenario that excludes the Cap-and-Trade Program (blue). Until 2023, the measures in the Scoping Plan Scenario constrain GHG emissions below the dotted straight line. After 2023, GHG emissions continue to fall, but at a slower rate than needed to meet the 2030 target. It is the Cap-and-Trade Program that will reduce emissions to the necessary levels to achieve the 2030 target. In this scenario, it is estimated that the known commitments will result in an emissions level of about 320 MMTCO<sub>2</sub>e in 2030. Thus, for the Scoping Plan Scenario, the Cap-and-Trade Program would deliver about 60 MMTCO<sub>2</sub>e in 2030 and ensure the 2030 target is achieved.

To understand how the Scoping Plan affects the main economic sectors, Table 3 provides estimated GHG emissions by sector, compared to 1990 levels, and the range of GHG emissions for each sector estimated for 2030. This comparison helps to illustrate which sectors are reducing emissions more than others and where to focus additional actions to reduce GHGs across the entire economy.

**TABLE 3: ESTIMATED CHANGE IN GHG EMISSIONS BY SECTOR (MMTCO<sub>2</sub>E)**

|                                 | 1990       | 2030 Scoping Plan Ranges <sup>66</sup> | % change from 1990 |
|---------------------------------|------------|----------------------------------------|--------------------|
| Agriculture                     | 26         | 24–25                                  | -8 to -4           |
| Residential and Commercial      | 44         | 38–40                                  | -14 to -9          |
| Electric Power                  | 108        | 30–53 <sup>67</sup>                    | -72 to -51         |
| High GWP                        | 3          | 8–11 <sup>68</sup>                     | 267 to 367         |
| Industrial                      | 98         | 83–90 <sup>69</sup>                    | -15 to -8          |
| Recycling and Waste             | 7          | 8–9 <sup>70</sup>                      | 14 to 29**         |
| Transportation (Including TCU)  | 152        | 103–111                                | -32 to -27         |
| Natural Working Lands Net Sink* | -7***      | TBD                                    | TBD                |
| Sub Total                       | 431        | 294–339                                | -32 to -21         |
| Cap-and-Trade Program           | n/a        | 34–79                                  | n/a                |
| <b>Total</b>                    | <b>431</b> | <b>260</b>                             | <b>-40</b>         |

\* Work is underway through 2017 to estimate the range of potential sequestration benefits from the natural and working lands sector.

\*\* The SLCP will reduce emissions in this sector by 40 percent from 2013 levels. However, the 2030 levels are still higher than the 1990 levels as emissions in this sector have grown between 1990 and 2013.

\*\*\* This number reflects net results and is different than the intervention targets discussed in Chapter 4.

The sector ranges may change in response to how the sectors respond to the Cap-and-Trade Program. While the known commitments will deliver some reductions in each sector, the Cap-and-Trade Program will deliver additional reductions in the sectors it covers. Annual GHG reporting and the GHG inventory will track annual changes in emissions, and those will provide ongoing assessments of how each sector is reducing emissions due to the full complement of known commitments and the Cap-and-Trade Program, as applicable.

## Scenario Modeling

There are a variety of models that can be used to model GHG emissions. For this Plan, the State is using the PATHWAYS model.<sup>70</sup> PATHWAYS is structured to model GHG emissions while recognizing the integrated nature of the industrial economic and energy sectors. For example, if the transportation sector adds more electric vehicles, PATHWAYS responds to reflect an energy demand increase in the electricity sector. However, PATHWAYS does not reflect any change in transportation infrastructure and land use demand associated with additional ZEVs on the road. The ability to capture a subset of interactive effects of policies and measures helps to provide a representation of the interconnected nature of the system and impacts to GHGs.

66 Unless otherwise noted, the low end of the sector range is the estimated emissions from the Scoping Plan Scenario and the high end adjusts the expected emissions by a risk factor that represents sector underperformance.

67 The high end of the electric power sector range is represented by the Scoping Plan Scenario, and the low end by enhancements and additional electricity sector measures such as deployment of additional renewable power, greater behind-the-meter solar PV, and additional energy efficiency. The electric power sector range provided in Table 3 will be used to help inform CARB’s setting of the SB 350 Integrated Resource Plan greenhouse gas emissions reduction planning targets for the sector. CARB, CPUC, and CEC will continue to coordinate on this effort before final IRP targets are established for the sector, load-serving entities, and publicly-owned utilities. State agencies will investigate the potential for and appropriateness of deeper electric sector reductions in light of the overall needs of the Scoping Plan to cost-effectively achieve the statewide GHG goals. Concurrently, CEC and CPUC are proceeding with their respective IRP processes using this range.

68 The sector emissions are anticipated to increase by 2030. As such, the high end of the sector range is the estimated emissions from the Scoping Plan Scenario and the low end adjusts the expected emissions by a risk factor that represents sector over performance.

69 This estimate does not account for the reductions expected in this sector from the Cap-and-Trade Program. The Cap-and-Trade line item includes reductions that will occur in the industrial sector.

70 CARB. 2016. AB 32 Scoping Plan Public Workshops. [www.arb.ca.gov/cc/scopingplan/meetings/meetings.htm](http://www.arb.ca.gov/cc/scopingplan/meetings/meetings.htm)

At this time, PATHWAYS does not include a module for natural and working lands. As such, PATHWAYS cannot be used to model the natural and working lands sector, the interactive effects of policies aimed at the economic and energy sectors and their effect on land use or conditions, or the interactive effects of policies aimed at the natural environment and their impact on the economic and energy sectors. For this Plan, external inputs had to be developed for PATHWAYS to supply biofuel volumes. The natural and working lands sector is also being modeled separately as described in Chapter 4. Moving forward, CARB and other State agencies will work to integrate all the sectors into one model to fully capture interactive effects across both the natural and built environments.

Lastly, the PATHWAYS assumptions and results in this Plan show the significant action that the State must take to reach its GHG reduction goals. It is important to note that the modeling assumptions may differ from other models used by other State agencies. Modeling exercises undertaken in future regulatory proceedings may result in different measures, programs, and program results than those used in the modeling for this Scoping Plan. State agencies will engage on their specific policies and measure development processes separately from CARB Scoping Plan activities, in public forums to engage all stakeholders.

## Uncertainty

Several types of uncertainty are important to understand in both forecasting future emissions and estimating the benefits of emissions reductions scenarios. In developing the Scoping Plan, we have forecast a Reference Scenario and estimated the GHG emissions outcome of the Scoping Plan using PATHWAYS. Inherent in the Reference Scenario modeling is the expectation that many of the existing programs will continue in their current form, and the expected drivers for GHG emissions such as energy demand, population growth, and economic growth will match our current projections. However, it is unlikely that the future will precisely match our projections, leading to uncertainty in the forecast. Thus, the single "reference" line should be understood to represent one possible future in a range of possible predictions. For the Scoping Plan Scenario, PATHWAYS utilized inputs that are assumptions external to the model. PATHWAYS was provided plausible inputs such as energy demand over time, the start years for specific policies, and the penetration rates of associated technologies. Each of the assumptions provided to PATHWAYS has some uncertainty, which is also reflected in the results. Thus, while the results presented in the Scoping Plan may seem precise due to the need for precision in model inputs, these results are estimates, and the use of ranges in some of the results is meant to capture that uncertainty.

Further, as noted in the November 7, 2016, 2030 Target Scoping Plan Workshop, "All policies have a degree of uncertainty associated with them."<sup>71</sup> As this Scoping Plan is meant to chart a path to achieving the 2030 target, additional work will be required to fully design and implement any policies identified in this Scoping Plan. During the subsequent development of policies, CARB and other State agencies will learn more about technologies, cost, and how each industry works as a more comprehensive evaluation is conducted in coordination with stakeholders. Given the uncertainty around assumptions used in modeling, and in performance once specific policies are fully designed and implemented, estimates associated with the Scoping Plan Scenario are likely to differ from what actually occurs when the Scoping Plan is implemented. One way to mitigate for this risk is to develop policies that can adapt and increase certainty in GHG emissions reductions. Periodic reviews of progress toward achieving the 2030 target and the performance of specific policies will also provide opportunities for the State to consider any changes to ensure we remain on course to achieve the 2030 target. The need for this periodic review process was anticipated in AB 32, as it calls for updates to the Scoping Plan at least once every five years. Additional information on the uncertainty analyses conducted in the development of this Scoping Plan is located in Appendix E.

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71 Bushnell, James. Economic Modeling and Environmental Policy Choice. PowerPoint. Department of Economics, University of California, Davis. [www.arb.ca.gov/cc/scopingplan/meetings/110716/bushnellpresentation.pdf](http://www.arb.ca.gov/cc/scopingplan/meetings/110716/bushnellpresentation.pdf)

## Policy Analysis of Scoping Plan Scenario

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The following key criteria were considered while evaluating potential policies beyond the known commitments. The results of the economic analysis (presented in Chapter 3) were also important in the design of this Scoping Plan.

- **Ensure the State achieves the 2030 target.** The strategy must ensure that GHG emissions reductions occur and are sufficient to achieve the 2030 target.
- **Provide air quality co-benefits.** An important concern for environmental justice communities is for any Scoping Plan to provide air quality co-benefits.
- **Prioritize rules and regulations for direct GHG reductions.** AB 197 requires CARB in developing this Scoping Plan to prioritize emissions reductions rules and regulations that result in direct emissions reductions at large stationary sources of GHG emissions sources and direct emissions reductions from mobile sources.
- **Provide protection against emissions leakage.** Require any policies to achieve the statewide limits to minimize emissions leakage to the extent possible. Emissions leakage can occur when production moves out-of-state, so there appears to be a reduction in California's emissions, but the production and emissions have just moved elsewhere. This loss in production may be associated with loss in jobs and decreases in the State's gross domestic product (GDP) and could potentially increase global GHG emissions if the production moves to a less efficient facility outside of California.
- **Develop greenhouse gas reduction programs that can be readily exported to other jurisdictions.** Currently, California's Cap-and-Trade Program is linked with Québec's program and is scheduled to link with Ontario's cap-and-trade program beginning in 2018. At the same time, California's ambitious policies such as the RPS, LCFS, and Advanced Clean Cars have resulted in other regions adopting similar programs.
- **Minimize costs and increase investment in disadvantaged and low-income communities, and low-income households.** Currently, Cap-and-Trade auction proceeds from the sale of State-owned allowances are appropriated for a variety of programs to reduce GHGs, and provide other environmental, health and economic benefits including job creation and economic development. Under AB 1550, a minimum of 25 percent of the proceeds are to be invested in projects located in and benefiting disadvantaged communities, with an additional minimum 10 percent to projects in low-income communities, and low-income households. It is important to understand if the strategy will require or result in funding to support these GHG reductions and associated benefits.
- **Avoid or minimize the impacts of climate change on public health by continuing reductions in GHGs.** Climate change has the potential to significantly impact public health, including increases in heat illness and death, air pollution-related exacerbation of cardiovascular and respiratory diseases, injury and loss of life due to severe storms and flooding, increased vector-borne and water-borne diseases, and stress and mental trauma due to extreme weather-related catastrophes.
- **Provide compliance flexibility.** Flexibility is important as it allows each regulated entity the ability to pursue its own path toward compliance in a way that works best for its business model. Flexibility also acknowledges that regulatory agencies may not have a complete picture of all available low-cost compliance mechanisms or opportunities even across the same sector. In addition, under AB 32 and AB 197, the strategy to reduce GHGs requires consideration of cost-effectiveness, which compliance flexibility provides.
- **Support the Clean Power Plan and other federal climate programs.** California will continue to support aggressive federal action, as well as to defend existing programs like the Clean Power Plan, which is the most prominent federal climate regulation applicable to stationary sources. The U.S. Supreme Court has repeatedly confirmed that federal greenhouse gas regulation must move forward under the federal Clean Air Act, so it is important to ensure that California's programs can support federal compliance as well. Although continuing litigation has stayed certain Clean Power Plan deadlines in the near term, and U.S. EPA has proposed to reconsider aspects of the rule as issued, the Clean Power Plan remains the law of the land. California is vigorously defending this important program, and is continuing to support federal climate regulation as is required by law. U.S. EPA also has a legal obligation to implement GHG controls for power plants, even if it proposes to alter the form of those controls in the future. Therefore, the Clean Power Plan and other federal efforts are important considerations for this Scoping Plan. With regard to the

Clean Power Plan, California power plants are expected to be within their limits as set forth by the State’s compliance plan, which was approved by CARB on July 27, 2017. However, the State still needs a mechanism to ensure the emissions for the covered electricity generating plants do not exceed the federal limits. This mechanism must be federally enforceable with regard to the affected power plants, and limit their emissions in accordance with the federal limit.

Table 4 uses the criteria listed above to assess the Scoping Plan Scenario. This assessment is based on CARB staff evaluation as well as the analyses described in Chapter 3.

**TABLE 4: POLICY ASSESSMENT OF THE SCOPING PLAN**

| Criteria                                                                                         | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ensure the State Achieves the 2030 Target                                                        | <ul style="list-style-type: none"> <li>• Incorporates existing and new commitments to reduce emissions from all sectors</li> <li>• The Cap-and-Trade Program scales to ensure reductions are achieved, even if other policies do not achieve them. This is particularly critical given the uncertainty inherent in both CARB’s emission forecast and its estimate of future regulations.</li> </ul>                                                                                                                                                                                                                                               |
| Provide Air Quality Co-Benefits                                                                  | <ul style="list-style-type: none"> <li>• Reduced fossil fuel use and increased electrification (including plug-in hybrid electric, battery-electric, and hydrogen fuel cell vehicles) from policies such as the Mobile Source Strategy, enhanced LCFS and RPS, energy efficiency, and land conservation will likely reduce criteria pollutants and toxic air contaminants.</li> <li>• The Cap-and-Trade Program will ensure GHG emissions reductions within California that may reduce criteria pollutants and toxic air contaminants.</li> </ul>                                                                                                 |
| Prioritize Rules and Regulations for Direct GHG Reductions                                       | <ul style="list-style-type: none"> <li>• Advanced Clean Cars regulations require reduction in the light-duty vehicle sector.</li> <li>• Enhanced LCFS requires reductions in light-duty and heavy-duty transportation.</li> <li>• SB 350, RPS, and energy efficiency will reduce the need for fossil power generation.</li> <li>• The Cap-and-Trade Program constrains and reduces emissions across approximately 80 percent of California GHG emissions.</li> <li>• SB 1383 and the Short-lived Climate Pollutant Reduction Strategy require reductions in the agricultural, commercial, residential, industrial, and energy sectors.</li> </ul> |
| Protect Against Emissions Leakage                                                                | <ul style="list-style-type: none"> <li>• Free allowance allocation to minimize leakage, where supported by research.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Develop GHG Reduction Programs that can be Readily Exported to Other Jurisdictions               | <ul style="list-style-type: none"> <li>• Supports existing and future linkages, allows for larger GHG emissions reductions worldwide through collaborative regional efforts.</li> <li>• Provides leadership on how to integrate short-lived climate pollutants into the broader climate mitigation program.</li> </ul>                                                                                                                                                                                                                                                                                                                            |
| Minimize Costs and Invest in Disadvantaged and Low-Income Communities, and Low-Income Households | <ul style="list-style-type: none"> <li>• Continue to fund programs and projects that reduce GHGs and meaningfully benefit disadvantaged and low-income communities and low-income households through the Greenhouse Gas Reduction Fund.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                |
| Avoid or Minimize the Impacts of Climate Change on Public Health                                 | <ul style="list-style-type: none"> <li>• Reduces GHGs and provides leadership nationally and internationally for climate action.</li> <li>• Provides funding for programs such as home weatherization focused on disadvantaged communities, to mitigate potential cost impacts.</li> </ul>                                                                                                                                                                                                                                                                                                                                                        |
| Compliance Flexibility                                                                           | <ul style="list-style-type: none"> <li>• Regulated sources self-identify and implement some GHG emissions reductions actions, beyond those already required to comply with additional prescriptive measures.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Support the Clean Power Plan and other Federal Climate Programs                                  | <ul style="list-style-type: none"> <li>• Post-2020 Cap-and-Trade Program can be used to comply with the Clean Power Plan.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

# Chapter 3

## EVALUATIONS

### Programs for Air Quality Improvement in California

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For half a century, CARB has been a leader in measuring, evaluating, and reducing sources of air pollution that impact public health. Its air pollution programs have been adapted for national programs and emulated in other countries. Significant progress has been made in reducing diesel particulate matter (PM), which is a designated toxic air contaminant, and many other hazardous air pollutants. CARB partners with local air districts to address stationary source emissions and adopts and implements State-level regulations to address sources of criteria and toxic air pollution, including mobile sources. The key air quality strategies being implemented by CARB include the following:

- **State Implementation Plans (SIPs).**<sup>72</sup> These comprehensive plans describe how an area will attain national ambient air quality standards by deadlines established by the federal Clean Air Act. SIPs are a compilation of new and previously submitted plans, programs, air district rules, State regulations, and federal controls designed to achieve the emissions reductions needed from mobile sources, fuels, stationary sources, and consumer products. On March 23, 2017, CARB adopted the Revised Proposed 2016 State Strategy for the SIP, describing the commitments necessary to meet federal ozone and PM<sub>2.5</sub> standards over the next 15 years.
- **Diesel Risk Reduction Plan.**<sup>73</sup> The plan, adopted by CARB in September 2000, outlined 14 recommended control measures to reduce the risks associated with diesel PM and achieve a goal of 75 percent PM reduction by 2010 and 85 percent by 2020. Since 2000, CARB has adopted regulations to reduce smog-forming pollutants and diesel PM from mobile vehicles and equipment (e.g., trucks, buses, locomotives, tractors, cargo handling equipment, construction equipment, marine vessels, transport refrigeration units); stationary engines and portable equipment (e.g., emergency standby generators, prime generators, agricultural irrigation pumps, portable generators); and diesel fuels. Diesel PM accounts for approximately 60 percent of the current estimated inhalation cancer risk for background ambient air.<sup>74</sup> CARB staff continues to work to improve implementation and enforcement efforts and examine needed amendments to increase the community health benefits of these control measures.
- **Sustainable Freight Action Plan.**<sup>75</sup> This joint agency strategy was developed in response to Governor's Executive Order B-32-15 to improve freight efficiency, transition to zero emission technologies, and increase the competitiveness of California's freight system. The transition of the freight transport system is essential to support the State's economic development in the coming decades and reduce air pollution affecting many California communities.
- **AB 32 Scoping Plan.**<sup>76</sup> This comprehensive strategy is updated at least every five years and is designed to achieve the State's climate goals, which includes measures that achieve air pollutant reduction co-benefits.
- **AB 1807.**<sup>77</sup> AB 1807 (Tanner, 1983) created California's program to reduce exposure to air toxics. CARB uses a comprehensive process to prioritize the identification of substances that pose the greatest health threat and to develop airborne toxic control measures to reduce those exposures. CARB has reduced public exposure to toxic air contaminants (TACs) through control of motor vehicles, fuels, consumer products, and stationary sources, including adopting control measures for

72 CARB. 2016. California State Implementation Plans. [www.arb.ca.gov/planning/sip/sip.htm](http://www.arb.ca.gov/planning/sip/sip.htm)

73 CARB. 2000. Final Diesel Risk Reduction Plan with Appendices. [www.arb.ca.gov/diesel/documents/rrpapp.htm](http://www.arb.ca.gov/diesel/documents/rrpapp.htm)

74 CARB and California Air Pollution Control Officers Association. 2015. Risk Management Guidance for Stationary Sources of Air Toxics. July 23. [www.arb.ca.gov/toxics/rma/rmgssat.pdf](http://www.arb.ca.gov/toxics/rma/rmgssat.pdf)

75 CARB. 2016. Sustainable Freight Transport. [www.arb.ca.gov/gmp/sfti/sfti.htm](http://www.arb.ca.gov/gmp/sfti/sfti.htm)

76 CARB. 2016. AB 32 Scoping Plan. [www.arb.ca.gov/cc/scopingplan/scopingplan.htm](http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm)

77 CARB. 2014. California Air Toxics Program – Background. [www.arb.ca.gov/toxics/background.htm](http://www.arb.ca.gov/toxics/background.htm)

industrial sources (e.g., perchloroethylene in automotive products; hexavalent chromium from cooling towers, automotive coatings and plating; ethylene oxide from sterilizers and aerators; dioxins from medical waste incinerators; perchloroethylene from dry cleaners; cadmium from metal melting).

- **AB 2588 Air Toxics “Hot Spots” Program.**<sup>78</sup> The Hot Spots Program supplements the AB 1807 program by requiring a statewide air toxics inventory, identification of facilities having localized impacts, notification of nearby residents exposed to a significant health risk, and facility risk management plans to reduce those significant risks to acceptable levels.
- **AB 617 Community Air Protection Program.** Together with the extension of the Cap-and-Trade Program and in recognition of ongoing air quality challenges, California has committed to expand its criteria and toxic emissions reductions efforts through the pursuit of a multipronged approach to reduce localized air pollution and address community exposure, framed by recently-signed new legislation, AB 617 (C. Garcia, 2017). AB 617 outlines actions in five core areas, to be completed in the 2018 to 2020 timeframe, to reduce criteria and toxic emissions in the most heavily impacted areas of the State:
  - **Community-scale air monitoring.** Ambient air monitoring is needed to evaluate the status of the atmosphere compared to clean air standards and historical data. Monitoring helps identify and profile air pollution sources, assess emerging measurement methods, characterize the degree and extent of air pollution, and track progress of emissions reductions activities. AB 617 requires a statewide assessment of the current air monitoring network and identification of priority locations where community-level air monitoring will be deployed.
  - **Statewide Strategy to reduce air pollutants impacting communities.** CARB will identify locations with high cumulative exposure to criteria and toxic pollutants, the sources contributing to those exposures, and select locations that will be required to develop a community action plan to reduce pollutants to acceptable levels.
  - **Community Action Plans to reduce emissions in identified communities.** High priority locations identified in the Statewide Strategy will need to prepare a community action plan that includes emissions reductions targets, measures, and an implementation timeline. The plan will be submitted to CARB for review and approval.
  - **Accelerated retrofits and technology clearinghouse.** This effort will focus on stationary source equipment at Cap-and-Trade facilities that, as of 2007, have not been retrofitted with BARCT-level emission controls for nonattainment pollutants. In addition, creation of a statewide clearinghouse that identifies BACT and BARCT technologies and emission levels for criteria pollutants and TACs will be developed to assist the air districts with the BARCT evaluation and identify available emission controls for the Statewide Strategy.
  - **Direct reporting of facility emissions data to CARB.** An improved, standardized emission inventory promotes a better understanding of actual emissions and helps identify major emission sources, priorities for emissions reduction, and data gaps requiring further work. AB 617 requires CARB to establish a uniform emission inventory system for stationary sources of criteria pollutants and TACs. Data integration and transparency-related efforts are already required by AB 197 (E. Garcia, 2016) and underway at CARB, so this new task will build on these efforts. Moreover, it is clear that better data reporting is necessary to identify localized exposure risk to harmful criteria and toxic pollutants and actions to address any localized impacts must be taken as quickly as possible.

To support efforts to advance the State’s toxics program, the Office of Environmental Health Hazard Assessment (OEHHA) finalized a new health risk assessment methodology, *Air Toxics Hot Spots Program Risk Assessment Guidelines: Guidance Manual for Preparation of Health Risk Assessments*, on March 6, 2015, which updates the previous version of the guidance manual and reflects advances in the field of risk assessment along with explicit consideration of infants and children.<sup>79</sup> Subsequently, CARB, in collaboration with the California Air Pollution Control Officers Association (CAPCOA), finalized a *Risk Management Guidance for Stationary Sources of Air Toxics* for the air districts to use to incorporate OEHHA’s new health risk assessment methodology into their stationary source permitting and AB 2588 Air Toxics Hot Spots programs.<sup>80</sup>

Together, all of these efforts will reduce criteria and toxics emissions in the State, with a focus on the most burdened communities. In particular, AB 617 responds to environmental justice concerns that the Cap-and-

78 CARB. 2016. AB 2588 Air Toxics “Hot Spots” Program. [www.arb.ca.gov/ab2588/ab2588.htm](http://www.arb.ca.gov/ab2588/ab2588.htm)

79 OEHHA. 2015. Notice of Adoption of Air Toxics Hot Spots Program Guidance Manual for the Preparation of Health Risk Assessments 2015. <http://oehha.ca.gov/air/crn/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0>

80 [www.arb.ca.gov/toxics/rma/rmgssat.pdf](http://www.arb.ca.gov/toxics/rma/rmgssat.pdf)

Trade Program does not force large GHG emitters to reduce air pollution which results in localized health impacts. Prior to the passage of AB 617, in February 2017, OEHHA published the first in a series of reports tasked with evaluating the impacts of California’s climate change programs on disadvantaged communities. The initial report focused on the Cap-and-Trade Program.<sup>81</sup> Future reports will focus on the impacts of other climate programs on disadvantaged communities. The report confirms disadvantaged communities are frequently located close to large stationary and mobile sources of emissions. It also notes there are complexities in trying to correlate GHGs with criteria and toxics emissions across industry and within sectors, although preliminary data review shows there may be some poor to moderate correlations in specific instances. Lastly, the report noted, “...the emissions data available at this time do not allow for a conclusive analysis.”

Two additional reports were released during this same period of time: a California Environmental Justice Alliance (CEJA) report focused on identifying equity issues for disadvantaged communities resulting from the implementation of the Cap-and-Trade Program<sup>82</sup> and a research paper examining the question of whether the Cap-and-Trade Program is causing more GHG emissions in disadvantaged communities when compared to other regions.<sup>83</sup> Both of these reports also confirmed that disadvantaged communities are disproportionately located close to large stationary and mobile sources of emissions. While the CEJA report noted, “Further research is needed before firm policy conclusions can be drawn from this preliminary analysis,” the research paper, in reference to GHGs, states, “By and large, the annual change in emissions across disadvantaged and non-disadvantaged communities look similar.”

While the reports do not provide evidence that implementation of the Cap-and-Trade Program is contributing to increased local air pollution, they do underscore the need to use all of the tools (e.g., enhanced enforcement, new regulations, tighter permit limits) available to the State and local agencies to achieve further emissions reductions of toxic and criteria pollutants that are impacting community health. Importantly, AB 617 provides a new framework and tools for CARB, in collaboration with local air districts, to deploy focused monitoring and ensure criteria and toxics emissions reductions at the State’s largest GHG emitters.

## AB 197 Measure Analyses

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This section provides the required AB 197 estimates for the measures evaluated in this Scoping Plan. These estimates provide information on the relative impacts of the evaluated measures when compared to each other. To support the design of a suite of policies that result in GHG reductions, air quality co-benefits, and cost-effective measures, it is important to understand if a measure will increase or reduce criteria pollutants or toxic air contaminant emissions, or if increasing stringency at additional costs yields few additional GHG reductions. To this end, AB 197 (E. Garcia, Chapter 250, Statutes of 2016) requires the following for each potential reduction measure evaluated in any Scoping Plan update:

- The range of projected GHG emissions reductions that result from the measure.
- The range of projected air pollution reductions that result from the measure.
- The cost-effectiveness, including avoided social costs, of the measure.

As the Scoping Plan was developed, it was important to understand if any of the proposed policies or measures would increase criteria pollutant or toxic air contaminant emissions. Note the important caveats around some of the estimates; they must be considered when using the information in the tables below for purposes other than as intended.

## Estimated Emissions Reductions for Evaluated Measures

For many of the existing programs with known commitments, such as the Mobile Source Strategy, previous analyses provide emission factors or other methods for estimating the impacts required by AB 197. Where available, these values were used. In some cases, estimates are based on data from other sources, such as the California Public Utilities Commission (CPUC) Renewables Portfolio Standard Calculator. For newly proposed measures, assumptions were required to estimate the values. Consequently, the estimates for the newly proposed measures have substantial uncertainty. The uncertainty in the impacts of these measures would be reduced as the measures are defined in greater detail during the regulatory processes that are undertaken to

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81 <https://oehha.ca.gov/media/downloads/environmental-justice/report/oehhaab32report020217.pdf>

82 <http://dornsife.usc.edu/PERE/enviro-equity-CA-cap-trade>

83 [https://www.dropbox.com/s/se3ibxkv8t4at8g/Meng\\_CA\\_EJ.pdf?dl=1](https://www.dropbox.com/s/se3ibxkv8t4at8g/Meng_CA_EJ.pdf?dl=1)

define and adopt the programs. For example, as a measure is developed in detail, ways to obtain additional co-pollutant reductions or avoid co-pollutant increases may be identified and evaluated.

Table 5 provides the estimates for the measures evaluated during the development of the Scoping Plan. Based on the estimates below, these measures are expected to provide air quality benefits. The table also provides important context, limitations, and caveats about the values. As shown, the table includes criteria pollutant and diesel PM estimates. As mentioned in the Diesel Risk Reduction Plan, diesel PM accounts for 60 percent of the current estimated inhalation cancer risk for background ambient air. As we do not have direct modeling results for criteria and toxic pollutant estimates from PATHWAYS, we are estimating air quality benefits by using reductions in GHGs to assign similar reductions for criteria and toxic pollutants. By assigning an arbitrary 1:1 relationship in changes between GHGs and criteria and toxic pollutants, the air quality reductions likely overestimate the actual reductions from implementation of the measures. As noted in the OEHHA report, the exact relationship between GHGs and air pollutants is not clearly understood at this time. Moving forward, CARB will continue to assess the nature of the exact relationship between GHGs and criteria and toxics emissions. All estimates in Table 5 have some inherent uncertainty. The table allows for assessing measures against each other and should not be used for other purposes without understanding the limitations on the how the air quality values are derived.

Table 6 provides a summary of the total estimated emissions reductions for the Scoping Plan Scenario as outlined in Table 1. Table 6 was developed by adding the estimated emissions reductions for all of the measures included within the Scoping Plan Scenario in Table 1. More detail on the estimates for the Scoping Plan Scenario, as well as the specific measures included in each of the other four alternative scenarios can be found in Appendix G. In 2030, the Scoping Plan scenario and alternatives will provide comparable GHG and air quality reductions. When there is a range, the measure or policy should be designed to maximize the benefit to the extent possible.

**TABLE 5: RANGES OF ESTIMATED AIR POLLUTION REDUCTIONS BY POLICY OR MEASURE IN 2030**

| Measure                                                                                       | Range of NO <sub>x</sub> Reductions (Tons/Day) | Range of VOC Reductions (Tons/Day) | Range of PM <sub>2.5</sub> Reductions (Tons/Day) | Range of Diesel PM Reductions (Tons/Day) |
|-----------------------------------------------------------------------------------------------|------------------------------------------------|------------------------------------|--------------------------------------------------|------------------------------------------|
| 50 percent RPS                                                                                | ~0.5                                           | <0.1                               | ~0.4                                             | < 0.01                                   |
| Mobile Sources CTF and Freight                                                                | 51–60                                          | 4.6–5.5                            | ~1.1                                             | ~0.2                                     |
| 18 percent Carbon Intensity Reduction Target for LCFS - Liquid Biofuels*                      | 3.5–4.4                                        | 0.5–0.6                            | 0.4–0.6                                          | ~0.5                                     |
| Short-Lived Climate Pollutant Strategy                                                        | –                                              | –                                  | –                                                | –                                        |
| 2x additional achievable energy efficiency in the 2015 Integrated Energy Policy Report (IEPR) | 0.4–0.5                                        | 0.5–0.7                            | < 0.1                                            | < 0.01                                   |
| Cap-and-Trade Program                                                                         | A                                              | A                                  | A                                                | 4–9                                      |

\* LCFS estimates include estimates of the NO<sub>x</sub> and PM<sub>2.5</sub> tailpipe benefits limited to renewable diesel consumed in the off-road sector.  
 – CARB is evaluating how to best estimate these values. Criteria and toxic values are shown in tons per day, as they are episodic emissions events with residence times of a few hours to days, unlike GHGs, which have atmospheric residence times of decades.  
 A Due to the inherent flexibility of the Cap-and-Trade Program, as well as the overlay of other complementary GHG reduction measures, the mix of compliance strategies that individual facilities may use is not known. However, based on current law and policies that control industrial and electricity generating sources of air pollution, and expected compliance responses, CARB believes that emissions increases at the statewide, regional, or local level due to the regulation are not likely. A more stringent post-2020 Cap-and-Trade Program will provide an incentive for covered facilities to decrease GHG emissions and any related emissions of criteria and toxic pollutants. Please see CARB’s Co-Pollutant Emissions Assessment for a more detailed evaluation of a cap-and-trade program and associated air emissions impacts: [www.arb.ca.gov/regact/2010/capandtrade10/capv6app.pdf](http://www.arb.ca.gov/regact/2010/capandtrade10/capv6app.pdf)  
 NO<sub>x</sub> = nitrogen oxides; VOC = volatile organic compound

Important: These estimates assume a 1:1 relationship between changes in GHGs, criteria pollutants, and toxic air contaminant emissions, and it is unclear whether that is ever the case. The values should not be considered estimates of absolute changes for other analytical purposes and only allow for comparison across measures in the table. The values are estimates that represent current assumptions of how programs may be implemented; actual impacts may vary depending on the design, implementation, and performance of the policies and measures. The table does not show interactions between measures, such as the relationship with increased transportation

electrification and associated increase in energy demand for the electricity sector. The measures in the Scoping Plan Scenario are shown in bold font in the table below. Additional details, including GHG reductions, are available in Appendix G.

**TABLE 6: SUMMARY OF RANGES OF ESTIMATED AIR POLLUTION REDUCTIONS FOR THE SCOPING PLAN SCENARIO IN 2030**

| Scenario              | Range of NO <sub>x</sub> Reductions (Tons/Day) | Range of VOC Reductions (Tons/Day) | Range of PM <sub>2.5</sub> Reductions (Tons/Day) | Range of Diesel PM Reductions (Tons/Day) |
|-----------------------|------------------------------------------------|------------------------------------|--------------------------------------------------|------------------------------------------|
| Scoping Plan Scenario | 48–73                                          | 5.1–7.3                            | 1.4–2.4                                          | 5–10                                     |

The total estimates for air pollution reductions provided in this table for the Scoping Plan Scenario are estimated by adding the air pollution benefits for the subset of individual measures examined in Table 5 and included in the Scoping Plan Scenario described in Table 1, and scaled by a risk adjustment factor to capture interactive effects and risks of under/over achieving on air pollution reductions. Appendix G includes details of the specific measures in the Scoping Plan Scenario and Alternatives. **All caveats in Table 5 apply to air quality estimates in this table.**

### Estimated Social Costs of Evaluated Measures

Consideration of the social costs of GHG emissions is a requirement in AB 197, including evaluation of the avoided social costs for measures within this Scoping Plan.<sup>84</sup> Social costs are generally defined as the cost of an action on people, the environment, or society and are widely used to evaluate the impact of regulatory actions. Social costs do not represent the cost of abatement or the cost of GHG reductions, rather social costs estimate the harm that is avoided by reducing GHGs.

Since 2008, federal agencies have been incorporating the social costs of GHGs, including carbon dioxide, methane, and nitrous oxide into the analysis of their regulatory actions. Agencies including the U.S. Environmental Protection Agency (U.S. EPA), Department of Transportation (DOT), and Department of Energy (DOE) are subject to Executive Order 12866, which directs agencies “to assess both the costs and benefits of the intended regulation...”.<sup>85</sup> In 2007, the National Highway Transportation Safety Administration (NHTSA) was directed by the U.S. 9<sup>th</sup> Circuit Court of Appeals to include the social cost of carbon in a regulatory impact analysis for a vehicle fuel economy rule. The Court stated that “[w]hile the record shows that there is a range of values, the value of carbon emissions reduction is certainly not zero.”<sup>86</sup>

In 2009, the Council of Economic Advisors and the Office of Management and Budget convened the Interagency Working Group on the Social Cost of Greenhouse Gases<sup>87</sup> (IWG) to develop a methodology for estimating the social cost of carbon (SC-CO<sub>2</sub>). This methodology relied on a standardized range of assumptions and could be used consistently when estimating the benefits of regulations across agencies and around the world. The IWG, comprised of scientific and economic experts, recommended the use of SC-CO<sub>2</sub> values based on three integrated assessment models (IAMs) developed over decades of global peer-reviewed research.<sup>88</sup>

In this Scoping Plan, CARB utilizes the current IWG supported SC-CO<sub>2</sub> values to consider the social costs of actions to reduce GHG emissions. This approach is in line with Executive Orders including 12866 and the OMB Circular A-4 of September 17, 2003, and reflects the best available science in the estimation of the socio-economic impacts of carbon.<sup>89</sup> CARB is aware that the current federal administration has recently withdrawn certain social cost of carbon reports as no longer representative of federal governmental policy.<sup>90</sup> However, this determination does not call into question the validity and scientific integrity of federal social

84 AB 197 text available at: [https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=201520160AB197](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160AB197).

85 [https://www.reginfo.gov/public/jsp/Utilities/EO\\_12866.pdf](https://www.reginfo.gov/public/jsp/Utilities/EO_12866.pdf)

86 Center for Biological Diversity v National Highway Traffic Safety Administration 06-71891 (9th Cir, November 15 2007)

87 Originally titled the Interagency Working Group on the Social Cost of Carbon, the IWG was renamed in 2016.

88 Additional technical detail on the IWG process is available in the Technical Updates of the Social Cost of Carbon for Regulatory Impact Analysis – Under Executive Order 12866. Iterations of the Updates are available at: <https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/for-agencies/Social-Cost-of-Carbon-for-RIA.pdf>, <https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/scc-tds-final-july-2015.pdf>, and [https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/scc\\_tsd\\_final\\_clean\\_8\\_26\\_16.pdf](https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/scc_tsd_final_clean_8_26_16.pdf).

89 OMB circular A-4 is available at: <https://www.transportation.gov/sites/dot.gov/files/docs/OMB%20Circular%20No.%20A-4.pdf>.

90 See Presidential Executive Order, March 28, 2017, sec. 5(b).

cost of carbon work, or the merit of independent scientific work. Indeed, the IWG’s work remains relevant, reliable, and appropriate for use for these purposes.

The IWG describes the social costs of carbon as follows:

*The social cost of carbon (SC-CO<sub>2</sub>) for a given year is an estimate, in dollars, of the present discounted value of the future damage caused by a 1-metric ton increase in carbon dioxide (CO<sub>2</sub>) emissions into the atmosphere in that year, or equivalently, the benefits of reducing CO<sub>2</sub> emissions by the same amount in that year. The SC-CO<sub>2</sub> is intended to provide a comprehensive measure of the net damages – that is, the monetized value of the net impacts – from global climate change that result from an additional ton of CO<sub>2</sub>.*

*These damages include, but are not limited to, changes in net agricultural productivity, energy use, human health, property damage from increased flood risk, as well as nonmarket damages, such as the services that natural ecosystems provide to society. Many of these damages from CO<sub>2</sub> emissions today will affect economic outcomes throughout the next several centuries.<sup>91</sup>*

Table 7. presents the range of IWG SC-CO<sub>2</sub> values used in regulatory assessments including this Scoping Plan.<sup>92</sup>

**TABLE 7: SC-CO<sub>2</sub>, 2015-2030 (IN 2007 \$ PER METRIC TON)**

| Year | 5 Percent Discount Rate | 3 Percent Discount Rate | 2.5 Percent Discount Rate |
|------|-------------------------|-------------------------|---------------------------|
| 2015 | \$11                    | \$36                    | \$56                      |
| 2020 | \$12                    | \$42                    | \$62                      |
| 2025 | \$14                    | \$46                    | \$68                      |
| 2030 | \$16                    | \$50                    | \$73                      |

The SC-CO<sub>2</sub> is year specific, that is, the IAMs estimate the environmental damages from a given year in the future and discount the value of the damages back to the present. For example, the SC-CO<sub>2</sub> for the year 2030 represents the value of climate change damages from a release of CO<sub>2</sub> in 2030 discounted back to today. The SC-CO<sub>2</sub> increases over time as systems become stressed from the aggregate impacts of climate change and future emissions cause incrementally larger damages. Table 7 presents the SC-CO<sub>2</sub> across a range of discount rates – or the value today of preventing environmental damages in the future. A higher discount rate decreases the value placed on future environmental damages. This Scoping Plan utilizes the IWG standardized range of discount rates, from 2.5 to 5 percent to represent varying valuation of future damages.

The SC-CO<sub>2</sub> is highly sensitive to the discount rate. Higher discount rates decrease the value today of future environmental damages. This Scoping Plan utilizes the IWG standardized range of discount rates, from 2.5 to 5 percent to represent varying valuation of future damages. The value today of environmental damages in 2030 is higher under the 2.5 percent discount rate compared to the 3 or 5 percent discount rate, reflecting the trade-off of consumption today and future damages. The IWG estimates the SC-CO<sub>2</sub> across a range of discount rates that encompass a variety of assumptions regarding the correlation between climate damages and consumption of goods and is consistent with OMB’s Circular A-4 guidance.<sup>93</sup>

There is an active discussion within government and academia about the role of SC-CO<sub>2</sub> in assessing regulations, quantifying avoided climate damages, and the values themselves. In January 2017, the National Academies of Sciences, Engineering, and Medicine (NAS) released a report examining potential approaches for a comprehensive update to the SC-CO<sub>2</sub> methodology to ensure resulting cost estimates reflect the best available science. The NAS review did not modify the estimated values of the SC-CO<sub>2</sub>, but evaluated the models, assumptions, handling of uncertainty, and discounting used in the estimating of the SC-CO<sub>2</sub>. The report titled, “Valuing Climate Damages: Updating Estimation of the Social Cost of Carbon Dioxide,” recommends near-term improvements to the existing IWG SC-CO<sub>2</sub> as well as a long-term strategy to more comprehensive updates.<sup>94</sup> The State will continue to follow updates to the IWG SC-CO<sub>2</sub>, including changes

91 From The National Academies, Valuing Climate Damages: Updating Estimation of the Social Cost of Carbon Dioxide, 2017, available at: <http://www.nap.edu/24651>

92 The SC-CO<sub>2</sub> values as of July 2015 are available at: <https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/scc-tsd-final-july-2015.pdf>

93 The National Academies, Valuing Climate Damages: Updating Estimation of the Social Cost of Carbon Dioxide, 2017, available at: <http://www.nap.edu/24651>.

94 The National Academies, Valuing Climate Damages: Updating Estimation of the Social Cost of Carbon Dioxide, 2017, available at:

outlined in the NAS report, and incorporate appropriate peer-reviewed modifications to estimates based on the latest available data and science.

It is important to note that the SC-CO<sub>2</sub>, while intended to be a comprehensive estimate of the damages caused by carbon globally, does not represent the cumulative cost of climate change and air pollution to society. There are additional costs to society outside of the SC-CO<sub>2</sub>, including costs associated with changes in co-pollutants, the social cost of other GHGs including methane and nitrous oxide, and costs that cannot be included due to modeling and data limitations. The IPCC has stated that the IWG SC-CO<sub>2</sub> estimates are likely underestimated due to the omission of significant impacts that cannot be accurately monetized, including important physical, ecological, and economic impacts.<sup>95</sup> CARB will continue engaging with experts to evaluate the comprehensive California-specific impacts of climate change and air pollution.

### The Social Cost of GHG Emissions

Social costs for methane (SC-CH<sub>4</sub>) and nitrous oxide (SC-N<sub>2</sub>O) have also been developed using methodology consistent with that used in estimating the IWG SC-CO<sub>2</sub>. These social costs have also been endorsed by the IWG and have been used in federal regulatory analyses.<sup>96</sup> Along with the SC-CO<sub>2</sub>, the State also supports the use of the SC-CH<sub>4</sub> and SC-N<sub>2</sub>O in monetizing the impacts of GHG emissions.

While the SC-CO<sub>2</sub>, SC-CH<sub>4</sub>, and SC-N<sub>2</sub>O provide metrics to account for the social costs of climate change, California will continue to analyze ways to more comprehensively identify the costs of climate change and air pollution to all Californians. This will include following updates to the IWG methodology and social costs of GHGs and incorporating the SC-CO<sub>2</sub>, SC-CH<sub>4</sub>, and SC-N<sub>2</sub>O into regulatory analyses.

Table 9 presents the estimated social cost for each policy or measure considered in the development of the Scoping Plan in 2030. For each measure or policy, Table 9 includes the range of the IWG SC-CO<sub>2</sub> values that result from the anticipated range of GHG reductions in 2030 presented in Appendix G. The SC-CO<sub>2</sub> range is obtained using the IWG SC-CO<sub>2</sub> values in 2030 at the 2.5, 3, and 5 percent discount rates. These values (of \$16 using the 5 percent discount rate, \$50 using the 3 percent discount rate, and \$73 using the 2.5 percent discount rate) are translated into 2015 dollars and multiplied across the range of estimated reductions by measure in 2030 to estimate the value of avoided social costs from each measure in that year.<sup>97</sup>

Implementation of the SLCP Strategy will result in reduction of a variety of GHGs, including methane and HFCs, which reported in carbon dioxide equivalent (CO<sub>2</sub>e). While there is no social cost of CO<sub>2</sub>e, the avoided damages associated with the methane reductions outlined in the SLCP Strategy are estimated in Table 9 using the IWG SC-CH<sub>4</sub> as presented in Table 8.<sup>98</sup>

**TABLE 8: SC-CH<sub>4</sub>, 2015-2030 (IN 2007\$ PER METRIC TON)**

| Year | 5 Percent Discount Rate | 3 Percent Discount Rate | 2.5 Percent Discount Rate |
|------|-------------------------|-------------------------|---------------------------|
| 2015 | \$450                   | \$1000                  | \$1400                    |
| 2020 | \$540                   | \$1200                  | \$1600                    |
| 2025 | \$650                   | \$1400                  | \$1800                    |
| 2030 | \$760                   | \$1600                  | \$2000                    |

The range of SC-CH<sub>4</sub> is obtained using the IWG SC-CH<sub>4</sub> values in 2030 at the 2.5, 3, and 5 percent discount rates. The SC-CH<sub>4</sub> values (e.g., \$760 using the 5 percent discount rate, \$1,600 using the 3 percent discount rate, and \$2,000 using the 2.5 percent discount rate) are translated into 2015 dollars and multiplied across the range of estimated methane reductions in 2030 to estimate the value of climate benefits from the SLCP

<http://www.nap.edu/24651>  
 95 [https://www.ipcc.ch/publications\\_and\\_data/ar4/wg3/en/ch3s3-5-3-3.html](https://www.ipcc.ch/publications_and_data/ar4/wg3/en/ch3s3-5-3-3.html)  
 96 More information is available at: [https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/august\\_2016\\_sc\\_ch4\\_sc\\_n2o\\_addendum\\_final\\_8\\_26\\_16.pdf](https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/august_2016_sc_ch4_sc_n2o_addendum_final_8_26_16.pdf)  
 97 The IWG SC-CO<sub>2</sub> values are in 2007 dollars. In 2015 dollars, \$16, \$50, and \$73 in 2007 translates to about \$18, \$57, and \$83, respectively, based on the Bureau of Labor Statistics GDP Series Table 1.1.4.  
 98 [https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/august\\_2016\\_sc\\_ch4\\_sc\\_n2o\\_addendum\\_final\\_8\\_26\\_16.pdf](https://obamawhitehouse.archives.gov/sites/default/files/omb/inforeg/august_2016_sc_ch4_sc_n2o_addendum_final_8_26_16.pdf)

Strategy.<sup>99</sup> As the social cost associated with the SLCP Strategy does not include the impact associated with non-methane reductions, Table 9 underestimates the avoided social costs of this Scoping Plan as calculated using the IWG valuations.

As this Scoping Plan is a suite of policies developed to reduce GHGs to a specific level in 2030, any alternative scenario that also achieves the 2030 target (with the same proportion of carbon dioxide and methane reductions) will have the same avoided social cost, as estimated using the IWG social cost of GHGs, for the single year 2030. The social costs of alternatives could vary if the 2030 target is achieved with vastly different ratios of carbon dioxide to methane reductions. However, all alternatives in this Scoping Plan are anticipated to achieve the same proportion of carbon dioxide and methane reductions and will therefore all have the same estimated avoided social damage or social cost. This social cost, as estimated in 2030 using the IWG SC-CO<sub>2</sub> and SC-CH<sub>4</sub>, ranges from \$1.9 to \$11.2 billion using the 2.5 to 5 percent discount rates, and is estimated at \$5.0 to \$7.8 billion using the 3 percent discount rate. For example, in Table 9 the CH<sub>4</sub> reductions for the SCLP strategy are about 1 MMTCH<sub>4</sub>. That value is multiplied by the 2030 SC-CH<sub>4</sub> values in Table 8 for the 2030 values at the 2.5 and 5 percent discount rates to get a range of \$860 to \$2,260 in 2015 dollars.

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<sup>99</sup> The IWG.SC-CH<sub>4</sub> values are in 2007 dollars. In 2015 dollars, the range of SC-CH<sub>4</sub> translates to about \$858, \$1,807, and \$2,259, for the 5 percent, 3 percent, and 2.5 percent discount rates, respectively. These values are based on the Bureau of Labor Statistics GDP Series Table 1.1.4.

**TABLE 9: ESTIMATED SOCIAL COST (AVOIDED ECONOMIC DAMAGES) OF POLICIES OR MEASURES CONSIDERED IN THE 2017 SCOPING PLAN DEVELOPMENT<sup>#</sup>**

| Measure (Measures in bold are included in the Scoping Plan)                                                                                                     | Range of Social Cost of Carbon \$ million USD (2015 dollars)** |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| 50 percent Renewables Portfolio Standard (RPS)                                                                                                                  | \$55–\$250                                                     |
| Mobile Sources CTF and Freight                                                                                                                                  | \$200–\$1,080                                                  |
| 18 percent Carbon Intensity Reduction Target for LCFS -Liquid Biofuels                                                                                          | \$70–\$330                                                     |
| Short-Lived Climate Pollutant Strategy                                                                                                                          | \$860–\$2,260 (SC-CH <sub>4</sub> )                            |
| 2x additional achievable energy efficiency in the 2015 IEPR                                                                                                     | \$125–\$750                                                    |
| Cap-and-Trade Program                                                                                                                                           | \$610–\$6,560                                                  |
| 10 percent incremental RPS and additional 10 GW behind-the-meter solar PV*                                                                                      | \$250–\$1,160                                                  |
| 25 percent Carbon Intensity Reduction Target for LCFS and a Low-Emission Diesel Standard - Liquid Biofuels*                                                     | \$90–\$415                                                     |
| 20 percent Refinery                                                                                                                                             | \$55–\$500                                                     |
| 30 percent Refinery                                                                                                                                             | \$20–\$250                                                     |
| 25 percent Industry                                                                                                                                             | \$20–\$415                                                     |
| 25 percent Oil and Gas                                                                                                                                          | \$35–\$330                                                     |
| 5 percent Increased Utilization of RNG (core and non-core)                                                                                                      | \$35–\$165                                                     |
| Mobile Source Strategy (CTF) with Increased ZEVs in South Coast and early retirement of LDVs with more efficient LDVs*                                          | \$55–\$500                                                     |
| 2.5x additional achievable energy efficiency in the 2015 IEPR, electrification of buildings (heat pumps and res. electric stoves) and early retirement of HVAC* | \$70–\$580                                                     |
| Carbon Tax                                                                                                                                                      | \$775–\$8,300                                                  |
| All Cap-and-Trade                                                                                                                                               | \$700–\$6,890                                                  |
| Cap-and-Tax                                                                                                                                                     | \$775–\$8,300                                                  |
| Scoping Plan Scenario SC-CO <sub>2</sub>                                                                                                                        | \$1,060–\$8,970                                                |
| Scoping Plan Scenario SC-CH <sub>4</sub>                                                                                                                        | \$860–\$2,260                                                  |
| <b>Scoping Plan Scenario (Total)</b>                                                                                                                            | <b>\$1,920–\$11,230</b>                                        |

**Note:** All values are rounded. The values for SC-CO<sub>2</sub> and SC-CH<sub>4</sub> in 2030 are presented in Tables 7 and 8.

\* Where enhancements have been made to a measure or policy, the ranges in emissions reductions are incremental to the original measure. For example, the ranges for the 25 percent LCFS are incremental to the emissions ranges for the 18 percent LCFS.

# Measures included in the Scoping Plan and the All Cap-and-Trade measure reflect emissions reductions from modeling changes after passage of AB 398. Emissions reductions from all other measures reflect modeling completed prior to passage of AB 398. See Appendix G for additional details.

\*\* All values have been rounded to the nearest 0 or 5.

~ Some measures do not show a significant change in 2030 when there is an incremental increase in measure stringency or when modeling uncertainty was factored.

## Social Costs of GHGs in Relation to Cost-Effectiveness

AB 32 includes a requirement that “rules and regulations achieve the maximum technologically feasible and cost-effective greenhouse gas emissions reductions.”<sup>100</sup> Under AB 32, cost-effectiveness means the relative cost per metric ton of various GHG reduction strategies, which is the traditional cost metric associated with emission control. In contrast, the SC-CO<sub>2</sub>, SC-CH<sub>4</sub>, and SC-N<sub>2</sub>O are estimates of the economic benefits, and not the cost of reducing GHG emissions.

There may be technologies or policies that do not appear to be cost-effective when compared to the SC-CO<sub>2</sub>, SC-CH<sub>4</sub>, and SC-N<sub>2</sub>O associated with GHG reductions. However, these technologies or policies may result in other benefits that are not reflected in the IWG social costs. For instance, the evaluation of social costs might include health impacts due to changes in local air pollution that result from reductions in GHGs, diversification of the portfolio of transportation fuels (a goal outlined in the LCFS) and reductions in criteria pollutant emissions from power plants (as in the RPS).

## Estimated Cost Per Metric Ton by Measure

AB 197 also requires an estimation of the cost-effectiveness of the potential measures evaluated for the Scoping Plan. The values provided in Table 10 are estimates of the cost per metric ton of estimated reductions for each measure in 2030. To capture the fuel and GHG impacts of investments made from 2021 through 2030 to meet the 2030 GHG goal, the table also includes an evaluation of the cost per metric ton based on the cumulative GHG emissions reductions and cumulative costs or savings for each potential measure from 2021 through 2030. While it is important to understand the relative cost effectiveness of measures, the economic analysis presented in Appendix E provides a more comprehensive analysis of how the Scoping Plan and alternative scenarios affect the State’s economy and jobs.

The cost (or savings) per metric ton of CO<sub>2</sub>e reduced for each of the measures is one metric for comparing the performance of the measures. Additional factors beyond the cost per metric ton that could be considered include continuity with existing laws and policies, implementation feasibility, contribution to fuel diversity and technology transformation goals, as well as health and other benefits to California. These considerations are not reflected in the cost per ton metric below.

Because many of the measures interact with each other, isolating the cost and GHG savings of an individual measures is analytically challenging. For example, the performance of the renewable electricity measure impacts the GHG savings and cost per ton associated with increasing the use of electric vehicles. Likewise, the increased use of electric vehicles may increase flexible loads on the electric system, enabling increased levels of renewable electricity to be achieved more cost effectively. Both the renewable electricity measure and the increased use of electric vehicles affect the cost of meeting the Low-Carbon Fuel Standard.

For most of the measures shown in Table 10, the 2030 cost per metric ton is isolated from the other measures by performing a series of sensitivity model runs in the California PATHWAYS model. This cost per metric ton is calculated as the difference in the 2030 annualized cost (or savings) with and without the measure. For the measures in the Scoping Plan Scenario, the analysis starts with the Scoping Plan Scenario PATHWAYS estimates, and then costs and emissions are recalculated with each measure removed individually. For measures included in the No Cap-and-Trade Scenario, the approach starts with the No Cap-and-Trade Scenario PATHWAYS estimates and then each measure is removed. Using this approach, the incremental impact on GHG emissions and costs for each measure is calculated. The incremental cost in 2030 is divided by the incremental GHG emission impact to calculate the cost per ton in 2030.

The same approach of removing each measure individually is used to estimate the incremental cost and emission impacts of each measure for the period 2021 to 2030. For each measure, its annual incremental costs from 2021 to 2030 are calculated and then discounted to 2021 using the discount rate used in PATHWAYS to levelize capital costs over the life of equipment. As a result, the discounted incremental cost of each measure is the total investment required from 2021 to 2030 to achieve each measure’s emissions reductions from 2021 to 2030 (including both incremental capital costs and incremental fuel savings/expenditures). This discounted cost for each measure was divided by its cumulative emissions reductions from 2021 to 2030 to calculate a cost per ton for the measure for the period. A second calculation was also made that divides each measure’s discounted cost by its discounted emissions reductions from 2021 to 2030. The

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100 [www.arb.ca.gov/cc/docs/ab32text.pdf](http://www.arb.ca.gov/cc/docs/ab32text.pdf)

same discount rate is used to discount both incremental costs and emissions in this approach. The estimates are presented in the table below.

Costs that represent transfers within the state, such as incentive payments for early retirement of equipment, are not included in this California total cost metric. The cost ranges shown below represent some of the uncertainty inherent in estimating this metric. The details of how the ranges for each measure were estimated are described in the footnotes below. All cost estimates have been rounded representing further uncertainty in individual values.

It is important to note that this cost per metric ton does not represent an expected market price value for carbon mitigation associated with these measures. In addition, the single year (2030) values and the estimates that encompass 2021 to 2030 do not capture the fuel savings or GHG reductions associated with the full economic lifetime of measures that have been implemented by 2030, but whose impacts extend beyond 2030. The estimates also do not capture the climate or health benefits of the GHG mitigation measures. Table 10 also notes the measures for which sources other than the PATHWAYS model were used to develop estimates of the cost per metric ton. The estimates in the table indicate that the relative cost of the measures is reasonably consistent across the different measures of cost per metric ton. Measures that are relatively less costly using the 2030 cost per metric ton are also less costly using the cost per metric ton based on the period 2021 to 2030. However, for several measures the sign of the estimate differs, such that in 2030 the measure has a positive cost while there is a negative cost for the period 2021 to 2030. This difference in sign occurs because the measure includes increasingly costly investments toward the end of the period examined. By examining only 2030, the lower cost components of the measure that occur in earlier years are omitted, resulting in a higher cost estimate for 2030 alone.

**TABLE 10: ESTIMATED COST PER METRIC TON OF MEASURES CONSIDERED IN THE 2017 SCOPING PLAN DEVELOPMENT AND AVERAGED FROM 2021 THROUGH 2030**

Important: As individual measures are designed and implemented they will be subject to further evaluation and refinement and public review, which may result in different findings than presented below. The ranges are estimates that represent current assumptions of how programs may be implemented and may vary greatly depending on the design, implementation, and performance of the policies and measures. Measures in bold text are included in the Scoping Plan.

| Measure                                                                                                                                                                           | Cost/metric ton in 2030* | Cost/metric ton 2021-2030** |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-----------------------------|
| <b>50 percent Renewables Portfolio Standard (RPS) <sup>a</sup></b>                                                                                                                | \$175                    | \$100 to \$200              |
| <b>Mobile Sources CFT and Freight <sup>b</sup></b>                                                                                                                                | <\$50                    | <\$50                       |
| <b>Liquid Biofuels (18 percent Carbon Intensity Reduction Target for LCFS) <sup>c</sup></b>                                                                                       | \$150                    | \$100 to \$200              |
| <b>Short-Lived Climate Pollutant Strategy <sup>d</sup></b>                                                                                                                        | \$25                     | \$25                        |
| <b>2x additional achievable energy efficiency in the 2015 IEPR <sup>f</sup></b>                                                                                                   | -\$350                   | -\$300 to -\$200            |
| 10 percent incremental RPS and additional 10 GW behind-the-meter solar PV <sup>a</sup>                                                                                            | \$350                    | \$250 to \$450              |
| Liquid Biofuels (25 percent Carbon Intensity Reduction Target for LCFS and a Low-Emission Diesel Standard) <sup>b</sup>                                                           | \$900                    | \$550 to \$975              |
| 20 percent Refinery <sup>d</sup>                                                                                                                                                  | \$100                    | \$50 to \$100               |
| 30 percent Refinery <sup>d</sup>                                                                                                                                                  | \$300                    | \$175 to \$325              |
| 25 percent Industry <sup>d</sup>                                                                                                                                                  | \$200                    | \$150 to \$275              |
| 25 percent Oil and Gas <sup>d</sup>                                                                                                                                               | \$125                    | \$100 to \$175              |
| 5 percent Increased Utilization of renewable natural gas - core and non-core <sup>e</sup>                                                                                         | \$1500                   | \$1350 to \$3000            |
| Mobile Source Strategy (CFT) with Increased ZEVs in South Coast & additional reductions in VMT and energy demand & early retirement of LDVs with more efficient LDVs <sup>b</sup> | \$100                    | <\$50                       |
| 2.5x additional achievable energy efficiency in the 2015 IEPR, electrification of buildings (heat pumps & res. electric stoves) and early retirement of HVAC <sup>f</sup>         | \$75                     | -\$120 to -\$70             |

\* Where enhancements have been made to a measure or policy, the cost per metric ton are incremental to the original measure. For example, the cost per metric ton for the 25 percent LCFS are incremental to the cost per metric ton for the 18 percent LCFS.

\*\* The lower values use a cost discount rate of 10 percent and cumulative emissions for the period 2021 to 2030. The higher values discount both costs and emissions using a discount rate of 10 percent.

a Cost estimate is based on PATHWAYS sensitivity analysis as described in the main text.

b Cost estimate is based on PATHWAYS sensitivity analysis as described in the main text.

c Liquid biofuel values are calculated as the average unsubsidized cost of biofuels supplied above that of an equivalent volume of fossil fuels. These values do not reflect impacts from other biofuel policies, such as the Renewable Fuel Standard or production tax credits, that are partially supported by fuel purchasers/taxpayers outside of California. Therefore, these values do not represent LCFS program costs or potential LCFS credit prices.

d See Appendix D

e Cost estimate is based on PATHWAYS sensitivity analysis as described in the main text.

f Cost estimate is based on PATHWAYS sensitivity analysis as described in the main text. The cost per metric ton does not represent the results of the CPUC's or CEC's standard cost-effectiveness evaluation tests

## Health Analyses

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Climate mitigation will result in both environmental and health benefits. This section presents information about the potential health benefits of the Scoping Plan. The impacts are primarily from reduced particulate matter pollution, reduced toxics pollution (both diesel combustion particles and other toxic pollutants), and the health benefits of increased physical activity that will result from more active modes of transportation such as walking and biking in lieu of driving. CARB is using the AB 197 air quality estimates in Table 5 as a proxy to understand the potential health impacts from the Scoping Plan. There is uncertainty in the air quality estimates and that is carried through to the health impacts evaluation presented here. In the future, CARB will be working to explore how to better integrate health analysis and health considerations in the design and implementation of climate programs.

Because the health endpoints of each of these benefits is different (e.g., fewer incidences of premature mortality, lower cancer risk, and fewer incidences of heart disease), the methodologies for estimating the benefits differ. Further, the methodologies are statistical estimates of adverse health outcomes aggregated to the statewide level. Therefore, this information should only be used to understand the relative health benefits of the various strategies and should not be taken as an absolute estimate of the health outcomes of the Scoping Plan statewide, or within a specific community. The latter is a function of the unique exposure to air pollutants within each community and each individual's choice of more active transport modes that increase physical activity.

The estimates of health benefits in this section do not include any potential avoided adverse health impacts associated with a reduction in global climate change. While we recognize that mitigating climate change will, for example, prevent atmospheric temperature rise, thereby preventing increases in ozone in California, which will result in fewer breathing problems, the connection is difficult to estimate or model. Since it takes collective global action to mitigate climate change, the following analyses do not attempt to quantify the improved health outcomes from reducing or stopping the rise in global temperatures.

The estimated statewide health benefits of the Scoping Plan are dominated by reductions in particulate matter from mobile sources and wood burning and a switch to more active transport modes. In particular, the focus on the impacts of exposure to particulate matter from mobile sources is expected because this is a major cause of air pollution statewide. For this reason, the actions concerning mobile sources in the Scoping Plan were specifically developed with the goal of achieving health-based air quality standards by reducing criteria and toxics emissions as well as GHG emissions simultaneously. In addition, actions that support walkable communities not only result in reduced VMT and related GHG emissions, but promote active transport and increased physical activity that is strongly related to improved health.

Table 11 provides a summary of the total estimated health benefits from the relevant metrics for the Scoping Plan. The sections below summarize the methodologies used to estimate these benefits. More detail on how these estimates were calculated can be found in Appendix G. The air pollutant values used in estimating the health impacts are from Table 5 and all caveats in the estimation of the air quality impacts must be considered when reviewing the health impacts discussed below as the air pollutant values are likely overestimates based on assigned relationships to GHGs that may not be real.

### Potential Health Impacts of Reductions in Particulate Matter Air Pollution

CARB relied on an U.S. EPA-approved methodology to estimate the health impacts of reducing air pollution by actions in the Scoping Plan. This methodology relies on an incidents-per-ton factor to quantify the health benefits of directly emitted (diesel particles and wood smoke) and secondary PM<sub>2.5</sub> formed from oxides of nitrogen from reductions due to regulatory controls. It is similar in concept to the methodology developed by the U.S. EPA for comparable estimations<sup>101</sup>, but uses California air basin specific relationships between emissions and air quality. The basis of the methodology is an approximately linear relationship between changes in PM<sub>2.5</sub> emissions and estimated changes in health outcomes. In this methodology, the number of premature deaths is estimated by multiplying emissions by the incidents-per-ton scaling factor. The factors are derived from studies that correlate the number of incidents (premature deaths, hospitalizations, emergency room visits) associated with exposure to PM<sub>2.5</sub>.

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<sup>101</sup> Fann, N., Fulcher, C.M., & Hubbell, B.J. (2009) The influence of location, source, and emission type in estimates of the human health benefits of reducing a ton of air pollution. (2009) *Air Quality, Atmosphere & Health* 2(3), 169–176

## Potential Health Impacts of Reductions in Toxic Air Pollution

A number of factors complicate any attempt to evaluate the health benefits of reducing exposure to toxic air pollution. First, there are hundreds of individual chemicals of concern with widely varying health effects and potencies. Therefore, a single metric is of limited value in capturing the range of potential toxics benefits. Furthermore, unlike the criteria pollutants whose impacts are generally measured on regional scales, toxics pose concern for both near-source impacts and larger-scale photochemical transformations and transport. Finally, the accepted scientific understanding for cancer risk is that there is usually no safe threshold for exposures to carcinogens. Therefore, cancer risks are usually expressed as “chances per million” of contracting cancer over a (70-year) lifetime exposure (in Table 11 lifetime exposure is provided in the far right column).

In light of these complexities, CARB relied on the most recent National Air Toxics Assessment (NATA) conducted by the U.S. EPA.<sup>102</sup> The NATA 2011 models the potential risks from breathing emissions of approximately 180 toxic air pollutants across the country. Modeled cancer risk results are available by census tract. The NATA data cover industrial facilities, mobile sources (on-road and off-road), small area-wide sources, and more. CARB multiplied the NATA “cancer risk-per-million” values by census tract by the census tract’s population, in order to estimate a population-weighted metric that could be aggregated to the statewide level. This statistic should not be construed as actual real-world cancers (due to the many uncertainties in estimating the real-world levels of risk). Next, CARB applied the percent reductions in emissions due to Scoping Plan actions, in order to obtain an estimate of the “avoided incidence” of statistical lifetime cancers attributable to implementation of the Scoping Plan. Again, the “avoided incidence” is a construct designed to provide a useful statistical metric for comparative purposes among scenarios. It should not be construed to be a real-world parameter.

## Potential Health Impacts of Active Transportation

High levels of active transportation have been linked to improved health and reduced premature mortality by increasing daily physical activity, representing a major direct co-benefit of using active transportation as a strategy to reduce GHG emissions. The benefits of physical activity can be very large. Individuals who are active for approximately 12 minutes a day have a 20 percent lower risk of dying early than those who are active for just 5 minutes a day and those who are active an hour a day, have close to a 40 percent lower risk of premature death.<sup>103</sup>

The Scoping Plan includes reductions in VMT, which can be achieved in a number of ways, including increased active transportation. To estimate the potential health benefits of active transport, CARB staff reviewed work done by the California Department of Public Health (CDPH) concerning the potential health benefits associated with the Caltrans Strategic Management Plan. In this Management Plan, Caltrans set a target for increasing the adoption of active transportation, aiming for a doubling of walking and a tripling of bicycle trips by 2020 compared to 2010. While this plan itself is not part of the Scoping Plan, it helps provide a sense of the magnitude of health benefits associated with increased active transportation.

CDPH performed a risk assessment to compare the number of premature deaths due to physical inactivity and traffic injuries in the baseline year of 2010 to the year 2020, assuming that Caltrans’ walking and bicycling mode share targets were met.<sup>104</sup> CDPH’s methodology has been documented in a publicly available technical manual<sup>105</sup> and the model has appeared in many peer-reviewed research articles.<sup>106</sup> It has been in development

102 U.S. Environmental Protection Agency (2011), National Air Toxics Assessment (NATA) 2011, <https://www.epa.gov/national-air-toxics-assessment/2011-nata-assessment-results>

103 U.S. Department of Health and Human Services (2008) Physical Activity Guidelines Advisory Committee. Physical Activity Guidelines Advisory Committee Report, Washington, DC

104 Maizlish, N. (2016a) Increasing Walking, Cycling, and Transit: Improving Californians’ Health, Saving costs, and Reducing Greenhouse Gases. Office of Health Equity, California Department of Public Health. <https://www.cdph.ca.gov/Programs/OHE/CDPH%20Document%20Library/Maizlish-2016-Increasing-Walking-Cycling-Transit-Technical-Report-rev8-17-ADA.pdf>

105 Maizlish, N. (2016b) Integrated Transport and Health Impact Model (ITHIM): A Guide to Operation, Calibration and Integration with Travel Demand Models. California Spreadsheet Version December 12, 2016.

106 Gotschi, T., Tainio, M., Maizlish, N., Schwanen, T., Goodman, A., & Woodcock, J. (2015). Contrasts in active transport behaviour across four countries: how do they translate into public health benefits? *Preventative Medicine*, 74, 42-48. doi:10.1016/j.ypmed.2015.02.009

Maizlish, N., Woodcock, J., Co, S., Ostro, B., Fanai, A., & Fairley, D. (2013). Health cobenefits and transportation-related reductions in greenhouse gas emissions in the San Francisco Bay area. *American journal of public health*, 103(4), 703-709. doi:10.2105/ajph.2012.300939

Whitfield, G. P., Meehan, L. A., Maizlish, N., & Wendel, A. M. (2016). The Integrated Transport and Health Impact Modeling

since 2009, and a California-specific version was released with a recent update in November 2016.<sup>107</sup>

CDPH estimated that 2,100 premature deaths annually would be avoided if Californians met the Management Plan’s 2020 targets were met by Californians compared to 2010 travel patterns. A recent paper by Dr. Maizlish et al<sup>108</sup> quantified the health co-benefits of the preferred Sustainable Communities Strategies scenarios (compared to the 2010 baseline travel pattern) for the major Metropolitan Planning Organizations using the same methodology and found that 940 deaths annually would be avoided. For both analyses, there were significant reductions in cause-specific premature mortality due to increased physical activity, which was slightly counteracted by a much smaller increase in fatal traffic injuries due to the increased walking and bicycling. When taken together, the health benefit of increasing active transportation greatly outweighed the increased mortality from road traffic collisions. The Scoping Plan goals related to active transportation are more aggressive than those in both the Maizlish et al. 2017 publication and the analysis by CDPH for the Management Plan. Therefore, CARB staff used the CDPH estimate of approximately 2,100 fewer premature deaths from the Management Plan as a lower bound of what could be realized through implementation of the VMT reductions and active transport goals called for in the Scoping Plan Scenario.

**TABLE 11: SUMMARY OF RANGES OF ESTIMATED HEALTH IMPACTS FOR THE SCOPING PLAN SCENARIO IN 2030**

|                    | Fewer Premature Deaths | Fewer Hospitalizations (all) | Fewer ER visits | Fewer cancers * |
|--------------------|------------------------|------------------------------|-----------------|-----------------|
| Diesel PM          | ~60-91                 | ~9-14                        | ~25-38          |                 |
| Secondary PM       | ~76-120                | ~11-17                       | ~33-50          |                 |
| Toxics             |                        |                              |                 | ~21-61          |
| Wood smoke         | ~1000                  | ~ 148                        | ~ 418           |                 |
| Active Transport** | >2100                  |                              |                 |                 |
| <b>Total</b>       | ~3300                  | ~180                         | ~500            | ~21-61          |

\* This metric should not be construed as actual real-world cancer cases. It is intended to be a comparative metric, based on the NATA estimates of lifetime cancer risk (chances-per-million over a 70 year life-time exposure) by census tract multiplied by the tract population.

\*\* Reduction in premature death assumes meeting the CSMP 2020 mode shift target.

Note: The numbers in the table represent individual avoided incidences.

Tool in Nashville, Tennessee, USA: Implementation Steps and Lessons Learned. *Journal of transport & health*, 3. doi:10.1016/j.jth.2016.06.009

Woodcock, J. (2015). Integrated Transport and Health Impact Modelling Tool (ITHIM). Retrieved from <http://www.cedar.iph.cam.ac.uk/research/modelling/ithim/>

Woodcock, J., Edwards, P., Tonne, C., Armstrong, B. G., Ashiru, O., Banister, D., & Roberts, I. (2009). Public health benefits of strategies to reduce greenhouse-gas emissions: urban land transport. *Lancet*, 374(9705), 1930-1943. doi:10.1016/s0140-6736(09)61714-1

Woodcock, J., Givoni, M., & Morgan, A. S. (2013). Health impact modelling of active travel visions for England and Wales using an Integrated Transport and Health Impact Modelling Tool (ITHIM). *PLoS One*, 8(1), e51462. doi:10.1371/journal.pone.0051462

Woodcock, J., Tainio, M., Cheshire, J., O'Brien, O., & Goodman, A. (2014). Health effects of the London bicycle sharing system: health impact modelling study. *BMJ (Clinical research ed.)*, 348, g425. doi:10.1136/bmj.g425

107 Woodcock, J. Maizlish, N. (2016). ITHIM: Integrated Transport & Health Impact Modelling, California Version, November 11, 2016. Original citation: Woodcock J, Givoni M, Morgan AS. Health Impact Modelling of Active Travel Visions for England and Wales Using an Integrated Transport and Health Impact Modelling Tool (ITHIM). *PLoS One*. 2013;8(1):e51462.

108 Maizlish N, Linesch N, & Woodcock J. (2017) Health and greenhouse gas mitigation benefits of ambitious expansion of cycling, walking, and transit in California. *Journal of Transport and Health*. ; doi: 10.1016/j.jth.2017.04.011

## Future Health Activities

As Table 11 shows, the Scoping Plan measures would have significant potential positive health outcomes. The integrated nature of the strategies to reduce emissions of GHGs and criteria and toxics emissions could provide multiple benefits. Actions to reduce black carbon from wood smoke are reducing the same particles that lead to premature mortality. Reductions in fossil combustion will not only reduce GHG emissions, but also toxics emissions. Finally, reducing VMT with strategies that provide opportunities for people to switch to active transport modes can have very large health benefits resulting from increased physical activity.

In recognition of the potential for significant positive health benefits of the Scoping Plan, CARB is initiating a process to better understand how to integrate health analysis broadly into the design and implementation of our climate change programs with the goal of maximizing the health benefits. Although health impact assessments have been used to inform CARB's policymaking, these analyses have not been consistently integrated into the general up-front design of CARB programs. To begin the effort to increase health benefits from climate change mitigation policies, CARB will convene a public meeting in Spring 2018 to solicit input on how best to incorporate health analyses into our policy development. CARB staff will seek appropriate tools for these analyses and will assemble a team of academic advisors to provide input on the latest developments in methods and data sources.

## Economic Analyses

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The following section outlines the economic impact of the Scoping Plan relative to the business-as-usual Reference Scenario. Additional detail on the economic analysis, including modeling details and the estimated economic impact of alternative scenarios is presented in Appendix E.

The Scoping Plan outlines a path to achieve the SB 32 target that requires less reliance on fossil fuels and increased investment in low carbon fuels and clean energy technologies. Through this shift, California can lead the world in developing the technologies needed to reduce the global risks of climate change. This builds on California's current successes of reducing GHG emissions while also developing a cleaner, resilient economy that uses less energy and generates less pollution. Innovation in low-carbon technologies will continue to open growth opportunities for investors and businesses in California. As modeled, the analysis in this Scoping Plan suggests that the costs of transitioning to this lower carbon economy are small, even without counting the potential opportunities for new industries and innovation in California. Under the Scoping Plan, the California economy, employment, and personal income will continue to grow as California businesses and consumers make clean energy investments and improve efficiency and productivity to reduce energy costs.

In 2030, the California economy is projected to grow to \$3.4 trillion, an average growth rate of 2.2 percent per year from 2021 to 2030. It is not anticipated that implementation of the Scoping Plan will change the growth of annual State Gross Domestic Product (GDP). Further, this growth in GDP will occur under the entire projected range of Cap-and-Trade Program allowance prices. Based on this analysis, in 2030 the California economy will take only three months longer to grow to the GDP estimated in the absence of the Scoping Plan—referred to as the Reference Scenario. The impact of the Scoping Plan on job growth is also negligible, with employment less than one half of one percent smaller in 2030 compared to the Reference Scenario.

Additionally, reducing GHG emissions 40 percent below 1990 levels under the Scoping Plan will lead to avoided social damages from climate change on the order of \$1.9 to \$11.2 billion, as estimated using the SC-CO<sub>2</sub> and SC-CH<sub>4</sub>, as well as additional potential savings from reductions in air pollution and petroleum dependence. These impacts are not accounted for in this economic analysis. The estimated impact to California households is also modest in 2030. In 2030, the average annual household impact of the Scoping Plan ranges from \$115 to \$280, depending on the price of reductions under the Cap-and-Trade Program.<sup>109</sup> Estimated personal income in California is also relatively unchanged by the implementation of the Scoping Plan.

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<sup>109</sup> Household projections are obtained from the California Department of Finance and were access on March 16, 2017 at: <http://www.dof.ca.gov/Forecasting/Demographics/projections/>.

## Overview of Economic Modeling

Two models are used to estimate the economic impact of the Scoping Plan and California's continued clean energy transition: (1) the California PATHWAYS model, and (2) the Regional Economic Models, Inc. (REMI) Policy Insight Plus model. The California PATHWAYS model estimates the direct costs and GHG emissions reductions of implementing the prescriptive (or non-Cap-and-Trade) measures in the Scoping Plan relative to the BAU scenario.<sup>110</sup> Direct costs are the sum of the incremental changes in capital expenditures and fuel expenditures, including fuel savings for reduced energy use from efficiency measures. In most cases, reducing GHG emissions requires the use of more expensive equipment that can be operated using less fuel. In the Scoping Plan, the prescriptive measures modeled in PATHWAYS account for a portion of the GHG reductions required to meet the 2030 target. The remaining reductions are delivered through the Cap-and-Trade Program. The direct costs associated with the Cap-and-Trade Program are calculated outside of PATHWAYS based on an assumed range of Cap-and-Trade allowance prices from 2021 through 2030.

To estimate the future costs of the Scoping Plan, this economic analysis necessarily creates a hypothetical future California that is essentially identical to today, adjusted for currently existing climate policy as well as projected economic and population growth through 2030. The analysis cannot predict the types of innovation that will create efficiencies nor can it fully account for the significant economic benefits associated with reducing emissions. Rather, the economic modeling is conducted by estimating incremental capital and clean fuel costs of measures and assigning those costs to certain sectors within this hypothetical future.

The macroeconomic impacts of the Scoping Plan on the California economy are modeled using the REMI model with output from California PATHWAYS and estimated Cap-and-Trade Program costs as inputs. Additional methodological detail is presented in Appendix E.<sup>111</sup>

## Estimated Cost of Prescriptive Measures

As described above, the Scoping Plan combines new measures addressing legislative mandates and the extension of existing measures, including a comprehensive cap on overall GHG emissions from the State's largest sources of pollution. The PATHWAYS model calculates costs and GHG emissions reductions associated with the prescriptive measures in the Scoping Plan. Changes in energy use and capital investment are calculated in PATHWAYS and represent the estimated cost of achieving an estimated 50 to 70 percent of the cumulative GHG reductions required to reach the SB 32 target between 2021 and 2030. The Cap-and-Trade Program delivers any remaining reductions, as shown in Figure 8.

Table 12 outlines the cost of prescriptive measures by sector in 2030, compared to the Reference Scenario, as calculated in PATHWAYS. Estimated capital costs of equipment are leveled over the life of the equipment using a 10 percent discount rate and fuel costs are calculated on an annual basis.<sup>112</sup> The costs in Table 12 are disaggregated into capital costs and fuel costs, which includes the varying costs of gasoline, diesel, biofuels, natural gas, electricity and other fuels.<sup>113</sup> Table 12 assumes that all prescriptive measures deliver anticipated GHG reductions, and does not include any uncertainty in GHG reductions or cost.<sup>114</sup> The impact of uncertainty in GHG reductions is explored in more detail in Appendices E, which include additional detail on measure, cost, and Reference Scenario uncertainty.

The prescriptive measures result in incremental capital investments of \$6.7 billion per year in 2030, but these annual capital costs are nearly offset by annual fuel savings of \$6.6 billion in 2030. The incremental net cost of prescriptive measures in the Scoping Plan is estimated at \$100 million in 2030, which represents 0.03 percent of the projected California economy in 2030. The residential and transportation sectors are anticipated to see net savings in 2030 as fuel savings for these areas vastly outweigh annual capital investment. Several sectors will see a net cost increase from implementation of the prescriptive measures. The industrial sector sees higher fuel costs relative to the Reference Scenario. In the agriculture sector, capital expenditures are due to investments in more efficient lighting and the mitigation of agricultural methane and nitrogen oxides. Agricultural fuel costs increase due to higher electricity and liquid biofuel costs.

110 The PATHWAYS modeling is described in Chapter 2, and additional detail is presented in Appendix D.

111 Additional modeling details are available at the REMI PI+ webpage: <http://www.remi.com/products/pi>.

112 PATHWAYS costs are calculated in real \$2012. For this analysis, all costs are reported in \$2015. The PATHWAYS costs are inflated using Bureau of Economic Analysis (BEA) data available at: <https://www.bea.gov/iTable/iTable.cfm?ReqID=9#reqid=9&step=1&isuri=1&903=4>.

113 Additional information on the fuels included in PATHWAYS is available at: [www.arb.ca.gov/cc/scopingplan/meetings/1142016/e3pathways.pdf](http://www.arb.ca.gov/cc/scopingplan/meetings/1142016/e3pathways.pdf).

114 More information on the inputs to the California PATHWAYS model is available at: [www.arb.ca.gov/cc/scopingplan/scoping\\_plan\\_scenario\\_description2016-12-01.pdf](http://www.arb.ca.gov/cc/scopingplan/scoping_plan_scenario_description2016-12-01.pdf).

**TABLE 12: CHANGE IN PATHWAYS SECTOR COSTS IN 2030 RELATIVE TO THE REFERENCE SCENARIO (BILLION \$2015)<sup>115</sup>**

| End Use Sector <sup>116</sup>                     | Levelized Capital Cost | Fuel Cost     | Total Annual Cost |
|---------------------------------------------------|------------------------|---------------|-------------------|
| Residential                                       | \$0.1                  | -\$1.2        | -\$1.1            |
| Commercial                                        | \$1.8                  | -\$1.8        | \$0.1             |
| Transportation                                    | \$3.5                  | -\$3.8        | -\$0.3            |
| Industrial                                        | \$0.8                  | \$0.3         | \$0.5             |
| Oil and Gas Extraction                            | \$0.0                  | \$0.0         | \$0.1             |
| Petroleum Refining                                | \$0.0                  | \$0.0         | \$0.0             |
| Agriculture                                       | \$0.3                  | \$0.2         | \$0.5             |
| TCU (Transportation Communications and Utilities) | \$0.1                  | \$0.1         | \$0.2             |
| <b>Total</b>                                      | <b>\$6.7</b>           | <b>-\$6.6</b> | <b>\$0.1</b>      |

Note: Table values may not add due to rounding.

### Estimated Cost of the Cap-and-Trade Program

The direct cost of achieving GHG reductions through the Cap-and-Trade Program is estimated outside of PATHWAYS. The Cap-and-Trade Program sets an economy-wide GHG emissions cap and gives firms the flexibility to choose the lowest-cost approach to reduce emissions. As with the prescriptive measures, the direct costs of any single specific GHG reduction activity under the Cap-and-Trade Program is subject to a large degree of uncertainty. However, as Cap-and-Trade allows covered entities to pursue the reduction options that emerge as the most efficient, overall abatement costs can be bounded by the allowance price. Covered entities should pursue reduction actions with costs less than or equal to the allowance price. An upper bound on the compliance costs under the Cap-and-Trade Program can therefore be estimated by multiplying the range of anticipated allowance prices by the anticipated GHG reductions needed (in conjunction with the reductions achieved through the prescriptive measures) to achieve the SB 32 target.

A large number of factors influence the allowance price, including the ease of substituting lower carbon production methods, consumer price response, the pace of technological progress, and impacts to the price of fuel. Other policy factors that also affect the allowance price include the use of auction proceeds from the sale of State-owned allowances and linkage with other jurisdictions.

Flexibility allows the Cap-and-Trade allowance price to adjust to changes in supply and demand while a firm cap ensures GHG reductions are achieved. This analysis includes a range of allowance prices bounded at the low end by the Cap-and-Trade auction floor price (C+T Floor Price) which represents the minimum sales price for allowances sold at auction and the Allowance Price Containment Reserve Price (C+T Reserve Price), which represents the price at which an additional pool of allowances will be made available to ensure entities can comply with the Cap-and-Trade Program and is the highest anticipated price under the Program. Table 13 outlines the projected allowance prices used in this analysis.<sup>117</sup>

115 PATHWAYS costs reported in \$2012 are inflated to \$2015 using the Bureau of Economic Analysis (BEA) data available at: <https://www.bea.gov/iTable/iTable.cfm?ReqID=9#reqid=9&step=1&isuri=1&903=4>.

116 Information on the end use sectors are available in the California PATHWAYS documentation available at: [www.arb.ca.gov/cc/scopingplan/scopingplan.htm](http://www.arb.ca.gov/cc/scopingplan/scopingplan.htm).

117 The Cap-and-Trade allowance price range is based on the Cap-and-Trade Regulation approved by the Office of Administrative

**TABLE 13: ESTIMATED RANGE OF CAP-AND-TRADE ALLOWANCE PRICE 2021–2030\***

| (\$2015)          | 2021   | 2025   | 2030   |
|-------------------|--------|--------|--------|
| C+T Floor Price   | \$16.2 | \$19.7 | \$25.2 |
| C+T Reserve Price | \$72.9 | \$76.4 | \$81.9 |

\* Based on current regulation in effect October 1, 2017

Uncertainty in the GHG reduction potential of prescriptive measures in the Scoping Plan can affect the cost of achieving the 2030 target. The aggregate emissions cap of the Cap-and-Trade Program ensures that the 2030 target will be met—irrespective of the GHG emissions realized through prescriptive measures. If GHG reductions anticipated under prescriptive measures do not materialize, the Cap-and-Trade Program will be responsible for a larger share of emissions reductions. Under that scenario, the demand for Cap-and-Trade allowances may rise, resulting in an increase in allowance price. While the Cap-and-Trade allowance price may rise, it is highly unlikely that it will rise above the C+T Reserve price, given the program design. If prescriptive measures deliver anticipated GHG reductions, demand for allowances will be low, depressing the price of allowances. However, the C+T Floor Price represents the lowest price at which allowances can be sold at auction.

Table 14 presents the estimated direct cost estimates for GHG reductions achieved through the Cap-and-Trade Program in 2030. These costs represent the lower and upper bounds of the cost of reducing GHG emissions to achieve the SB 32 target under the Scoping Plan. The estimated direct costs range from \$1.6 to \$5.1 billion dollars (in \$2015), depending on the allowance price in 2030. This range highlights the allowance price uncertainty that is a trade-off to the GHG reduction certainty provided by the Cap-and-Trade Program. The estimated cost of GHG reductions is calculated by multiplying the allowance price by the GHG emissions reductions required to achieve the SB 32 target.

## Sensitivity Analysis

In addition to uncertainty in the Cap-and-Trade allowance price and uncertainty in the GHG reductions achieved through the prescriptive measures, there is uncertainty in the GHG emissions that will occur under the Reference Scenario, as presented in Figure 6. There is also uncertainty in costs embedded within the Reference Scenario including the price of oil, other energy costs, and technology costs.

The PATHWAYS incremental cost results are also sensitive to the fossil fuel price assumptions. Altering the fuel price trajectory in the Reference Scenario directly impacts the incremental cost of achieving GHG reductions in the Scoping Plan, as the costs of the Scoping Plan are relative to the Reference Scenario.<sup>118</sup>

The PATHWAYS scenarios use fossil fuel price projections from the Annual Energy Outlook (AEO) 2015 reference case.<sup>119</sup> To estimate the impact of changes in future fuel prices on the estimated incremental cost of the Scoping Plan two sensitivities were conducted. In the low fuel price sensitivity, the AEO low oil and natural gas price case is used to project the future cost of fuels in the Reference Scenario. The cost of the Scoping Plan, relative to the Reference Scenario, increases under these conditions, since fuel savings are less valuable when fuel prices are low. A second sensitivity shows that high future oil and natural gas prices (as projected in the AEO high oil price case) reduce the net cost of the Scoping Plan, relative to the Reference Scenario. This is because avoided fuel savings are more valuable when fuel prices are high. Table 14 outlines the costs and savings from the Scoping Plan (both prescriptive measures and cap-and-trade) under the high and low fuel price sensitivities.

The price of oil and natural gas affects the value of fuel savings (as presented in Table 12), which are estimated to be significant using AEO reference oil and natural gas prices. Under the low fuel price sensitivity,

Law on September 18, 2017. Documentation is available at: [www.arb.ca.gov/regact/2016/capandtrade16/capandtrade16.htm](http://www.arb.ca.gov/regact/2016/capandtrade16/capandtrade16.htm)

118 In addition to the fuel cost sensitivities presented in this section, Appendix E includes an uncertainty analysis of the Scoping Plan Scenario and alternatives. This analysis addresses uncertainty in the Reference Scenario emissions, GHG reductions from each measure, as well as capital and fuel costs.

119 The high and low fuel price sensitivity ranges are derived from differences between the AEO 2016 High Oil Price or Low Oil Price forecast and the AEO 2016 reference case, and are applied as ratios to the base case fuel price assumptions (which are based on the AEO 2015 report). The AEO 2015 report is available at: [http://www.eia.gov/outlooks/aeo/pdf/0383\(2015\).pdf](http://www.eia.gov/outlooks/aeo/pdf/0383(2015).pdf) and the AEO 2016 report is available for download at: [http://www.eia.gov/outlooks/aeo/pdf/0383\(2016\).pdf](http://www.eia.gov/outlooks/aeo/pdf/0383(2016).pdf).

the net incremental cost of prescriptive measures is \$2.9 billion in 2030. Under the high fuel price sensitivity, the prescriptive measures result in net savings of \$4.9 billion in 2030. Table 14 also shows that these price uncertainties are captured within the analyzed range of allowance prices. As described above, changes in fuel prices may affect the price of Cap-and-Trade allowances, but the price is highly unlikely to go outside the range of prices bounded by the C+T Floor Price and C+T Reserve Price. The final column in Table 14 presents the estimated direct cost of the Scoping Plan, including both the prescriptive measures and a range of estimated costs to achieve GHG reductions under the Cap-and-Trade Program for varying projections of future fuel prices. The total cost, reflecting fuel and allowance price uncertainty, ranges from an annual savings to California of \$3.3 billion to an annual cost of \$8.0 billion in 2030. The net climate benefits, as estimated by the SC-CO<sub>2</sub> and SC-CH<sub>4</sub>, outweigh these direct costs.<sup>120</sup>

**TABLE 14: ESTIMATES OF DIRECT COST AND CLIMATE BENEFITS IN 2030 RELATIVE TO THE REFERENCE SCENARIO AND INCLUDING FUEL PRICE SENSITIVITY (BILLION \$2015)**

| Scenario                    | Prescriptive Measures | C+T Floor Price | C+T Reserve Price | 2030 Total Cost  |
|-----------------------------|-----------------------|-----------------|-------------------|------------------|
| Scoping Plan                | \$0.1                 | \$1.6           | \$5.1             | \$1.7 to \$5.2   |
| Low Fuel Price Sensitivity  | \$2.9                 | \$1.6           | \$5.1             | \$4.5 to \$8.0   |
| High Fuel Price Sensitivity | -\$4.9                | \$1.6           | \$5.1             | -\$3.3 to -\$0.2 |

Fuel price sensitivity is directly modeled in PATHWAYS, resulting in a range of impacts from prescriptive measures. The range of costs labeled “2030 Total Cost” includes the cost of prescriptive measures estimated in PATHWAYS and the impact of the Cap and-Trade Program calculated at the C+T Floor Price (the lower bounds) and the C+T Reserve Price (the upper bounds). The social cost of GHGs estimated range in 2030 is \$1.9 to \$11.2 billion.

### Macroeconomic Impacts

The macroeconomic impacts of the Scoping Plan are estimated using the REMI model. Annual capital and fuel costs (for example, the costs in Table 12) are estimated using PATHWAYS and input into the REMI model to estimate the impact of the Scoping Plan on the California economy each year relative to GDP, which is often used as a proxy for economic growth, as well as employment, personal income, and changes in output by sector and consumer spending. Table 15 presents key macroeconomic impacts of implementing the Scoping Plan, based on the range of anticipated allowance prices. In 2030, under the Scoping Plan, growth across the indicators is about one-half of one percent less than the Reference Scenario. The results in Table 15 include not only the estimated direct cost of the Cap-and-Trade Program, but also distribution of allowance value from the auction of Cap-and-Trade allowances to California and consumers. See Appendix E for more detail on the modeling of the return of allowance value under the Cap-and-Trade Program in REMI.

The Cap-and-Trade Program is modeled in REMI as an increase in production cost to sectors based on estimated future GHG emissions and anticipated free allowance allocation. If a sector is expected to receive free allocation of allowances, the value of those free allowances is not modeled as a cost in REMI. The analysis does include the estimated benefit to sectors due to the proceeds from the auction of cap-and-trade allowances and assumes that each year \$2 billion of proceeds from the auction of State-owned cap-and-trade allowances are distributed to the economic sectors currently receiving GGRF appropriations. These funds work to achieve further GHG reductions in California, lower the cost to businesses of reducing GHG emissions and protect disadvantaged communities. Any auction proceeds remaining after the distribution of \$2 billion through GGRF sectors are distributed evenly to consumers in California as a dividend. The estimated costs in Table 15 include the cost of the GHG reductions to sectors, as well as the benefit to those sectors when allowance proceeds are returned through the GGRF and as a dividend to consumers, as detailed in Appendix E.

<sup>120</sup> Climate benefits are estimated using the Social Cost of Carbon in 2030 across the range of discount rates from 2.5 to 5 percent. All values are reported in \$2015. Additional information on the Social Cost of Carbon is available from the National Academies of Sciences, Engineering, and Medicine at: <https://www.nap.edu/catalog/24651/valuing-climate-damages-updating-estimation-of-the-social-cost-of>.

**TABLE 15: MACROECONOMIC INDICATORS IN 2030 UNDER BASE FUEL PRICE ASSUMPTIONS**

|                                  | Reference Scenario (2030) | Scoping Plan (2030) | Percentage Change Relative to Reference Scenario |
|----------------------------------|---------------------------|---------------------|--------------------------------------------------|
| California GDP (Billion \$2015)  | \$3,439                   | \$3,430 to \$3,420  | -0.3 percent to -0.6 percent                     |
| Employment (Thousand Jobs)       | 23,522                    | 23,478 to 23,441    | -0.2 percent to -0.3 percent                     |
| Personal Income (Billion \$2015) | \$3,010                   | \$3,006 to \$3,008  | -0.1 percent to -0.1 percent                     |

Table 15 was estimated using the REMI model. The range of costs for the Scoping Plan represents the impact of achieving the SB 32 target through prescriptive measures and the Cap-and-Trade Program at the C+T Floor Price (the lower bounds) and the C+T Reserve Price (the upper bounds).

It is important to put the results of Table 15 into context of the growing \$3.4 trillion California economy in 2030. As noted earlier, the economic analysis does not include avoided social damages and other potential savings from reductions in air pollution and petroleum dependency.

Determining employment changes as a result of policies is challenging to model, due to a range of uncertainties and global trends that will influence the California economy, regardless of implementation of the Scoping Plan. The global economy is seeing a shift toward automation and mechanization, which may lead to slowing of employment across some industries globally, irrespective of California’s energy and low carbon investments. In California, employment is projected to reach 23.5 million jobs in 2030. In this analysis, implementing the Scoping Plan would slow the growth of employment by less than one-half of one percent in 2030.

Estimated personal income in California is relatively unchanged under the Scoping Plan relative to the Reference Scenario. Considering the uncertainty in the modeling, modest changes in the growth of personal income are not different from zero, which suggests that meeting the SB 32 target will not change the growth of personal income relative to the Reference Scenario.

When analyzing the estimated macroeconomic impacts, it is important to remember that a major substitution of electricity and capital away from fossil fuels is anticipated to have a very small effect on California GDP, employment, and personal income—less than one percent relative to the Reference Scenario in 2030. The economic impacts indicate that shifting money and investment away from fossil fuels and to clean energy is likely to have a negligible effect on the California economy. Additionally, it is certain that innovation will continue as new technologies are developed and implemented. While this analysis projects the costs and GHG reductions of current technologies over time, it does not capture the impact of new technologies that may shift the economy and California in unanticipated ways or benefits related to changes in air pollution and improvements to human health, avoided environmental damages, and positive impacts to natural and working lands. Thus, the results of this analysis very likely underestimate the benefits of shifting to a clean energy economy.

Consumer spending also shifts in response to implementation of the Scoping Plan relative to the Reference Scenario. As presented in Table 15, there is a negligible impact to consumer income, but small changes in income can alter the distribution of consumer spending among categories. In 2030, consumer spending is lower under the Scoping Plan than in the Reference Scenario across all analyzed allowance prices. Consumers spend less on fuels, electricity, natural gas, and capital as a result of measures in the Scoping Plan that reduce demand, increase efficiency, and drive technological innovations. The estimated impact to California households is also modest in 2030. The estimated cost to California households in 2030 ranges from \$115 to \$280, depending on the price of reductions under the Cap-and-Trade Program.<sup>121</sup>

The household impact is estimated using the per-household change in personal income as modeled in REMI and utilizing household estimates from the California Department of Finance. The household impact does not account for benefits from reduced climate impacts, health savings from reduced air pollution impacts, or lower petroleum dependence costs that might impact households. Additional details are presented in Appendix E.

As modeled, the household impact of the Scoping Plan comprises approximately one percent of average household expenditures in 2030. To ensure that vulnerable populations and low-income households are not

<sup>121</sup> Household projections are obtained from the California Department of Finance and are available at: <http://www.dof.ca.gov/Forecasting/Demographics/projections/>.

disproportionately affected by California's climate policy, CARB is taking steps to better quantify localized economic impacts and ensure that low-income households see tangible benefits from the Scoping Plan. Researchers at the University of California, Los Angeles (UCLA) are currently working on a retrospective analysis that will estimate the impacts across California communities of the implementation of AB 32, which will help identify areas of focus as 2030 measures are developed. The Cap-and-Trade Program will also continue to provide benefit to disadvantaged communities through the disbursement of GGRF funds.

The investments made in implementing the Scoping Plan will have long-term benefits and present significant opportunities for California investors and businesses, as upfront capital investments will result in long-term fuel and energy efficiency savings, the benefits of which will continue into the future. The California economy will continue to grow under the Scoping Plan, but it will grow more resilient, more sustainable, and will be well positioned to reap the long-term benefits of lower carbon investments.

## **Economic Modeling of Health Impacts**

Health benefits associated with reductions in diesel particulate matter (DPM) and nitrogen oxides (NO<sub>x</sub>) are monetized for inclusion in the macroeconomic modeling. The health benefits are estimated by quantifying the harmful future health effects that will be avoided by reducing human exposure to DPM and NO<sub>x</sub>, as detailed in Appendix G, and monetized by estimating a health effect's economic value to society. As previously noted the health impacts are based on air quality benefits estimated in Table 6, which have important limitations and likely overestimate the impacts of the Scoping Plan. Additional detail on the economic modeling of health impacts, including the monetization methodology and modeling results for all Scoping Plan scenarios, is presented in Appendix E. Including the monetized health impacts in the REMI modeling has no discernible impact on the overall results. The impact of including the monetized health impacts is indiscernible relative to the impact of the Scoping Plan.

## **Estimating the Economic Impact on Disadvantaged Communities (DACs)**

Implementing the Scoping Plan is estimated to have a small impact on the Statewide California economy through 2030. However, shifting from fossil fuels can disproportionately affect specific geographic regions whose local economies rely on fossil fuel intensive industries. These regions can also include vulnerable populations and disadvantaged communities who may be disproportionately impacted by poor air quality and climate.

The regional impacts of the Scoping Plan, including the impact to disadvantaged communities, are estimated using the REMI California County model, which represents the 58 counties and 160 sectors of the California economy. Utilizing the same inputs used for modeling the statewide impact of the Scoping Plan relative to the Reference Scenario, the California County model estimates how measures will affect employment, value added, and other economic indicators at the county level across the state.

The county-level REMI output is also used to estimate impacts on disadvantaged communities affected by the Scoping Plan by allocating county impacts proportional to their share of economic indicators unique to each census tract.<sup>122</sup> These indicators include industry output, industry consumption by fuel category, personal consumption, and population. The overall impact on employment across regions is not significant and there is no discernible difference in the impact to employment in disadvantaged communities. There is also no discernible impact to wages in disadvantaged communities across regions in California. Additional details on the regional modeling, including the results for the Scoping Plan and alternatives, is presented in Appendix E.

In addition to the regional modeling conducted in this analysis, there are currently three research contracts underway at CARB to quantify the impact of California's climate policy on regions and disadvantaged communities throughout California. As mentioned above, researchers from UCLA are estimating the improvements in health outcomes associated with AB 32, with a focus on disadvantaged communities. This research will be informed by input from technical advisory committees including a group focused on environmental justice.

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<sup>122</sup> Census tracts are small geographic areas within greater metropolitan areas that usually have a population between 2,500 and 8,000 persons. More information on the composition of census tracts available here: [https://www.census.gov/geo/reference/gtc/gtc\\_ct.html](https://www.census.gov/geo/reference/gtc/gtc_ct.html). Disadvantaged census tracts are identified using CalEnviroScreen 2.0. Additional information is available at: <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-version-20>.

There are also two studies currently underway to quantify the impact of GGRF funds. A UCLA contract focuses on quantifying jobs supported by GGRF funds in California, while a University of California, Berkeley contract is constructing methodologies to assess the co-benefits of GGRF projects across California. These research efforts will provide a regional analysis of the impact of and benefits to specific communities and sectors to ensure that all Californians see economic benefits, in addition to clean air benefits, from the implementing the Scoping Plan.

## Public Health

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Many measures to reduce GHG emissions also have significant health co-benefits that can address climate change and improve the health and well-being of all populations across the State. Climate change is already affecting the health of communities.<sup>123</sup> Climate-related health impacts can include increased heat illness and death, increases in air pollution-related exacerbation of cardiovascular and respiratory diseases, injury and loss of life due to severe storms and flooding, increased vector-borne and water-borne diseases, and stress and mental trauma due to extreme weather-related catastrophes.<sup>124</sup> The urgency of action to address the impacts already being felt from a changing climate and the threats in coming decades provides a unique opportunity for California's leadership in climate action to reduce GHG emissions and create healthy, equitable, and resilient communities where all people thrive. This section discusses the link between climate change and public health. It does not analyze the specific measures included in the strategy but provides context for assessing the potential measures and scenarios.

### Achieving Health Equity through Climate Action

Many populations in California face *health inequities*, or unfair and unjust health differences between population groups that are systemic and avoidable.<sup>125</sup> Differences in environmental and socioeconomic determinants of health result in these health inequities. Those facing the greatest health inequities include low-income individuals and households, the very young and the very old, communities of color, and those who have been marginalized or discriminated against based on gender or race/ethnicity.<sup>126</sup> It is these very same populations, along with those suffering existing health conditions and certain populations of workers (e.g., outdoor workers), that climate change will most disproportionately impact.<sup>127</sup> The inequitable distribution of social, political, and economic power results in health inequities, while perpetuating systems (e.g., economic, transportation, land use, etc.) that drive GHG emissions. As a result, communities face inequitable living conditions. For example, low-income communities of color tend to live in more polluted areas and face climate change impacts that can compound and exacerbate existing sensitivities and vulnerabilities.<sup>128,129</sup> Fair and healthy climate action requires that the inequities creating and intensifying community vulnerabilities be addressed. Living conditions and the forces that shape them, such as income, education, housing, transportation, environmental quality, and access to services, significantly drive the capacity for climate resilience. Thus, strategies such as alleviating poverty, increasing access to opportunity, improving living conditions, and reducing health and social inequities will result in more climate-resilient communities. In fact, there are already many "no-regret" climate mitigation and adaptation measures available (discussed below) that can reduce health burdens, increase community resilience, and address social inequities.<sup>130</sup> Focusing efforts to achieve health equity can thus lead to significant progress in addressing human-caused climate change.

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123 USGCRP. 2016. *The Impacts of Climate Change on Human Health in the United States: A Scientific Assessment*. Crimmins, A., J. Balbus, J. L. Gamble, C. B. Beard, J. E. Bell, D. Dodgen, R. J. Eisen, N. Fann, M. D. Hawkins, S. C. Herring, L. Jantarasami, D. M. Mills, S. Saha, M. C. Sarofim, J. Trtnanj, and L. Ziska, Eds. U.S. Global Change Research Program, Washington, D.C., 312 pp.

124 Ibid.

125 Whitehead, M. 1992. "The concepts and principles of equity and health." *International Journal of Health Services* 22(3), 429–445.

126 California Department of Public Health (CDPH). 2015. *The Portrait of Promise: The California Statewide Plan to Promote Health and Mental Health Equity*. A Report to the Legislature and the People of California by the Office of Health Equity. Sacramento, CA: California Department of Public Health, Office of Health Equity.

127 Shonkoff, S., R. Morello-Frosch, M. Pastor, and J. Sadd. 2011. "The climate gap: Environmental health and equity implications of climate change and mitigation policies in California—a review of the literature." *Climatic Change* 109 (Suppl 1):S485–S503.

128 Ibid.

129 Rudolph, L. and S. Gould. 2015. "Climate change and health inequities: A framework for action." *Annals of Global Health* 81:3, 432–444.

130 Watts N, Adger WN, Agnolucci P, et al. 2015. Health and climate change: policy responses to protect public health. *Lancet*: 386, 1861-1914

## Potential Health Impacts of Climate Change Mitigation Measures

### Socioeconomic Factors: Income, Poverty, and Wealth

Economic factors, such as income, poverty, and wealth, are collectively one of the largest determinants of health. As such, climate mitigation measures that yield economic benefits can improve population health significantly, especially if the economic benefits are directed to those most vulnerable and disadvantaged (including those living in poverty) who often face the most health challenges. From the poorest to richest ends of the income spectrum, higher income is associated with greater longevity in the United States.<sup>131,132,133</sup> The gap in life expectancy between the richest 1 percent and poorest 1 percent of Americans was almost 15 years for men in 2014, and about 10 years for women.<sup>134</sup> Early death among those living in poverty is not a result of those with higher incomes having better access to quality health care.<sup>135</sup> Only about 10-20 percent of a person's health status is accounted for by health care (and 20-30 percent attributed to genetics), while the remainder is attributed to the social determinants of health. These include environmental quality, social and economic circumstances, and the social, media, policy, economic, retail, and built environments— all of which in turn shape stress levels and behaviors, including smoking, diet, and exercise.<sup>136,137,138,139,140,141,142,143,144,145,146</sup> In fact, where people live, work, learn, and play is often a stronger predictor of life expectancy than their genetic and biological makeup.<sup>147</sup> The World Health Organization's Commission on the Social Determinants of Health concluded that the poor health of poor people, and the social gradient in health, are caused by the unequal distribution of power, income, goods, and services resulting from poor social policies and programs, unfair economic arrangements, and bad politics.<sup>148</sup> Thus, improving the conditions of daily life and tackling the inequitable distribution of power, money, and resources can remedy inequitable health outcomes.<sup>149</sup> Simply put, the more evenly distributed the wealth, the healthier a society is.<sup>150</sup>

The wealth-health gradient has significant implications for this Scoping Plan. State climate legislation and policies require prioritizing GHG reduction strategies that serve vulnerable populations and improve well-being for disadvantaged communities. As such, strategies that improve the financial security of communities facing disadvantages while reducing GHG emissions are win-win strategies. These include providing funds or services for GHG reduction programs (e.g., weatherization, energy efficiency, renewable energy, ZEVs, transit, housing, and others) to low-income individuals and households to help them reduce costs. Among the poorest 25 percent of people, per capita government expenditures are strongly associated with longer

131 Chetty, R., M. Stepner, S. Abraham, et al. 2016. "The Association Between Income and Life Expectancy in the United States, 2001–2014." JAMA Published online April 10, 2016. doi:10.1001/jama.2016.4226.

132 Marmot, M., S. Friel, R. Bell, et al. 2008. "Closing the gap in a generation: Health equity through action on the social determinants of health." The Lancet 372, 9650: 1661–1669.

133 Woolf, S. H., and P. Braveman. 2011. "Where health disparities begin: The role of social and economic determinants—and why current policies may make matters worse." Health Affairs (Millwood) 30(10), 1852–1859.

134 Chetty R, Stepner M, Abraham S, et al. 2016. The Association between Income and Life Expectancy in the United States, 2001–2014. JAMA. Published online April 10, 2016. doi:10.1001/jama.2016.4226

135 Ibid.

136 DHHS, Public Health Service. 1980. Ten leading causes of death in the United States. Atlanta, GA: Bureau of State Services.

137 McGinnis, J., and W. Foege. 1993. "Actual causes of death in the United States." JAMA 270(18), 2207–2212.

138 Lantz, P. et al. 1998. "Socioeconomic factors, health behaviors, and mortality: Results from a nationally representative prospective study of US adults." JAMA 279(21), 1703–1708.

139 McGinnis, J. et al. 2002. "The case for more active policy attention to health promotion." Health Affairs 21(2), 78–93.

140 Mokdad, A. et al. 2004. "Actual causes of death in the United States, 2000." JAMA 291(10), 1238–1245.

141 Danaei, G. et al. 2009. "The preventable causes of death in the United States: Comparative risk assessment of dietary, lifestyle, and metabolic risk factors." PLoS Medicine 6(4), e1000058.

142 World Health Organization (WHO). 2009. Global health risks: Mortality and burden of disease attributable to selected major risks. Geneva: WHO.

143 Booske, B. et al. 2010. Different perspectives for assigning weights to determinants of health. County Health Rankings Working Paper. Madison, WI: University of Wisconsin Population Health Institute.

144 Stringhini, S. et al. 2010. "Association of socioeconomic position with health behaviors and mortality." JAMA 303(12), 1159–1166.

145 Thoits, P. 2010. "Stress and health: Major findings and policy implications." *Journal of Health and Social Behavior* 51 Suppl, S41–53.

146 McGovern, L., G. Miller and P. Highes-Cromwick. 2014. "Health policy brief: The relative contribution of multiple determinants to health outcomes." Health Affairs

147 Iton, A. 2006. Tackling the root causes of health disparities through community capacity building. In: Hofrichter R, ed. Tackling Health Inequities Through Public Health Practice: A Handbook for Action. Washington, D.C., and Lansing, MI: National Association of County and City Health Officials and Ingham County Health Department; 116–136.

148 Marmot M, Friel S, Bell R, et al. 2008. Closing the gap in a generation: health equity through action on the social determinants of health. The Lancet , Volume 372 , Issue 9650, 1661 – 1669

149 Ibid.

150 Smith, R. 1996. "The big idea." British Medical Journal 312:April 20th, Editor's choice.

life spans.<sup>151</sup> Successful strategies California has already implemented to assure the poor do not pay higher costs for societal GHG reductions include low-income energy discount programs, in combination with direct climate credits, and policies and programs that help Californians reduce electricity, natural gas, and gasoline consumption.<sup>152</sup> More such strategies could be pursued. To tackle the inequitable distribution of power that leads to disparate health outcomes, agencies can first assure their hearing and decision-making processes provide opportunities for civic engagement so people facing health inequities can themselves participate in decision-making about solutions. Whether it is absolute poverty or relative deprivation that leads to poor health, investments and policies that both lift up the poor and reduce wealth disparities will address the multiple problems of climate change mitigation, adaptation, and health inequities.

## Employment

Employment status impacts human health in many ways. Poor health outcomes of unemployment include premature death, self-rated ill-health (a strong predictor of poor health outcomes), and mental illness.<sup>153,154,155,156</sup> Economic strain related to unemployment can impact mental health and trigger stress that is linked to other health conditions.<sup>157,158</sup> Populations of color are overrepresented in the unemployment and under-employment ranks, which likely contributes to racial health inequities. In 2014, 14.7 percent of African-Americans, 12.1 percent of American Indians and Alaska Natives, and 9.8 percent of Latinos were unemployed, compared to 7.9 percent of Whites.<sup>159</sup> In addition to providing income, the work experience has health consequences. There is a *work status–health gradient* similar to the wealth–health gradient. Workers with lower occupational status have a higher risk of death,<sup>160</sup> increased blood pressure,<sup>161</sup> and more heart attacks.<sup>162,163</sup> Higher status workers often have a greater sense of autonomy, control over their work, and predictability, compared to lower status workers, whose lack of control and predictability translates to stress that shortens their lives.<sup>164</sup> Nonstandard working arrangements such as part-time, seasonal, shift, contract, or informal sector work have been linked to greater psychological distress and poorer physical health.<sup>165,166</sup> Women are heavily overrepresented in nonstandard work, as are people of color and people with low levels of education.<sup>167,168</sup>

The implementation of California’s climate change goals provides great opportunity to not only improve the habitability of the planet, but also to increase economic vitality, employ historically disadvantaged people

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- 151 Chetty R, Stepner M, Abraham S, et al. 2016. The Association between Income and Life Expectancy in the United States, 2001–2014. JAMA. Published online April 10, 2016. doi:10.1001/jama.2016.4226
- 152 Gattaciacca, J., C. Callahan, and J. R. DeShazo. 2016. Protecting the most vulnerable: A financial analysis of Cap-and-Trade’s impact on households in disadvantaged communities across California. UCLA Luskin School of Public Affairs: Los Angeles, CA. <http://innovation.luskin.ucla.edu/content/protecting-most-vulnerable>. Accessed April 22, 2016.
- 153 Krueger, P., and S. Burgard. 2011. Income, occupations and work. In: Rogers R, Crimmins E, eds. International Handbook of Adult Mortality. New York: Springer: 263–288.
- 154 Rogers, R., R. Hummer, and C. Nam. 2000. Living and Dying in the USA. Behavioral, health, and social differentials of adult mortality. New York, NY: Academic.
- 155 Ross, C. and J. Mirowsky. 1995. “Does employment affect health?” Journal of Health and Social Behavior 36(3):230–243.
- 156 Burgard, S., and K. Lin. 2013. “Bad jobs, bad health? How work and working conditions contribute to health disparities.” Am Behav Sci 57(8).
- 157 Price, R., D. Friedland, J. Choi, and R. Caplan. 1998. Job-loss and work transitions in a time of global economic change.
- 158 Price, R., J. Choi, and A. Vinokur. 2002. “Links in the chain of adversity following job loss: How financial strain and loss of personal control lead to depression, impaired functioning, and poor health.” Journal of Occupational Health Psychology 7(4), 302.
- 159 U.S. Census Bureau. 2014. American Community Survey 1-Year Estimates. [http://www2.census.gov/programs-surveys/acs/summary\\_file/2014/data/](http://www2.census.gov/programs-surveys/acs/summary_file/2014/data/). Last updated August 31, 2015. Accessed April 20, 2016.
- 160 Rogers R, Hummer R, and Nam C. 2000. Living and Dying in the USA. Behavioral, health, and social differentials of adult mortality. New York, NY: Academic
- 161 Colhoun, H., H. Hemingway, and N. Poulter. 1998. “Socio-economic status and blood pressure: An overview analysis.” Journal of Human Hypertension 12(2).
- 162 Möller, J., T. Theorell, U. De Faire, A. Ahlbom, and J. Hallqvist. 2005. “Work related stressful life events and the risk of myocardial infarction. Case-control and case-crossover analyses within the Stockholm heart epidemiology programme (SHEEP).” Journal of Epidemiology and Community Health 59(1), 23–30.
- 163 Burgard S, Lin K. 2013. Bad jobs, bad health? How work and working conditions contribute to health disparities. Am Behav Sci: 57(8).
- 164 Marmot, M., G. Rose, M. Shipley, and P. Hamilton. 1978. “Employment grade and coronary heart disease in British civil servants.” Journal of Epidemiology and Community Health 32(4), 244–249.
- 165 Dooley, D., and J. Prause. 2004. Settling down: Psychological depression and underemployment. The social costs of underemployment, 134-157. In: Dooley, D. and J. Prause. The Social Costs of Underemployment: Inadequate Employment as Disguised Unemployment.
- 166 Virtanen, M., M. Kivimäki, M. Joensuu, P. Virtanen, M. Elovainio, and J. Vahtera. 2005. “Temporary employment and health: A review.” International Journal of Epidemiology 34(3): 610–622.
- 167 Nollen, S. 1996. “Negative aspects of temporary employment.” Journal of Labor Research 17(4): 567–582.
- 168 Burgard S, Lin K. 2013. Bad jobs, bad health? How work and working conditions contribute to health disparities. Am Behav Sci: 57(8)

in secure jobs, and improve the health of the population. Measures in the Scoping Plan that aim to reduce GHGs can simultaneously improve health and social equity by prioritizing or requiring that: (1) infrastructure projects using public funds pay living wages, provide quality benefits to all employees, and minimize nonstandard work; (2) locals are hired as much as is feasible; (3) preference is given for women-owned and minority-owned businesses; (4) employers receiving public funds assess and reduce work stress and lack of workplace control; (5) projects benefiting from State climate investments prioritize hiring from historically hard-to-employ groups, such as youth (especially youth of color), formerly incarcerated people, and people with physical or mental illness; and (6) training is provided to these same groups to work in jobs in sectors that will support a sustainable economy.

## **Communications Supporting Climate Change Behaviors and Policies**

California's leadership on GHG reductions is exceptional. However, climate mitigation goals are often treated independently by sector, and the public does not see a unified message that changes must take place on every level in every sector to preserve human health and well-being. Climate strategy could be supported by public communications campaigns that link sectors and present a message of the need for bold action, along with the benefits that action can yield. Mass media communications and social marketing campaigns can help shift social and cultural norms toward sustainable and healthy practices. Messaging about the co-benefits of climate change policies in improving health and well-being can lead to increased community and decision-maker support among vulnerable groups for policies and measures outlined in the Scoping Plan.

## **Community Engagement Leads to Robust, Lasting, and Effective Climate Policies**

For California's climate change policies to be supported by the public and be implemented with enthusiasm, they must be developed through ample, genuine opportunities for community members to discuss and provide input. Californians' contributions to the policy arena strengthen the end products and assist in their implementation and enforcement.

Efforts to mitigate climate change through policy, environmental, and systems change present considerable opportunities to promote sustainable, healthy, resilient, and equitable communities. The measures in the Scoping Plan, and the way they are implemented, can help create living conditions that facilitate physical activity; encourage public transit use; provide access to affordable, fresh, and nutritious foods; protect the natural systems on which human health depends; spur economic development; provide safe, affordable, and energy-efficient housing; enable access to jobs; and increase social cohesion and civic engagement. These climate change mitigation measures can improve overall population health, as well as material conditions, access to opportunity, and health and well-being in communities facing health inequities. Approaching the policy solutions outlined in the Scoping Plan with a health and equity lens can ultimately help lead to a California in which all current and future generations of Californians can benefit and thrive.

## **Environmental Analysis**

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CARB, as the lead agency, prepared a Draft Environmental Analysis (Draft EA) in accordance with the requirements of the California Environmental Quality Act (CEQA) and CARB's regulatory program (CARB's program has been certified as complying with CEQA by the Secretary of Natural Resources; see California Code of Regulation, title 17, sections 60006-60008; California Code of Regulation, title 14, section 15251, subdivision (d)). The resource areas from the CEQA Guidelines Environmental Checklist were used as a framework for a programmatic environmental analysis of the reasonably foreseeable compliance responses resulting from implementation of the measures proposed in the Scoping Plan to achieve the 2030 target. Following circulation of the Draft EA for an 80-day public review and comment period (January 20, 2017 through April 10, 2017), CARB prepared the Final Environmental Analysis Prepared for the Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target (Final EA), which includes minor revisions to the Draft EA, and the Response to Comments on the Draft Environmental Analysis prepared for the Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target (RTC). The Final EA is included as Appendix F to the 2017 Scoping Plan. The Final EA and RTC were posted on CARB's Scoping Plan webpage before the Board hearing in December 2017.

The Final EA provides a programmatic level of analysis of the adverse environmental impacts that are reasonably foreseeable as resulting from implementation of the proposed Scoping Plan measures; feasible mitigation measures; a cumulative impacts analysis and an alternatives analysis.

Collectively, the Final EA concluded that implementation of these actions could result in the following short-term and long-term beneficial and adverse environmental impacts:

- Beneficial long-term impacts to air quality, energy demand and greenhouse gas emissions.
- Less than significant impacts to energy demand, resources related to land use planning, mineral resources, population and housing, public services, and recreational services.
- Potentially significant and unavoidable adverse impacts to aesthetics, agriculture and forest resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, resources related to land use planning, noise, recreational services, transportation/traffic, and utilities and service systems.

The potentially significant and unavoidable adverse impacts are disclosed for both short-term construction-related activities and long-term operational activities, which explains why some resource areas are identified above as having both less-than-significant impacts and potentially significant impacts. For a summary of impacts, please refer to the table in Attachment B to the Final EA.

# Chapter 4

## KEY SECTORS

Climate change mitigation policies must be considered in the context of the sector's contribution to the State's total GHGs, while also considering any co-benefits for criteria pollutant and toxic air contaminant reductions. The transportation, electricity (in-state and imported), and industrial sectors are the largest contributors to the GHG inventory and present the largest opportunities for GHG reductions. However, to ensure decarbonization across the entire economy and to meet our 2030 GHG target, policies must be considered for all sectors. Policies that support energy efficiency, alternative fuels, and renewable power also can provide co-benefits for both criteria and toxic air pollutants.

The specific policies identified in this Scoping Plan are subject to additional analytical and public processes to refine the requirements and methods of implementation. For example, a change in the LCFS Carbon Intensity (CI) target would only take effect after a subsequent rulemaking for that regulation, which would include its own public process and environmental, economic, and public health analyses. As described in Chapter 2, many policies for reducing emissions toward the 2030 target are already known. This Scoping Plan identifies these and additional policies or program enhancements needed to achieve the remaining GHG reductions in a complementary, flexible, and cost-effective manner to meet the 2030 target. These policies should continue to encourage reductions beyond 2030 to keep us on track to stabilize the climate. Policies that ensure economy-wide investment decisions that incorporate consideration of GHG emissions are particularly important.

As we pursue GHG reduction targets, we must acknowledge the integrated nature of our built and natural environments, and cross-sector impacts of policy choices. The State's Green Buildings Strategy is one such example of this type of integrated approach. Buildings have tremendous cross-sector interactions that influence our health and well-being and affect land use and transportation patterns, energy use, water use, communities, and the indoor and outdoor environment. Green building regulations and programs offer complementary opportunities to address the direct and indirect effects of buildings on the environment by incorporating strategies to minimize overall energy use, water use, waste generation, and transportation impacts. The Governor's Green Buildings Executive Order B-18-12 for State buildings and the California Green Building Standards (CALGreen) Code<sup>169</sup> are key state initiatives supporting emissions reductions associated with buildings. Local governments are taking action by adopting "beyond code" green building standards. Additional efforts to maintain and operate existing buildings as third-party certified green buildings provides a significant opportunity to reduce GHG emissions associated with buildings. These foundational regulations and programs for reducing building-related emissions are described in more detail in Appendix H. Looking forward, there is a need to establish a path toward transitioning to zero net carbon buildings<sup>170</sup>, which will be the next generation of buildings that can contribute significantly to achieving long-term climate goals. A discussion of how the green buildings strategy can support GHG reductions to help meet the 2030 target is provided in Appendix I. Recent research activities have provided results to better quantify GHG emissions reductions of green buildings, and additional research activities need to continue to expand their focus to support technical feasibility evaluations and implementation. Research needs related to green buildings are included in Appendix I.

Further, each of the policies directed at the built environment must be considered in the broader context of the high-level goals for other sectors, including the natural and working lands sector. For example, policies that support natural and working lands can reduce emissions and sequester carbon, while also providing ecosystem benefits such as better water quality, increased water yield, soil health, reduced erosion, and

<sup>169</sup> The authority to update and implement the CALGreen Code is the responsibility of several State agencies identified in California Building Standards Law.

<sup>170</sup> A zero carbon building generates zero or near zero GHG emissions over the course of a year from all GHG emission sources associated, directly and indirectly, with the use and occupancy of the building (initial definition included in the May 2014 *First Update to the Climate Change Scoping Plan*).

habitat connectivity. These policies and co-benefits will be considered as part of the integrated strategy outlined above. Table 16 provides examples of the cross-sector interactions between and among the main sectors analyzed for the Scoping Plan that are discussed in this chapter (Energy, Transportation, Industry, Water, Waste Management, and Natural and Working Lands, including agricultural lands).

This chapter recognizes these interactions and relates these broad strategic options to the specific additional programs recommended in Chapter 2 of this document. Accordingly, Chapter 4 provides an overview of each sector's contributions to the State's GHG emissions, a description of both ongoing and proposed programs and policies to meet the 2030 target, and additional climate policy or actions that could be considered in the future. The wide array of complementary and supporting measures being contemplated or undertaken across State government are detailed here. The broad view of State action described in this chapter thus provides context for the narrower set of measures discussed in detail in Chapter 2 of this Scoping Plan. It is these measures in Chapter 2 that CARB staff has identified as specific actions to meet the 2030 target in SB 32.

The following phrases have specific meanings in this discussion of the policy landscape: "Ongoing and Proposed Measures" refers to programs and policies that are either ongoing existing efforts, or efforts required by statute, or which are otherwise underway or about to begin. These measures include, but are not limited to, those identified as necessary specific actions to meet the 2030 GHG target, and which are set apart and described in greater detail in Chapter 2. "Sector Measures" listed also include cross-cutting measures that affect many entities in the sector; some of these are also identified in Chapter 2. "Potential Additional Actions" are not being proposed as part of the specific strategy to achieve the 2030 target in this Scoping Plan. This Scoping Plan includes this broader, comprehensive, review of these measures because it aims to spur thinking and exploration of innovative new technologies and policies that may help the State achieve its long-term climate goals. Some of these items may not ever be formally proposed, but they are included here because CARB, other agencies, and stakeholders believe their potential should be explored with stakeholders in coming years.

**TABLE 16: CROSS-SECTOR RELATIONSHIPS**

| Sector                                                                                                               | Example Interactions with Other Sectors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  <p>Energy</p>                      | <ul style="list-style-type: none"> <li>• Hydroelectric power, cooling, cleaning, waste water treatment plant (WWTP) bioenergy</li> <li>• Vehicle-to-grid power; electricity supply to vehicle charging infrastructure</li> <li>• Biomass feedstock for bioenergy, land for utility-scale renewable energy (solar, wind)</li> <li>• Agricultural waste and manure feedstocks for bioenergy/biofuels</li> <li>• Organic waste for bioenergy</li> </ul>                                                                                                                                                                                                                                                                                                                                 |
|  <p>Transportation</p>              | <ul style="list-style-type: none"> <li>• Electric vehicles, natural gas vehicles, transit/rail; more compact development patterns that reduce vehicle miles traveled (VMT) also demand less energy per capita</li> <li>• More compact development patterns that reduce VMT also demand less water per capita and reduce conversion of natural and working lands</li> <li>• Reducing VMT also reduces energy demands necessary for producing and distributing fuels and vehicles and construction and maintenance of roads</li> <li>• Biomass feedstock for biofuels</li> <li>• Agricultural waste and manure feedstocks for biofuels</li> <li>• Organic waste for biofuels</li> <li>• Greenfield suburban development on natural and working lands leads to increased VMT</li> </ul> |
|  <p>Industry</p>                    | <ul style="list-style-type: none"> <li>• Potential to electrify fossil natural gas equipment, substitution of fossil-based energy with renewable energy</li> <li>• Greenfield urban development impacts</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|  <p>Water</p>                      | <ul style="list-style-type: none"> <li>• Energy consumption for water pumping, treatment, heating; resource for cooling, cleaning; WWTP bioenergy</li> <li>• Use of compost to help with water retention / conservation / drought mitigation</li> <li>• Land conservation results in healthier watersheds by reducing polluted runoff, allowing groundwater recharge, and maintaining properly functioning ecosystems</li> </ul>                                                                                                                                                                                                                                                                                                                                                     |
|  <p>Waste Management</p>          | <ul style="list-style-type: none"> <li>• Composting, anaerobic digestion, and wastewater treatment plant capacity to help process organic waste diverted from landfills</li> <li>• Compost for carbon sequestration, erosion control in fire-ravaged lands, water conservation, and healthy soils</li> <li>• Replacing virgin materials with recycled materials associated with goods production; enhanced producer responsibility reduces energy impacts of consumption</li> <li>• Efficient packaging materials reduces energy consumption and transportation fuel use</li> </ul>                                                                                                                                                                                                  |
|  <p>Agriculture</p>               | <ul style="list-style-type: none"> <li>• Crop production, manure management; WWTP biosolids for soil amendments</li> <li>• Agricultural waste and manure feedstocks for bioenergy</li> <li>• Compost production in support of Healthy Soils Initiative</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|  <p>Natural and Working Lands</p> | <ul style="list-style-type: none"> <li>• Healthy forestlands provide wood and other forest products</li> <li>• Restoring coastal and sub-tidal areas improves habitat for commercial and other fisheries</li> <li>• Sustainable management can provide biomass for electricity</li> <li>• Sustainable management can provide biomass for biofuels</li> <li>• Resilient natural and working lands provide habitat for species and functions to store water, recharge groundwater, naturally purify water, and moderate flooding. Forests are also a source of compost and other soil amendments.</li> <li>• Conservation and land protections help reduce VMT and increase stable carbon pools in soils and above-ground biomass</li> </ul>                                           |

## Low Carbon Energy

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The energy sector in California is composed of electricity and natural gas infrastructure, which brings electricity and natural gas to homes, businesses, and industry. This vast system is critical to California's economy and public well-being, and pivotal to reducing its GHG emissions.

Historically, power plants generated electricity largely by combusting fossil fuels. In the 1970s and early 1980s, a significant portion of California's power supply came from coal and petroleum resources. To reduce air pollution and promote fuel diversity, the State has shifted away from these resources to natural gas, renewable energy, and energy efficiency programs, resulting in significant GHG emissions reductions. Emissions from the electricity sector are currently approximately 20 percent below 1990 levels and are well on their way to achieving deeper emissions cuts by 2030. Since 2008, renewable generation has almost doubled, coal generation has been reduced by more than half, and GHG emissions have been reduced by a quarter.

Carbon dioxide is the primary GHG associated with electricity and natural gas systems. The electricity sector, which is composed of in-State generation and imported power to serve California load, has made great strides to help California achieve its climate change objectives. Renewable energy has shown tremendous growth, with capacity from solar, wind, geothermal, small hydropower, and biomass power plants growing from 6,600 megawatts (MW) in 2010 to 27,500 MW as of June 2017.<sup>171</sup>

Renewable energy adoption in California has been promoted through the RPS and several funding mechanisms, such as the California Solar Initiative (CSI) programs, Self-Generation Incentive Program (SGIP), Net-Energy Metering (NEM), and federal tax credits. These mandates and incentives have spurred both utility-scale and small-scale customer-developed renewable energy projects. SB 350 increased the RPS requirement from 33 percent by 2020 to 50 percent by 2030.

SB 350 requires publicly-owned utilities under the jurisdiction of the California Energy Commission (CEC) and all load-serving entities under the jurisdiction of the California Public Utilities Commission (CPUC) to file integrated resource plans (IRPs) with the CEC and CPUC, respectively. Through their IRPs, filing entities will demonstrate how they will plan to meet the electricity sector's share of the State's 2030 GHG reduction target while ensuring reliability in a cost-effective manner. The CEC and CPUC have developed the guidelines that publicly-owned utilities and load-serving entities will follow to prepare and submit IRPs, and CARB is working collaboratively with CEC and CPUC to set the sector and utility and load-serving entity planning targets. The Scoping Plan provides information to help establish the range of GHG reductions required for the electricity sector, and those numbers will be translated into planning target ranges in the IRP process. The IRP processes as currently proposed by CEC and CPUC staff will grant publicly-owned utilities flexibility to determine the optimal way to reduce GHG emissions, and load serving entities some flexibility to achieve the electricity sector's share of the 2030 goal. The CPUC has developed a Reference System Plan to help guide investment, resource acquisition, and programmatic decisions to reach the State's policy goals, in addition to informing the development of individual load serving entities' IRPs.

Energy efficiency is another key component to reducing energy sector GHG emissions, and is another consideration in each agency's IRP process. Utilities have been offering energy efficiency programs, such as incentives, to California customers for decades, and CEC has continually updated building and appliance standards. In the context of IRPs, utility-ratepayer-funded energy efficiency programs will likely continue to play an important role in reducing GHG emissions in the electricity sector.

SB 350 requires CEC and CPUC to establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030. These targets can be achieved through appliance and building energy efficiency standards; utility incentive, rebate, and technical assistance programs; third-party delivered energy efficiency programs; and other programs. Achieving greater efficiency savings in existing buildings, as directed by Governor Brown in his 2015 inaugural speech, will be essential to meet the goal of doubling energy efficiency savings. In September 2015, CEC adopted the Existing Buildings Energy Efficiency Action Draft Plan, which is designed to provide foundational support and strategies to enable scaling of energy efficiency in the built environment. Pursuant to SB 350, CEC published an updated Existing Buildings Energy Efficiency Action Plan prior to January 2017. More than \$10 billion in private capital investment will be needed

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<sup>171</sup> California Energy Commission. August, 2017. Tracking Progress. Renewable Energy – Overview. [http://www.energy.ca.gov/renewables/tracking\\_progress/documents/renewable.pdf](http://www.energy.ca.gov/renewables/tracking_progress/documents/renewable.pdf)

to double statewide efficiency savings in California.<sup>172</sup> Energy efficiency programs are one part of the broader green buildings strategy, which incorporates additional measures to minimize water use, waste generation, and transportation impacts. The green buildings strategy is described in further detail in Appendix I.

Heating fuels used for activities such as space and water heating in the residential, commercial, and industrial sectors represent a significant source of GHG emissions. Transitioning to cleaner heating fuels is part of the solution of achieving greater efficiency savings in existing buildings and has significant GHG emissions reductions potential. Examples of this transition can include use of renewable gas and solar thermal, as well as electrification of end uses in residential, commercial, and industrial sectors. However, achieving significant GHG emissions reductions can only be achieved by decarbonizing the electricity sector – switching from natural gas end uses to electricity generated by burning natural gas would not be effective. Electrification can complement renewables and energy storage if implemented in an integrated, optimized manner. Other hurdles that will have to be overcome include electric equipment performance across all California climate regions, seasonal variations of renewable generation, cost-effectiveness, and consumer acceptance of different heating fuel options.

Fossil-fuel-based natural gas is a significant fuel source for both in-State electricity generation and electricity imported into California. It is also used in transportation applications and in residential, commercial, industrial, and agricultural sector end uses. Greenhouse gas emissions from combustion of fossil natural gas decreased from 134.71 MMTCO<sub>2</sub>e in 2000 to 126.98 MMTCO<sub>2</sub>e in 2015, while natural gas pipeline fugitive emissions were estimated to be 4.0 MMTCO<sub>2</sub>e in 2015 and have been nearly unchanged since 2000.<sup>173</sup> Greenhouse gas-reduction strategies should focus on efficiency, reducing leakage from wells and pipelines, implementing the SLCP strategy, and studying the potential for renewable gas fuel switching (e.g., renewable hydrogen blended with methane or biomethane).

Moving forward, reducing use of fossil natural gas wherever possible will be critical to achieving the State's long-term climate goals. For end uses that must continue to rely on natural gas, renewable natural gas could play an important role. Renewable natural gas volume has been increasing from approximately 1.5 million diesel gallon equivalent (dge) in 2011 to more than 68.5 million dge in 2015, and continued substitution of renewable gas for fossil natural gas would help California reduce its dependence on fossil fuels. In addition, renewable gas can be sourced by in-vessel waste digestion (e.g., anaerobic digestion of food and other organics) and recovering methane from landfills, livestock operations, and wastewater treatment facilities through the use of existing technologies, thereby also reducing methane emissions. The capture and productive use of renewable methane from these and other sources is consistent with requirements of SB 1383.

Collectively, renewable energy and energy efficiency measures can result in significant public health and climate benefits by displacing air pollution and GHG emissions from fossil-fuel based energy sources, as well as by reducing the health and environmental risks associated with the drilling, extraction, transportation, and storage of fossil fuels, especially for communities living near fossil-fuel based energy operations.

As the energy sector continues to evolve and decarbonize, both the behavior of individual facilities and the design of the grid itself will change, with important distributional effects. Some power plants may operate more flexibly to balance renewables, emerging technologies (examples include storage, smart inverters, renewably-fueled fuel cells, and others) will become more prevalent, and aging facilities may retire and be replaced. In turn, this may shift patterns of criteria pollutant emissions at these facilities. Because many existing power plants are in, or near, disadvantaged communities, it is of particular importance to ensure that this transition to a cleaner grid does not result in unintended negative impacts to these communities.

Appendix H highlights the more significant existing policies, programs, measures, regulations, and initiatives that provide a framework for helping achieve GHG emissions reductions in this sector.

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172 California Energy Commission. 2016. Existing Building Energy Efficiency Action Plan. page 61. Available at: [http://docketpublic.energy.ca.gov/PublicDocuments/16-EBP-01/TN214801\\_20161214T155117\\_Existing\\_Building\\_Energy\\_Efficiency\\_Plan\\_Update\\_Deceber\\_2016\\_Thi.pdf](http://docketpublic.energy.ca.gov/PublicDocuments/16-EBP-01/TN214801_20161214T155117_Existing_Building_Energy_Efficiency_Plan_Update_Deceber_2016_Thi.pdf)

173 CARB. 2017. CARB's Emission Inventory Activities. [www.arb.ca.gov/ei/ei.htm](http://www.arb.ca.gov/ei/ei.htm)

## Looking to the Future

This section outlines the high-level objectives and goals to reduce GHGs in this sector.

### Electricity Goals

- Achieve sector-wide, publicly-owned utility, and load-serving entity specific GHG reduction planning targets set by the State through Integrated Resource Planning.
- Reduce fossil fuel use.
- Reduce energy demand.

### Natural Gas Goals

- Ensure safety of the natural gas system.
- Decrease fugitive methane emissions.
- Reduce dependence on fossil natural gas.

## Cross-Sector Interactions

The energy sector interacts with nearly all sectors of the economy. Siting of power plants (including solar and wind facilities) and transmission and distribution lines have impacts on land use in California—be it conversion of agricultural or natural and working lands, impacts to sensitive species and habitats, or implications to disadvantaged, vulnerable, and environmental justice communities. Additionally, more compact development patterns reduce per capita energy demands, while less-compact sprawl increases them. Further, efforts to reduce GHG emissions in the transportation sector include electrification, such as PHEVs, BEVs, and FCEVs. Some industrial sources also use electricity as a primary or auxiliary source of power for manufacturing. In the future, industrial facilities may electrify their systems instead of relying on natural gas. These activities will increase demand in this sector. In addition, water is used in various applications in the energy sector, ranging in intensity from cooling of turbines and other equipment at power plants to cleaning solar photovoltaic panels. Given California's recent historic drought, water use for the electricity sector is an important consideration for operation, maintenance, and construction activities.

Continued planning and coordination with federal, State, and local agencies, governments, Tribes, and stakeholders will be crucial to minimizing environmental and health impacts from the energy sector, deploying new technologies, and identifying feedstocks.

## Efforts to Reduce Greenhouse Gases

The measures below include some required and new potential measures to help achieve the State's 2030 target and to support the high-level objectives for this sector. Some measures may be designed to directly address GHG reductions, while others may result in GHG reductions as a co-benefit.

### Ongoing and Proposed Measures – Electricity

- Per SB 350, with respect to Integrated Resource Plans, establish GHG planning targets for the electricity sector, publicly-owned utilities, and load-serving entities.
- Per SB 350, ensure meaningful GHG emissions reductions by publicly-owned utilities and load-serving entities through Integrated Resource Planning.
- Per AB 197, prioritize direct reductions at large stationary sources, including power-generating facilities.
- Per SB 350, increase the RPS to 50 percent of retail sales by 2030 and ensure grid reliability.
- Per Governor Brown's Clean Energy Jobs Plan, AB 327 (Perea, Chapter 611, Statutes of 2013), and AB 693 (Eggman, Chapter 582, Statutes of 2015), increase development of distributed renewable generation, including for low income households.
- Continue to increase use of distributed renewable generation at State facilities where space allows.
- Increase retail customers' use of renewable energy through optional utility 100 percent renewable energy tariffs.
- Continue GHG reductions through participation in the California Independent System Operator (CAISO) Energy Imbalance Market.

- Per SB 350, efforts to evaluate, develop, and deploy regionalization of the grid and integration of renewables via regionalization of the CAISO should continue while maintaining the accounting accuracy and rigor of California’s GHG policies.
- Per SB 350, establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030.
- Per SB 350, implement the recommendations of the Barriers Study for increasing access to renewable energy generation for low-income customers, energy efficiency and weatherization investments for low-income customers, and contracting opportunities for local small business in disadvantaged communities.<sup>174</sup> And, track progress towards these actions over time to ensure disadvantaged communities are getting equal access and benefits relative to other parts of the State.
- Continue implementation of the Regulations Establishing and Implementing a Greenhouse Gases Emission Performance Standard for Local Publicly Owned Electric Utilities as required by SB 1368 (Perata, Chapter 598, Statutes of 2006), which effectively prohibits electric utilities from making new long-term investments in high-GHG emitting resources such as coal power.
- Per AB 802 (Williams, Chapter 590, Statutes of 2015), adopt the forthcoming CEC regulations governing building energy use data access, benchmarking, and public disclosure.
- Per AB 2868 (Gatto, Chapter 681, Statutes of 2016), encourage development of additional energy storage capacity on the transmission and distribution system.
- Per AB 758 (Skinner, Chapter 470, Statutes of 2009),<sup>175</sup> implement recommendations under State jurisdiction included in the AB 758 Action Plan developed by CEC.

## Ongoing and Proposed Measures – Natural Gas

- Implement the CARB Regulation for Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities to reduce fugitive methane emissions from storage and distribution infrastructure.
- Per SB 1371 (Leno, Chapter 525, Statutes of 2014), adopt improvements in investor-owned utility (IOU) natural gas systems to address methane leaks.
- Implement the SLCP Strategy to reduce natural gas leaks from oil and gas wells, pipelines, valves, and pumps to improve safety, avoid energy losses, and reduce methane emissions associated with natural gas use.
- Per SB 1383, CEC will develop recommendations for the development and use of renewable gas as part of its 2017 Integrated Energy Policy Report (IEPR).
- Per SB 1383, adopt regulations to reduce methane emissions from livestock manure and dairy manure management operations by up to 40 percent below the dairy sector’s and livestock sector’s 2013 levels by 2030, including establishing energy infrastructure development and procurement policies needed to encourage dairy biomethane projects. The regulations will take effect on or after January 1, 2024.
- Per SB 1383, reduce methane emissions at landfills by reducing landfill disposal of organic waste 75 percent below 2014 levels by 2025, including establishing energy infrastructure development and procurement policies needed to encourage in-vessel digestion projects and increase the production and use of renewable gas.
- Per SB 887 (Pavley, Chapter 673, Statutes of 2016), initiate continuous monitoring at natural gas storage facilities and (by January 1, 2018) mechanical integrity testing regimes at gas storage wells, develop regulations for leak reporting, and require risk assessments of potential leaks for proposed new underground gas storage facilities.
- Per Public Utilities (PU) Code 454.56, CPUC, in consultation with CEC, (1) identifies all potentially achievable cost-effective natural gas efficiency savings and establishes gas efficiency targets for the gas corporation to achieve, and (2) requires gas corporations to first meet unmet resource needs through available natural gas efficiency and demand reduction resources that are cost-effective, reliable, and feasible (PU Codes 890–

174 CEC. 2016. Low-Income Barriers Study, Part A: Overcoming Barriers to Energy Efficiency and Renewables for Low-Income Customers and Small Business Contracting Opportunities in Disadvantaged Communities. [http://docketpublic.energy.ca.gov/PublicDocuments/16-OIR-02/TN214830\\_20161215T184655\\_SB\\_350\\_LowIncome\\_Barriers\\_Study\\_Part\\_A\\_\\_Commission\\_Final\\_Report.pdf](http://docketpublic.energy.ca.gov/PublicDocuments/16-OIR-02/TN214830_20161215T184655_SB_350_LowIncome_Barriers_Study_Part_A__Commission_Final_Report.pdf)

175 AB 758 requires CEC, in collaboration with CPUC, to develop a comprehensive program to achieve greater energy efficiency in the State’s existing buildings.

- 900 provide public goods charge funding authorization for these programs).
- Per SB 185 (De Leon, Chapter 605, Statutes of 2015), implement the requirement for the California Public Employees' Retirement System (CalPERS) and the California State Teachers' Retirement System (CalSTRS) to sell their holdings in coal-producing companies by June 1, 2017, and explore extending divestiture requirements for additional fossil-fuel assets.

## Sector Measures

- Implement the post-2020 Cap-and-Trade Program.

## Potential Additional Actions

The actions below have the potential to reduce GHGs and complement the measures and policies identified in Chapter 2. These are included to spur thinking and exploration of innovation that may help the State achieve its long-term climate goals. It is anticipated that there will be workshops and other stakeholder forums in the years following finalization of the Scoping Plan to explore these potential actions.

- Further deploy fuel cells that use renewable fuels or those that generate electricity that is less carbon intensive than the grid.
- Increase use of renewable energy through long-term agreements between customers and utilities (such as Sacramento Municipal Utility District Solar Shares).
- Develop rules needed for the development of electricity storage technologies.
- Adopt a zero net energy (ZNE) standard for residential buildings by 2018/2019, and for commercial buildings by 2030.
- Through a public process, evaluate and set targets for the electrification of space and water heating in residential and commercial buildings and cleaner heating fuels that will result in GHG reductions, and identify actions that can be taken to spur market transformation in the 2021-2030 period.
- Expand the State Low-Income Weatherization Program (LIWP) to continue to improve energy efficiency and weatherize existing residential buildings, particularly for low-income individuals and households.
- Decrease usage of fossil natural gas through a combination of energy efficiency programs, fuel switching, and the development and use of renewable gas in the residential, commercial, and industrial sectors.
- Accelerate the deployment of heat pumps and the replacement of diesel generators.
- Consider enhanced energy efficiency (high efficiency air conditioners, light-emitting diode (LED) lamps, efficiency improvements in industrial process cooling and refrigeration, efficient street lighting).
- Promote programs to support third-party delivered energy efficiency projects.
- Per AB 33 (Quirk, Chapter 680, Statutes of 2016), consider large-scale electricity storage.
- Support more compact development patterns to promote reduced per capita energy demand (see the Transportation sector for specific policy recommendations).

## Industry

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California's robust economy, with the largest manufacturing sector in the United States, is supported by a variety of sub-industrial sectors, some of which include cement plants, refineries, food processors, paper products, wineries, steel plants, and industrial gas, entertainment, technology and software, aerospace, and defense companies. Together, industrial sources account for approximately 21 percent of the State's GHG emissions—almost equal to the amount of GHG emissions from the energy sector. Emissions in this sector are mainly due to fuel combustion and, in some industries, process-related emissions. Changes in this sector strongly correlate with changes in the overall economy. For example, housing and construction growth usually increases demand for cement. Moving toward a cleaner economy and ensuring we meet the statewide targets requires us to address GHG emissions in this sector, which has the potential to provide local co-benefits in criteria pollutant and toxic air contaminant reductions in immediate surrounding locations, especially in vulnerable communities. At the same time, we must ensure there is a smooth path to a cleaner future to support a resilient and robust economy with a strong job force, including training opportunities for workers in disadvantaged communities, while continuing to support economic growth in existing and new industries.

Greenhouse gas emissions in the Industrial sector have remained relatively flat for the last few years while the State's economy has continued to grow, meaning the GHG emissions to produce each dollar of gross standard product is decreasing. Manufacturing accounts for approximately 10 percent of the gross state product.<sup>176</sup> In 2016, California industry exported \$163.6 billion in merchandise.<sup>177</sup>

Policies to address GHG emissions reductions must continue to balance the State's economic well-being with making progress toward achievement of the statewide limits.

As this sector is dominated by combustion-related emissions, policies and measures to supply cleaner fuels and more efficient technology are the key to reducing GHG emissions. Some sectors, such as cement and glass, also have significant process emissions, and it may be more challenging to address those process emissions, as they are related to chemical reactions and processes to meet safety, product-specific, or regulatory standards for the final products. Another important aspect for this sector is its role as the State transitions to a cleaner future. Infrastructure, including existing facilities and new facilities, can support the production of new technology to bolster the State's efforts to address GHGs. For example, existing refineries have an opportunity to move away from fossil fuel production and switch to the production of biofuels and clean technology. As the State works to double energy efficiency in existing buildings, there will be an increased demand for efficient lighting fixtures, building insulation, low-e<sup>178</sup> coatings for existing windows, or new windows—goods which could be produced in California. The predominant paths to reducing GHG emissions for the Industrial sector are: fuel switching, energy efficiency improvements, and process modifications. Carbon capture and sequestration also offers a potential new, long-term path for reducing GHGs for large stationary sources.

Relocation of production to outside the State would also reduce emissions, but this is disadvantageous for a couple of reasons and efforts are needed to avoid this outcome. First, AB 32 requires the State's climate policies to minimize emissions leakage, and relocation would shift GHG emissions outside of the State without the benefit of reducing pollutants that contribute to overall global warming impacts. Second, it could also reduce the availability of associated jobs and could impact a local tax base that supports local services such as public transportation, emergency response, and social services, as well as funding sources critical to protecting the natural environment and keeping it available for current and future generations.

Even while we continue to seek further GHG reductions in the sector, it is important to recognize the State has a long history of addressing health-based air pollutants in this sector. Many of the actions for addressing criteria pollutants and toxic air contaminants in the industrial sector are driven by California's local air district stationary source requirements to ensure progress toward achieving State and national ambient air quality standards. Some of those actions, such as use of Best Available Control Technology, have resulted in co-benefits in the form of GHG reductions. The State must continue to strengthen its existing criteria and toxic air pollutant programs and relationships with local air districts to ensure all Californians have healthy, clean air. This is especially true in disadvantaged communities.

AB 32 directed CARB to take several actions to address GHG emissions, such as early action measures, GHG reporting requirements for the largest GHG sources, and other measures. In response, the State adopted multiple measures and regulations, including regulations for high global warming potential (high-GWP) gases used in refrigeration systems and the semiconductor industry.<sup>179</sup> These regulations apply to specific GHGs and types of equipment that can be found across the economy. For example, high-GWP gases are found in refrigeration systems in large food processing plants and chemical and petrochemical facilities, among others.<sup>180</sup>

The State has also adopted the first in the world economy-wide cap-and-trade program that applies to all large industrial GHG emitters, imported electricity, and fuel and natural gas suppliers. As discussed in Chapters 2 and 3, the Cap-and-Trade Program is a key element of California's GHG reduction strategy. The

176 <http://www.investopedia.com/articles/investing/011416/californias-economy-9-industries-driving-gdp-growth.asp>

177 U.S. Department of Commerce. International Trade Administration. 2017. California Exports, Jobs, & Foreign Investment. [www.trade.gov/mas/ian/statereports/states/ca.pdf](http://www.trade.gov/mas/ian/statereports/states/ca.pdf)

178 Low-e coatings reduce the emissivity, or heat transfer, from a window to improve its insulating properties.

179 CARB. Refrigerant Management Program. [www.arb.ca.gov/cc/rmp/rmp.htm](http://www.arb.ca.gov/cc/rmp/rmp.htm)

180 The U.S. Environmental Protection Agency (U.S. EPA) has also enacted regulations to reduce hydrofluorocarbon (HFC) emissions by prohibiting high-GWP refrigerants in new retail food refrigeration equipment and in chillers used for large air-conditioning applications. On the international level, the European Union F-gas regulations went into effect January 1, 2015. Those regulations prohibit high-GWP HFCs in new equipment and require a gradual phasedown in the production and import of HFCs. A similar HFC phasedown that would take place globally was the subject of international negotiations during the Montreal Protocol meeting in Rwanda in October, 2016. Those negotiations resulted in an agreement that will phase down the use of HFCs and put the world on track to avoid nearly 0.5°C of warming by 2100.

Cap-and-Trade Program establishes a declining limit on major sources of GHG emissions, and it creates a powerful economic incentive for major investment in cleaner, more efficient technologies. The Cap-and-Trade Program applies to emissions that cover about 85 percent of the State's GHG emissions. CARB creates allowances equal to the total amount of permissible emissions (i.e., the "cap") over a given compliance period. One allowance equals one metric ton of GHG emissions. Fewer allowances are created each year, thus the annual cap declines and statewide emissions are reduced over time. An increasing annual auction reserve (or floor) price for allowances and the reduction in annual allowance budgets creates a steady and sustained pressure for covered entities to reduce their GHGs. All covered entities in the Cap-and-Trade Program are still subject to the air quality permit limits for criteria and toxic air pollutants.

The Cap-and-Trade Program is designed to achieve the most cost-effective statewide GHG emissions reductions; there are no individual or facility-specific GHG emissions reductions requirements. Each entity covered by the Cap-and-Trade Program has a compliance obligation that is set by its GHG emissions over a compliance period, and entities are required to meet that compliance obligation by acquiring and surrendering allowances in an amount equal to their compliance obligation. Companies can also meet a limited portion of their compliance obligation by acquiring and surrendering offset credits, which are compliance instruments that are based on rigorously verified emissions reductions that occur from projects outside the scope of the Cap-and-Trade Program. Like allowances, each offset credit is equal to one metric ton of GHG emissions. The program began in January 2013 and achieved a near 100 percent compliance rate for the first compliance period (2013–2014). Reported and verified emissions covered by the Cap-and-Trade Program have been below the cap throughout the first years of the Program.<sup>181</sup>

Allowances are issued by CARB and distributed by free allocation and by sale at auctions. CARB also provides for free allocation to some entities covered by the Program to address potential trade exposure due to the cost of compliance with the Program and address concerns of relocation of production out-of-state and resulting emissions leakage. Offset credits are issued by CARB to qualifying offset projects. Secondary markets exist where allowances and offset credits may be sold and traded among Cap-and-Trade Program participants. Facilities must submit allowances and offsets to match their annual GHG emissions. Facilities that emit more GHG emissions must surrender more allowances or offset credits, and facilities that can cut their emissions need to surrender fewer compliance instruments. Entities have flexibility to choose the lowest-cost approach to achieving program compliance; they may purchase allowances at auction, trade allowances and offset credits with others, take steps to reduce emissions at their own facilities, or utilize a combination of these approaches. Proceeds from the sale of State-owned allowances at auction are placed into the Greenhouse Gas Reduction Fund.

It is important to note that while the Cap-and-Trade Program is designed to reduce GHGs for the industrial sector, there are recommendations from the EJAC (or Committee) for the State to pursue more facility-specific GHG reduction measures to achieve potential local air quality co-benefits, and AB 197 directs CARB to prioritize direct reductions at large stationary sources. The Committee has expressed a strong preference to forgo the existing Cap-and-Trade Program and rely on prescriptive facility level regulations.

We agree with the EJAC that more can and should be done to reduce emissions of criteria pollutants and toxic air contaminants. These pollutants pose air quality and related health issues to the communities adjacent to the sources of industrial emissions. Further, many of these communities are already disadvantaged and burdened by a variety of other environmental stresses. As described in Chapter 3, however, there is not always a direct correlation between emissions of GHGs, criteria pollutants, and toxic air contaminants. Also, relationships between these pollutants are complex within and across industrial sectors. The solution, therefore, is not to do away with or change the regulation of GHGs through the Cap-and-Trade Program to address these legitimate concerns; instead, consistent with the direction in AB 197 and AB 617, State and local agencies must evaluate and implement additional measures that directly regulate and reduce emissions of criteria and toxic air pollutants through other programs.

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181 CARB. 2016. Mandatory Greenhouse Gas Emissions Reporting. [www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep.htm](http://www.arb.ca.gov/cc/reporting/ghg-rep/ghg-rep.htm)

## Looking to the Future

This section outlines the high-level objectives and goals to reduce GHGs in this sector.

### Goals

- Increase energy efficiency.
- Reduce fossil fuel use.
- Promote and support industry that provides products and clean technology needed to achieve the State's climate goals.
- Create market signals for low carbon intensity products.
- Maximize air quality co-benefits.
- Support a resilient low carbon economy and strong job force.
- Make California the epicenter for research, development, and deployment of technology needed to achieve a near-zero carbon future.
- Increase in-State recycling manufacturing.

### Cross-Sector Interactions

There are clear, direct relationships between the industrial sector and other sectors that go beyond the economic support that a strong economy provides. For instance, this sector could increase its use of renewable fuels such as biomethane, which would be sourced from landfills or dairies. Additionally, some industries could shift from raw materials to recycled materials to reduce waste and reduce GHG emissions associated with processing of raw materials. Further, addressing energy efficiency could reduce onsite heating, water, and fuel demand. Moreover, supporting mass-transit or ride share programs for employees would reduce VMT. Finally, upgrading existing facilities or repurposing existing infrastructure instead of constructing new facilities or infrastructure would support land conservation and smart growth goals.

### Efforts to Reduce Greenhouse Gases

The measures below include some required and new potential measures to help achieve the State's 2030 target and to support the high-level objectives for this sector. Some measures may be designed to directly address GHG reductions, while others may result in GHG reductions as a co-benefit.

### Ongoing and Proposed Measures

- At the October 2016 annual Montreal Protocol Meeting of Parties in Kigali, Rwanda, an international amendment to globally phase down HFC production was agreed upon by more than 150 countries. Depending on the level of future HFC emissions reductions expected for California from the Kigali Agreement, California may also: (1) consider placing restrictions on the sale or distribution of refrigerants with a GWP > 2,500, and (2) consider prohibiting refrigerants with a GWP >= 150 in new stationary refrigeration equipment and refrigerants with a GWP >= 750 for new stationary air-conditioning equipment. At the time the SLCP Strategy was finalized, U.S. EPA was expected to continue implementing certain HFC reductions under its Significant New Alternatives Policy (SNAP). Recent litigation may result in CARB implementing similar measures as state law instead.
- Develop a regulatory monitoring, reporting, verification, and implementation methodology for the implementation of carbon capture and sequestration projects.
- Implement the CARB Regulation for Greenhouse Gas Emission Standards for Crude Oil and Natural Gas Facilities to reduce fugitive methane emissions from storage and distribution infrastructure.

### Sector Measures

- Implement the post-2020 Cap-and-Trade Program.
- Continue and strategically expand research and development efforts to identify, evaluate, and help deploy innovative strategies that reduce GHG emissions in the industrial sector.
- Promote procurement policies that prioritize low carbon production to delivery options, including at the State and local government levels.
- Identify and remove barriers to existing grant funding for onsite clean technology or efficiency upgrades.

## Potential Additional Actions

The actions below have the potential to reduce GHGs and complement the measures and policies identified in Chapter 2. These are included to spur thinking and exploration of innovation that may help the State achieve its long-term climate goals. It is anticipated that there will be workshops and other stakeholder forums in the years following finalization of the Scoping Plan to explore these potential actions.

- Further deploy fuel cells that use renewable fuels or those that generate electricity that is less carbon intensive than the grid.
- Decrease usage of fossil natural gas through a combination of efficiency, fuel switching, and the development and use of renewable gas.
- Partner with California's local air districts to effectively use BARCT to achieve air quality and GHG reduction co-benefits at large industrial sources.
- Evaluate the potential for and promote electrification for industrial stationary sources whose main emissions are onsite natural gas combustion.
- Identify new funding for grants and tariff opportunities for onsite clean technology, efficiency upgrades, diesel generator replacement, or recycling manufacturing technology.
- Develop an incentive program to install low-GWP refrigeration systems in retail food stores.
- Evaluate and design additional mechanisms to further minimize emissions leakage in the Cap-and-Trade Program (e.g., border carbon adjustment).

## Transportation Sustainability

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California's population is projected to grow to 50 million people by 2050. How and where the State grows will have important implications for all sectors of the economy, especially the transportation sector. Supporting this growth while continuing to protect the environment, developing livable and vibrant communities, and growing the economy is dependent on transitioning the State's transportation system to one powered by ZEVs (including PHEVs, BEVs, and FCEVs) and low carbon fuels. It must also offer other attractive and convenient low carbon transportation choices, including safe walking and bicycling, as well as quality public transportation. Investments should consider California's diverse communities and provide accessible and clean travel options to all while drastically reducing reliance on light-duty combustion vehicles.

The transportation system in California moves people between home, work, school, shopping, recreation, and other destinations, and connects ports, industry, residential communities, commercial centers, educational facilities, and natural wonders.<sup>182</sup> California's vast transportation system includes roads and highways totaling more than 175,000 miles and valued at approximately \$1.2 trillion, 500 transit agencies, 245 public-use airports, 12 major ports, and the nation's first high-speed rail system, now under construction.<sup>183</sup> Transportation infrastructure also includes sidewalks, bicycle paths, parking, transit stations and shelters, street trees and landscaping, signage, lighting, and other elements that affect the convenience, safety, and accessibility of transportation choices. Increasingly, technologies such as real-time, web- and mobile-enabled trip planning and ride-sourcing services are changing how people travel. In the near future, automated and connected vehicles, and unmanned aerial systems (e.g., drones) are expected to be part of our transportation landscape and to transform the way that people and freight are transported. Responsibility for the transportation system is spread across State, regional, and local levels.

Through effective policy design, the State has an opportunity to guide technology transformation and influence investment decisions with a view to mitigate climate and environmental impacts while promoting economic opportunities and community health and safety. The network of transportation technology and infrastructure, in turn, shapes and is shaped by development and land use patterns that can either support or detract from a more sustainable, low carbon, multi-modal transportation future. Strategies to reduce GHG emissions from the transportation sector, therefore, must actively address not only infrastructure and technology, but also coordinated strategies to achieve development, conservation, and land use patterns that align with the State's GHG and other policy goals.

Transportation also enables the movement of freight such as food, building materials, and other consumable products, as well as waste and recyclables. The California freight system includes myriad equipment and

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<sup>182</sup> Caltrans. California Transportation Plan 2040, February 2016.

<sup>183</sup> Ibid.

facilities,<sup>184</sup> and is the most extensive, complex, and interconnected system in the country, with approximately 1.5 billion tons of freight valued at \$2.8 trillion shipped in 2015 to, through, and within California.<sup>185</sup> Freight-dependent industries accounted for over \$740 billion of California's GDP and over 5 million California jobs in 2014.<sup>186, 187</sup>

Transportation has a profound and varied impact on individuals and communities, including benefits such as economic growth, greater accessibility, and transport-related physical activity, and adverse consequences such as GHG emissions, smog-forming and toxic air pollutants, traffic congestion, and sedentary behaviors. The sector is the largest emitter of GHG emissions in California. Air pollution from tailpipe emissions contributes to respiratory ailments, cardiovascular disease, and early death, with disproportionate impacts on vulnerable populations such as children, the elderly, those with existing health conditions (e.g., chronic obstructive pulmonary disease, or COPD), low-income communities, and communities of color.<sup>188, 189, 190, 191, 192</sup> Importantly, transportation costs are also a major portion of most Californian's household budgets.<sup>193</sup> Additionally, dependence on cars has a direct impact on levels of physical activity, which is closely linked to multiple adverse health outcomes.

Fortunately, many measures that reduce transportation sector GHG emissions simultaneously present opportunities to bolster the economy, enhance public health, revitalize disadvantaged communities, strengthen resilience to disasters and changing climate, and improve Californians' ability to conveniently access daily destinations and nature. These opportunities are particularly important for those who are not able to, or cannot afford to, drive. In addition, a growing market demand for walkable, bikeable, and transit-accessible communities presents a significant opportunity to shift California's transportation systems toward a lower-carbon future while realizing significant public health benefits through increased levels of physical activity (e.g., walking and bicycling). In fact, transport-related physical activity could result in reducing risks from chronic diseases such as cardiovascular disease, diabetes, certain cancers, and more, to such an extent that it would rank among the top public health accomplishments in modern history, and help to reduce the billions of dollars California spends each year to treat chronic diseases. Just as California was the first to mitigate the contribution of cars and trucks to urban smog, it is leading the way toward a clean, low carbon, healthy, interconnected, and equitable transportation system.

Continuing to advance the significant progress already underway in the areas of vehicle and fuel technology is critical to the transportation sector strategy and to reducing GHG emissions in the transportation sector. The rapid technological and behavioral changes underway with automated and connected vehicles, unmanned aerial systems, and ride-sourcing services are redefining the transportation sector, and should be part of the solution for a lower carbon transportation sector. It is critical to support and accelerate progress on transitioning to a zero carbon transportation system, while ensuring VMT reductions are still achieved. The growing severity of climate impacts, persistent public health impacts and costs from air pollution,<sup>194</sup> and rapid technology progress that supports the expectation that cost parity between some ZEVs and comparable internal combustion vehicles will be attained in a few years, underscores the need for further

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184 The freight system includes trucks, ocean-going vessels, locomotives, aircraft, transport refrigeration units, commercial harborcraft and cargo handling, industrial and ground service equipment used to move freight at seaports, airports, border crossings, railyards, warehouses, and distribution centers.

185 U.S. Department of Transportation, Bureau of Transportation Statistics and Federal Highway Administration. Freight Analysis Framework, V 4.1, 2016.

186 U.S. Department of Commerce, Bureau of Economic Analysis. Regional Economic Accounts. Available at: [www.bea.gov/regional/index.htm](http://www.bea.gov/regional/index.htm), accessed March 11, 2016.

187 State of California Employment Development Department. Labor Market Information by California Geographic Areas. Available at: [www.labormarketinfo.edd.ca.gov/geography/lmi-by-geography.html](http://www.labormarketinfo.edd.ca.gov/geography/lmi-by-geography.html), accessed March 21, 2016.

188 CARB. May 2016. Mobile Source Strategy. Available at: [www.arb.ca.gov/planning/sip/2016sip/2016mobsrsc.pdf](http://www.arb.ca.gov/planning/sip/2016sip/2016mobsrsc.pdf)

189 Hoek, G., Krishnan, R. M., Beelen, R., Peters, A., Ostro, B., Brunekreef, B., and Kaufman, J. D. 2013. Long-term air pollution exposure and cardio-respiratory mortality: a review. *Environmental Health*, 12(1), 1.

190 Friedman, M. S., K. E. Powell, L. Hutwagner, L. M. Graham, and W. G. Teague. 2001. "Impact of changes in transportation and commuting behaviors during the 1996 Summer Olympic Games in Atlanta on air quality and childhood asthma." *JAMA* 285(7), 897-905.

191 Bell, M. L., and K. Ebisu. 2012. "Environmental inequality in exposures to airborne particulate matter components in the United States." *Environmental Health Perspectives* 120(12), 1699.

192 Morello-Frosch, R., M. Zuk, M. Jerrett, B. Shamasunder, and A. D. Kyle. 2011. "Understanding the cumulative impacts of inequalities in environmental health: implications for policy." *Health Affairs* 30(5), 879-887.

193 H + T® Index website. [htindex.cnt.org/](http://htindex.cnt.org/)

194 For example, a recent report by the American Lung Association estimates the costs of climate and air pollution from passenger vehicles in California to be \$15 billion annually. Holmes-Gen, B. and W. Barrett. 2016. Clean Air Future – Health and Climate Benefits of Zero Emission Vehicles. American Lung Association in California, October.

action on ZEVs. Therefore, CARB is signaling the need for additional policy and technical support on strategies to move toward a goal of achieving 100 percent ZEV sales in the light-duty vehicle sector. Austria, Germany, India, Netherlands, and Norway are all taking steps to, or have indicated a desire to, move to 100 percent ZEV sales in the 2020–2030 time frame.

In addition, policies that maximize the integration of electrified rail and transit to improve reliability and travel times, increase active transportation such as walking and bicycling, encourage use of streets for multiple modes of transportation, improve freight efficiency and infrastructure development, and shift demand to low carbon modes will need to play a greater role as California strives to achieve its 2030 and 2050 climate targets.<sup>195</sup>

The State's rail modernization program has identified critical elements of the rail network where improvements, either in timing of service or infrastructure, provide benefits across the entire statewide network, furthering the attractiveness of rail for a range of trip distances.<sup>196</sup> The State also uses the Transit and Intercity Rail Capital Program (TIRCP) and Low Carbon Transit Operations Program (LCTOP) to provide grants from GGRF to fund transformative improvements modernizing California's intercity, commuter, and urban rail systems, as well as bus and ferry transit systems, to reduce emissions of GHGs by reducing congestion and VMT throughout California. As the backbone of an electrified mass-transportation network for the State, the high-speed rail system catalyzes and relies on focused, compact, and walkable development well-served by local transit to funnel riders onto the system and provide alternative options to airplanes and automobiles for interregional travel. Concentrated development, such as that incentivized by the Affordable Housing and Sustainable Communities (AHSC) grant program, can improve ridership and revenue for the system while providing vibrant communities for all.

At the same time, more needs to be done to fully exploit synergies with emerging mobility solutions like ride-sourcing and more effective infrastructure planning to anticipate and guide the necessary changes in travel behavior, especially among millennials. Uniquely, high-speed rail affects air-miles traveled, diverting, at minimum, 30 percent of the intrastate air travel market in 2040.<sup>197</sup>

While most of the GHG reductions from the transportation sector in this Scoping Plan will come from technologies and low carbon fuels, a reduction in the growth of VMT is also needed. VMT reductions are necessary to achieve the 2030 target and must be part of any strategy evaluated in this Plan. Stronger SB 375 GHG reduction targets will enable the State to make significant progress toward this goal, but alone will not provide all of the VMT growth reductions that will be needed. There is a gap between what SB 375 can provide and what is needed to meet the State's 2030 and 2050 goals.

At the time of this writing, adoption of the first round of SCSs by MPOs is complete, and the second round of SCS planning is underway. Three MPO regions are in the very early stages of developing their third SCSs. To date, CARB staff reviewed the final determinations of 16 MPOs, and concluded that all 16 of those SCSs would achieve their targets, if implemented, with many of the MPOs indicating that they expect to exceed their targets. CARB staff recognizes the very strong performance in this first round of SCSs as a major success. Currently adopted sustainable communities strategies achieve, in aggregate, a 17 percent reduction in statewide per capita GHG emissions relative to 2005 by 2035.

Since 2014, CARB has been working with MPOs and other stakeholders to update regional SB 375 targets. At the same time, CARB has also conducted analysis for development of the Mobile Source Strategy and Scoping Plan that identifies the need for statewide per capita greenhouse gas emissions reductions on the order of 25 percent by 2035, to meet our climate goals. Many MPOs have identified challenges to incorporating additional strategies and reducing emissions further in their plans, principally tied to the need for additional and more flexible revenue sources. MPOs have submitted target update recommendations to CARB that in aggregate maintains a 17 percent reduction statewide, which includes commitments of 18 percent reduction by 2035 from each of the four largest MPOs in the State.

CARB is currently reviewing each MPOs target update recommendations alongside new State policies. State agencies have been working on new State-level VMT-related Policies and Measures (see Table 17) as part of this Scoping Plan intended to provide the State, MPOs, and local agencies with additional funding resources and tools to successfully meet the State's climate goals. CARB's preliminary review indicates that new State-level policies and measures will help support updated SB 375 targets that achieve up to 20 percent of the

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195 Morello-Frosch, R., M. Zuk, M. Jerrett, B. Shamasunder, and A. D. Kyle. 2011. "Understanding the cumulative impacts of inequalities in environmental health: Implications for policy." *Health Affairs* 30(5), 879–887.

196 California State Transportation Agency. 2016. 2018 California State Rail Plan factsheet and TIRCP fact sheet.

197 California High-Speed Rail Authority. 2016. 2016 Business Plan. Ridership and Revenue Forecast.

needed statewide reduction, as well as help bridge the remaining VMT growth reduction gap.

Discussions among a broad suite of stakeholders from transportation, the building community, financial institutions, housing advocates, environmental organizations, and community groups are needed to begin the process to pursue and develop the needed set of strategies to ensure that we can achieve necessary VMT reductions, and that the associated benefits are shared by all Californians. Appendix C further details potential actions for discussion that can be taken by State government, regional planning agencies, and local governments, to achieve a broad, statewide vision for more sustainable land use and close the VMT gap.<sup>198</sup>

At the State level, a number of important policies are being developed. Governor Brown signed Senate Bill 743 (Steinberg, Chapter 386, Statutes of 2013), which called for an update to the metric of transportation impact in CEQA. That update to the CEQA Guidelines is currently underway. Employing VMT as the metric of transportation impact statewide will help to ensure GHG reductions planned under SB 375 will be achieved through on-the-ground development, and will also play an important role in creating the additional GHG reductions needed beyond SB 375 across the State. Implementation of this change will rely, in part, on local land use decisions to reduce GHG emissions associated with the transportation sector, both at the project level, and in long-term plans (including general plans, climate action plans, specific plans, and transportation plans) and supporting sustainable community strategies developed under SB 375. The State can provide guidance and tools to assist local governments in achieving those objectives.

Appendix H highlights the more significant existing policies, programs, measures, regulations, and initiatives that provide a framework for helping achieve GHG emissions reductions in this sector.

## Looking to the Future

This section outlines the high-level objectives and goals to reduce GHGs in this sector.

### Vibrant Communities and Landscapes / VMT Reduction Goals

- Implement and support the use of VMT as the metric for determining transportation impacts under CEQA, in place of level of service (LOS).
- Promote all feasible policies to reduce VMT, including:
  - Land use and community design that reduce VMT,
  - Transit oriented development,
  - Complete street design policies that prioritize transit, biking, and walking, and
  - Increasing low carbon mobility choices, including improved access to viable and affordable public transportation and active transportation opportunities.
- Complete the construction of high-speed rail integrated with enhanced rail and transit systems throughout the State.
- Promote transportation fuel system infrastructure for electric, fuel-cell, and other emerging clean technologies that is accessible to the public where possible, and especially in underserved communities, including environmental justice communities.
- Increase the number, safety, connectivity, and attractiveness of biking and walking facilities to increase use.
- Promote potential efficiency gains from automated transportation systems and identify policy priorities to maximize sustainable outcomes from automated and connected vehicles (preferably ZEVs), including VMT reduction, coordination with transit, and shared mobility, and minimize any increase in VMT, fossil fuel use, and emissions from using automated transportation systems.
- Promote shared-use mobility, such as bike sharing, car sharing and ride-sourcing services to bridge the “first mile, last mile” gap between commuters’ transit stops and their destinations.
- Continue research and development on transportation system infrastructure, including:
  - Integrate frameworks for lifecycle analysis of GHG emissions with life-cycle costs for pavement and large infrastructure projects, and
  - Health benefits and costs savings from shifting from driving to walking, bicycling, and transit use.
- Quadruple the proportion of trips taken by foot by 2030 (from a baseline

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198 CARB. Potential State - Level Strategies to Advance Sustainable, Equitable Communities and Reduce Vehicle Miles of Travel (VMT) -- for Discussion. [www.arb.ca.gov/cc/scopingplan/meetings/091316/Potential%20VMT%20Measures%20For%20Discussion\\_9.13.16.pdf](http://www.arb.ca.gov/cc/scopingplan/meetings/091316/Potential%20VMT%20Measures%20For%20Discussion_9.13.16.pdf)

of the 2010–2012 California Household Travel Survey).

- Strive for a nine-fold increase in the proportion of trips taken by bicycle by 2030 (from a baseline of the 2010–2012 California Household Travel Survey).
- Strive, in passenger rail hubs, for a transit mode share of between 10 percent and 50 percent, and for a walk and bike mode share of between 10 percent and 15 percent.

## Vehicle Technology Goals

- Through a strong set of complementary policies—including reliable incentives, significant infrastructure investment, broad education and outreach, and potential regulation—aim to reach 100 percent ZEV sales in the light-duty sector (PHEVs, BEVs, and FCEVs) by 2050.
- Make significant progress in ZEV penetrations in non-light-duty sectors.
- Deploy low-emission and electrified rail vehicles.

## Clean Fuels Goals

- Electrify the transportation sector using both electricity and hydrogen.
- Promote research development and deployment of low carbon fuels such as renewable gas, including renewable hydrogen.
- Rapidly reduce carbon intensity of existing liquid and gaseous transportation fuels.

## Sustainable Freight Goals

- Increase freight system efficiency of freight operations at specific facilities and along freight corridors such that more cargo can be moved with fewer emissions.
- Accelerate use of clean vehicle and equipment technologies and fuels of freight through targeted introduction of zero emission or near-zero emission (ZE/NZE) technologies, and continued development of renewable fuels.
- Encourage State and federal incentive programs to continue supporting zero and near-zero pilot and demonstration projects in the freight sector.
- Accelerate use of clean vehicle, equipment, and fuels in freight sector through targeted introduction of ZE/NZE technologies, and continued development of renewable fuels. This includes developing policy options that encourage ZE/NZE vehicles on primary freight corridors (e.g., Interstate-710); examples of such policy options include a separated ZE/NZE freight lane, employing market mechanisms such as favorable road pricing for ZE/NZE vehicles, and developing fuel storage and distribution infrastructure along those corridors.

## Cross-Sector Interactions

The transportation sector has considerable influence on other sectors and industries in the State. California's transportation sector is still primarily powered by petroleum, and to reduce statewide emissions, California must reduce demand for driving; continue to reduce its gasoline and diesel fuel consumption; diversify its transportation fuel sources by increasing the adoption of low- and zero-carbon fuels; increase the ease and integration of the rail and transit networks to shift travel mode; and deploy ZE/NZE vehicles.

As California's population continues to increase, land use patterns will directly impact GHG emissions from the transportation sector, as well as those associated with the conversion and development of previously undeveloped land. Specifically, where and how the State population grows will have implications on distances traveled and tailpipe emissions; as well as on secondary emissions from the transportation sector, including emissions from vehicle manufacturing and distribution, fuel refining and distribution, demand for new infrastructure (including roads, transit, and active transportation infrastructure), demand for maintenance and upkeep of existing infrastructure. Conversion of natural and working lands further affects emissions, with the attendant impacts to food security, watershed health, and ecosystems. Less dense development also demands higher energy and water use. With the exception of VMT reductions, none of these secondary emissions are currently accounted for in the GHG models used in this Scoping Plan, but are nonetheless important considerations. Additionally, compact, lower-VMT future development patterns are essential to achieving public health, equity, economic, and conservation goals, which are also not modeled but are important co-benefits of the overall transportation sector strategy. For example, high-speed rail station locations were identified in downtown areas to reinforce existing city centers.

Achieving LCFS targets and shifting from petroleum dependence toward greater reliance on low carbon fuels also has the potential to affect land use in multiple ways. For example, increased demand for conventional biofuels could require greater use of land and water for purpose-grown crops, which includes interactions with the agricultural and natural and working lands sectors. On the other hand, continuing growth in fuels from urban organic waste, as well as waste biomass such as composting residues, by-processing residues and agricultural waste and excess forest biomass acts to alleviate the pressure on croplands to meet the need for food, feed, and fuel. Likewise, captured methane from in-vessel digestion, landfills or dairy farms for use in vehicles requires close interaction with the waste and farming sectors.

Also, as more electric vehicles and charging stations are deployed, drivers' charging behavior will affect the extent to which additional electric generation capacity and ancillary services are needed to maintain a reliable grid and accommodate a portfolio of 50 percent renewable electricity by 2030. Charging control and optimization technologies will determine how well integrated the electric and transportation sectors can become, including, for instance, the widespread use of electric vehicles as storage for excess renewable generation, vehicle to grid, smart charging, and/or smart grid. The GHG emissions intensity of electricity affects the GHG savings of fuel switching from petroleum-based fuels to electricity; the cleaner the electric grid, the greater the benefits of switching to electricity as a fuel. Similar to electric vehicles, hydrogen fuel cell electric vehicles have zero-tailpipe emissions and can mitigate GHGs and criteria pollutants. Greenhouse gas emissions could be further reduced with the use of renewable hydrogen, which can be produced using renewable electricity or renewable natural gas.

## Efforts to Reduce Greenhouse Gases

The measures below include some required and new potential measures to help achieve the State's 2030 target and to support the high-level objectives for the transportation sector. Some measures may be designed to directly address GHG reductions, while others may result in GHG reductions as a co-benefit.

## Ongoing and Proposed Measures – Vibrant Communities and Landscapes / VMT Reduction Goals

- Mobile Source Strategy – 15 percent reduction in total light-duty VMT from the BAU in 2050 (with measures to achieve this goal not specified; potential measures identified in Appendix C).
- Work with regions to update SB 375 Sustainable Communities Strategies targets for 2035 to better align with the 2030 GHG target and take advantage of State rail investments.
- Stronger SB 375 GHG reduction targets will enable the State to make significant progress toward the goal of reducing total light-duty VMT by 15 percent from expected levels in 2050, but alone will not provide all of the VMT reductions that will be needed. The gap between what SB 375 can provide and what is needed to meet the State's 2030 and 2050 goals needs to be addressed through additional VMT reduction measures such as those mentioned in Appendix C.
- Implement and support the adoption and use of VMT as the CEQA metric of transportation impact, such that it promotes GHG reduction, the development of multimodal transportation networks, and a diversity of land uses.
- Continue to develop and explore pathways to implement State-level VMT reduction strategies, such as those outlined in the document "Potential State-Level Strategies to Advance Sustainable, Equitable Communities and Reduce Vehicle Miles of Travel (VMT) – for Discussion"<sup>199</sup> – included in Appendix C – through a transparent and inclusive interagency policy development process to evaluate and identify implementation pathways for additional policies to reduce VMT and promote sustainable communities, with a focus on:
  - Accelerating equitable and affordable transit-oriented and infill development through new and enhanced financing and policy incentives and mechanisms,
  - Promoting stronger boundaries to suburban growth through enhanced support for sprawl containment mechanisms such as urban growth boundaries and transfer of development rights programs,
  - Identifying performance criteria for transportation and other infrastructure investments

<sup>199</sup> Refers to the document discussed at the September 2016 Public Workshop on the Transportation Sector to Inform Development of the 2030 Target Scoping Plan Update, also available at: [www.arb.ca.gov/cc/scopingplan/meetings/091316/Potential%20VMT%20Measures%20For%20Discussion\\_9.13.16.pdf](http://www.arb.ca.gov/cc/scopingplan/meetings/091316/Potential%20VMT%20Measures%20For%20Discussion_9.13.16.pdf)

- to ensure alignment with GHG reduction goals and other State policy priorities and expand access to transit, shared mobility, and active transportation choices,
- Promoting efficient development patterns that maximize protection of natural and working lands,
- Developing pricing mechanisms such as road user/VMT-based pricing, congestion pricing, and parking pricing strategies,
- Reducing congestion and related GHG emissions through commute trip reduction strategies, and
- Programs to maximize the use of alternatives to single-occupant vehicles, including bicycling, walking, transit use, and shared mobility options.
- Finalize analysis of the results of the pilot road usage charge program, implemented pursuant to SB 1077 (DeSaulnier, Chapter 835, Statutes of 2014), and evaluate deployment of a statewide program.
- Continue promoting active transportation pursuant to SB 99 (Committee on Budget and Fiscal Review, Chapter 359, Statutes of 2013) – The Active Transportation Program and beyond.
- Continue to build high-speed rail and broader statewide rail modernization pursuant to the funding program in SB 862 (Committee on Budget and Fiscal Review, Chapter 36, Statutes of 2014) and other sources.
- Encourage use of streets for multiple modes of transportation (including public transit and active transportation, such as walking and bicycling), and for all users, including the elderly, young, and less able bodied, pursuant to AB 1358 (Leno, Chapter 657, Statutes of 2008) – Complete Streets policies.
- Support and assist local and regional governments, through technical assistance, and grant and other local assistance programs, to develop and implement plans that are consistent with the goals and concepts in The Second Investment Plan for Fiscal Years 2016-2017 through 2018-2019<sup>200</sup> and its subsequent updates, and Appendix C: Vibrant Communities and Landscapes, including the following:
  - California Climate Investment programs such as Transformative Climate Communities Program, ensuring promotion of GHG reductions from neighborhood-level community plans in disadvantaged communities.
  - AB 2087 (Levine, Chapter 455, Statutes of 2016) – Help local and State agencies apply core investment principles when planning conservation or mitigation projects.
  - High speed rail station area plans.
  - Implementation of updated General Plan Guidelines.
- Per SB 350, implement the recommendations identified in the Barriers Study to accessing ZE/NZE transportation options for low-income customers and recommendations on how to increase access.<sup>201</sup> And, track progress towards these actions over time to ensure disadvantaged communities are getting equal access and benefits relative to other parts of the State.
- Take into account the current and future impacts of climate change when planning, designing, building, operating, maintaining, and investing in State infrastructure, as required under Executive Order B-30-15.

## Ongoing and Proposed Measures – Vehicle Technology

- Implement the Cleaner Technology and Fuels Scenario of CARB’s Mobile Source Strategy, which includes:
  - An expansion of the Advanced Clean Cars program, which further increases the stringency of GHG emissions for all light-duty vehicles, and 4.2 million zero emission and plug-in hybrid light-duty electric vehicles by 2030,
  - Phase 1 and 2 GHG regulations for medium- and heavy-duty trucks, and
  - Innovative Clean Transit.
- Periodically assess and promote cleaner fleet standards.
- Deploy ZEVs across all vehicle classes, including rail vehicles, along with the necessary charging infrastructure.
- Encourage State and federal incentive programs to continue supporting zero and near-zero pilot and demonstration projects.
- Collaborate with the U.S. Environmental Protection Agency to promulgate more

200 CARB. January 2016. Cap-and-Trade Auction Proceeds Second Investment Plan: Fiscal Years 2016-17 through 2018-19. Available at: [www.arb.ca.gov/cc/capandtrade/auctionproceeds/16-17-updated-final-second-investment-planii.pdf](http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/16-17-updated-final-second-investment-planii.pdf)

201 CARB. 2017. Low-Income Barriers Study, Part B: Overcoming Barriers to Clean Transportation Access for Low Income Residents. [www.arb.ca.gov/msprog/transoptions/draft\\_sb350\\_clean\\_transportation\\_access\\_guidance\\_document.pdf](http://www.arb.ca.gov/msprog/transoptions/draft_sb350_clean_transportation_access_guidance_document.pdf)

stringent locomotives requirements,<sup>202</sup> work with California seaports, ocean carriers, and other stakeholders to develop the criteria to incentivize introduction of Super-Low Emission Efficient Ships, and investigate potential energy efficiency improvements for transport refrigeration units and insulated truck and trailer cargo vans.

- Promote research, development, and deployment of new technology to reduce GHGs, criteria pollutants, and toxics.
- Implement a process for intra-state agency and regional and local transportation coordination on automated vehicles to ensure shared policy goals in achieving safe, energy efficient, and low carbon autonomous vehicle deployment that also contribute to VMT reductions.

## Ongoing and Proposed Measures – Clean Fuels

- Continue LCFS activities, with increasing stringency of at least 18 percent reduction in carbon intensity (CI).
- Continue to develop and commercialize clean transportation fuels through renewable energy integration goals, tax incentives, research investments, support for project demonstration, public outreach, setting procurement standards, including updating State and local procurement contracts.
- Per SB 1383 and the SLCP Strategy, adopt regulations to reduce and recover methane from landfills, wastewater treatment facilities, and manure at dairies; use the methane as a source of renewable gas to fuel vehicles and generate electricity; and establish infrastructure development and procurement policies to deliver renewable gas to the market.
- Accelerate deployment of alternative fueling infrastructure pursuant to the following:
  - SB 350 – CPUC to accelerate widespread transportation electrification.
  - Executive Order B-16-2012 and 2016 ZEV Action Plan – call for infrastructure to support 1 million ZEVs by 2020.
  - CEC’s Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP).
  - CPUC’s NRG settlement.
  - CALGreen Code provisions mandate installation of PEV charging infrastructure in new residential and commercial buildings.<sup>203</sup>
  - IOU electric vehicle charging infrastructure pilot programs.

## Ongoing and Proposed Measures – Sustainable Freight

- Implement the California Sustainable Freight Action Plan:
  - 25 percent improvement of freight system efficiency by 2030.
  - Deployment of over 100,000 freight vehicles and equipment capable of zero emission operation, and maximize near-zero emission freight vehicles and equipment powered by renewable energy by 2030.

## Ongoing and Proposed Measures – California and Transportation Plan

- Update every five years and implement California Transportation Plan.

## Sector Measures

- Implement the post-2020 Cap-and-Trade Program

## Potential Additional Actions

The actions below have the potential to reduce GHGs and complement the measures and policies identified in Chapter 2. These are included to spur thinking and exploration of innovation that may help the State achieve its long-term climate goals.

- Develop a set of complementary policies to make light-duty ZEVs clear market winners, with a goal of reaching 100 percent light-duty ZEV sales. This could include the following:
  - Reliable purchase/trade-in incentives for at least 10 years.
  - Dealer incentives for ZEV sales.
  - Policies to ensure operating cost savings for ZEVs relative to internal

<sup>202</sup> [www.arb.ca.gov/railyard/docs/final\\_locomotive\\_petition\\_and\\_cover\\_letter\\_4\\_13\\_17.pdf](http://www.arb.ca.gov/railyard/docs/final_locomotive_petition_and_cover_letter_4_13_17.pdf)

<sup>203</sup> Such as raceway and panel capacity to support future installation of electrical vehicle charging stations.

- combustion engines, including low cost electricity.
- Additional investments in charging and ZEV refueling infrastructure.
- A broad and effective marketing and outreach campaign.
- Collaborations with cities to develop complementary incentive and use policies for ZEVs.
- Targeted policies to support ZEV sales and use in low income and disadvantaged communities.
- Develop a Low-Emission Diesel Standard to diversify the fuel pool by incentivizing increased production of low-emission diesel fuels. This standard is anticipated to both displace consumption of conventional diesel with increased use of low-emission diesel fuels, and to reduce emissions from conventional fuels.
- Continue to develop and explore pathways to implement State-level VMT reduction strategies, such as those outlined in Appendix C through a transparent and inclusive interagency policy development process to evaluate and identify implementation pathways for additional policies to reduce VMT and promote sustainable communities, with a focus on the following:
  - Accelerating equitable and affordable transit-oriented and infill development through new and enhanced financing and policy incentives and mechanisms.
  - Promote infrastructure necessary for residential development in existing communities, and ensure any urban growth boundaries are paired with significant infill promotion strategies and removal of infill development barriers.
  - Identifying performance criteria for transportation and other infrastructure investments, to ensure alignment with GHG reduction goals and other State policy priorities, and improve proximity, expanded access to transit, shared mobility, and active transportation choices.
  - Promoting efficient development patterns that maximize protection of natural and working lands.
  - Developing pricing mechanisms such as road user/VMT-based pricing, congestion pricing, and parking pricing strategies.
  - Reducing congestion and related GHG emissions through programs to maximize the use of alternatives to single-occupant vehicles, including bicycling, walking, transit use, and shared mobility options for commute trips.
- Continue to promote research and standards for new and existing technologies to reduce GHGs, including but not limited to:
  - Low rolling resistance tires in the replacement tire market, subject to certification standards that identify tires as low rolling resistance tires or verify emissions reductions and potential fuel savings.
  - Impacts on VMT of car sharing, ride-sourcing, and other emerging mobility options.
  - Driving behaviors that reduce GHG emissions, such as ecodriving training and real-time feedback mechanisms.

## Natural and Working Lands Including Agricultural Lands

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In his 2015 State of the State address, Governor Brown established 2030 targets for GHG emissions reductions and called for policies and actions to reduce GHG emissions from natural and working lands, including forests, rangelands, farms, wetlands, and soils. The passage of SB 1386 (Wolk, Chapter 535, Statutes of 2015-16) codified this policy and emphasized the important role natural and working lands play in the State's climate strategy. This Scoping Plan focuses renewed attention on California's natural and working lands and the contribution they make to meet the State's goals for carbon sequestration, GHG reduction, and climate change adaptation.

California's natural and working lands encompass a range of land types and uses, including farms, ranches, forests, grasslands, deserts, wetlands, riparian areas, coastal areas and the ocean-- as well as the green spaces in urban and built environments. These resources can be both a source and sink for GHG emissions. Policy in this sector must balance GHG emissions reductions and carbon sequestration with other co-benefits, such as clean air, wildlife and pollinator habitat, strong economies, food, fiber and renewable energy production, and water supply.<sup>204</sup>

Recent trends indicate that significant pools of carbon from these landscapes risk reversal: over the period 2001–2010 disturbance caused an estimated 150 MMT C loss, with the majority— approximately 120 MMT C—

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204 [www.sierranevada.ca.gov/our-region/ca-primary-watershed](http://www.sierranevada.ca.gov/our-region/ca-primary-watershed)

lost through wildland fire.<sup>205</sup> At the same time, energy use, methane, and N<sub>2</sub>O emissions from the agricultural sector accounts for eight percent of the emissions in the statewide GHG inventory.

California's climate objective for natural and working lands is to maintain them as a carbon sink (i.e., net zero or negative GHG emissions) and, where appropriate, minimize the net GHG and black carbon emissions associated with management, biomass utilization, and wildfire events. In order to achieve this objective, this Plan directs the continued development of the broad and growing understanding of carbon dynamics on California's landscapes, statewide emission trends, and their responses to different land management scenarios. Further, in order to build a programmatic framework for achieving this long-term objective to maintain California's natural and working lands as a carbon sink, this Plan directs the State to quantify the carbon impacts of both publicly funded (e.g., bonds, special taxes, general fund) climate intervention activities on California's natural and working lands made through existing programs as well as potential regulatory actions on land management. This Plan proposes an intervention based reduction goal of at least 15-20 million metric tons by 2030 as a reasonable beginning point for further discussion and development based on the State's current preliminary understanding of what might be feasible. This Plan recognizes that achieving an initial statewide goal of sequestering and avoiding emissions in this sector by at least 15-20 million metric tons by 2030 through existing pathways and new incentives would provide a crucial complement to the measures described in this Scoping Plan and will inform the development of longer-term natural and working lands goals. Achieving this ambitious climate goal will require collaboration and support from State and local agencies, which must improve their capacity to participate and benefit from State climate programs, and set the path for natural and working lands to help the State meet its long-range climate goals.

## Looking to the Future

This section outlines how the State will achieve California's climate objectives to: (1) maintain them as a resilient carbon sink (i.e., net zero or negative GHG emissions), and (2) minimize the net GHG and black carbon emissions associated with management, biomass disposal, and wildfire events to 2030 and beyond.

Implementation will include policy and program pathways, with activities related to land protection; enhanced carbon sequestration; and innovative biomass utilization. The framework for this section is to:

- **Protect** land from conversion to more intensified uses by increasing conservation opportunities and pursuing local planning processes in urban and infrastructure development patterns that avoid greenfield development.
- **Enhance** the resilience of and potential for carbon sequestration on lands through management and restoration, and reduce GHG and black carbon emissions from wildfire and management activities. This enhancement includes expansion and management of green space in urban areas.
- **Innovate** biomass utilization such that harvested wood and excess agricultural and forest biomass can be used to advance statewide objectives for renewable energy and fuels, wood product manufacturing, agricultural markets, and soil health, resulting in avoided GHG emissions relative to traditional utilization pathways. Associated activities should increase the resilience of rural communities and economies.

To accomplish these objectives, the State, led by California Natural Resources Agency (CNRA), California Department of Food and Agriculture (CDFA), California Environmental Protection Agency (CalEPA) and CARB will complete a Natural and Working Lands (NWL) Climate Change Implementation Plan (Implementation Plan) in 2018 to evaluate a range of implementation scenarios for natural and working lands and identify long-term (2050 or 2100) sequestration goals that can be incorporated into future climate policy. The Implementation Plan will:

- Include a projection of statewide emissions under business-as-usual land use and management conditions and alternative scenarios, as well as a listing and quantitative assessment of conservation and management activities the state may pursue to achieve the NWL climate objectives and the statewide goals of at least 15-20 MMTCO<sub>2</sub>e emissions sequestering and avoidance from the NWL sector by 2030;
- Identify state departments, boards, conservancies, and CNRA and CDFA programs responsible for meeting the 15-20 MMTCO<sub>2</sub>e goal by 2030; and
- Identify methodologies to be used by State programs to account for the

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<sup>205</sup> [www.arb.ca.gov/cc/inventory/sectors/forest/forest.htm](http://www.arb.ca.gov/cc/inventory/sectors/forest/forest.htm)

GHG impacts of prior state funded land use and management interventions, and to be used to estimate the GHG impacts of future interventions.

While growing trees and other vegetation, as well as soil carbon sequestration, reduce some of the carbon losses measured, climate change itself further stresses many of these systems and affects the ability of California's landscapes to maintain its carbon sink. The State will continue to rely on best available science to support actions and incentives to slow and reverse these trends, in concert with other production and ecological objectives of land use. The Forest Climate Action Team, Healthy Soils Initiative, State Coastal Conservancy's Climate Ready Program, various California Climate Investment programs, and CARB's compliance offset program already undertake portions of this work. As we move towards and maximize the ability of our land base to serve as a carbon sink, it will also be important to strengthen these individual activities through the coordination and aggregation of ecoregional plans that inform these interventions. These and future additional efforts can not only protect California's natural carbon stocks, they can also improve quality of life in urban and rural communities alike and increase the climate resilience of agricultural, forestry, and recreational industries and the rural communities they support; the State's water supply; biodiversity; and the safety and environmental health of all who call California home.

## **Research and Policy Needs**

Research is ongoing across agencies to advance the state of the science on NWL carbon dynamics, including a number of projects within the Fourth Climate Change Assessment, and a compendium of climate research being managed by the CNRA that will be completed in 2018. Additionally, California needs a well-defined reference case, or "business as usual" scenario to set a comprehensive and strategic path forward for California's lands and ocean environments to contribute to the State's climate goals. Finally, efforts must increase to gather, interpret, and unify best available science on the GHG and carbon sequestration impacts of land use and management practices applied across forests, cultivated agricultural lands, rangelands and grasslands, wetlands, coastal and ocean systems, desert ecosystems, and urban and other settled lands.

The Implementation Plan, as summarized above, will utilize the Protect-Enhance-Innovate framework and employ projections for carbon sequestration and GHG emissions from California's land base under reference case and increased management scenarios. The quantitative outputs of these projections, expressed as carbon dioxide equivalents will drive acreage needs for implementation using CO<sub>2</sub>e/acre results from multiple modeling efforts. The Implementation Plan will also identify GHG emissions quantification within and across programs and agencies and describe implementation monitoring and emissions inventories.

## **Natural and Working Lands Inventory**

In order to understand how carbon is released and sequestered by natural and working landscapes, CARB has worked extensively with other State agencies, academic researchers and the public to develop a Natural and Working Lands inventory that will guide this process. As with other sectors, the CARB Natural and Working Lands inventory represents a snapshot of emissions in recent years, using a combination of reported and measured data. A time lag exists between the last year of available data and the completion of the inventory to allow time for reporting and processing the data. For emission sources that are hard to individually measure, the CARB inventory estimates emissions based on "surrogates," such as the typical amount of travel on unpaved roads to estimate particulate matter emissions at the county level. The most recent inventory can also be "forecast" to project prevailing conditions in a future year based on rules and programs currently in place – known as a "business as usual projection" - along with scenarios to explore the benefits of further strategies to reduce emissions. Forecasts of business-as-usual and policy scenarios guide planning efforts.

As discussed below, ongoing research into forecasting emissions from Natural and Working Lands includes a project at Lawrence Berkeley National Laboratory funded by CNRA. CARB is monitoring this and other research activities and will incorporate results into a proposed inventory and forecasting methodology for Natural and Working Lands. CARB will solicit public feedback and review on the resulting product prior to completing the first full Natural and Working Lands Inventory by the end of 2018, as called for in SB 859. The Natural and Working Lands Inventory is spatially-resolved, so it can be segmented by county, watershed, or other regional planning areas. This spatial resolution allows local governments and regional organizations to use the inventory, along with more granular location-specific information, to track progress from projects in their jurisdictions.

CARB plans to update the forest component of the Natural and Working Lands inventory to include 2012 GHG emissions estimates, followed by emissions estimates for soil carbon, urban forestry, and croplands by mid-2018. Work currently in progress applies airborne and space-based technologies to monitor forest health and quantify emissions associated with land-based carbon. California and federal agencies are working with researchers and funding studies to enhance our understanding of the roles of forests and other lands in climate change using rapidly advancing remote sensing technology.<sup>206, 207</sup>

## CALAND Carbon Emissions Model

CNRA is managing the development of a CALAND model through Lawrence Berkeley National Laboratory, which will include a projection of business-as-usual emissions as well as a listing and quantitative assessment of conservation and management activities the State may pursue to achieve at least 15-20 MMT sequestration and GHG avoided emissions from the NWL sector by 2030.

CNRA, along with CARB and CDFA, will establish a formal public engagement process to gather external scientific expertise to inform development and finalization of the CALAND model for use in the Implementation Plan. Development of the Implementation Plan itself will also include a formal public process.

## Cross-Sector Interactions

Strategies that reduce GHG emissions or increase sequestration in the natural and working lands sector often overlap and result in synergies with other sectors, most notably at intersections with land use, biomass and waste utilization, energy and water. It will be important for the sector to make critical linkages to other sectors, including energy, transportation fuels, and waste, and develop plans to integrate the natural and working lands sector into existing models, such as PATHWAYS and REMI.

Landowner, local, and regional decisions affect land use development patterns and natural and working land conversion rates; conversely, conservation activities can support infill-oriented regional development and related transportation needs. As discussed earlier in the Transportation Sustainability section, under SB 375, Sustainable Communities Strategies (SCSs) aim to link transportation, housing, and climate policy to reduce per capita GHG emissions while providing a range of other important benefits for Californians. Some SCSs include policies, objectives or implementation measures relating to conservation and land protections, and to urban greening.<sup>208</sup> Protecting natural and working lands that are under threat of conversion can promote infill development, reduce VMT, limit infrastructure expansion, and curb associated GHG emissions. An integrated vision for community development, land conservation and management, and transportation is a key component of meeting our transportation and natural and working lands goals.<sup>209</sup>

Agricultural and commercial forestry operations produce biomass as both an objective (i.e., food and fiber production) and a waste by-product. How this material is utilized can either increase or decrease emissions associated with management and restoration activities, turn waste into usable products, displace fossil fuels used in energy and transportation, and increase carbon stored in durable wood products in the built environment. Finding productive ways to use this material offers new opportunities to reduce GHG emissions, promote carbon sequestration, and generate economic resources for forest, agricultural, and waste sectors and communities. California is investigating ways to transform how organic waste from the agricultural and municipal sectors is managed to meet SLCP emissions reductions targets required by SB 1383,<sup>210</sup> and to protect public health. Cross-sector synergies and complete waste inter-cycles, discussed further in the Waste Management section, result from conscientious treatment of these resources, including opportunities to improve soil health, increase renewable energy generation, and enhance market support for non-commercial products and waste. Productive utilization of dead and dying trees is a significant focus of the Governor's Tree Mortality Task Force, and efforts to resolve the current shortfall in utilization capacity is addressed in that State of Emergency Declaration as well as in SB 859.

Natural and working lands stewardship is essential to securing the State's water supply along the entire

206 Asner, G. et al. (2015) Progressive forest canopy water loss during the 2012–2015 California drought. PNAS 113.2: E249-E255

207 Battles, J. et al. (in progress) Innovations in measuring and managing forest carbon stocks in California. Project 2C: 4th California Climate Change Assessment. Natural Resources Agency. [resources.ca.gov/climate/fourth/](http://resources.ca.gov/climate/fourth/)

208 Livingston, Adam. Sustainable Communities Strategies and Conservation. January 2016. Available at: [www.nature.org/ourinitiatives/regions/northamerica/unitedstates/california/sustainable-communities-strategies-and-conservation.pdf](http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/california/sustainable-communities-strategies-and-conservation.pdf)

209 [www.arb.ca.gov/cc/scopingplan/meetings/meetings.htm](http://www.arb.ca.gov/cc/scopingplan/meetings/meetings.htm)

210 SB1383 (Lara, Chapter 396, Statutes of 2016) requires a 50 percent reduction in anthropogenic black carbon emissions by 2030.

supply chain, from protection and management of the forested headwaters to preserving the ability of mountain meadows to retain and filter water ensuring flows and habitat in the Delta and its tributaries, end use efficiencies in agricultural and urban uses, and groundwater infiltration and utilization statewide. For example, more efficient water and energy use in farming operations could support GHG emissions reductions goals in the energy sectors. And improving forest health in the Sierra Nevada, Cascades, and other headwaters protects water quality and availability, in alignment with the California Water Action Plan.

## Potential Actions to Enhance Carbon Sequestration and Reduce Greenhouse Gases in NWL

While agricultural and forest lands comprise the greatest acreage of NWL statewide, representing significant opportunity for achieving the State's NWL climate goals, actions on all NWL remain critical. The land management strategies and targets included in these sections are illustrative of the types of actions that will be necessary to maintain all of California's NWL and urban green space as a net sink of carbon, and are being used to aid in development of scenario modeling. The Implementation Plan will use this scenario modeling to scope the scale of action needed to ensure resilient future landscapes and identify key areas for advancement.

### Agriculture's Role in Emissions Reductions and Carbon Sequestration

In 2030 and 2050, the agricultural sector must remain vibrant and strong. California's agricultural production is critical to global food security. It is also vulnerable to climate change. A study<sup>211</sup> by the University of California concluded that the drought in 2015 cost the state economy \$2.7 billion and 21,000 full time jobs. These losses are expected to ripple through rural communities for another several years. This illustrates the importance of strengthening agriculture while protecting resources and mitigating climate change.

As the State works to meet emissions reductions goals, the agricultural sector can reduce emissions from production, sequester carbon and build soil carbon stocks, and play a role in cross-sectoral efforts to maximize the benefits of natural and working lands.

Climate-smart agriculture is an integrated approach to achieving GHG reductions while also ensuring food security and promoting agricultural adaptation in the face of climate change. Conserving agricultural land, sequestering carbon in agricultural soils, employing a variety of techniques to manage manure on dairies, and increasing the efficiency of on-farm water and energy use are examples of practices that can achieve climate and food production goals across diverse agricultural systems. Climate-smart agriculture can support the Protect, Enhance, and Innovate goals.

Approximately 60 percent of agricultural emissions are methane emissions from the dairy and livestock sectors. Emissions come from the animals themselves, through enteric fermentation, as well as from manure management—especially at dairies. SB 1383 and the resultant SLCP Strategy identify a mix of voluntary, incentive-based, and potential regulatory actions to achieve significant emissions reductions from these sources. A variety of techniques can attain the best results for each specific farming operation; effectively implementing a broad mix of strategies will reduce the GHG emissions from the agricultural sector significantly. CARB and CDFA and other agencies are working together to solicit input from industry, environmental, and community groups to encourage early and meaningful action to reduce emissions from the livestock sector.

Over the last several years, farms have begun to optimize fertilizer applications to protect water quality, maintain high yields, and reduce emissions of N<sub>2</sub>O, a greenhouse gas. Farmers are required through the Irrigated Lands Regulatory Program to manage nitrogen fertilizers to protect water quality through the use of nitrogen management plans. Nitrogen management plans are a tool designed to prevent over-applications of nitrogen through an approach that accounts for the nitrogen inputs from water, soil amendments and other sources, and also accounts for nitrogen removed from the field. CDFA's Fertilizer Research and Education Program, in coordination with university researchers and others, has developed fertilization guidelines to optimize the rate, timing and placement of fertilizers for crops that represent more than half of the irrigated agriculture in California. Similarly, innovations in water management and the expansion of high efficiency irrigation methods also are contributing to N<sub>2</sub>O reductions.

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211 Howitt, Richard E., Duncan MacEwan, Josué Medellín-Azuara, Jay R. Lund, Daniel A. Sumner. 2015. Economic Analysis of the 2015 Drought for California. Davis, CA: Center for Watershed Sciences, University of California – Davis.

California's farms and ranches have the ability to remove carbon from the atmosphere through management practices that build and retain soil organic matter. Adequate soil organic matter ensures the continued soil capacity to function as a vital living ecosystem with multiple benefits, producing food for plants, animals, and humans. The Healthy Soils Initiative, announced by Governor Brown in 2015, offers an opportunity to incentivize the management of farmland for increased carbon sequestration in soil, also augmenting co-benefits including improved plant health and yields, increased water infiltration and retention, reduced sediment erosion and dust, improved water and air quality, and improved biological diversity and wildlife habitat.

SB 859, signed into law in 2016, establishes the Healthy Soils Program at CDFA to provide incentives to farmers. It enables financial support for on-farm demonstration projects that "result in greenhouse gas benefits across all farming types with the intent to establish or promote healthy soils". It defines healthy soils as "soils that enhance their continuing capacity to function as a biological system, increase soil organic matter, improve soil structure and water-and nutrient-holding capacity, and result in net long-term greenhouse gas benefits."

As noted in the Cross-Sector Interactions section, State and local efforts to manage land for carbon sequestration must work in conjunction with existing plans, incentives, and programs protecting California's water supply, agricultural lands, and wildlife habitat. This Scoping Plan fits within a wide range of ongoing planning efforts throughout the State to advance economic and environmental priorities associated with natural and working lands.

## **The Role of Forests in Emissions Reductions and Carbon Sequestration**

Decades of fire exclusion, coupled with an extended drought and the impacts of climate change, have increased the size and intensity of wildfires and bark beetle infestations; exposed millions of urban and rural residents to unhealthy smoke-laden air from wildfires; and threatened progress toward meeting the state's long-term climate goals. Managing forests in California to be healthy, resilient net sinks of carbon is a vital part of California's climate change policy.

More than 100 million trees are dead, and recent wildfires have been among the most destructive and expensive in state history. As many as 15 million acres of California forests are estimated to be unhealthy and in need of some form of restoration, including more than 9 million acres managed by federal land management agencies and 6 million acres of State and privately managed forests.

California's urban forests also face multiple challenges, including drought and invasive exotic insects. Urban forests require maintenance to preserve the multiple values they provide and merit expansion to sequester carbon and secure other benefits to urban dwellers and the State.

The California Forest Carbon Plan (FCP), being developed by the Forest Climate Action Team (FCAT), seeks to establish California's forests as a more resilient and reliable long-term carbon sink, rather than a GHG and black carbon emission source, and confer additional ecosystem benefits through a range of management strategies.<sup>212</sup> The FCP emphasizes working collaboratively at the watershed or landscape scale to restore resilience to all forestlands in the state.

The current draft of the FCP places carbon sequestration and reducing black carbon and GHG emissions as one set of management objectives in the broader context of forest health and a range of other important forest co-benefits. California will manage for carbon alongside wildlife habitat, watershed protection, recreational access, traditional tribal uses, public health and safety, forest products, and local and regional economic development.

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212 <http://www.fire.ca.gov/fcat/>

Federally managed lands play an important role in the achievement of the California climate goals established in AB 32 and subsequent related legislation and plans. Over half of the forestland in California is managed by the federal government, primarily by the USDA Forest Service Pacific Southwest Region, and these lands comprise the largest potential forest carbon sink under one ownership in the state. Several regulatory, policy, and financial challenges have hindered the ability of the Forest Service and Department of Interior agencies (Bureau of Land Management and National Park Service) to increase the pace and scale of restoration needed, such as the current budget structure to fund wildland fire suppression and the procedural requirements of a number of federal environmental and planning statutes. The State of California must continue to work closely and in parallel to the federal government's efforts to resolve these obstacles and achieve forest health and resilience on the lands that federal agencies manage.

## **Protection of Land and Land Use**

California will continue to pursue development and new infrastructure construction patterns that avoid greenfield development, limit conflicts with neighboring land uses, and increase conservation opportunities for NWL to reduce conversion to intensified uses. Success will depend on working through local and regional land use planning and permitting, as well as developing incentives for participation by local governments and individual landowners.

## **Enhance Carbon Sequestration and Resilience through Management and Restoration**

California will increase efforts to manage and restore land to secure and increase carbon storage and minimize GHG and black carbon emissions in a sustainable manner so that the carbon bank is resilient and provides other benefits such as water quality, habitat and recreation.

One tool to demonstrate the potential for greater management and restoration on NWL is the CALAND model. As detailed in the Discussion Draft<sup>213</sup> and discussed above, it considers a variety of management and restoration activities employed across the State. Version 1 of the CALAND model considered two potential scenarios, a "low" and a "high" rate of implementation to 2030, with resulting carbon sequestration outcomes to 2050. The acreages given in the "low" scenario all represent feasible implementation on public and private lands beyond current rates for the listed activity, given availability of additional funding and other supporting resources. The "high" scenario represents a more ambitious approach, requiring new programs and policies, including collaboration with federal partners, to support implementation.

The activities presented in the Discussion Draft and Version 2 of CALAND are not inclusive of all activities under this strategy. Modeling will continue beyond finalization of the Scoping Plan. Agencies and modelers will continue to identify and analyze land management and restoration activities to advance the State's climate goals and improvements in modeling projections or other quantification protocols.

Management and restoration activities under consideration to help reduce GHG emissions beyond those identified in initial modeling include, but are not limited to the following:

- Forest fuel reduction treatments, reforestation, other restoration activities, prescribed fire and managed ignition.
- Restoration of mountain meadows, managed wetlands in the Sacramento San Joaquin Delta, coastal wetlands and desert habitat.
- Increasing the extent of eelgrass beds.
- Creation and management of parks and other greenspace in urban areas, including expansion of the existing urban tree canopy.
- Implementation of U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) management practices suitable for California agriculture including those practices identified in the Healthy Soils Incentive Program.
- Compost application to irrigated cropland.

Additional potential tools to encourage these activities include working with the federal government to fund more management on federal lands, mitigating for land conversion (as modeled by the High Speed Rail Authority), and revisiting the Forest Practices Act to enhance carbon sequestration benefits associated with timber production activities.

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213 [www.arb.ca.gov/cc/scopingplan/2030target\\_sp\\_dd120216.pdf](http://www.arb.ca.gov/cc/scopingplan/2030target_sp_dd120216.pdf)

## Innovate NWL Waste Utilization Pathways

Excess materials generated by commercial agricultural and forestry operations, biomass and wood harvested through forest health and restoration treatments, and material that is generated in response to Tree Mortality Emergency activities, should be used in a manner that minimizes GHG and black carbon emissions and promotes public and environmental health. The Legislature and Governor Brown set an ambitious goal of 75 percent recycling, composting or source reduction of solid waste in landfills by 2020. The State and stakeholders must develop targeted policies or incentives to support durable markets for all of this diverted material. Market opportunities include production of renewable electricity and biofuels, durable wood products, compost and other soil amendments, animal feed and bedding, and other uses. Research, development, and implementation activities in energy, wood products, waste, and soil amendment fields should be spatially-scaled to better link waste generation with infrastructure development.

The goals of this sector, with the potential to reduce GHGs and complement the measures and policies identified in Chapter 2, are described in Looking to the Future. The development of the Implementation Plan will spur thinking and exploration of innovation that may help the State achieve its long-term climate goals.

## Waste Management

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The Waste Management sector covers all aspects of solid waste<sup>214</sup> and materials management including reduction/reuse; recycling, and remanufacturing of recovered material; composting and in-vessel (anaerobic and aerobic) digestion; biomass management (chip and grind, composting, biomass conversion); municipal solid waste transformation; and landfilling. This sector also includes market development programs, such as the State's recycled-content product procurement program and a range of grant and loan programs. Data from CalRecycle's report, *2014 Disposal Facility-Based Characterization of Solid Waste in California*, shows that materials, such as organics, that decompose in landfills and generate methane comprise a significant portion of the waste stream. Methane is a potent SLCP with a global warming potential 25 times greater than that of carbon dioxide on a 100-year time horizon and more than 70 times greater than that of carbon dioxide on a 20-year time horizon.<sup>215</sup>

Within CARB's greenhouse gas inventory, emissions from the waste management sector consist of methane and nitrous oxide emissions from landfills and from commercial-scale composting, with methane being the primary contributor to the sector's emissions. The sector emitted 8.85 MMTCO<sub>2</sub>e in 2014, comprising approximately 2 percent of the State's GHG emissions.

Emissions from recycling and waste have grown by 19 percent since 2000. The majority of those emissions are attributed to landfills, despite the majority of landfills having gas collection systems in place.<sup>216</sup> Landfill emissions account for 94 percent of the emissions in this sector, while compost production facilities make up a small fraction of emissions.<sup>217</sup> The annual amount of solid waste deposited in California landfills grew from 37 million tons in 2000 to its peak of 46 million tons in 2005, followed by a declining trend until 2009 when landfilled solid waste stabilized to relatively constant levels. Landfill emissions are driven by the total waste-in-place, rather than year-to-year fluctuation in annual deposition of solid waste, as the rate and volume of gas produced during decomposition depends on the characteristics of the waste and a number of environmental factors. As a result, waste disposed in a given year contributes to emissions that year and in subsequent years.

In addition to direct emissions, the reduction, reuse, and recycling of waste materials decreases upstream GHG emissions associated with the extraction and processing of virgin materials and their use in production and transport of products. Although many of these upstream GHG emissions happen outside of California, California's waste policies can reduce both local and global GHG emissions and create jobs within the State.

214 In general, the term solid waste refers to garbage, refuse, sludges, and other discarded solid materials resulting from residential activities, and industrial and commercial operations. This term generally does not include solids or dissolved material in domestic sewage or other significant pollutants in water such as silt, dissolved or suspended solids in industrial wastewater effluents, dissolved materials in irrigation return flows or other common water pollutants.

215 Intergovernmental Panel on Climate Change. 2007. Climate Change 2007: Working Group I: The Physical Science Basis. 2.10.2 Direct Global Warming Potentials. Fourth Assessment Report. [www.ipcc.ch/publications\\_and\\_data/ar4/wg1/en/ch2s2-10-2.html](http://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch2s2-10-2.html)

216 CARB. 2013. California Greenhouse Gas Inventory for 2000–2013 – by Category as Defined in the 2008 Scoping Draft Plan (based upon IPCC Fourth Assessment Report's Global Warming Potentials).

217 CARB. 2016. 2016 Edition California GHG Emission Inventory. California Greenhouse Gas Emission Inventory: 2000–2014. Version June 17, 2016.

While landfills are an effective and relatively safe way to manage some waste, disposal-centric activities result in squandering valuable resources and generate landfill gases as well as other risks. A large fraction of the organics in the waste stream can be diverted from landfills to composting or digestion facilities to produce beneficial products. Moreover, food waste is the largest component of organics disposed in landfills; a portion of this is edible and should be captured at its source and, for example, provided to food banks to feed people in need. A State waste management sector “loading order” should focus more attention on reducing how much waste we generate and recovering and recycling whatever resources we can, using landfills as a last resort.

Landmark initiatives like the Integrated Waste Management Act of 1989 (AB 939) demonstrate California’s efforts to build communities that consume less, recycle more, and take resource conservation to higher and higher levels. Statewide, Californians achieved a 49 percent recycling rate in 2014, and recycling programs support an estimated 75,000 to 115,000 green jobs in California. If California were to achieve a 75 percent statewide solid waste recycling rate by 2020—a goal set out by the Legislature in AB 341 (Chesboro, Chapter 476, Statutes of 2011)—by recycling and remanufacturing at in-state facilities, the State could potentially generate an additional 100,000 green jobs.<sup>218</sup> In addition to employment contributions, diversion of organic waste from landfills can generate positive environmental impacts. Compost from organic matter provides soil amendments to revitalize farmland, reduces irrigation and landscaping water demands, contributes to erosion control in fire-ravaged landscapes, and potentially increase long-term carbon storage in rangelands. Production and use of bioenergy in the form of biofuels and renewable natural gas has the potential to reduce dependency on fossil fuels for the transportation sector. For the energy sector, however, renewable natural gas faces safety, feasibility, and cost issues.

The State has a robust waste management system in place, with established programs that reduce air emissions through activities such as gas collection systems from landfills<sup>219</sup> and stringent recycling mandates. AB 939 required cities and counties to reduce the amount of waste going to landfills by 50 percent in 2000, and municipalities have nearly universally met this mandate. Californians dispose about 30 million tons of solid waste in landfills each year. To further reduce landfilled solid waste, the Legislature adopted AB 341 to achieve more significant waste reductions by setting a goal that 75 percent of solid waste generated be reduced, recycled, or composted by 2020, and by mandating commercial recycling. AB 1826 (Chesboro, Chapter 727, Statutes of 2014) added requirements regarding mandatory commercial organics recycling.

Although solid waste management has evolved over the last 27 years and diversion rates (which include more than recycling) have increased more than six-fold since 1989, if no further changes in policy are made, the State’s growing population and economy will lead to higher amounts of overall disposal along with associated increases in GHG emissions. The pathway to reducing disposal and associated GHG emissions will require significant expansion of the composting, anaerobic digestion, and recycling manufacturing infrastructure in the State.

To help reduce GHG emissions by 40 percent below 1990 levels by 2030 and meet California’s waste reduction goals, California’s waste management sector strives to achieve in-state processing and management of waste generated in California. To carry out this vision, we must work with residents and producers to reduce the volume of waste generated overall and capitalize on technology and social changes that might enable waste reduction. Packaging comprises approximately 8 million tons of waste landfilled in California annually, or about one quarter of the State’s total disposal stream. To reduce the climate change footprint of packaging, the State is promoting the inclusion of source reduction principles in packaging and product design; fostering recycling and recyclability as a front end design parameter for packaging and products that cannot be reduced; and encouraging recycling markets and market development for recycled-content products and packaging. CalRecycle is developing a packaging policy model containing components necessary for a mandatory comprehensive, statewide packaging program in California; this would need to be legislatively enacted to achieve a packaging reduction goal, such as 50 percent by 2030. CalRecycle is also continuing to work with stakeholder organizations and industry to explore complementary voluntary activities that have the potential to significantly decrease packaging disposal in California. In addition, large-scale shifts in materials management will be necessary, including steps to maximize recycling and diversion from landfills

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218 CalRecycle. 2013. AB 341’s 75 Percent Goal and Potential New Recycling Jobs in California by 2020. July. [www.calrecycle.ca.gov/Publications/Documents/1463/20131463.pdf](http://www.calrecycle.ca.gov/Publications/Documents/1463/20131463.pdf)

219 CARB approved a regulation to reduce methane from municipal solid waste landfills as a discrete early action measure under AB 32. The regulation became effective June 17, 2010. Additional information is available at: [www.arb.ca.gov/regact/2009/landfills09/landfillfinalfro.pdf](http://www.arb.ca.gov/regact/2009/landfills09/landfillfinalfro.pdf)

and build the necessary infrastructure to support a sustainable, low carbon waste management system within California. Working together, State and local agencies will identify ways to increase the use of waste diversion alternatives and expand potential markets, obtain funds and incentives for building the infrastructure and strengthening markets, and evaluate the need for additional research to achieve California's GHG reduction and waste management goals.

Additional legislation codified since the First Scoping Plan Update outlines new opportunities and requirements to reduce GHG emissions from the waste sector, with a focus on reducing organic waste sent to landfills. SB 605 (Lara, Chapter 523, Statutes of 2014) requires that CARB develop a strategy to reduce SLCPs and SB 1383 requires the strategy to be implemented by January 1, 2018. CARB's recently adopted SLCP Reduction Strategy includes organic waste diversion targets for 2020 and 2025 consistent with SB 1383 to reduce methane emissions from landfills. It requires CalRecycle, in consultation with CARB, to adopt regulations to achieve statewide disposal targets to reduce landfilling of organic waste by: (1) 50 percent from the 2014 level by 2020, and (2) 75 percent from the 2014 level by 2025. Under SB 1383, of the edible food destined for the organic waste stream, not less than 20 percent is to be recovered to feed people in need by 2025. The regulations are to take effect on or after January 1, 2022, and CalRecycle, in consultation with CARB, must analyze the progress that the waste management sector, State government, and local government have made in achieving the 2020 and 2025 goals by July 1, 2020. It is estimated that the combined effect of the food waste prevention and rescue programs and organics diversion from landfills will reduce 4 MMTCO<sub>2</sub>e of methane in 2030 (using a 20-year GWP), but one year of waste diversion in 2030 is expected to result in a reduction of 14 MMTCO<sub>2</sub>e of emissions over the lifetime of waste decomposition.

## Looking to the Future

This section outlines the high-level objectives and goals to reduce GHGs in this sector.

### Goals

- Take full ownership of the waste generated in California.
- View waste as a resource and convert waste from all sectors to beneficial uses.
- Develop a sustainable, low carbon waste management system that processes collected waste within California and generates jobs, especially in disadvantaged communities.
- Maximize recycling and diversion from landfills.
- Reduce direct emissions from composting and digestion operations through improved technologies.
- Build the infrastructure needed to support a sustainable, low carbon waste management system within California.
- Increase organics markets which complement and support other sectors.<sup>220</sup>
- Capture edible food before it enters the waste stream and provide to people in need.
- Increase production of renewable transportation fuels from anaerobic digestion of waste.
- Recognize the co-benefits of compost application.

### Cross-Sector Interactions

The waste management sector interacts with all of the other sectors of the State's economy. Reducing waste, including food waste, is key to reducing the State's overall carbon footprint. Additionally, replacing virgin materials with recycled materials reduces the energy and GHGs associated with the goods we produce and consume.

California leads the United States in agricultural production in terms of value and crop diversity. Soil carbon is the main source of energy for important soil microbes and is key for making nutrients available to plants. Waste-derived compost and other organic soil amendments support the State's Healthy Soils Initiative being implemented by CDFA. In addition, the use of compost to increase soil organic matter in the agricultural sector provides other benefits, including reduced GHG emissions, conserved water, reduced synthetic (petroleum-based) fertilizer and herbicide use, and sequestered carbon.

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<sup>220</sup> Examples may include renewable energy (biogas to renewable transportation fuels or electricity); soils (application of organics to agricultural soils for building soil organic matter and conserving water; application of organics to mulch for erosion control; application of organics to rangelands for increased carbon sequestration); and forests (support use of forest residues for erosion control; stabilization of fire-ravaged lands).

## Efforts to Reduce Greenhouse Gases

The measures below include some required and new potential measures to help achieve the State's 2030 target and to support the high-level objectives for this sector. Some measures may be designed to directly address GHG reductions, while others may result in GHG reductions as a co-benefit. In addition, to move forward with the goals of the waste management sector and achieve the 2030 target, certain actions are recommended to help set the groundwork. These actions affect several broad areas and are necessary for reducing the challenges facing this sector, and they are listed below as supporting actions.

### Ongoing and Proposed Measures

- Continue implementation of the Landfill Methane Control Measure.
- Continue implementation of the Mandatory Commercial Recycling Regulation and the Mandatory Commercial Organics Recycling requirements.
- As required by SB 1383:
  - By 2018, CARB will implement the SLCP Strategy.
  - CalRecycle will develop regulations to require 50 percent organic waste diversion from landfills from 2014 levels by 2020 and 75 percent by 2025, including programs to achieve an edible food waste recovery goal of 20 percent below 2016 levels by 2025. The regulations shall take effect on or after January 1, 2022. By July 1, 2020, analyze the progress that the waste sector, State government, and local governments have made in achieving these goals.
  - CEC will develop recommendations for the development and use of renewable gas as part of the 2017 Integrated Energy Policy Report. Based on these recommendations, adopt policies and incentives to significantly increase sustainable production and use of renewable gas.

### Potential Additional or Supporting Actions

The actions below have the potential to reduce GHGs and complement the measures and policies identified in Chapter 2. These are included to spur thinking and exploration of innovation that may help the State achieve its long-term climate goals.

- Establishing a sustainable State funding source (such as an increased landfill tip fee and new generator charge) for development of waste management infrastructure, programs, and incentives.
- Working with residents and producers to reduce the volume of waste generated overall and capitalize on technology and social changes that might enable waste reduction.
- Increasing organics diversion from landfills, building on established mandates (AB 341's 75 percent by 2020 solid waste diversion goal, AB 1594,<sup>221</sup> AB 1826,<sup>222</sup> AB 876<sup>223</sup>) and new short-lived climate pollutant targets for 2025 (SB 605, SB 1383) to be accomplished via prevention (including food rescue), recycling, composting/digestion, and biomass options.
- Addressing challenges and issues associated with significant expansion and construction of organics and recycling infrastructure in California that is needed to achieve recycling and diversion goals. Challenges and issues include permitting, grid/pipeline connection, funding, local siting, markets, and research.
- Developing programmatic Environmental Impact Reports (EIRs) and model permit and guidance documents to assist in environmental review and CEQA for new facilities.
- Providing incentives for expanded and new facilities to handle organics and recyclables to meet 2020 and 2030 goals.
- Providing incentives to develop and expand food rescue programs to reduce the amount of edible food being sent to landfills.
- Further quantifying co-benefits of compost products and addressing regulatory barriers that do not provide for consideration of co-benefits.
- Supporting existing and new clean technologies and markets for excess woody biomass from urban areas, forests, and agriculture.
- Supporting the development of transportation fuel production at digestion facilities to generate renewable transportation fuels.

<sup>221</sup> Assembly Bill 1594, Waste Management (Williams, Chapter 719, Statutes of 2014).

<sup>222</sup> Assembly Bill 1826, Solid Waste: Organic Waste (Chesbro, Chapter 727, Statutes of 2014).

<sup>223</sup> Assembly Bill 876, Compostable Organics (McCarty, Chapter 593, Statutes of 2015).

- Resolving issues of pipeline injection and grid connection to make renewable energy projects competitive.
- Supporting the use of available capacity at wastewater treatment plants that have digesters to process food waste.
- Working with local entities to provide a supportive framework to advance community-wide efforts that are consistent with, or exceed, statewide goals.
- Supporting research and development and pathways to market for dairy and codigestion digesters, including pipeline injection and interconnection.
- Supporting research on digestate characterization and end products.

## Water

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Water is essential to all life, and is vital to our overall health and well-being. A reliable, clean, and abundant supply of water is also a critical component of California’s economy and has particularly important connections to energy, food, and the environment. California’s water system includes a complex infrastructure that has been developed to support the capture, use, conveyance, storage, conservation, and treatment of water and wastewater. This elaborate network of storage and delivery systems enables the State to prosper and support populations, amidst wide variability in annual precipitation rates and concentration of rain north of Sacramento, through storing and moving water when and where it is needed.

Local water agencies play an important role in delivering water to communities, farms, and businesses. Some purchase water from the major State and federal projects, treat the water as needed, and deliver it to their customers; others act as wholesale agencies that buy or import water and sell it to retail water suppliers. Some agencies operate their own local water supply systems, including reservoirs and canals that store and move water as needed. Many agencies rely on groundwater exclusively, and operate local wells and distribution systems. In recent decades, local agencies have developed more diversified sources of water supplies. Many agencies use a combination of imported surface water and local groundwater, and also produce or purchase recycled water for end uses such as landscape irrigation.<sup>224</sup>

The State’s developed surface and groundwater resources support a variety of residential, commercial, industrial, and agricultural activities. California’s rapidly growing population—estimated to reach 44 million by 2030<sup>225</sup> – is putting mounting pressure on the water supply system. In the future, the ability to meet most new demand for water will come from a combination of increased conservation and water use efficiency, improved coordination of management of surface and groundwater, recycled water, new technologies in drinking water treatment, groundwater remediation, and brackish and seawater desalination.<sup>226</sup>

One of the State’s largest uses of energy is attributed to several aspects of the water life cycle, including end uses such as heating and cooling, and water treatment and conveyance. Ten percent of the State’s energy use is associated with water-related end uses, while water and wastewater systems account for 2 percent of the State’s energy use.<sup>227</sup> Therefore, as water demand grows, energy demand may increase concurrently. Population growth drives demand for both water and energy resources, so both grow at about the same rates and in many of the same geographic areas.<sup>228</sup> This dynamic is further exacerbated by the precipitation-population mismatch between Northern and Southern California. Since the greatest energy consumption related to water is from delivery to end uses, the potential for energy savings also resides with water end users, where water conservation and efficiency play an important role.

The principal source of GHG emissions from the water sector comes from the fossil fuel-based energy consumed for water end uses (e.g., heating, cooling, pressurizing, and industrial processes), and the fossil fuel-based energy used to “produce” water (e.g., pump, convey, treat). Therefore, emissions reductions strategies are primarily associated with reducing the energy intensity of the water sector. Energy intensity is a measure of the amount of energy required to take a unit of water from its origin (such as a river or aquifer)

224 California Department of Water Resources. Regional Energy Intensity of Water Supplies. [www.water.ca.gov/climatechange/RegionalEnergyIntensity.cfm](http://www.water.ca.gov/climatechange/RegionalEnergyIntensity.cfm)

225 <http://www.dof.ca.gov/Forecasting/Demographics/projections/>

226 California Natural Resources Agency, California Department of Food and Agriculture, and California Environmental Protection Agency. California Water Action Plan.

227 California Department of Water Resources. Water-Energy Nexus: Statewide. Web page accessed November 2016 at: [www.water.ca.gov/climatechange/WaterEnergyStatewide.cfm](http://www.water.ca.gov/climatechange/WaterEnergyStatewide.cfm).

228 Ibid

and extract and convey it to its end use.<sup>229</sup> Within California, the energy intensity of water varies greatly depending on the geography, water source, and end use. The California Department of Water Resources (DWR) subdivides the State into 10 regions corresponding to the State’s major drainage basins. An interactive map on the DWR website allows users to see a summary of the energy intensity of regional water supplies, ignoring end-use factors.<sup>230</sup> As the energy sector is decarbonized through measures such as increased renewable energy and improved efficiency, energy intensities will also be reduced. It is also important to note that end user actions to reduce water consumption or replace fresh water with recycled water do not automatically translate into GHG reductions. The integrated nature of the water supply system means that a reduction by one end user can be offset by an increase in consumption by another user. Likewise, use of recycled water has the potential to reduce GHGs if it replaces, and not merely serves as an alternative to, an existing, higher-carbon water supply.

The State is currently implementing several targeted, agricultural, urban, and industrial-based water conservation, recycling, and water use efficiency programs as part of an integrated water management effort that will help achieve GHG reductions through reduced energy demand within the water sector. Appendix H highlights the more significant existing policies, programs, measures, regulations, and initiatives that provide a framework for helping achieve GHG emissions reductions in this sector.

While it is important for every sector to contribute to the State’s climate goals, ensuring universal access to clean water as outlined in AB 685 (Eng, Chapter 524, Statutes of 2012), also known as the “human right to water” bill, should take precedence over achieving GHG emissions reductions from water sector activities where a potential conflict exists. AB 685 states that it is the policy of the State that “every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes.” As described in this section, water supplies vary in energy intensity and resulting GHGs, depending on the source of the water, treatment requirements, and location of the end user.

## Looking to the Future

This section outlines the high-level objectives and goals to reduce GHGs in this sector.

### Goals

- Develop and support more reliable water supplies for people, agriculture, and the environment, provided by a more resilient, diversified, sustainably managed water resources system with a focus on actions that provide direct GHG reductions.
- Make conservation a California way of life by using and reusing water more efficiently through greater water conservation, drought tolerant landscaping, stormwater capture, water recycling, and reuse to help meet future water demands and adapt to climate change.
- Develop and support programs and projects that increase water sector energy efficiency and reduce GHG emissions through reduced water and energy use.
- Increase the use of renewable energy to pump, convey, treat, and utilize water.
- Reduce the carbon footprint of water systems and water uses for both surface and groundwater supplies through integrated strategies that reduce GHG emissions while meeting the needs of a growing population, improving public safety, fostering environmental stewardship, aiding in adaptation to climate change, and supporting a stable economy.

## Cross-Sector Interactions

Water, energy, food, and ecosystems are inextricably linked, and meeting future climate challenges will require an integrated approach to managing the resources in these sectors.

Water is used in various applications in the energy sector, ranging in intensity from cooling of turbines and other equipment at power plants to cleaning solar photovoltaic panels. In 2003, CEC adopted a water conservation policy for power plants to limit the use of freshwater for power plant cooling, and has since encouraged project

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<sup>229</sup> A broader definition of energy intensity could consider the “downstream” energy (i.e., wastewater treatment) as well as the upstream components. More robust data are needed, and the State is working to better quantify these upstream and downstream emissions.

<sup>230</sup> California Department of Water Resources. Regional Energy Intensity of Water Supplies. [www.water.ca.gov/climatechange/RegionalEnergyIntensity.cfm](http://www.water.ca.gov/climatechange/RegionalEnergyIntensity.cfm)

owners proposing to build new power plants in California to reduce water consumption with water-efficiency technologies such as dry cooling and to conserve fresh water by using recycled water. Likewise, energy is used in multiple ways and at multiple steps in water delivery and treatment systems, including energy for heating and chilling water; treating and delivering drinking water; conveying water; extracting groundwater; desalination; pressurizing water for irrigation; and wastewater collection, treatment, and disposal.

Although GHG reduction strategies for the water sector have the closest ties to energy, the water sector also interacts with the natural and working lands, agricultural, waste management, and transportation sectors. Water flows from mountains to downstream regions through natural and working lands, which provide habitat for many species and function to store water, recharge groundwater, naturally purify water, and moderate flooding. Protection of key lands from conversion results in healthier watersheds by reducing polluted runoff and maintaining a properly functioning ecosystem. California is the United States' leading agricultural production state in terms of value and crop diversity. Approximately nine million acres of farmland in California are irrigated.<sup>231</sup> In addition, water use is associated with livestock watering, feedlots, dairy operations, and other on-farm needs. Altogether, agriculture uses about 40 percent of the State's managed water supply.<sup>232</sup> In the end, agricultural products produced in California are consumed by humans throughout the world as food, fiber, and fuel. Wastewater treatment plants provide a complementary opportunity for the waste management sector to help process organic waste diversion from landfills. Treatment plants with spare capacity can potentially accommodate organic waste for anaerobic co-digestion of materials such as food waste and fats, oil, and grease from residential, commercial, or industrial facilities to create useful by-products such as electricity, hydrogen, biofuels, and soil amendments.<sup>233</sup> The water sector is also essential to our community health and long-term well-being, and measures must ensure that we continue to have access to clean and reliable sources of drinking water. Climate change threatens to impact our water supplies, for example, with long-term droughts leading to wells and other sources of water running dry. This can have devastating consequences, especially on communities already vulnerable and sensitive to changes in their water supply and natural hydrological systems, including rural communities who have limited options for water supplies. Water conservation and management strategies that are energy efficient can also ensure a continued supply of water for our health and well-being.

## Efforts to Reduce Greenhouse Gases

The measures below include some required and new potential measures to help achieve the State's 2030 target and to support the high-level objectives for this sector. Some measures may be designed to directly address GHG reductions, while others may result in GHG reductions as a co-benefit. In addition, several recommended actions are identified to help the water sector move forward with the identified goals and measures to achieve the 2030 target; these are listed as supporting actions.

## Ongoing and Proposed Measures

- As directed by Governor Brown's Executive Order B-37-16, DWR and State Water Resources Control Board (SWRCB) will develop and implement new water use targets to generate more statewide water conservation than existing targets (the existing State law requires a 20 percent reduction in urban per capita water use by 2020 [SBx7-7, Steinberg, Chapter 4, Statutes of 2009]). The new water use targets will be based on strengthened standards for indoor use, outdoor irrigation, commercial, industrial, and institutional water use.
- SWRCB will develop long-term water conservation regulation, and permanently prohibit practices that waste potable water.
- DWR and SWRCB will develop and implement actions to minimize water system leaks, and to set performance standards for water loss, as required by SB 555 (Wolk, Chapter 679, Statutes of 2015).
- DWR and CDFA will update existing requirements for agricultural water management plans to increase water system efficiency.

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231 Hanson, Blaine. No date. Irrigation of Agricultural Crops in California. PowerPoint. Department of Land, Air and Water Resources University of California, Davis. [www.arb.ca.gov/fuels/lcfs/workgroups/lcfsustain/hanson.pdf](http://www.arb.ca.gov/fuels/lcfs/workgroups/lcfsustain/hanson.pdf)

232 Applied water use is the official terminology used by DWR. "Applied water refers to the total amount of water that is diverted from any source to meet the demands of water users without adjusting for water that is used up, returned to the developed supply, or considered irrecoverable."

233 An example of a resource recovering project that can help achieve methane reductions includes fuel cells that are integrated into wastewater treatment plants for both onsite heat and power generation and the production of renewable hydrogen.

- CEC will certify innovative technologies for water conservation and water loss detection and control.
- CEC will continue to update the State’s Appliance Efficiency Regulations (California Code of Regulations, Title 20, Sections 1601–1608) for appliances offered for sale in California to establish standards that reduce energy consumption for devices that use electricity, gas, and/or water.
- California Environmental Protection Agency (CalEPA) will oversee development of a voluntary registry for GHG emissions resulting from the water-energy nexus, as required by SB 1425 (Pavley, Chapter 596, Statutes of 2016).
- The State Water Project has entered long-term contracts to procure renewable electricity from 140 MW solar installations in California.
- As described in its Climate Action Plan, DWR will continue to increase the use of renewable energy to operate the State Water Project.

Overall, these actions will contribute to the broader energy efficiency goals discussed in the Low Carbon Energy section of this chapter.

### **Potential Additional or Supporting Actions**

The actions below have the potential to reduce GHGs and complement the measures and policies identified in Chapter 2. These are included to spur thinking and exploration of innovation that may help the State achieve its long-term climate goals.

- Where technically feasible and cost-effective, local water and wastewater utilities should adopt a long-term goal to reduce GHGs by 80 percent below 1990 levels by 2050 (consistent with DWR’s Climate Action Plan), and thereafter move toward low carbon or net-zero carbon water management systems.
- Local water and wastewater utilities should develop distributed renewable energy where feasible, using the expanded Local Government Renewable Energy Bill Credit (RES-BCT) tariff and new Net Energy Metering (which allow for installation without system size limit).
- In support of the Short-Lived Climate Pollutant Strategy, encourage resource recovering wastewater treatment projects to help achieve the goal of reducing fugitive methane by 40 percent by 2030, to include:
  - Determining opportunities to support co-digestion of food-related waste streams at wastewater treatment plants.
  - Incentivizing methane capture systems at wastewater treatment plants to produce renewable electricity, transportation fuel, or pipeline biomethane.
- Support compact development and land use patterns, and associated conservation and management strategies for natural and working lands that reduce per capita water consumption through more water-efficient built environments.

# Chapter 5

## ACHIEVING SUCCESS

Meeting, and exceeding, our mandated GHG reduction goals in 2020 and through 2030 requires building on California's decade of success in implementing effective climate policies. State agencies are increasingly coordinating planning activities to align with overarching climate, clean air, social equity, and broader economic objectives.

However, to definitely tip the scales in favor of rapidly declining emissions, we also need to reach beyond State policy-making and engage all Californians. Further progress can be made by supporting innovative actions at the local level—among governments, small businesses, schools, and individual households. Ultimately, success depends on a mix of regulatory program development, incentives, institutional support, and education and outreach to ensure that clean energy and other climate strategies are clear, winning alternatives in the marketplace—to drive business development and consumer adoption.

### Ongoing Engagement with Environmental Justice Communities

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CARB continues seek ways to improve implementation of AB 32 and the unique set of impacts facing environmental justice communities. However, CARB's environmental justice efforts reach far beyond climate change. In 2001, the Board approved CARB's "Policies and Actions for Environmental Action,"<sup>234</sup> which expresses a broad commitment to environmental justice and makes it integral to all of CARB's programs, consistent with State directives at the time. Though over the years CARB has taken on a wide array of activities aimed at reducing environmental burdens on environmental justice communities, it has not knitted its various efforts together in a coherent narrative or maximized the impact of these activities by leveraging them off of each other.

This year, CARB appointed its first executive-level environmental justice liaison. Under her leadership, CARB will lay a roadmap for better serving California's environmental justice communities in the design and implementation of its programs, and identifying new actions CARB can take to advance environmental justice and social equity in all of its functions.

The extensive legislative framework addressing climate change, air quality, and environmental justice that has emerged since the passage of AB 32 has prompted CARB to step up its environmental justice efforts and articulate a vision that reflects the current context. CARB will initiate a public process, seeking advice and input from environmental justice advocates and other key stakeholders to inform the development of a new strategic plan for further institutionalizing environmental justice and social equity.

CARB understands that in addition to our programs to address climate change and reduce emissions of GHGs, more needs to be done to reduce exposure to toxic air and criteria pollutants and improve the quality of life in communities surrounding our largest emissions sources. To this end, and consistent with AB 617, AB 197, AB 1071, SB 535 and AB 1550, we will actively engage EJ advocates, communities, and relevant air districts in the development of programs that improve air quality and quantify the burdens placed on air quality in local communities. Measuring and monitoring air quality conditions over time and ongoing community engagement are integral to the success of CARB's efforts. This engagement will include substantive discussions with EJ stakeholders, gathering their input and providing adequate time for review before matters are taken to the Board for decision.

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<sup>234</sup> [www.arb.ca.gov/ch/programs/ej/ejpolicies.pdf](http://www.arb.ca.gov/ch/programs/ej/ejpolicies.pdf)

CARB's approach to environmental justice will be grounded in five primary pillars: transparency, integration, monitoring, research, and enforcement.

- **Transparency:** CARB must improve communication and engagement with environmental justice stakeholders and deepen partnerships with local communities impacted by air pollution. CARB will continue to prioritize transparency in its decision-making processes and provide better access to the air quality, toxics, and GHG data CARB collects and stewards.
- **Integration:** Besides integrating environmental justice throughout all of CARB's programs, those programs must complement each other. To that end, CARB will endeavor to break down programmatic silos so that it is able to leverage its work and achieve more effective and timely results. Focused resources in individual communities can accelerate reduction in emissions, proliferation of clean vehicles and creation of jobs in the clean energy economy, while concurrently improving public health.
- **Monitoring:** Communities should be engaged in CARB's monitoring work. They can play a critical role in collecting their own data and adding to the coverage of other air monitoring efforts (e.g., CARB, local air districts). CARB has already invested in research on low-cost monitors that are accessible by communities, and it will continue to evaluate how community monitoring can make CARB more nimble in identifying and addressing "hotspots." Mobile monitoring projects similarly will allow CARB to better serve and protect residents of disadvantaged communities. CARB will continue to build partnerships with local communities and help build local capacity through funding and technical assistance.
- **Research:** CARB's research agenda is core to achieving its mission. To ensure that the research done by CARB responds to environmental justice concerns and has the greatest potential to improve air quality and public health in disadvantaged communities, CARB will engage communities groups early in the development of its research agenda and the projects that flow out from that agenda.
- **Enforcement:** Disadvantaged communities are often impacted by many sources of pollution. In order to improve air quality and protect public health, CARB will prioritize compliance with legal requirements, including enforcement actions if necessary, in environmental justice communities to ensure emissions of toxic and criteria pollutants in these communities are as low as possible.

Our inclusive approaches to further environmental justice in California's local communities may include an array of direct regulation, funding, and community capacity-building. CARB will continue to actively implement the provisions of AB 617, AB 197, AB 1071, SB 535, AB 1550, and other laws to better ensure that environmental justice communities see additional benefits from our clean air and climate policies. Our inclusive approaches to further environmental justice in California's local communities may include an array of direct regulation, funding, and community capacity-building.

## Enabling Local Action

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Local governments are essential partners in achieving California's goals to reduce GHG emissions. Local governments can implement GHG emissions reduction strategies to address local conditions and issues and can effectively engage citizens at the local level. Local governments also have broad jurisdiction, and sometimes unique authorities, through their community-scale planning and permitting processes, discretionary actions, local codes and ordinances, outreach and education efforts, and municipal operations. Further, local jurisdictions can develop new and innovative approaches to reduce GHG emissions that can then be adopted elsewhere. For example, local governments can develop land use plans with more efficient development patterns that bring people and destinations closer together in more mixed-use, compact communities that facilitate walking, biking, and use of transit. Local governments can also incentivize locally generated renewable energy and infrastructure for alternative fuels and electric vehicles, implement water efficiency measures, and develop waste-to-energy and waste-to-fuel projects. These local actions complement statewide measures and are critical to supporting the State's efforts to reduce emissions. Local efforts can deliver substantial additional GHG and criteria emissions reductions beyond what State policy can alone, and these efforts will sometimes be more cost-effective and provide more cobenefits than relying exclusively on top-down statewide regulations to achieve the State's climate stabilization goals. To ensure local and regional engagement, it is also recommended local jurisdictions make readily available information regarding ongoing and proposed actions to reduce GHGs within their region.

Many cities and counties are already setting GHG reduction targets, developing local plans, and making progress toward reducing emissions. The Statewide Energy Efficiency Collaborative recently released a report, *The State of Local Climate Action: California 2016*,<sup>235</sup> which highlights local government efforts, including:

- In California, 60 percent of cities and over 70 percent of counties have completed a GHG inventory, and 42 percent of local governments have completed a climate, energy, or sustainability plan that directly addresses GHG emissions. Many other community-scale local plans, such as general plans, have emissions reduction measures incorporated as well (see Governor's Office of Planning and Research [OPR] Survey questions 23 and 24).<sup>236</sup>
- Over one hundred California local governments have developed emissions reduction targets that, if achieved, would result in annual reductions that total 45 MMTCO<sub>2</sub>e by 2020 and 83 MMTCO<sub>2</sub>e by 2050.<sup>237</sup>

Local air quality management and air pollution control districts also play a key role in reducing regional and local sources of GHG emissions by actively integrating climate protection into air quality programs. Air districts also support local climate protection programs by providing technical assistance and data, quantification tools, and even funding.<sup>238</sup> Local metropolitan planning organizations (MPOs) also support the State's climate action goals via sustainable communities strategies (SCSs), required by the Sustainable Communities and Climate Protection Act of 2008 (SB 375, Chapter 728, Statutes of 2008). Under SB 375, MPOs must prepare SCSs as part of their regional transportation plan to meet regional GHG reduction targets set by CARB for passenger vehicles in 2020 and 2035. The SCSs contain land use, housing, and transportation strategies that allow regions to meet their GHG emissions reductions targets.



To engage communities in efforts to reduce GHG emissions, CARB has partnered with Energy Upgrade California on the CoolCalifornia Challenge. It is a competition among California cities to reduce their carbon footprints and build more vibrant and sustainable communities. Three challenges have been completed. Most recently, the 2015–2016 Challenge included 22 cities and engaged nearly 3,200 households, each of which took actions to reduce energy use and carbon GHG emissions. In total, the participants reported savings of 5,638 MTCO<sub>2</sub> from completed actions, equivalent to emissions from more than 1,000 cars or from electricity used by more than 2,500 California homes in a year.

State agencies support these local government actions in several ways:

- [CoolCalifornia.org](http://CoolCalifornia.org) is an informational website that provides resources that assist local governments, small businesses, schools, and households to reduce GHG emissions. The local government webpage includes carbon calculators, a climate planning resource guide, a Funding Wizard that outlines grant and loan programs, and success stories. It also features ClearPath California, a no-cost GHG inventory, climate action plan development, and tracking tool developed through the Statewide Energy Efficiency Collaborative in coordination with CARB and the Governor's Office of Planning and Research (OPR).
- Chapter 8 of OPR's General Plan Guidelines<sup>239</sup> provides guidance for climate action plans and

235 Statewide Energy Efficiency Collaborative. 2016. State of Local Climate Action: California 2016.

[californiaseec.org/wp-content/uploads/2016/10/State-of-Local-Climate-Action-California-2016\\_Screen.pdf](http://californiaseec.org/wp-content/uploads/2016/10/State-of-Local-Climate-Action-California-2016_Screen.pdf)

236 Governor's Office of Planning and Research. 2016. 2016 Annual Planning Survey Results. November.

[www.opr.ca.gov/docs/2016\\_APS\\_final.pdf](http://www.opr.ca.gov/docs/2016_APS_final.pdf)

237 These reductions include reductions from both state and local measures.

238 Examples include: (1) Bay Area Air Quality Management District (BAAQMD). 2016 Clean Air Plan and Regional Climate Protection Strategy. Available at: [www.baaqmd.gov/plans-and-climate/air-quality-plans/plans-under-development](http://www.baaqmd.gov/plans-and-climate/air-quality-plans/plans-under-development); (2) California Air Pollution Control Officers Association. California Emissions Estimator Model (CalEEMod). Available at: [www.caleemod.com/](http://www.caleemod.com/); (3) San Joaquin Valley Air Pollution Control District. Grants and Incentives. Available at: [valleyair.org/grants/](http://valleyair.org/grants/); (4) BAAQMD. Grant Funding. Available at: [www.baaqmd.gov/grant-funding](http://www.baaqmd.gov/grant-funding); (5) South Coast Air Quality Management District. Funding. Available at: [www.aqmd.gov/grants-bids/funding](http://www.aqmd.gov/grants-bids/funding); (6) Sacramento Metropolitan Air Quality Management District. Incentive Programs. Available at: [www.airquality.org/Residents/Incentive-Programs](http://www.airquality.org/Residents/Incentive-Programs).

239 <http://opr.ca.gov/planning/general-plan/>

other plans linked to general plans, which address the community scale approach outlined in CEQA Guidelines Section 15183.5(b), Plans for the Reduction of Greenhouse Gas Emissions.

- OPR hosts the Integrated Climate Adaptation and Resiliency Program, which is developing resources and case studies that outline the co-benefits of implementing emissions reduction strategies and addressing the impacts of climate change.
- CARB is developing a centralized database and interactive map that will display the current statewide status of local government climate action planning. Users can view and compare the details of emission inventories, planned GHG reduction targets and strategies, and other climate action details specific to each local government. This information will help jurisdictions around California identify what climate action strategies are working in other, similar jurisdictions across the State, and will facilitate collaboration among local governments pursuing GHG reduction strategies and goals. This database and map will be featured on the [CoolCalifornia.org](http://CoolCalifornia.org) website and are anticipated to be available in 2017.
- Additional information on local government activities is available on Cal-Adapt ([www.cal-adapt.org](http://www.cal-adapt.org)) and OPR ([www.opr.ca.gov](http://www.opr.ca.gov))

Further, a significant portion of the \$3.4 billion in cap-and-trade expenditures has either directly or indirectly supported local government efforts to reduce emissions, including, for example, the Affordable Housing and Sustainable Communities (AHSC) program and approximately \$142 million for project implementation and planning grants awarded under the Transformative Climate Communities program.

## Climate Action through Local Planning and Permitting

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Local government efforts to reduce emissions within their jurisdiction are critical to achieving the State's long-term GHG goals, and can also provide important co-benefits, such as improved air quality, local economic benefits, more sustainable communities, and an improved quality of life. To support local governments in their efforts to reduce GHG emissions, the following guidance is provided. This guidance should be used in coordination with OPR's General Plan Guidelines guidance in Chapter 8, Climate Change.<sup>240</sup> While this guidance is provided out of the recognition that local policy makers are critical in reducing the carbon footprint of cities and counties, the decision to follow this guidance is voluntary and should not be interpreted as a directive or mandate to local governments.

### Recommended Local Plan-Level Greenhouse Gas Emissions Reduction Goals

CARB recommends statewide targets of no more than six metric tons CO<sub>2</sub>e per capita by 2030 and no more than two metric tons CO<sub>2</sub>e per capita by 2050.<sup>241</sup> The statewide per capita targets account for all emissions sectors in the State, statewide population forecasts, and the statewide reductions necessary to achieve the 2030 statewide target under SB 32 and the longer term State emissions reduction goal of 80 percent below 1990 levels by 2050.<sup>242</sup> The statewide per capita targets are also consistent with Executive Order S-3-05, B-30-15, and the Under 2 MOU that California originated with Baden-Württemberg and has now been signed or endorsed by 188 jurisdictions representing 39 countries and six continents.<sup>243,244</sup> Central to the Under 2 MOU is that all signatories agree to reduce their GHG emissions to two metric tons CO<sub>2</sub>e per capita by 2050. This limit represents California's and these other governments' recognition of their "fair share" to reduce GHG emissions to the scientifically based levels to limit global warming below two degrees Celsius. This limit is also consistent with the Paris Agreement, which sets out a global action plan to put the world on track to avoid dangerous climate change by limiting global warming to below 2°C.<sup>245</sup>

CARB recommends that local governments evaluate and adopt robust and quantitative locally-appropriate

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240 <http://opr.ca.gov/planning/general-plan/>.

241 These goals are appropriate for the plan level (city, county, subregional, or regional level, as appropriate), but not for specific individual projects because they include all emissions sectors in the State.

242 This number represents the 2030 and 2050 targets divided by total population projections from California Department of Finance.

243 <http://under2mou.org/> California signed the Under 2 MOU on May 19, 2015. See [under2mou.org/wp-content/uploads/2015/05/California-appendix-English.pdf](http://under2mou.org/wp-content/uploads/2015/05/California-appendix-English.pdf) and [under2mou.org/wp-content/uploads/2015/05/California-Signature-Page.pdf](http://under2mou.org/wp-content/uploads/2015/05/California-Signature-Page.pdf).

244 The Under 2 MOU signatories include jurisdictions ranging from cities to countries to multiple-country partnerships. Therefore, like the goals set forth above for local and regional climate planning, the Under 2 MOU is scalable to various types of jurisdictions.

245 UNFCCC. The Paris Agreement. [unfccc.int/paris\\_agreement/items/9485.php](http://unfccc.int/paris_agreement/items/9485.php)

goals that align with the statewide per capita targets and the State's sustainable development objectives and develop plans to achieve the local goals. The statewide per capita goals were developed by applying the percent reductions necessary to reach the 2030 and 2050 climate goals (i.e., 40 percent and 80 percent, respectively) to the State's 1990 emissions limit established under AB 32.

Numerous local governments in California have already adopted GHG emissions reduction goals for year 2020 consistent with AB 32. CARB advises that local governments also develop community-wide GHG emissions reduction goals necessary to reach 2030 and 2050 climate goals. Emissions inventories and reduction goals should be expressed in mass emissions, per capita emissions, and service population emissions. To do this, local governments can start by developing a community-wide GHG emissions target consistent with the accepted protocols as outlined in OPR's General Plan Guidelines Chapter 8: Climate Change. They can then calculate GHG emissions thresholds by applying the percent reductions necessary to reach 2030 and 2050 climate goals (i.e., 40 percent and 80 percent, respectively) to their community-wide GHG emissions target. Since the statewide per capita targets are based on the statewide GHG emissions inventory that includes all emissions sectors in the State, it is appropriate for local jurisdictions to derive evidence-based local per capita<sup>246</sup> goals based on local emissions sectors and population projections that are consistent with the framework used to develop the statewide per capita targets. The resulting GHG emissions trajectory should show a downward trend consistent with the statewide objectives. The recommendation for a community-wide goal expands upon the reduction of 15 percent from "current" (2005-2008) levels by 2020 as recommended in the 2008 Scoping Plan.<sup>247</sup>

In developing local plans, local governments should refer to "The U.S. Community Protocol for Accounting and Reporting of Greenhouse Gas Emissions,"<sup>248</sup> (community protocol) which provides detailed guidance on completing a GHG emissions inventory at the community scale in the United States – including emissions from businesses, residents, and transportation. Quantification tools such as ClearPath California, which was developed with California agencies, also support the analysis of community-scale GHG emissions. Per the community protocol, these plans should disclose all emissions within the defined geographical boundary, even those over which the local government has no regulatory authority to control, and then focus the strategies on those emissions that the jurisdiction controls. For emissions from transportation, the community protocol recommends including emissions from trips that extend beyond the community's boundaries. Local plans should also include the carbon sequestration values associated with natural and working lands, and the importance of jurisdictional lands for water, habitat, agricultural, and recreational resources. Strategies developed to achieve the local goals should prioritize mandatory measures that support the Governor's "Five Pillars" and other key state climate action goals.<sup>249</sup> Examples of plan-level GHG reduction actions that could be implemented by local governments are listed in Appendix B. Additional information and tools on how to develop GHG emissions inventories and reduction plans tied to general plans can be found in OPR's General Plan Guidelines and at [CoolCalifornia.org](http://CoolCalifornia.org).

These local government recommendations are based on the recognition that California must accommodate population and economic growth in a far more sustainable manner than in the past. While state-level investments, policies, and actions play an important role in shaping growth and development patterns, regional and local governments and agencies are uniquely positioned to influence the future of the built environment and its associated GHG emissions. Greenhouse gas emissions reduction strategies in Climate Action Plans (CAPs) and other local plans can also lead to important co-benefits, such as improved air quality, local economic benefits such as green jobs, more mobility choices, improved public health and quality of life, protection of locally, statewide, and globally important natural resources, and more equitable sharing of these benefits across communities.

Contributions from policies and programs, such as renewable energy and energy efficiency, are helping to achieve the near-term 2020 target, but longer-term targets cannot be achieved without land use decisions that allow more efficient use and management of land and infrastructure. Local governments have primary authority to plan, zone, approve, and permit how and where land is developed to accommodate population growth, economic growth, and the changing needs of their jurisdictions. Land use decisions affect GHG emissions associated with transportation, water use, wastewater treatment, waste generation and treatment, energy consumption, and conversion of natural and working lands. Local land use decisions play a particularly

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246 Or some other metric that the local jurisdiction deems appropriate (e.g., mass emissions, per service population)

247 2008 Scoping Plan, page 27, [www.arb.ca.gov/cc/scopingplan/document/scopingplandocument.htm](http://www.arb.ca.gov/cc/scopingplan/document/scopingplandocument.htm)

248 <http://icleiusa.org/publications/us-community-protocol/>

249 [www.arb.ca.gov/cc/pillars/pillars.htm](http://www.arb.ca.gov/cc/pillars/pillars.htm)

critical role in reducing GHG emissions associated with the transportation sector, both at the project level, and in long-term plans, including general plans, local and regional climate action plans, specific plans, transportation plans, and supporting sustainable community strategies developed under SB 375.

While the State can do more to accelerate and incentivize these local decisions, local actions that reduce VMT are also necessary to meet transportation sector-specific goals and achieve the 2030 target under SB 32. Through developing the Scoping Plan, CARB staff is more convinced than ever that, in addition to achieving GHG reductions from cleaner fuels and vehicles, California must also reduce VMT. Stronger SB 375 GHG reduction targets will enable the State to make significant progress toward needed reductions, but alone will not provide the VMT growth reductions needed; there is a gap between what SB 375 can provide and what is needed to meet the State's 2030 and 2050 goals. In its evaluation of the role of the transportation system in meeting the statewide emissions targets, CARB determined that VMT reductions of 7 percent below projected VMT levels in 2030 (which includes currently adopted SB 375 SCSs) are necessary. In 2050, reductions of 15 percent below projected VMT levels are needed. A 7 percent VMT reduction translates to a reduction, on average, of 1.5 miles/person/day from projected levels in 2030. It is recommended that local governments consider policies to reduce VMT to help achieve these reductions, including: land use and community design that reduces VMT; transit oriented development; street design policies that prioritize transit, biking, and walking; and increasing low carbon mobility choices, including improved access to viable and affordable public transportation and active transportation opportunities. It is important that VMT reducing strategies are implemented early because more time is necessary to achieve the full climate, health, social, equity, and economic benefits from these strategies.

Once adopted, the plans and policies designed to achieve a locally-set GHG goal can serve as a performance metric for later projects. Sufficiently detailed and adequately supported GHG reduction plans (including CAPs) also provide local governments with a valuable tool for streamlining project-level environmental review. Under CEQA, individual projects that comply with the strategies and actions within an adequate local CAP can streamline the project-specific GHG analysis.<sup>250</sup> The California Supreme Court recently called out this provision in CEQA as allowing tiering from a geographically specific GHG reduction plan.<sup>251</sup> The Court also recognized that GHG determinations in CEQA should be consistent with the statewide Scoping Plan goals, and that CEQA documents taking a goal-consistency approach may soon need to consider a project's effects on meeting the State's longer term post-2020 goals.<sup>252</sup> The recommendation above that local governments develop local goals tied to the statewide per capita goals of six metric tons CO<sub>2</sub>e by 2030 and no more than two metric tons CO<sub>2</sub>e per capita by 2050 provides guidance on CARB's view on what would be consistent with the 2017 Scoping Plan and the State's long-term goals.

Production based inventories and emissions reduction programs are appropriate for local communities wanting to mitigate their emissions pursuant to CEQA Section 15183.5(b). Consumption based inventories are complementary to production based inventories and are appropriate as a background setting, disclosure, and as an outreach tool to show how personal decisions may change a person's or household's contribution to climate change. For additional information, see the OPR General Plan Guidelines.<sup>253</sup>

## Project-Level Greenhouse Gas Emissions Reduction Actions and Thresholds

Beyond plan-level goals and actions, local governments can also support climate action when considering discretionary approvals and entitlements of individual projects through CEQA. Absent conformity with an adequate geographically-specific GHG reduction plan as described in the preceding section above, CARB recommends that projects incorporate design features and GHG reduction measures, to the degree feasible, to minimize GHG emissions. Achieving no net additional increase in GHG emissions, resulting in no contribution to GHG impacts, is an appropriate overall objective for new development. There are recent examples of land use development projects in California that have demonstrated that it is feasible to design projects that achieve zero net additional GHG emissions. Several projects have received certification from the Governor under AB 900, the Jobs and Economic Improvement through Environmental Leadership Act (Buchanan, Chapter 354, Statutes of 2011), demonstrating an ability to design economically viable projects that create jobs while contributing no net additional GHG emissions.<sup>254</sup> Another example is the Newhall

250 CEQA Guidelines, § 15183.5, sub. (b).

251 Center for Biological Diversity v. California Dept. of Fish and Wildlife (2015) 62 Cal.4th 204, 229–230.

252 Id. at pp. 223–224.

253 <http://opr.ca.gov/planning/general-plan/>.

254 Governor's Office of Planning and Research. California Jobs. <http://www.opr.ca.gov/ceqa/california-jobs.html>

Ranch Resource Management and Development Plan and Spineflower Conservation Plan,<sup>255</sup> in which the applicant, Newhall Land and Farming Company, proposed a commitment to achieve net zero GHG emissions for a very large-scale residential and commercial specific planned development in Santa Clarita Valley.

Achieving net zero increases in GHG emissions, resulting in no contribution to GHG impacts, may not be feasible or appropriate for every project, however, and the inability of a project to mitigate its GHG emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA. Lead agencies have the discretion to develop evidence-based numeric thresholds (mass emissions, per capita, or per service population) consistent with this Scoping Plan, the State's long-term GHG goals, and climate change science.<sup>256</sup>

To the degree a project relies on GHG mitigation measures, CARB recommends that lead agencies prioritize on-site design features that reduce emissions, especially from VMT, and direct investments in GHG reductions within the project's region that contribute potential air quality, health, and economic co-benefits locally. For example, on-site design features to be considered at the planning stage include land use and community design options that reduce VMT, promote transit oriented development, promote street design policies that prioritize transit, biking, and walking, and increase low carbon mobility choices, including improved access to viable and affordable public transportation, and active transportation opportunities. Regionally, additional GHG reductions can be achieved through direct investment in local building retrofit programs that can pay for cool roofs, solar panels, solar water heaters, smart meters, energy efficient lighting, energy efficient appliances, energy efficient windows, insulation, and water conservation measures for homes within the geographic area of the project. These investments generate real demand side benefits and local jobs, while creating the market signals for energy efficient products, some of which are produced in California. Other examples of local direct investments include financing installation of regional electric vehicle (EV) charging stations, paying for electrification of public school buses, and investing in local urban forests.

Local direct investments in actions to reduce GHG emissions should be supported by quantification methodologies that show the reductions are real, verifiable, quantifiable, permanent, and enforceable. Where further project design or regional investments are infeasible or not proven to be effective, it may be appropriate and feasible to mitigate project emissions through purchasing and retiring carbon credits. CAPCOA has developed the GHG Reduction Exchange (GHG Rx) for CEQA mitigation, which could provide credits to achieve additional reductions. It may also be appropriate to utilize credits issued by a recognized and reputable voluntary carbon registry. Appendix B includes examples of on-site project design features, mitigation measures, and direct regional investments that may be feasible to minimize GHG emissions from land use development projects.

California's future climate strategy will require increased focus on integrated land use planning to support livable, transit-connected communities, and conservation of agricultural and other lands. Accommodating population and economic growth through travel- and energy-efficient land use provides GHG-efficient growth, reducing GHGs from both transportation and building energy use.<sup>257</sup> GHGs can be further reduced at the project level through implementing energy-efficient construction and travel demand management approaches.<sup>258</sup> Further, the State's understanding of transportation impacts continues to evolve. The CEQA Guidelines are being updated to focus the analysis of transportation impacts on VMT. OPR's Technical Advisory includes methods of analysis of transportation impacts, approaches to setting significance thresholds, and includes examples of VMT mitigation under CEQA.<sup>259</sup>

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255 <https://nrm.dfg.ca.gov/documents/ContextDocs.aspx?cat=NewhallRanchFinal>

256 CARB provided some guidance on development project thresholds in a paper issued in October 2008, which included a concept utilizing a bright-line mass numeric threshold based on capturing approximately 90 percent of emissions in that sector and a concept of minimum performance based standards. Some districts built upon that work to develop thresholds. For example, Santa Barbara County adopted a bright-line numeric threshold of 1,000 MTCO<sub>2</sub>e/yr for industrial stationary-source projects, and Sacramento Metropolitan Air Quality Management District adopted a 10,000 MTCO<sub>2</sub>e/yr threshold for stationary source projects and a 1,100 MTCO<sub>2</sub>e/yr threshold for construction activities and land development projects in their operational phase. CARB is not endorsing any one of these approaches, but noting them for informational purposes.

257 Robert Cervero, Jim Murakami; Effects of Built Environment on Vehicle Miles Traveled: Evidence from 370 US Urbanized Areas. *Environment and Planning A*, Vol 42, Issue 2, pp. 400-418, February-01-2010; Ewing, R., & Rong, F. (2008). The impact of urban form on U.S. residential energy use. *Housing Policy Debate*, 19 (1), 1-30.

258 CAPCOA, *Quantifying Greenhouse Gas Mitigation Measures: A Resource for Local Government to Assess Emission Reductions from Greenhouse Gas Mitigation Measures*, August, 2010.

259 <http://www.opr.ca.gov/ceqa/updates/sb-743/>

## Implementing the Scoping Plan

This Scoping Plan outlines the regulations, programs, and other mechanisms needed to reduce GHG emissions in California. CARB and other State agencies will work closely with State and local agencies, stakeholders, Tribes, and the public to develop regulatory measures and other programs to implement the Scoping Plan. CARB and other State agencies will develop regulations in accordance with established rulemaking guidelines. Per Executive Order B-30-15, as these regulatory measures and other programs are developed, building programs for climate resiliency must also be a consideration. Additionally, agencies will further collaborate and work to provide the institutional support needed to overcome barriers that may currently hinder certain efforts to reduce GHG emissions and to support the goals, actions, and measures identified for key sectors in Chapter 4. Table 17 provides a high-level summary of the Climate Change Policies and Measures discussed in the Scoping Plan, including, but not limited to, those identified specifically to achieve the 2030 target.

**TABLE 17: CLIMATE CHANGE POLICIES AND MEASURES**

| Recommended Action                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Lead Agency                                                    |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| Implement SB 350 by 2030: <ul style="list-style-type: none"> <li>• Increase the Renewables Portfolio Standard to 50 percent of retail sales by 2030 and ensure grid reliability.</li> <li>• Establish annual targets for statewide energy efficiency savings and demand reduction that will achieve a cumulative doubling of statewide energy efficiency savings in electricity and natural gas end uses by 2030.</li> <li>• Reduce GHG emissions in the electricity sector through the implementation of the above measures and other actions as modeled in IRPs to meet GHG emissions reductions planning targets in the IRP process. Load-serving entities and publicly-owned utilities meet GHG emissions reductions planning targets through a combination of measures as described in IRPs.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | CPUC, CEC, CARB                                                |
| Implement Mobile Source Strategy (Cleaner Technology and Fuels): <ul style="list-style-type: none"> <li>• At least 1.5 million zero emission and plug-in hybrid light-duty electric vehicles by 2025.</li> <li>• At least 4.2 million zero emission and plug-in hybrid light-duty electric vehicles by 2030.</li> <li>• Further increase GHG stringency on all light-duty vehicles beyond existing Advanced Clean Cars regulations.</li> <li>• Medium- and heavy-duty GHG Phase 2.</li> <li>• Innovative Clean Transit: Transition to a suite of to-be-determined innovative clean transit options. Assumed 20 percent of new urban buses purchased beginning in 2018 will be zero emission buses with the penetration of zero-emission technology ramped up to 100 percent of new sales in 2030. Also, new natural gas buses, starting in 2018, and diesel buses, starting in 2020, meet the optional heavy-duty low-NO<sub>x</sub> standard.</li> <li>• Last Mile Delivery: New regulation that would result in the use of low NO<sub>x</sub> or cleaner engines and the deployment of increasing numbers of zero-emission trucks primarily for class 3-7 last mile delivery trucks in California. This measure assumes ZEVs comprise 2.5 percent of new Class 3–7 truck sales in local fleets starting in 2020, increasing to 10 percent in 2025 and remaining flat through 2030.</li> <li>• Further reduce VMT through continued implementation of SB 375 and regional Sustainable Communities Strategies; forthcoming statewide implementation of SB 743; and potential additional VMT reduction strategies not specified in the Mobile Source Strategy but included in the document “Potential VMT Reduction Strategies for Discussion.”</li> </ul> | CARB, CalSTA, SGC, CalTrans<br>CEC, OPR, Local agencies        |
| Increase stringency of SB 375 Sustainable Communities Strategy (2035 targets).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | CARB                                                           |
| By 2019, adjust performance measures used to select and design transportation facilities. <ul style="list-style-type: none"> <li>• Harmonize project performance with emissions reductions, and increase competitiveness of transit and active transportation modes (e.g. via guideline documents, funding programs, project selection, etc.).</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | CalSTA and SGC, OPR, CARB, GoBiz,<br>IBank, DOF, CTC, Caltrans |
| By 2019, develop pricing policies to support low-GHG transportation (e.g. low-emission vehicle zones for heavy duty, road user, parking pricing, transit discounts).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | CalSTA, Caltrans, CTC, OPR/SGC,<br>CARB                        |

| Recommended Action                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Lead Agency                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| Implement California Sustainable Freight Action Plan: <ul style="list-style-type: none"> <li>Improve freight system efficiency.</li> <li>Deploy over 100,000 freight vehicles and equipment capable of zero emission operation and maximize both zero and near-zero emission freight vehicles and equipment powered by renewable energy by 2030.</li> </ul>                                                                                                                                                                                                                                                        | CalSTA, CalEPA, CNRA, CARB, CalTrans, CEC, GoBiz   |
| Adopt a Low Carbon Fuel Standard with a CI reduction of 18 percent.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | CARB                                               |
| Implement the Short-Lived Climate Pollutant Strategy by 2030: <ul style="list-style-type: none"> <li>40 percent reduction in methane and hydrofluorocarbon emissions below 2013 levels.</li> <li>50 percent reduction in black carbon emissions below 2013 levels.</li> </ul>                                                                                                                                                                                                                                                                                                                                      | CARB, CalRecycle, CDFR, SWRCB, Local air districts |
| By 2019, develop regulations and programs to support organic waste landfill reduction goals in the SLCP and SB 1383.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CARB, CalRecycle, CDFR, SWRCB, Local air districts |
| Implement the post-2020 Cap-and-Trade Program with declining annual caps.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | CARB                                               |
| By 2018, develop Integrated Natural and Working Lands Implementation Plan to secure California’s land base as a net carbon sink: <ul style="list-style-type: none"> <li>Protect land from conversion through conservation easements and other incentives.</li> <li>Increase the long-term resilience of carbon storage in the land base and enhance sequestration capacity</li> <li>Utilize wood and agricultural products to increase the amount of carbon stored in the natural and built environments</li> <li>Establish scenario projections to serve as the foundation for the Implementation Plan</li> </ul> | CNRA and departments within, CDFR, CalEPA, CARB    |
| Establish a carbon accounting framework for natural and working lands as described in SB 859 by 2018                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | CARB                                               |
| Implement Forest Carbon Plan                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | CNRA, CAL FIRE, CalEPA and departments within      |
| Identify and expand funding and financing mechanisms to support GHG reductions across all sectors.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | State Agencies & Local Agencies                    |

## A Comprehensive Approach to Support Climate Action

Ultimately, successfully tipping the scales in the fight against climate change relies on our ability to incentivize clean technologies in the marketplace and to make other climate strategies clearly understood and easily accessible. We must support and guide our businesses as they continue to innovate and make clean technologies ever more attractive to ever more savvy consumers. Until the point that clean technologies become the best and lowest cost option—which is clearly on the horizon for many technologies, including renewable energy and electric cars—we must continue to support emerging markets through incentives and outreach efforts. More than just coordinating among agencies and providing institutional support as described above, we will succeed if we tackle climate change from all angles—through regulatory and policy development, targeted incentives, and education and outreach.

### Regulations and Programmatic Development

Our decade of climate leadership has demonstrated that developing mitigation strategies through a public process, where all stakeholders have a voice, leads to effective actions that address climate change and yield a series of additional economic and environmental co-benefits to the State. As we implement this Scoping Plan, State agencies will continue to develop and implement new and existing programs, as described herein. During any rulemaking process, there are many opportunities for both informal interaction with technical staff in meetings and workshops, and formal interaction at Board meetings, Commission business meetings, monthly public meetings, and others. Each State agency will consider all information and stakeholder input during the rulemaking process. Based on this information, the agency may modify proposed measures to reflect the status of technological development, the cost of the measure, the cost-effectiveness of the measures, and other factors before presenting them for consideration and adoption.

Further, to achieve cost-effective GHG reductions, California State agencies must consider the environmental impact of small businesses and provide mechanisms to assist businesses as GHG reduction measures are

implemented. CARB provides resources and tips for small businesses to prevent pollution, minimize waste, and save energy and water on [CoolCalifornia.org](http://CoolCalifornia.org). California's small businesses and their employees represent a valuable economic resource in the State and "greening" existing businesses is not only achievable, but sets an example for new businesses which will prove significant as California transitions to a low carbon state.

State agencies conduct environmental and environmental justice assessments of our regulatory actions. Many of the requirements in AB 32 overlap with traditional agency evaluations. In adopting regulations to implement the measures recommended in the Scoping Plan, or including in the regulations the use of market-based compliance mechanisms to comply with the regulations, agencies will ensure that the measures have undergone the aforementioned screenings and meet the requirements established in California Health and Safety Code Section 38562(b)(1-9) and Section 38570(b)(1-3).

## **Incentive Programs**

Financial incentives and direct funding are critical components of the State's climate framework. In particular, incentives and funding are necessary to support GHG emissions reductions strategies for priority sectors, sources, and technologies. Although California has a number of existing incentive programs, available funding is limited. It is critical to target public investments efficiently and in ways that encourage integrated, system wide solutions to produce deep and lasting public benefits. Significant investments of private capital, supported by targeted, priority investments of public funding, are necessary to scale deployment and to maximize benefits. Public investments, including through decisions related to State pension fund portfolios, can help incentivize early action to accelerate market transition to cleaner technologies and cleaner practices, which can also be supported by regulatory measures.

Many existing State funding programs work in tandem to reduce emissions from GHGs, criteria pollutants, and toxic air contaminants, and are helping to foster the transition to a clean energy economy and protect and manage land for carbon sequestration. State law, including Senate Bill 535 (De León, Chapter 830, Statutes of 2012) and Assembly Bill 1550 (Gomez, Chapter 369, Statutes of 2016) also requires focused investment in low income and disadvantaged communities.

The State will need to continue to coordinate and utilize funding sources, such as the Greenhouse Gas Reduction Fund (cap-and-trade auction proceeds), the Alternative and Renewable Fuel and Vehicle Technology Program (AB 118), Electric Program Investment Charge (EPIC) Program, Carl Moyer Program, Air Quality Improvement Program, and Proposition 39 to expand clean energy investments in California and further reduce GHG and criteria emissions. Additionally, programs including the Bioenergy Feed-In Tariff, created by Senate Bill 1122 (Rubio, Chapter 612, Statutes of 2012), Low Carbon Fuel Standard, Cap-and-Trade, Self-Generation Incentive Program, Federal Renewable Fuel Standard, utility incentives pursuant to Assembly Bill 1900 (Gatto, Chapter 602, Statutes of 2012), and others provide important market signals and potential revenue streams to support projects to reduce GHG emissions.

These programs represent just a portion of the opportunities that exist at the federal, State, and local levels to incentivize GHG emissions reductions. The availability of dedicated and long-lasting funding sources is critical to help meet the State's climate objectives and help provide certainty and additional partnership opportunities at the national, State, Tribal, regional, and local levels for further investing in projects that have the potential to expand investments in California's clean economy and further reductions in GHG emissions.

## **Public Education and Outreach Efforts**

California State agencies are committed to meaningful opportunities for public input and effective engagement with stakeholders and the public through the development of the Scoping Plan, and as measures are implemented through workshops, other meetings, and through the formal rulemaking process. Additionally, the State has broad public education and outreach campaigns to support markets for key technologies, like ZEVs and energy efficiency, as well as resources to support local and voluntary actions, such as [CoolCalifornia.org](http://CoolCalifornia.org).

In developing this Scoping Plan, there has been extensive outreach with environmental justice organizations and disadvantaged communities. The EJAC launched a community engagement process starting in July 2016, conducting 19 community meetings throughout the State and collecting hundreds of individual comments. To enhance the engagement opportunity, CARB coordinated with local government agencies and sister State agencies to hold collaborative discussions with local residents about specific climate issues that impact their

lives. This effort was well received and attended by local community residents and initiated a new community engagement endeavor for CARB. Recognizing the value of the input received and the opportunity to present California's climate strategy to communities across the State, CARB intends to continue this community involvement to generate awareness about California's climate strategy and be responsive to specific community needs as climate programs are implemented.



## EDUCATION AND ENVIRONMENT INITIATIVE

The California Environmental Protection Agency (CalEPA), the California Department of Education, and the California Natural Resources Agency have developed an environmental curriculum that is being taught in more than half of California's school districts. The [Education and Environment Initiative](#) (EEI) provides California's teachers with tools to educate students about the natural environment and how everyday choices can improve our planet and save money.

## Conclusion

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This Scoping Plan continues more than a half-century of California's nation-leading efforts to clean our air, our water and improve the environment. But, climate change poses a challenge of unprecedented proportions that will, in one way or another, impact all Californians whether they are city dwellers in Los Angeles, San Diego or San Francisco, farmers in Salinas or the Central Valley, or the millions of Californians who live in the Sierra or in the desert areas.

This is the State's climate action plan, and in a very real sense it belongs to all those Californians who are feeling, and will continue to feel, the impacts of climate change. Californians want to see continued effective action that addresses climate change and benefits California – this Plan responds to both of these goals. The Plan was developed by the coordinated consensus of State agencies, but it is really California's Plan, because over the coming decades the approaches in this document will be carried out by all of us.

In this Scoping Plan, every sector in our thriving economy plays a crucial role. Tribes, cities, and local governments are already rising to the challenge, and will play increasingly important roles with everything from low-carbon and cleaner transit, to more walkable streets and the development of vibrant urban communities.

We will see a remarkable transformation of how we move throughout the state, away from cars that burn fossil fuels to cleaner, electric cars that will, in some cases, even drive themselves. Freight will be moved around the state by trucks that are vastly cleaner than those on the road now, with our ports moving towards zero- and near-zero emissions technologies. The heavily traveled Los Angeles-San Francisco corridor will be serviced by comfortable, clean and affordable high speed rail.

In addition to reducing GHGs, these efforts will slash pollution now created from using gasoline and diesel fuel statewide, with the greatest benefits going to the disadvantaged communities of our state which are so often located adjacent to ports, railyards, freight distribution centers and freeways. And, thanks to the continued investment of proceeds from the Cap-and-Trade Program in these same communities, we can continue to work on bringing the benefits of clean technology – whether electric cars or solar roofs – to those in our state who need them the most.

Climate change presents us with unprecedented challenges – challenges that cannot be met with traditional ways of thinking or conventional solutions. As Governor Brown has recognized, meeting these challenges will require "courage, creativity and boldness." The last ten years proved to ourselves, and the world, that Californians recognize the danger of climate change. It has also demonstrated that developing mitigation strategies through a public process where all stakeholders have a voice leads to effective actions that address climate change while yielding a series of co-benefits to the state. This Scoping Plan builds on those early steps and moves into a new chapter that will deliver a thriving economy and a clean environment to our children and grandchildren. It is a commitment to the future, but it begins today by moving forward with the policies in this Plan.

# ABBREVIATIONS

|                        |                                                               |
|------------------------|---------------------------------------------------------------|
| <b>AB</b>              | Assembly Bill                                                 |
| <b>AC</b>              | air conditioning                                              |
| <b>AEO</b>             | Annual Energy Outlook                                         |
| <b>AHSC</b>            | Affordable Housing and Sustainable Communities                |
| <b>ARFVTP</b>          | Alternative and Renewable Fuel and Vehicle Technology Program |
| <b>BARCT</b>           | best available retrofit control technology                    |
| <b>BAU</b>             | business-as-usual                                             |
| <b>BC</b>              | British Columbia                                              |
| <b>BEV</b>             | Battery-electric vehicle                                      |
| <b>CARB</b>            | California Air Resources Board                                |
| <b>CAISO</b>           | California Independent System Operator                        |
| <b>CalEPA</b>          | California Environmental Protection Agency                    |
| <b>CALGreen</b>        | California Green Building Standards                           |
| <b>CalPERS</b>         | California Public Employees' Retirement System                |
| <b>CalSTA</b>          | California State Transportation Agency                        |
| <b>CalSTRS</b>         | California State Teachers' Retirement System                  |
| <b>CAP</b>             | Climate Action Plan                                           |
| <b>CARE</b>            | California Alternate Rates for Energy Program                 |
| <b>CDFA</b>            | California Department of Food and Agriculture                 |
| <b>CDPH</b>            | California Department of Public Health                        |
| <b>CEC</b>             | California Energy Commission                                  |
| <b>CEQA</b>            | California Environmental Quality Act                          |
| <b>CFT</b>             | Clean Fuels and Technology                                    |
| <b>CH<sub>4</sub></b>  | Methane                                                       |
| <b>CI</b>              | carbon intensity                                              |
| <b>CNRA</b>            | California Natural Resources Agency                           |
| <b>CO<sub>2</sub></b>  | carbon dioxide                                                |
| <b>CO<sub>2</sub>e</b> | carbon dioxide equivalent                                     |
| <b>COPD</b>            | chronic obstructive pulmonary disease                         |
| <b>CPUC</b>            | California Public Utilities Commission                        |
| <b>CSI</b>             | California Solar Initiative                                   |
| <b>dge</b>             | diesel gallon equivalent                                      |
| <b>DWR</b>             | California Department of Water Resources                      |
| <b>EA</b>              | Environmental Analysis                                        |
| <b>EEI</b>             | Education and Environment Initiative                          |
| <b>EIR</b>             | Environmental Impact Report                                   |
| <b>EJAC</b>            | Environmental Justice Advisory Committee                      |

|                     |                                                                  |
|---------------------|------------------------------------------------------------------|
| EO                  | Executive Order                                                  |
| EPIC                | Electric Program Investment Charge Program                       |
| F-gases             | fluorinated gases                                                |
| FCEV                | Fuel-cell electric vehicle                                       |
| FERA                | Family Electric Rate Assistance                                  |
| GCF                 | Governors' Climate and Forests Task Force                        |
| GDP                 | gross domestic product                                           |
| GGRF                | Greenhouse Gas Reduction Fund                                    |
| GHG                 | greenhouse gas                                                   |
| GoBiz               | Governor's Office of Business and Economic Development           |
| GWP                 | global warming potential                                         |
| HCD                 | California Department of Housing and Community Development       |
| HFC                 | Hydrofluorocarbon                                                |
| HVAC                | heating, ventilation and air conditioning                        |
| ICAP                | International Carbon Action Partnership                          |
| IEPR                | Integrated Energy Policy Report                                  |
| IOU                 | investor-owned utility                                           |
| IPCC                | United Nations Intergovernmental Panel on Climate Change         |
| IRP                 | integrated resource plan                                         |
| IWG                 | Interagency Working Group on the Social Cost of Greenhouse Gases |
| LCFS                | Low Carbon Fuel Standard                                         |
| LCTOP               | Low Carbon Transit Operations Program                            |
| LDV                 | light-duty vehicle                                               |
| LED                 | light-emitting diode                                             |
| LIWP                | Low-Income Weatherization Program                                |
| LOS                 | level of service                                                 |
| MMTCO <sub>2e</sub> | million metric tons of carbon dioxide equivalent                 |
| MOU                 | memorandum of understanding                                      |
| MPO                 | metropolitan planning organization                               |
| MRR                 | Regulation for the Mandatory Reporting of GHG Emissions          |
| MTCO <sub>2</sub>   | metric tons of carbon dioxide                                    |
| MW                  | Megawatt                                                         |
| N <sub>2</sub> O    | nitrous oxide                                                    |
| NAICS               | North American Industry Classification System                    |
| NEM                 | Net-Energy Metering                                              |
| NF <sub>3</sub>     | nitrogen trifluoride                                             |
| NO <sub>x</sub>     | nitrogen oxide                                                   |
| NZE                 | near-zero emission                                               |
| OEHHA               | Office of Environmental Health Hazard Assessment                 |
| OPR                 | Governor's Office of Planning and Research                       |

|                          |                                                       |
|--------------------------|-------------------------------------------------------|
| <b>PEV</b>               | plug-in electric vehicle                              |
| <b>PHEV</b>              | Plug-in hybrid electric vehicle                       |
| <b>PFC</b>               | Perfluorocarbon                                       |
| <b>PM</b>                | particulate matter                                    |
| <b>PM<sub>2.5</sub></b>  | fine particulate matter                               |
| <b>PMR</b>               | Partnership for Market Readiness                      |
| <b>REMI</b>              | Regional Economic Models, Inc.                        |
| <b>RES-BCT</b>           | Renewable Energy Bill Credit                          |
| <b>RNG</b>               | renewable natural gas                                 |
| <b>RPS</b>               | renewable portfolio standard                          |
| <b>RTP</b>               | regional transportation plan                          |
| <b>SB</b>                | Senate bill                                           |
| <b>SCS</b>               | Sustainable Communities Strategies                    |
| <b>SC-CO<sub>2</sub></b> | social cost of carbon                                 |
| <b>SF<sub>6</sub></b>    | sulfur hexafluoride                                   |
| <b>SGC</b>               | Strategic Growth Council                              |
| <b>SGIP</b>              | Self-Generation Incentive Program                     |
| <b>SLCP</b>              | Short-lived climate pollutant                         |
| <b>SWRCB</b>             | State Water Resources Control Board                   |
| <b>TBD</b>               | to be determined                                      |
| <b>TCU</b>               | Transportation Communications and Utilities           |
| <b>TIRCP</b>             | Transit and Intercity Rail Capital Program            |
| <b>UCLA</b>              | University of California, Los Angeles                 |
| <b>UHI</b>               | urban heat island                                     |
| <b>UIC</b>               | International Union of Railways                       |
| <b>UNFCCC</b>            | United Nations Framework Convention on Climate Change |
| <b>USDA</b>              | U.S. Department of Agriculture                        |
| <b>U.S. EPA</b>          | United States Environmental Protection Agency         |
| <b>VMT</b>               | vehicle miles traveled                                |
| <b>WWTP</b>              | waste water treatment plant                           |
| <b>ZE</b>                | zero emission                                         |
| <b>ZEV</b>               | zero emission vehicles                                |

# California's 2030 Vision

## CAP-AND-TRADE

Firm limit on 80% of emissions



## CLEAN ENERGY

At least 50% renewable electricity

Double energy efficiency in existing buildings

## CLEAN FUELS

18% carbon intensity reduction

High density, transit-oriented housing

**NATURAL & WORKING LANDS RESTORATION**  
15-20 million metric tons of reductions

Walkable & bikable communities

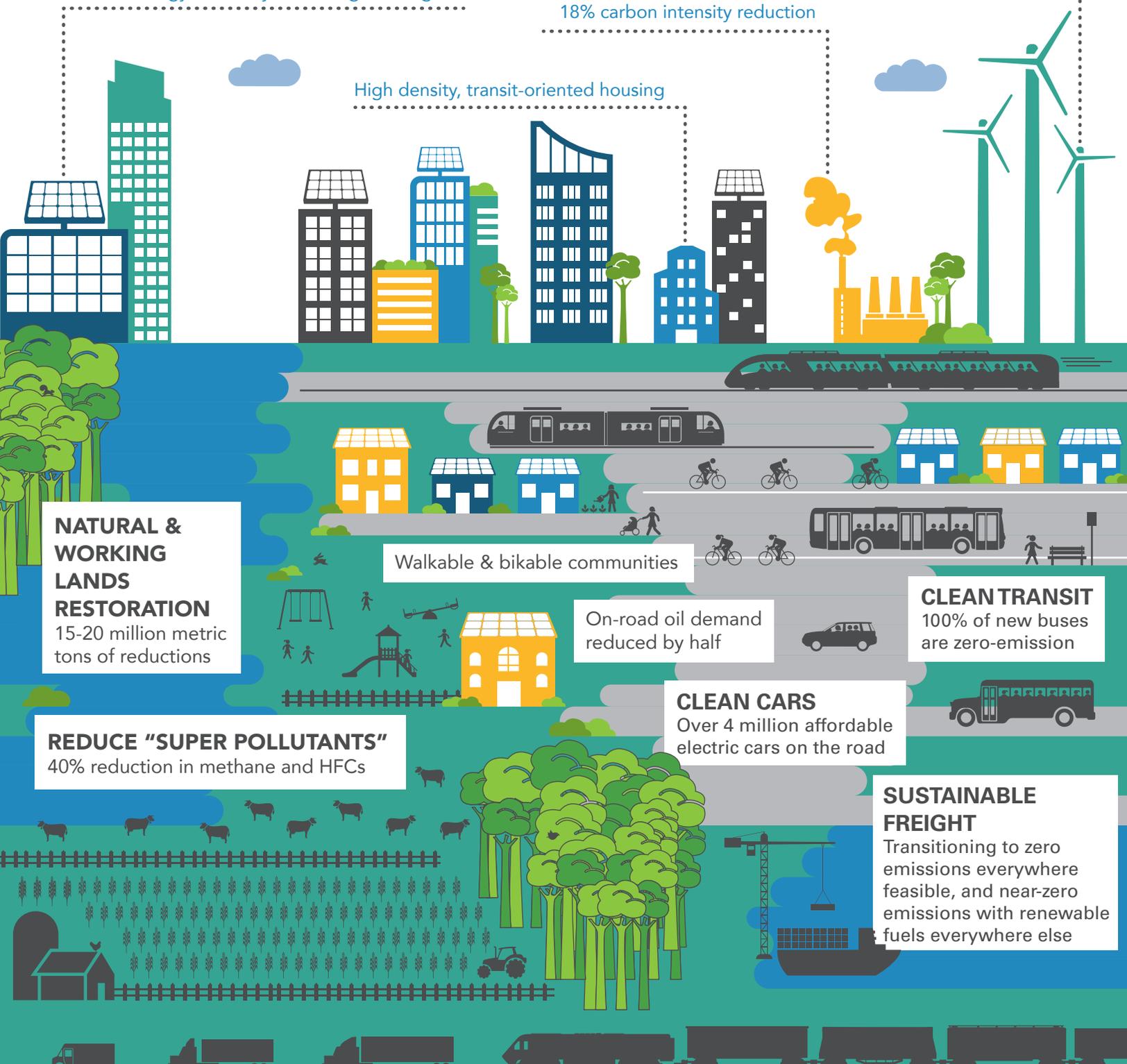
On-road oil demand reduced by half

**CLEAN TRANSIT**  
100% of new buses are zero-emission

**REDUCE "SUPER POLLUTANTS"**  
40% reduction in methane and HFCs

**CLEAN CARS**  
Over 4 million affordable electric cars on the road

**SUSTAINABLE FREIGHT**  
Transitioning to zero emissions everywhere feasible, and near-zero emissions with renewable fuels everywhere else



Attachment D

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County of San Diego Board of Supervisors  
Wednesday, February 14, 2018, 9:00 A.M.  
Agenda Item 1

1 CHAIR KRISTIN GASPAR: We appreciate all  
2 of you for coming here today to make comments on  
3 the Climate Action Plan. Just wanted to give you  
4 a heads up that due to the high volume of speaker  
5 requests, we are going to be hearing each speaker  
6 for a total of 2 minutes for our individuals, and  
7 our group presentations will be a total of 10  
8 minutes.

9 Wanted to make you aware during the  
10 staff presentation in the event you need to trim  
11 your speaking points at all. Of course, as  
12 always, an "I agree" or "I disagree" when you  
13 come forward is very helpful. If you provide us  
14 new testimony, perhaps that we haven't heard, and  
15 reserve your time to say, "I agree with the  
16 points being said, and here's what I have to  
17 add."

18 So, thank you very much. This will help  
19 keep this meeting successful and maximize our  
20 public testimony this morning. I know our staff  
21 has a brief presentation as well this morning,  
22 and they've also agreed to trim it. Right, Mark?  
23 No.

24 MARK WARDLAW: No.

25 CHAIR KRISTIN GASPAR: No such luck.

1 Well, he's going to talk a little faster for us  
2 then. Good morning.

3 MARK WARDLAW: Good morning, Chairwoman  
4 Gaspar and Supervisors. I am Mark Wardlaw,  
5 Director of Planning and Services. This is a  
6 request for the Board of Supervisors to certify  
7 the Final Supplemental Environmental Impact  
8 Report and adopt the revised Climate Action Plan,  
9 including the errata and the supplemental  
10 information modifying Option 3, dated 2/13/2018,  
11 provided to the Board.

12 Presenting with me today are Rami  
13 Talleh, Deputy Director; Mary Kopaskie-Brown,  
14 Chief Advance Planning; and Darin Neufeld,  
15 Planning Manager. A representative of each County  
16 department involved in the development of the  
17 Climate Action Plan is also here to answer  
18 questions and provide information to the Board.

19 Also, the consultants that assisted the  
20 County in preparing the Climate Action Plan,  
21 Ascent Environmental and the University of San  
22 Diego Energy Policies Initiative Center and  
23 Ramboll, Inc., all recognized experts in climate  
24 action planning throughout the state, are also  
25 here to answer questions.

1 Today's presentation will include a  
2 summary of legislative and legal requirements,  
3 the revised Climate Action Plan, public input,  
4 costs, implementation, and the Supplemental  
5 Environmental Impact Report. The staff  
6 recommendation, options, including the modified  
7 Option 3, and the Planning Commission  
8 recommendation for implementing the Climate  
9 Action Plan will also be presented.

10 Legislation was signed by two governors  
11 establishing greenhouse gas reduction targets for  
12 2020 and 2030, and an executive order was issued  
13 establishing greenhouse gas reduction goals for  
14 2050. In 2011, the Board of Supervisors adopted  
15 the General Plan Update that included Mitigation  
16 Measure CC-1.2 that required the County to  
17 prepare an enforceable Climate Action Plan. The  
18 Board of Supervisors adopted the County's first  
19 Climate Action Plan in 2012, which was  
20 subsequently challenged in court. Litigation  
21 concluded in 2015, and the Board of Supervisors  
22 rescinded the Climate Action Plan.

23 Staff then began preparation of a  
24 completely new CEQA-qualified Climate Action  
25 Plan. On January 18th, 2018, the Planning

1 Commission held a hearing to consider the Climate  
2 Action Plan. The Climate Action Plan, along with  
3 the Planning Commission's recommendation, is  
4 being presented to the Board today. The County  
5 will return to court in March 2018.

6 Before developing the Climate Action  
7 Plan, the County reviewed over 40 climate action  
8 plans and sustainability plans from jurisdictions  
9 in California and outside of the state and county  
10 to identify climate action planning best  
11 practices. An inventory of greenhouse gases were-  
12 -emissions were completed by Sector to identify  
13 and quantify the major sources of greenhouse  
14 gases in the unincorporated county and by County  
15 operations county wide.

16 The inventory shows that the county  
17 emitted a total of 3.2 million metric tons of  
18 greenhouse gases in 2014, which is the base year.  
19 The three largest emitters include on-road  
20 transportation, electricity generation, and solid  
21 waste disposal. The County is on track to exceed  
22 the 3.1 million metric ton reduction target for  
23 2020 through State and County actions. The County  
24 must reduce greenhouse gas emissions by a total  
25 of 1.8 million metric tons to reach its 2030

1 reduction target. State actions and legislation,  
2 such as building codes and electrical vehicle  
3 regulations, will achieve reductions of 899,547  
4 metric tons, 50 percent of the 2030 target  
5 reductions.

6 The Climate Action Plan, as being  
7 considered by the Board today, includes actions  
8 required to reduce the County's remaining 2030  
9 target reductions of 897,145 metric tons. The  
10 Climate Action Plan is organized in 5 categories  
11 with 11 strategies and 30 measures. The measures  
12 include existing, expanded, and new programs that  
13 are implemented directly by the County or as  
14 requirements. Some programs include incentives,  
15 such as the vehicle retirement program.

16 The measures are practical, feasible,  
17 and diversified across the five categories to  
18 achieve the 2030 reductions. They are balanced in  
19 approach across tax payers, consumers, and  
20 businesses, with County programs representing 59  
21 percent of the reductions, or over 526,000 metric  
22 tons of the needed 897,145 metric tons of gas  
23 reductions.

24 Rami Talleh will now go over the next  
25 slides and will present the measures in the

1 Climate Action Plan and associated indicators.

2           RAMI TALLEH: Thank you, Mark. The  
3 energy efficiency related measures would reduce  
4 over 72,000 metric tons and include requiring new  
5 development to meet the anticipated state net  
6 zero energy standard, transitioning away from  
7 tank-based natural gas water heaters, requiring  
8 energy efficiency audits for existing buildings,  
9 and improving energy efficiency at County  
10 facilities. This table summarizes the reductions  
11 related to energy efficiency.

12           The renewable electricity related  
13 measures would offset 2.4 million megawatt hours  
14 of energy with renewable electricity in the  
15 unincorporated county and include requiring new  
16 nonresidential development to offset their  
17 electricity use by installing renewable  
18 electricity systems, promoting through incentives  
19 the installation of photovoltaics or solar panels  
20 on existing homes in the county, and achieving 90  
21 percent renewable electricity by 2030. This table  
22 summarizes the reductions related to renewable  
23 electricity that result in over 509,000 metric  
24 tons of reductions.

25           To achieve the 90 percent renewable

1 electricity, Measure E-2.1 establishes a county  
2 renewable energy program for the unincorporated  
3 county. Any renewable energy program could  
4 include a partnership with a public utility,  
5 community choice aggregate, referred to as a CCA,  
6 or expansion of the direct access program.

7 Staff recommends conducting a  
8 comparative analysis of these options for the  
9 program. The comparative analysis would consider  
10 existing and pending state and federal  
11 legislation and regulations, the source for  
12 electricity, whether new or existing, how new  
13 renewable electricity is generated and procured,  
14 participate rates, how rates are set, impacts on  
15 customers, and overall costs to the county to  
16 implement the renewable energy program.

17 The City of San Diego conducted a  
18 feasibility study on establishing a CCA and is  
19 also considering a partnership proposal from San  
20 Diego Gas and Electric, which would require  
21 California Public Utility Commission approval.  
22 Both identify ways to achieve 100 percent  
23 renewable energy for the City of San Diego  
24 residents. Other jurisdictions in the region are  
25 exploring CCAs, including the City of Solana

1 Beach, Riverside County, and jointly the Cities  
2 of Encinitas, Carlsbad, Del Mar, and Oceanside.  
3 Expansion of the direct access program would also  
4 require California Public Utilities Commission  
5 approval and could include both generation and  
6 procurement of renewable electricity.

7 Status updates on CCA feasibility  
8 studies, the outcome of the California Public  
9 Utilities Commission's evaluation on exit fees,  
10 and progress made by the City of San Diego on the  
11 renewable energy program, as directed by the  
12 Board, on February 15th, 2017, would be  
13 incorporated into the recommended comparative  
14 analysis, as would cost estimates for the various  
15 options.

16 Work on the comparative analysis will  
17 begin in 2018, and staff will report back to the  
18 Board in 2019. Based on Board direction at the  
19 time, a renewable energy program would be  
20 developed to commence in 2025 with 90 percent  
21 renewable energy achieved by 2030, based on a  
22 participation rate of 80 percent, which is  
23 consistent with other local jurisdictions. The  
24 cost to develop the renewable energy program is  
25 approximately \$2.2 million.

1           The transportation related measures  
2 respond to the region's diverse landscape of open  
3 space, rural villages, and agricultural lands.  
4 The measures address opportunities and  
5 constraints related to 2.3 million acres in the  
6 county and current opportunities for transit in  
7 the region. Because other jurisdictions, such as  
8 San Diego Association of Governments, North  
9 County Transit District, and the Metropolitan  
10 Transportation Transit System, have  
11 jurisdictional authority over implementing  
12 transit, the County has limited control over  
13 implementing transportation-based strategies.

14           The transportation related measures  
15 would reduce 152 million vehicle miles traveled  
16 and include preserving open space and  
17 agricultural lands, which reduce impacts related  
18 to transportation, energy use, waste, and water  
19 consumption, updating community plans to focus in  
20 the county's villages. As transit is expanded or  
21 becomes available in villages, they'll be  
22 transit-ready to support needed transit ridership  
23 and promote walking and cycling and increasing  
24 opportunities for telecommuting, car-sharing,  
25 vanpools, carpools, shuttles, bicycle parking

1 facilities, and transit subsidies. This table  
2 summarizes the reductions related to the  
3 transportation measures that result in over  
4 33,000 metric tons of reductions.

5 Fleet vehicle related measures would  
6 reduce over 18,000 metric tons of greenhouse  
7 gases and include requiring that construction  
8 vehicles use alternative fuel during new  
9 construction require--retiring older vehicles,  
10 installing 2,040 electrical vehicle charging  
11 stations to replace gas vehicle travel--miles  
12 traveled with electric vehicle miles traveled. A  
13 preliminary evaluation shows 1,500 potential  
14 locations in the unincorporated county where  
15 multiple chargers could be installed and reducing  
16 emissions from the County's vehicle fleets as  
17 operations allow.

18 This will be done by converting to  
19 cleaner fuels, including hybrid and electric. For  
20 vehicles that travel long distances or make  
21 frequent quick stops, the transition would be  
22 slower. This table summarizes the reductions  
23 related to fleet vehicle emissions.

24 Now, Mary Kopaskie-Brown will continue  
25 reviewing the measures and cost implementation

1 for the CAP.

2 MARY KOPASKIE-BROWN: Thank you, Rami.  
3 The solid waste measure would divert 75 percent  
4 of solid waste from landfills. This measure  
5 implements the county's strategic plan to reduce  
6 waste and increase waste diversion. This table  
7 summarizes the measures related to solid waste  
8 category that would result in over 5,700 metric  
9 tons of reductions.

10 The strategic plan to reduce waste set  
11 a goal to achieve 75 percent waste diversion by  
12 2025. Staff recommends including the supplemental  
13 EIR increase solid waste diversion alternative by  
14 continuing implementation along the diversion  
15 trajectory in the strategic plan and extend the  
16 goal to 80 percent waste diversion by 2030. This  
17 would increase the GHG reductions from 57,103 to  
18 79,052 metric tons.

19 The water consumption-related measures  
20 would result in 7.7 billion gallons of potable  
21 water being saved and include requiring water-  
22 efficient appliances and plumbing in new homes,  
23 reducing potable outdoor water use for homes  
24 through rain barrel incentives, and reducing  
25 potable water consumption in County facilities as

1 part of the County's strategic energy plans water  
2 use strategy. This table summarizes the measures  
3 related to water consumption that result in over  
4 17,000 metric tons of reductions.

5 The agriculture related measures would  
6 reduce over 12,000 metric tons of GHG and include  
7 converting farm equipment and stationary  
8 irrigation pumps to electric and increasing  
9 residential and county tree planting what will  
10 support carbon sequestration and carbon farming,  
11 which are themes that emerged as key priorities  
12 for stakeholders. This table summarizes the  
13 reductions related to agriculture.

14 Twenty-nine of the measures in the  
15 Climate Action Plan are specific programs and/or  
16 regulations. Measure T-4.1 establishes a local  
17 direct investment program that includes 51  
18 project methodologies that could reduce GHG in  
19 the unincorporated county. A preliminary  
20 assessment or survey of these project  
21 methodologies was completed. The survey included  
22 only those projects listed on one of the air  
23 resource board approved offset project  
24 registries, such as the American Carbon Registry,  
25 Climate Action Reserve, or Verified Carbon

1 Standard.

2           The County would develop and fund  
3 specific projects initiated locally. The County  
4 would invest its own funding and resources and  
5 identify grants and partnerships to achieve these  
6 reductions. Examples of projects could--that  
7 could be undertaken include weatherization of  
8 older buildings that target energy-efficiency  
9 improvements including insulation, air ceiling,  
10 and replacing appliances and central and heating  
11 cooling components, improving grassland  
12 management that includes changes to agricultural  
13 practices, grassland and rangeland restoration,  
14 soil carbon protection, and benefits from reduced  
15 erosion, and adopting alternative fertilizer and  
16 manure management that considers fertilizer type  
17 placement and timing of application.

18           Project methodologies can be scaled and  
19 implemented to meet the specific greenhouse gas  
20 emission reduction needs as the County implements  
21 the CAP to meet the 2030 reduction target. As an  
22 adaptive program, the local direct investment  
23 program would leverage and implement emerging  
24 technologies, identify partnerships that assist  
25 in reducing GHGs, respond to consumer habit

1 changes, and adjust to new legislation. The local  
2 direct investment program would be monitored  
3 yearly as part of the CAP monitoring process to  
4 ensure implementation of the project  
5 methodologies is achieving the GHG reductions.  
6 Once adopted, the local direct investment program  
7 will be enforceable and will commit the County to  
8 reduce GHG emissions.

9           Climate Action Plans for other  
10 California jurisdictions contain similar actions  
11 identified as part of the local direct investment  
12 program. However, none have grouped these  
13 projects into a single measure. For the program,  
14 staff will identify the projects to implement,  
15 timeframes, final cost estimates, and proposed  
16 funding sources. The program will be brought to  
17 the Board for consideration in 2020. This table  
18 summarizes the local direct investment program  
19 reductions in the CAP. Because the staff  
20 recommendation includes the supplemental EIR  
21 increased solid waste diversion alternative, the  
22 local direct investment GHG reductions would be  
23 153,511 metric tons.

24           Based on the 51 project methodologies  
25 identified in the preliminary assessment, staff

1 has prepared an example of how the local direct  
2 investment program could work. This example  
3 illustrates how the program could be developed  
4 and implemented and do not reflect the actual  
5 program. It focuses on some of the stakeholder  
6 comments received to prioritize project  
7 methodologies on environmental justice, including  
8 weatherization, carbon sequestration, and  
9 conversation of open space.

10 The example includes cumulative costs  
11 from 2021 to 2030 and shows how the project  
12 methodologies would be staggered in their  
13 implementation. This example shows the total GHG  
14 reductions needed would be 153,511 metric tons  
15 included in the staff recommendation, and 13  
16 project methodologies could achieve this  
17 reduction. The cumulative costs would be  
18 approximately \$51.6 million with an average  
19 annual cost of 5.1 million per year.

20 The County completed support studies  
21 for the Climate Action Plan, including an  
22 implementation cost study that detailed the cost  
23 to the County, a cost-effectiveness study,  
24 showing the cost to industry and residents, and  
25 the preliminary assessment of the local direct

1 investment program. The implementation cost study  
2 estimates the County costs over a six-year period  
3 and identifies potential budget impacts in the  
4 first years of implementation from fiscal year  
5 2017-'18 through fiscal year '22-'23.

6 The study quantifies costs at 236  
7 million over the six years, including staffing,  
8 capital costs, and operations and maintenance  
9 costs. The study found 94 percent, or 221  
10 million, are existing funded programs, such as  
11 installing photovoltaics, solid waste diversion,  
12 and reducing potable water at county facilities.  
13 Six percent, or 15 million are newer expanded  
14 unfunded programs, such as developing the  
15 renewable energy program.

16 The cost-effectiveness study provides  
17 estimated costs per measure to inform the County  
18 of its administrative and participation costs. It  
19 informs businesses and residence of potential  
20 impacts for their participation and identifies  
21 for each measure the cost to reduce one metric  
22 ton of greenhouse gas. It also estimates the cost  
23 for existing, new, and expanded programs at \$12  
24 per metric ton.

25 The analysis found that for new

1 residential development, the upfront costs to  
2 comply with the draft Final CAP valued in 2015  
3 dollars and discounted to present value and after  
4 applying incentives and rebates is \$15,381.

5 However, over the lifetime of the installation of  
6 these improvements, the net benefit, including  
7 the upfront cost, is \$5,728 per home. For new  
8 commercial development, the upfront cost to  
9 comply with new requirements is estimated at \$51  
10 per square foot. However, over the lifetime of  
11 the improvements, there is a net benefit of over  
12 \$20 per square foot.

13           The preliminary assessment of the local  
14 direct investment program includes a survey of  
15 the costs of local direct investment project  
16 methodologies and provides a range of high to--  
17 excuse me--low to high reductions and costs for  
18 each. The assessment shows that the range of cost  
19 to reduce 198,800 metric tons would range from a  
20 low of \$14 million to a high of \$55 million over  
21 the lifetime of the program.

22           Now, Darin Neufeld will walk you  
23 through the recommendations, options, and the  
24 CEQA review.

25           DARIN NEUFELD: Thank you, Mary. The

1 revised draft CAP presented today is responsive  
2 to many of the comments received from public.  
3 Based on this feedback, changes were made to the  
4 August 2017 draft CAP, including increasing the  
5 use of alternative fuels for construction  
6 projects in the unincorporated county from 10  
7 percent to 25 percent, increasing the local  
8 vehicle retirement program measure to retire  
9 1,600 vehicles rather than 800, increasing energy  
10 conservation at County facilities from 15 percent  
11 to 20 percent by 2030 and adding a new measure to  
12 install 2,040 electric vehicle charging stations  
13 in the unincorporated county.

14 Based on the input and revisions, the  
15 staff recommendation to the Board includes adopt  
16 the Climate Action Plan, including the  
17 supplemental EIR increased solid waste diversion  
18 alternative, which increases the diversion rate  
19 from 75 percent to 80 percent and a local direct  
20 investment program that reduces greenhouse gas  
21 emissions by 153,511 metric tons. The staff  
22 recommendation will result in 897,145 metric tons  
23 of GHG reductions.

24 Comments from the public cover topics  
25 such as improving energy efficiency and

1 generation of renewable electricity, increasing  
2 GHG reductions in the built environment and  
3 transportation category, identifying impacts for  
4 measures that go beyond State requirements,  
5 increasing the County's role as it relates to  
6 renewable energy, solid waste diversion, and  
7 other County initiatives and reducing potable  
8 water consumption, particularly from outdoor use.

9           The staff recommendation aligns with  
10 existing programs and anticipated State  
11 guidelines and relies on 90 percent renewable  
12 energy. This allows for future flexibility,  
13 recognizing the cost differential between 90  
14 percent and 100 percent renewable energy. It also  
15 balances costs across existing County programs  
16 that impact taxpayers, consumers, and businesses.

17           In addition to the staff  
18 recommendation, options were prepared in response  
19 to public comments. For the recommendation and  
20 all options, the measures are interrelated, and  
21 the reduction realized depends on the combination  
22 included. Changes to one measure will have an  
23 impact on other measures within the  
24 recommendation and that specific option. Like the  
25 recommendation, the options have been separately

1 modeled to show the reductions achieved by each  
2 measure to reach the \$897,145 metric tons of GHG  
3 reductions needed. Changes are captured with  
4 increases and decreases in the local direct  
5 investment program.

6 Option 1 is in response to comments  
7 related to increasing renewable energy and  
8 includes the staff recommendation adopting the  
9 supplemental EIR 100 percent renewable energy  
10 alternative and decreasing direct investments by  
11 53,317 metric tons.

12 The second option is in response to  
13 concerns related to potential increases to  
14 housing costs and include the staff  
15 recommendation removal of three measures or  
16 portions of measures that go beyond state  
17 requirements and effect new existing residential  
18 development, including Measure T-3.1; alternative  
19 fuel for construction equipment; Measure E-1.1,  
20 zero net energy for residential development; and  
21 Measure E-1.3 to improve building energy  
22 efficiency in existing development. This option  
23 would increase direct investments by 23,818  
24 metric tons.

25 The third option is in response to

1 concerns related to cost to housing affordability  
2 and new development and includes the staff  
3 recommendation removing in their entirety the  
4 three measures noted in Option 2 and removes two  
5 additional measures. These are Measure E-2.2,  
6 increase renewable energy in non-residential  
7 development, and Measure W-1.2 to reduce outdoor  
8 water use. This option would adopt the  
9 supplemental EIR 100 percent renewable energy  
10 alternative and would decrease direct investments  
11 by 12,666 metric tons.

12           The Planning Commission recommended  
13 Option 3 with one modification to Measure E-1.2,  
14 which is the use of alternatively-powdered water  
15 heaters in residential development. The Planning  
16 Commission recommended that this measure still be  
17 required for both new residential development and  
18 for water heater replacements in existing homes.  
19 However, for existing homeowners that meet  
20 certain income criteria, a program should be  
21 developed to help reduce the cost. The program,  
22 including a possible partnership with the Center  
23 for Sustainable Energy or the utility could  
24 include a rebate for households that meet a  
25 threshold set by the County.

1           Option 3 has been modified to adjust  
2 the renewable energy goal to 90 percent renewable  
3 electricity by 2030 while still addressing  
4 housing affordability and costs to development.  
5 Staff has recommended the 90 percent goal,  
6 because it provides greater flexibility in  
7 addressing the variables in the renewable energy  
8 program, such as exit fees, which will be studied  
9 as part of the comparative analysis.

10           Modified Option 3 includes the revised  
11 Climate Action Plan, the supplemental EIR 80  
12 percent increased solid waste diversion  
13 alternative, a local direct investment program of  
14 176,614 metric tons, 90 percent renewable energy  
15 by 2030 versus 100 percent renewable energy by  
16 2030, restoring Measure W-1.2, reducing outdoor  
17 water use, for a total of 26 measures.

18           And this option modifies two measures,  
19 Measure T-1.3, which is the acceleration of  
20 completion of 5 community plan updates so that 15  
21 community plans are updated and completed by  
22 2030, and Measure E-1.2, use alternatively-  
23 powered water heaters in residential development  
24 to incorporate incentives for existing homeowners  
25 replacing water heaters as recommended by the

1 Planning Commission.

2 The Climate Action Plan will be  
3 implemented and monitored over time. Existing  
4 programs, such as the tree planting program,  
5 conservation efforts, purchase of agricultural  
6 conservation easements, strategic energy plan,  
7 and strategic plan to reduce waste will continue  
8 or be expanded and monitored to ensure reductions  
9 in greenhouse gas emissions. New initiatives  
10 would be developed over the next two years,  
11 including a renewable energy program, a local  
12 direct investment program, and a new electric  
13 vehicle charging station pilot program.

14 New ordinances needed to implement the  
15 measures would also be prepared and adopted in  
16 the next two years. Staff would seek funding and  
17 identify potential partnerships for all of the  
18 measures in the CAP. Staff would return to the  
19 board for direction on all new projects,  
20 programs, and ordinances. Through annual  
21 monitoring, inventory updates every two years,  
22 and CAP updates every five years beginning in  
23 2025, the County would be able to adjust as  
24 needed.

25 Public review of the draft supplemental

1 EIR commenced on August 10th, 2017 and concluded  
2 on September 25th, 2017. A total of 148 comment  
3 letters were received. The draft supplemental EIR  
4 evaluated four project alternatives. These are  
5 the No Project Alternative, the Enhanced Direct  
6 Investment Program Alternative, the 100 Percent  
7 Renewable Energy Alternative, and the Increased  
8 Solid Waste Diversion Alternative. The CAP and  
9 supplemental EIR, have been updated to reflect  
10 the latest changes as a result of the CEQA public  
11 review process.

12 The project also includes guidelines  
13 for determining significance for climate change,  
14 a threshold of significance, and a CAP  
15 consistency review checklist to evaluate future  
16 development projects. The projects will require a  
17 statement of overriding considerations for the  
18 significant and unmitigated impacts as a result  
19 of the CAP. Despite these significant impacts,  
20 the CAP would provide a framework to reduce the  
21 County's greenhouse gas emissions, which would  
22 improve the quality of life and health for its  
23 residents, visitors, and employees.

24 I will now turn the presentation back  
25 to Mark Wardlaw

1                   MARK WARDLAW: Thank you, Darin. The  
2 Climate Action Plan presented today is a living  
3 document. It will be monitored on a yearly basis  
4 and can be responsive as part of our first update  
5 in 2025. It is practical, feasible, and  
6 diversified to reduce greenhouse gas emissions  
7 and considers input from stakeholders, such as  
8 taxpayers, the development community, residents,  
9 and environmental interests. County  
10 implementation costs and impacts have been  
11 assessed to maximize existing programs and to  
12 minimize new cost, and for new programs, costs  
13 have been identified where known.

14                   The Climate Action Plan and the  
15 Supplemental Environmental Impact Report before  
16 the Board today is achievable, enforceable, and  
17 measurable in its implementation. The Climate  
18 Action Plan implements the 2011 General Plan  
19 Update and the mitigation described therein.

20                   The Climate Action Plan is not a land  
21 use plan. It implements; it does not modify the  
22 general plan land use classification. Privately  
23 initiated general plan amendments that have been  
24 or will be submitted to the County are not  
25 included in the baseline inventory of the Climate

1 Action Plan. These General Plan amendment  
2 applications will be required to comply with CEQA  
3 and to mitigate their greenhouse gas impacts.

4           Regarding requests to grandfather  
5 General Plan amendments with vesting tentative  
6 maps, vesting protections already exist by State  
7 law in the Subdivision Map Act for approved  
8 vesting tentative maps. Including language in the  
9 Climate Action Plan does not provide any  
10 additional protection that is otherwise provided  
11 now by the state, but it would introduce a  
12 modification to a number of the interrelated  
13 documents included in the Climate Action Plan and  
14 would require time to prepare and identify the  
15 documents, and it raises the risk of  
16 recirculation. Staff does not recommend this  
17 addition to the Climate Action Plan.

18           General Plan amendments are evaluated  
19 in the supplemental EIR as required by CEQA,  
20 because they are current or reasonably  
21 foreseeable projects. General Plan amendments may  
22 be approved, approved with modifications, or  
23 denied by the Board when they come forward.

24           As included in your report on Page 15  
25 in Attachment G, if the Board were to select the

1 staff recommendation, the recommendation to the  
2 Board would be adopt the CEQA findings, including  
3 the significant effects of the project, the  
4 mitigation and monitoring program, and the  
5 statement of overriding considerations, the  
6 guidelines for determining significance for  
7 climate change, the greenhouse gas threshold of  
8 significance, the Climate Action Plan, and the  
9 Supplemental Environmental Impact Report  
10 increased solid waste diversion alternative, the  
11 Climate Action Plan consistency checklist, the  
12 report format and content requirements for  
13 climate change, the amendment to the General Plan  
14 environmental impact report mitigation measure,  
15 the open space conservation element amendment to  
16 the General Plan, and the resolution authorizing  
17 the chief administrative officer or designee to  
18 apply for and accept grant funding and to  
19 negotiate contracts to support implementation of  
20 the Climate Action Plan.

21 Any option that the Board wishes to  
22 approve must have been covered by the analysis in  
23 the Supplemental Environmental Impact Report and  
24 have findings documented and prepared for them.  
25 The staff recommendation options and the modified

1 option, and the Planning Commission  
2 recommendation have been analyzed, and the Board  
3 can act upon them today. Because the measures are  
4 interconnected and changes to one causes changes  
5 to others, adding or deleting reduction measures  
6 today will need to be evaluated to see how they  
7 might affect the overall ability of the Climate  
8 Action Plan to meet its reduction targets.

9 This concludes today's presentation,  
10 and staff is available to answer your questions.  
11 Thank you.

12 CHAIR KRISTIN GASPAR: Thank you, Mark.  
13 Excellent job.

14 MARK WARDLAW: Thank you.

15 CHAIR KRISTIN GASPAR: See, that was  
16 easy, right? Twenty slides and literally  
17 thousands of hours dumped into the development of  
18 this plan. So, whether you're here in support or  
19 opposition today on the CAP, I want to begin by  
20 just a round of applause for our staff for all of  
21 their efforts and the work that you did to get to  
22 this point today. Please join me.

23 Thank you for all of your work. We  
24 sincerely appreciate it, and we also appreciate  
25 your brief presentation, so we can move forward

1 with public comment, unless the Supervisors have  
2 additional questions to begin with.

3           Seeing none, let's call forward the  
4 public speakers. We appreciate your cooperation  
5 today, lining up in a nice orderly fashion to  
6 help move things forward. We'll get you in and  
7 out and on your way. Thank you.

8           ASSISTANT CLERK ANDREW POTTER: Thank  
9 you, Chairwoman Gaspar. There are 27 speakers and  
10 3 group presentations, 11 individuals in favor, 2  
11 group presentations in favor, 1 individual has  
12 expressed their support but does not need to  
13 address the Board, 16 individuals in opposition,  
14 1 group presentation in opposition, and 3  
15 individuals have expressed their opposition but  
16 do not need to address the Board.

17           I will first call forward the first  
18 group presentation in favor. That includes  
19 Reverend Gerald Brown, Haney Hong, and Ruben  
20 Guerra. You'll have ten minutes to address the  
21 Board. All three members of your group must  
22 provide testimony. Please self-regulate your time  
23 with the timer on the podium. And please begin by  
24 stating your name for the audio record.

25           HANEY HONG: Well, good morning there,

1 Charwoman Gaspar and members of the Board. I'm  
2 Haney Hong. I'm the President and CEO of the San  
3 Diego County Taxpayers Association. Thank you for  
4 the opportunity this morning to comment on the  
5 climate's--the County's Climate Action Plan.

6 Before I begin, let me echo Madam  
7 Chair, your comments about the staff and all the  
8 work that had to go into this. I just appreciate  
9 Director Wardlaw, how communicative you and your  
10 staff have been with me and other members of the  
11 coalition who we represent today, so thank you so  
12 much.

13 I'm speaking today on behalf of the  
14 Clear the Air Coalition, and joining me are my  
15 fellow co-chairs, better looking gentleman over  
16 here, Ruben Barrales, who is President of the  
17 Latino Leadership and Policy Forum, and Reverend  
18 Gerald Brown, Executive Director of the United  
19 African American Ministerial Action Council.

20 So, the Clear the Air Coalition is a  
21 diverse group of community business and civic  
22 leaders, and we're from throughout the San Diego  
23 region, and we form together to help achieve our  
24 climate action goals in a cost-effective manner--  
25 cost-effective.

1                   Now, we strongly support the County's  
2 efforts to reduce greenhouse gas emissions in a  
3 way that protects our local economy and local  
4 communities. Now, our coalition, we do not have a  
5 formal position on the proposed Climate Action  
6 Plan as a whole, but we do strongly support the  
7 staff's recommendation to conduct a thorough  
8 comparative analysis of options for achieving the  
9 County's renewable energy goals.

10                   The CAP's proposed three options for  
11 increasing the use of renewable energy, as  
12 briefed earlier by Director Wardlaw, expanded  
13 direct access, community choice aggregation, a  
14 partnership potentially with the utility should  
15 all be thoroughly studied in the months ahead, as  
16 they briefed, so that you can make an informed  
17 decision about which pathway is best for San  
18 Diego when it be--appears before you at a later  
19 date. I mean, it's surprising, right? The  
20 Taxpayers Association wants to dig into the  
21 numbers and wants to make sure that we look at  
22 this in a cost-effectiveness way.

23                   Now, speaking as that taxpayers'  
24 advocate, it's imperative that the County select  
25 an energy procurement model that meets the CAP's

1 environmental goals in that cost-effective  
2 manner, and we want to make the most efficient  
3 use of that limited kitty that we call the public  
4 treasury--our limited tax payer resources, and we  
5 want to get the best bang for buck. And that's  
6 why it's so important that we have that rigorous  
7 comparative analysis, and that's what will help  
8 ensure that this occurs.

9 So, let me invite Ruben to join me  
10 here.

11 RUBEN BARRALES: Thanks, Haney. Madam  
12 Chairwoman, members of the Board, and staff,  
13 thank you for allowing this time to go over some  
14 of the points that we want to emphasize.

15 As Haney mentioned, we think the  
16 comparative analysis is critical. It's important  
17 to get real environmental benefits and the real  
18 costs and risks to the County. To understand  
19 those thoroughly, a true apples-to-apples  
20 comparison needs to be done in terms of the three  
21 different options.

22 And we ask you to, please, also  
23 consider the changing the landscape, the evolving  
24 regulatory and legislative landscape that is  
25 going to put new demands and new mandates on the

1 utilities and others. And it will change the  
2 calculation in terms of the risks for the County  
3 and more importantly for the County taxpayers and  
4 rate payers. Exit fees, for example, that will be  
5 hopefully determined by the PUC later this year.  
6 There's pending legislation, again, that will  
7 impact many of the goals that we're trying to  
8 reach here and the mandates around them, again  
9 changing the risk calculation. So that  
10 comparative analysis needs to be thorough.

11 One for--one assumption, for example,  
12 in that comparative analysis, customer  
13 participation. So, the County, as I understand  
14 it, is anticipating about 80 percent customer  
15 utilization--eight out of ten customers utilizing  
16 the new program, opting in. Just so you know, the  
17 most--the first established CCA, Marin County,  
18 the participation rate for 80 or 100 percent  
19 renewable energy is 2.6 percent.

20 So, obviously, there are differences,  
21 but you really need to drill down and see what's  
22 the reality in terms of people opting into a more  
23 expensive program in terms of paying for their  
24 utilities. Are they going to do that in the 80  
25 percent numbers? Not sure. In Sonoma County, it's

1 just one-half of one percent participation by  
2 customers into the more expensive program.

3 So, again, need to look at those  
4 assumptions and make sure that we don't take on  
5 as San Diegans unnecessary risks and higher  
6 costs. And that's why we think that that  
7 comprehensive comparative analysis is so  
8 important.

9 Thank you for your time and thank you -  
10 - I want to thank staff for all the effort that  
11 they've put into this and thank you as a County.  
12 You're a leader, so we're proud as San Diegans  
13 that you're doing this and want to make sure it's  
14 done in a cost-effective way. Thank you.

15 REVEREND GERALD BROWN: Good morning,  
16 County Board of Supervisors and staff. My name is  
17 Reverend Gerald Brown. I have the privilege of  
18 serving as the Executive Director for the United  
19 African American Ministerial Action Council and  
20 as a co-chair of the Clean Air Coalition.

21 I'm also proud to be wearing my Love  
22 Your Heart button today. I just thought I'd  
23 mention it, because our Supervisor, Ron Roberts,  
24 is wearing it, and so I'll be looking around  
25 later on to make sure that everybody has it on.

1                   Like my colleagues, I believe reducing  
2 carbon emissions and creating a cleaner future is  
3 important to the communities we represent.  
4 Oftentimes, the communities my organization  
5 serves are the hardest hit by environmental  
6 challenges, like dirty air and unhealthy living  
7 conditions. But those aren't the only challenges  
8 we face. Many of my congregants are amongst the  
9 county's most economically vulnerable.

10                   It is, therefore, essential that we  
11 reduce emissions in a way that protects our  
12 economy, local jobs, and hardworking families.  
13 Determining the best path forward requires a  
14 comparative analysis of different options for  
15 increasing the use of renewable energy. This  
16 includes a true accounting of what these programs  
17 will cost and who will end up paying the tab and  
18 how much these programs will actually improve our  
19 local environment. Only then can we make an  
20 informed decision if the benefits are worth the  
21 risks as we work together to achieve our  
22 collective climate goals.

23                   We urge you to adopt staff's  
24 recommendation to conduct a thorough comparison  
25 analysis of the renewable energy options under

1 consideration and look forward to continuing our  
2 work with the County on this important endeavor.

3 We'd also like to submit a letter  
4 outlining the coalition's position into the  
5 record. Is that okay?

6 CHAIR KRISTIN GASPAR: You can hand it  
7 behind you to the Deputy Clerk. Thank you.

8 REVEREND GERALD BROWN: Thank you. I  
9 have 2 minutes and 51 seconds left.

10 CHAIR KRISTIN GASPAR: Do you want to  
11 sing?

12 REVEREND GERALD BROWN: I have one--I'm  
13 not going to sing, but I want to ask everyone to  
14 get their blood pressure done today.

15 MEMBER RON ROBERTS: All right. I--

16 CHAIR KRISTIN GASPAR: That's a good  
17 PSA.

18 MEMBER RON ROBERTS: Could I--it's not  
19 clear to me, and maybe, Haney, is there one of  
20 these one of these options that you're  
21 recommending at the end of all this?

22 HANEY HONG: So, the concern that I have  
23 with respect with the 90 versus 100 percent goal  
24 is that the key thing that I would offer for your  
25 consideration, when we think about the potential

1 risks that we might put on taxpayers with that  
2 marginal cost of trying to set a goal from 90 to  
3 100 percent, that is something that we cannot  
4 account for today. And I think it's very  
5 important that we do not sign up for a risk that  
6 we don't know how to quantify that. So, from a  
7 Taxpayers Association standpoint, those options  
8 that have--that include 90 percent renewable is  
9 what's key.

10 CHAIR KRISTIN GASPAR: Thank you very  
11 much.

12 HANEY HONG: Thank you.

13 CHAIR KRISTIN GASPAR: It appears we're  
14 out of time for the reverend to sing, but maybe  
15 next time.

16 HANEY HONG: Would you like me to sing?  
17 Just kidding.

18 CHAIR KRISTIN GASPAR: No, we didn't  
19 invite you. There's no mention of that. Thank  
20 you.

21 MEMBER RON ROBERTS: I want to thank  
22 Reverend Brown for his commercial on--this is  
23 Love Your Heart Day, and we're offering free  
24 blood pressure screenings all over San Diego  
25 County, and it reduces greenhouse gas. If people

1 take care of these problems, we don't have to  
2 rush them to a hospital later, so we want to get  
3 everybody healthy, and it helps us clean up the  
4 air. Thank you, Reverend Brown.

5 ASSISTANT CLERK ANDREW POTTER: I'll  
6 call forward the next group presentation in  
7 favor, Chris Fahey, Jim Waylon, and Gregg  
8 Haggart.

9 JIM WAYLON: Good morning, Chairman  
10 Gaspar, members of the Board of Supervisors.  
11 How's everybody today? Here after--this is--  
12 actually, we're going to try to take five  
13 minutes.

14 ASSISTANT CLERK ANDREW POTTER: I'm  
15 going to pause your time for just a remind folks  
16 to state their name for the audio record.

17 MR. JIM WAYLON: I will. It's Jim  
18 Waylon, J Waylon & Associates, 1660 Hotel Circle,  
19 North San Diego.

20 Like I said at the Planning Commission,  
21 staff deserves all the praise that they've been  
22 getting, because this, to me, is almost as  
23 significant as the MSCP was. When I think of its  
24 effect on the property owners in the county, this  
25 is number two, and it's probably a close number

1 two.

2 I'm going to go first, and then I'm  
3 going to introduce both Chris Fahey and Gregg  
4 Haggart. They're the CEOs respectively of the  
5 Haagen Companies and the Gildred Companies.  
6 They're local businesses who have made  
7 significant investments in renewable energy, and  
8 they're going to tell you why we think what  
9 you're doing is a good idea.

10 Number one, obviously, the County needs  
11 to finish the CAP. We're under the gun, and  
12 nobody likes that, but it's the reality we're in.  
13 We're going to recommend you proceed with Option  
14 3. In some ways simply because of the optics, it  
15 doesn't really matter between 90 and 100 percent  
16 effectively, but if I'm a crabby judge, I'm going  
17 to be looking at 100 percent a lot more than--  
18 favorably than I would 90 percent, because 100  
19 percent, what more can you do? It's all of the  
20 power.

21 I would expect litigation no matter  
22 what you do. It's probable, but there's nothing  
23 more substantial than saying, "We're going to  
24 provide all of our power to the unincorporated  
25 communities this way." I mean, what can they say?

1           And by the way, to Supervisor Horn, you  
2     made a comment earlier in the week about, "I  
3     don't want to get in the energy business." You're  
4     already in it, and the reason I say that is  
5     because you direct access today to acquire I  
6     think about 15 megawatts of power. Don't forget  
7     that purchasing power is significant. It gives  
8     you the opportunity, perhaps, to even make this  
9     pay for itself by deploying your buying power.

10           I also want to point out that it's  
11    obvious from the staff report that renewables get  
12    you over a third of the way to the targets.  
13    That's a big deal. That's more than anything  
14    else. And it's just--I won't call it low-hanging  
15    fruit, but it's there.

16           What are the benefits of doing this?  
17    First, it's using your buying power to make it  
18    cheaper. Second thing is by using the County's  
19    land use authority to facilitate commercial-scale  
20    renewable energy, that counts for the CAP. You  
21    don't have to do this. You don't have to provide  
22    a permitting process to get to renewable energy  
23    at a commercial scale, but you did. That counts,  
24    and it counts for something.

25           Next things, and specifically to

1 Supervisor Jacob and Supervisor Horn's districts,  
2 those areas could use local jobs. They could use  
3 local business benefits, and we could use some  
4 local tax revenues to get things going out there.  
5 And I would ask our union friends if we do  
6 proceed as we're proposing, I would like to see  
7 hiring halls and training out in the back  
8 country, so people who live there can avail  
9 themselves of these jobs. They're not many, but  
10 they're there.

11           And the last thing is community  
12 benefits, and not everybody is as enthusiastic  
13 about wind and solar as I am. Not everybody  
14 thinks they're an elegant feature on the  
15 landscape. I do. But it would be good if we  
16 proceed to provide a mechanism to take advantage  
17 of the County's buying power to also bring some  
18 benefits to the communities, who are undergoing  
19 the deployment of renewable energy at this scale.  
20 And if it works as might be possible, you might  
21 even be able to bring some finite community  
22 benefits like resource centers and other benefits  
23 for people who live out there.

24           And with that, I'll stop, and we can  
25 live with the modified option 3, but, as a

1 practical matter, there's not much difference  
2 between 90 and 100. But I really want to praise  
3 staff and the Board for grappling with this thing  
4 in face of what's probably going to be  
5 unreasonable opposition. And thank you so much  
6 for your time.

7 CHRISTOPHER FAHEY: Good morning,  
8 Chairwoman Gaspar, Board members. My name is  
9 Christopher Fahey. I'm President of the Haagen  
10 Company. I'm here representing the ownership of  
11 the Empire Ranch property, which is 4,000 acres  
12 of land just south of Boulevard, and we've been  
13 involved working with Jim Waylon, you know, on  
14 the renewable energy program and are here to  
15 support the Option 3. I did--I want to repeat  
16 Jim's, you know, comment about the--we're--we  
17 could live with the 90 percent. Think the 100  
18 percent optics are better. But either option,  
19 depending on how the county goes, either way it  
20 doesn't necessarily affect my position and our  
21 involvement in the process.

22 The Haagen family has owned the Empire  
23 Ranch for--you know, or been involved in it for  
24 almost 50 years, so they've been very involved in  
25 the back country, very involved in what's going

1 on out there, and we want to continue to be  
2 involved. We're currently in the process of  
3 working through the State system on checking out  
4 the availability of the connections for a  
5 potential 80-megawatt solar project, and we've  
6 passed our first step with the State agency and  
7 are continuing and have committed to proceed with  
8 it further.

9 One of our other commitments--one of  
10 the things I want to emphasize on this is that we  
11 are committed to involving and assisting the  
12 local communities to receive some benefit from  
13 these programs, not that just people come in and  
14 put a lot of trucks and dust and debris in their  
15 communities and then move on. We're committed  
16 long-term, obviously. The Hagen family's been in  
17 this property long term.

18 The--as Jim mentioned, the renewable  
19 energy line item of your CAP program is the  
20 single largest potential resource for achieving  
21 the goals of the CAP program. And if you'll look  
22 at that list, a lot of the list on your options,  
23 this is one of the few that doesn't necessarily  
24 have to require out-of-pocket monies from the  
25 County or the taxpayers. This is something that

1 developers, commercial developers will produce,  
2 are happy to produce and will get involved with  
3 the County's buying program and involvement. We  
4 think we can actually--you know, or we're  
5 assuming we can actually assist in the energy  
6 costs and availability for the local community.

7 And with that, I'll just finish up, say  
8 that, again, Option 3 gains our support, as a  
9 property owner in the back country and the  
10 district in San Diego. Thank you

11 GREGG HAGGART: Chairwoman Gaspar and  
12 Supervisors, my name is Greg Haggart. I'm the CEO  
13 of the Gildred Companies. I represent the Gildred  
14 family, who's had offices downtown San Diego  
15 since 1928.

16 I just want to give you a, in support  
17 of the Climate Action Plan and Option 3, I just  
18 want to give you a real-world example of how this  
19 is within your grasp. You can do this. We have--  
20 the Gildred family owns a 50-megawatt solar  
21 project that is fully permitted. We received our  
22 MUP. It's out by Acacia Wells. It's scheduled for  
23 commercial operations next year. Fifty megawatts  
24 delivers power to about 17,000 homes to put that  
25 in perspective.

1           There is a way to do this. You can buy  
2 power from a local entity in your county. You can  
3 get credit for it through your land use  
4 authority.

5           That's all I want to say. Thank you  
6 very much. We'd love to be able to do that.

7           CHAIR KRISTIN GASPAR: Thank you.  
8 Appreciate your presentation.

9           ASSISTANT CLERK ANDREW POTTER: Next,  
10 I'd like to call for the individual speakers in  
11 favor. I'll call for the first five. Frank  
12 Urtasun, Melanie Cohn, Eric Larson, Sophie  
13 Barnhorst, and Ally Barreter. You'll have two  
14 minutes to address the Board. Please begin by  
15 stating your name for the audio record.

16           FRANK URTASUN: Good morning, Madam  
17 Chair, members of the Board. I'm Frank Urtasun,  
18 representing Sempra Services. Let me first start  
19 off by applauding the county for its establish an  
20 updated Climate Action Plan. We also appreciate  
21 the opportunity to share our insights with San  
22 Diego and with San Diego County and other  
23 municipalities on ways to best achieve greenhouse  
24 gas reductions.

25           Over the past year or so, we have been

1 working with County staff on how best to  
2 establish a County Climate Action Plan that is  
3 real, cost-effective, and capitalizes on the  
4 greenhouse gas reductions advancements that our  
5 region has made to date.

6 I'm happy to report staff has been  
7 great to work with. As we have informed staff, we  
8 believe there are significant opportunities that  
9 have yet to be identified in this--in--for San  
10 Diego County to achieve cost-effective GHG  
11 emission reductions in the transportation sector.  
12 We also, however, understand that there will be  
13 opportunities to revisit this as you embark on  
14 the implementation phase.

15 More specifically, we believe that the  
16 vast majority of the vehicle trips that begin in  
17 one city in San Diego County end in another city  
18 within the county. This puts San Diego County in  
19 a unique position to promote and help fund  
20 alternative fuel vehicle programs that will lead  
21 to greater adoption of these vehicles.

22 Also, San Diego County has a unique  
23 ability to identify barriers to entry for  
24 alternative fuel vehicles. And having identified  
25 why more citizens are not using alternative fuel

1 vehicles to promote their use by placing more  
2 electric vehicle charging facilities along  
3 frequently travelled routes, incentivizing people  
4 to buy electric vehicles, and coordinating a  
5 regional strategy with cities throughout the  
6 county.

7 As for the energy sector, we applaud--  
8 we support staff's recommendation for a  
9 comparative analysis--

10 CHAIR KRISTIN GASPAR: Thank you.

11 FRANK URTASUN: --in how best to pursue  
12 the emissions targeted under the renewable energy  
13 strategy. Thank you for the opportunity to  
14 address you.

15 CHAIR KRISTIN GASPAR: Thank you. Next  
16 speaker, please.

17 MELANIE COHN: Good morning, Board  
18 members, I'm Melanie Cohn, Director of Regional  
19 Policy and Government Affairs at Biocom. I just  
20 wanted to say that we also support all the work  
21 that staff has done on the Climate Action Plan,  
22 and we have supported regional Climate Action  
23 Plans to reduce greenhouse gas emissions for the  
24 health of our communities.

25 We just ask that any potential

1 regulations that are enacted regarding the  
2 Climate Action Plan are weighed with what the  
3 cost to businesses will be in the region. We  
4 support full cost benefit analysis of all aspects  
5 of the plan, especially related to energy  
6 procurement and the three options included.

7 Thanks so much.

8 CHAIR KRISTIN GASPAR: Thank you. Next  
9 speaker, please.

10 SOPHIE BARNHORST: Good morning,  
11 Chairwoman Gaspar and Supervisors. My name is  
12 Sophie Barnhorst, and I'm here on behalf of the  
13 San Diego Regional Chamber of Commerce,  
14 representing over 2,500 members and around  
15 300,000 jobs. I first would like to quickly thank  
16 staff for all the outreach you've done to our  
17 organization and making sure to include us in  
18 this process. Thank you.

19 While the Chamber doesn't have an  
20 official position on the entire plan itself, I'm  
21 here today to express the Chamber's support for  
22 the energy portion of the CAP. The Chamber shares  
23 the County's goals to reduce greenhouse gas  
24 emissions in our atmosphere and greatly  
25 appreciates your efforts to do so in a way that

1 also benefits our local economy and the many  
2 small businesses that call San Diego home.  
3 Specifically related to the energy component of  
4 the CAP, we recognize that embarking on a program  
5 to reach our renewable energy goals is a  
6 significant decision with long-lasting impacts.

7 We understand that the Board of  
8 Supervisors will consider this decision in  
9 approximately 18 months, and it's critical you  
10 approach this decision with full understanding of  
11 the facts. What will the various cost options be?  
12 How much will each contribute to local greenhouse  
13 gas reductions? What are the true risks and  
14 benefits?

15 This is why we strongly support staff's  
16 recommendation to the County to conduct a  
17 thorough comparative analysis of the three  
18 proposed renewable energy pathways before  
19 selecting a desired approach. Only after such a  
20 thorough apples-to-apples comparison is done can  
21 the County make an informed decision about our  
22 renewable energy features that accomplishes our  
23 shared goals of improving both our environment  
24 and our economy. Thank you for your and  
25 consideration.

1 CHAIR KRISTIN GASPAR: Thank you. Next  
2 speaker, please.

3 ASSISTANT CLERK ANDREW POTTER: As the  
4 next speaker is approaching, I'd like to call for  
5 the remaining speakers in favor, Jeffrey Forrest,  
6 Richard Reinert, Matt Adams, Mike Nagi, Nicola  
7 Hedge, and Carla Farley.

8 ERIC LARSON: Chair Gaspar, members of  
9 the Board, I'm Eric Larson, executive director of  
10 the San Diego County Farm Bureau. We, too, would  
11 like to thank you and staff for what we've found  
12 to be a very inclusive process so far in reaching  
13 this recommendation that's before you.

14 With only five percent of greenhouse  
15 gas emissions attributed locally that farming, to  
16 proposed programs in the recommendation before  
17 you, we think is very appropriate for  
18 agriculture. That said, we believe local farms  
19 have immense capacity to help with the County's  
20 greenhouse gas reduction efforts. Let me give you  
21 three examples of items that are mentioned in the  
22 Climate Action Plan but not fully vetted and not  
23 fully taken advantage of agriculture.

24 First, composted municipal organic  
25 waste can be applied to rangeland, and we have

1 nearly 200,000 acres of rangeland in San Diego  
2 County. This results in improved soil moisture  
3 retention, additional forage production with a net  
4 result of increased carbon sequestration in the  
5 soil. And our experiments going on this here  
6 locally and in the state and it should be  
7 followed.

8           Second, agricultural crops in San Diego  
9 County are currently irrigated with potable  
10 water. Conversion of agriculture to recycled  
11 water would have considerable amounts--safe  
12 considerable amounts of potable water, and that  
13 water then could be moved to the urban uses.

14           Third, it's well documented that trees  
15 provide significant capacity for carbon  
16 sequestration. In fact, the plan before you calls  
17 for planting 180,000 trees. Over the past decade,  
18 farmers in San Diego County have removed over 1  
19 million trees. Due in large part to the high  
20 price of water, we can make a combination with  
21 the recycled water and the price of water. I  
22 think it creates a win-win for everybody and  
23 helps with carbon sequestration.

24           The common term for using farms as a  
25 means of reducing greenhouse gas emissions is

1 called carbon farming, a term I hope you're  
2 getting used to. I'd like to leave you with the  
3 idea that a carbon farming task force could lead  
4 to programs and techniques that significantly  
5 reduce greenhouse gas emissions in the County and  
6 assist with agricultural success. We hope you  
7 would endorse the concept and the County's  
8 participation in a carbon farming task force as  
9 part of your implementation plan. Thank you.

10 CHAIR KRISTIN GASPAR: Next speaker,  
11 please.

12 MIKE NAGY: Hi. Good morning, everybody.  
13 Good morning, Chair Gaspar, members of the Board.  
14 My name is Mike Nagy. I'm Public Affairs Manager  
15 for the San Diego County Apartment Association.  
16 We represent approximately 2400 members, and own  
17 and manage over 150,000 rental units in the  
18 region.

19 First, we would like to also echo the  
20 thanks and appreciation for County staff reaching  
21 out to us for addressing our many concerns and  
22 answering all of our questions.

23 The climate action that you consider  
24 before you today, please keep in mind that  
25 California and the San Diego region is in a major

1 housing affordability crisis. And so, when you're  
2 looking at considering reducing greenhouse gases,  
3 also please think of the many San Diegans that  
4 cannot afford to buy or rent in the region.  
5 Because we think that if we don't--if we adopt  
6 climate action plan that will be too--that create  
7 too onerous level of regulations or increase the  
8 cost of housing, then this exercise will be for  
9 nothing.

10 So, in terms of weighing all the  
11 separate options, we agree that the final Climate  
12 Action Plan, Option 3, we can also--I think we  
13 can probably also go with the modified--the 3-B  
14 option as well. I think we can support that.  
15 Anything that's going to--that meets the balance  
16 of both housing and the environment, I think we  
17 can support those policies that will promote  
18 that.

19 In consideration to--my original  
20 comments were going to be regarding to  
21 modification of E-1.2. Anything regarding  
22 creating some type of lower income program that  
23 provides assistance for smaller property owners  
24 to defray the costs, we would certainly  
25 appreciate that. Sixty-six percent of our members

1 are small, independent rental owners, so we hope  
2 that you can adopt Option 3 today and/or the  
3 modified 3-B version. Thank you.

4 CHAIR KRISTIN GASPAR: Thank you. Next  
5 speaker, please. You all are doing so well  
6 complying with the time. Thank you for that.  
7 Don't mess it up.

8 RICHARD RISNER: Yeah. Thanks. Good  
9 morning, all. And Happy Valentine's Day to the  
10 Board and all the staff. So, I really wanted to  
11 say that first.

12 My name is Richard Risner. I'm here  
13 representing the San Diego Chapter of the  
14 American Society of Landscape Architects. We're  
15 in support of this.

16 First, I'd like to say we're a diverse  
17 group of individuals that can help you achieve  
18 your Climate Action Plan, many of the goals  
19 within your Climate Action Plan. You know, we  
20 abide by many of the USGBC guidelines,  
21 specifically the Sustainable Sites Initiatives,  
22 which I think is something that's imperative for  
23 environmental resiliency.

24 Finally, I want to applaud you for  
25 being flexible and having this be a living

1 document that actually can adapt to technology  
2 and science as our environment changes. So, we're  
3 in favor of this. Thank you very much.

4 CHAIR KRISTIN GASPAR: Thank you.

5 RICHARD RISNER: Thank you.

6 CHAIR KRISTIN GASPAR: Next speaker,  
7 please.

8 JEFF FORREST: Good morning. My name is  
9 Jeff Forrest, Land Use attorney at Sheppard,  
10 Mullin, Richter & Hampton. I'm here today  
11 representing NAAOP and its 650 member companies  
12 who are on the leading edge of supplying high-  
13 quality mixed-use housing and creating new  
14 housing supply here in the County.

15 Attorneys are not known for their  
16 brevity, but I will try to keep this under two  
17 minutes. I want to thank the Board for its  
18 recognition that the San Diego region really is  
19 in a housing crisis, and we need to get new  
20 housing supply out there. To do that, we need a  
21 certain amount of stability in the rules, the GHG  
22 rules, that are applying to projects,  
23 particularly projects that are already in the  
24 regulatory pipeline. Some of them even go to the  
25 point where they have a vested right from the

1 State, through the Subdivision Map Act, and not  
2 have the rules constantly changing on them.

3 What we heard in the staff presentation  
4 was that, in fact, the staff has no intention of  
5 applying the cap to vested rights projects, and  
6 so that was good news for our member companies to  
7 hear.

8 I think there may be a little bit of  
9 confusion though as to what we mean by vested  
10 rights. Is it project that have approved  
11 tentative maps, or are we talking about projects  
12 that have a deemed-complete application for a  
13 vesting tentative map? And it's the latter is the  
14 one that we really see as being critical to the  
15 projects that are in the pipeline.

16 The County, back in 2003, actually  
17 adopted a pipeline policy. And I'll go ahead and  
18 pass this out. The pipeline policy was the same  
19 situation we are in now, where you had projects  
20 you were working on the General Plan Update and  
21 you had projects that were already in the  
22 pipeline. And you needed to figure out do those  
23 projects have to follow the new General Plan  
24 rules that were still being shaped, or do they  
25 follow the old rules? And the determination was

1 made that it was really dependent upon when those  
2 projects had filed their applications.

3 So, we just want to be clear that we  
4 think it's the application date, and if staff  
5 wants to provide that clarification, then maybe  
6 we don't need an amendment. But if they can't  
7 provide that clarification, then we probably do  
8 need to move forward with an amendment.

9 CHAIR KRISTIN GASPAR: Thank you. Next  
10 speaker, please.

11 SUPERVISOR BILL HORN: Is it possible  
12 maybe for staff to help us with that question?

13 MARK WARDLAW: May I answer that?

14 CHAIR KRISTIN GASPAR: Sure. Absolutely.  
15 Staff?

16 MARK WARDLAW: Through the Chair, the  
17 rules establishing vesting rights in the state of  
18 California are applied to the adoption of a  
19 development agreement, the construction of a  
20 project that has been approved, and then also  
21 through a vesting tentative map. So, the  
22 traditional definition of vested rights is that  
23 the application that has been approved vests its  
24 rights under those three conditions. And vesting  
25 tentative map, we have two right now in process,

1 that are General Plan Amendments. And so as a  
2 General Plan Amendment project, those  
3 applications are proceeding separately and  
4 independently.

5 And so, the Climate Action Plan doesn't  
6 include vesting provisions because it's not a  
7 land use document. In terms of permitting and  
8 then additional CEQA factors, I'll ask Bill Witt,  
9 with County Counsel, to address.

10 BILL WITT: We wouldn't recommend adding  
11 anything to the Climate Action Plan related to  
12 vesting rights, under the vesting tentative map  
13 requirements, the Subdivision Map Act or under  
14 existing law already provides requirements  
15 related to vesting tentative maps, and that would  
16 not change, whether or not this was added to the  
17 Climate Action Plan.

18 In addition, this potential change  
19 would have cascading effects throughout the  
20 document at this late stage. So, it would not  
21 only be in the CAP guidelines, but it potentially  
22 would affect the EIR and the findings.

23 CHAIR KRISTIN GASPAR: Does that satisfy  
24 the question?

25 SUPERVISOR BILL HORN: It does. The

1 question I have is, if they file litigation--I'm  
2 talking about the two projects we have in the  
3 pipeline right now--if they file--if opposition  
4 files litigation here, does it--what does it do  
5 to the effect of those GPAs to process?

6 CLAUDIA SILVA: It will depend on the  
7 nature of the litigation and the scope of their  
8 request. It would be very fact-specific. And to  
9 the extent any specific projects are identified,  
10 they would need to have an opportunity to also  
11 voice their position.

12 SUPERVISOR BILL HORN: So, as long as  
13 they came up with an analysis that it was zero  
14 emissions, would they be able to proceed?

15 CLAUDIA SILVA: Zero net emissions  
16 provisions are an ability of General Plan  
17 amendments to not have any emissions that are  
18 beyond the General Plan Update and what's already  
19 analyzed. Whether or not a court would include  
20 them in any scope of relief would be yet to be  
21 determined. But that would--that issue would  
22 remain, regardless of the language being  
23 proposed.

24 SUPERVISOR BILL HORN: Okay. Well, we're  
25 only talking about two that are active right now,

1 right? So, that's my concern. All right. Thank  
2 you very much. Thank you sir.

3 CHAIR KRISTIN GASPAR: Thank you. Sorry.  
4 Welcome to our next speaker.

5 NICOLA HEDGE: Hi. Good morning. Nicola  
6 Hedge with--the Director of Environment  
7 Initiatives at the San Diego Foundation. Thank  
8 you for the opportunity to share some comments.

9 While we don't have a formal position  
10 in opposition or support of the Climate Action  
11 Plan, as our region's largest community  
12 foundation, the San Diego Foundation encourages,  
13 supports and facilitates action on challenges and  
14 opportunities that affect the quality of life of  
15 each of our region's diverse communities,  
16 including climate change.

17 Since 2007, we've partnered with public  
18 agencies, all 18 cities in the region, including  
19 the County, to catalyze greater regional action.  
20 The current efforts of the County to adopt and  
21 ambitious Climate Action Plan are a critical next  
22 step to help our region meet our goals. And this  
23 Climate Action Plan will help to bring the County  
24 into line with other local government peers into  
25 the region, including 17 of the 18 cities which

1 have already adopted, or are also working on a  
2 Climate Action Plan. And it could help to advance  
3 the County's Live Well and General Plan goals.

4 We also know from our work to get  
5 shared vision for the future of the region that  
6 San Diegans want a future with more compact  
7 growth, vibrant community centers, convenient  
8 transportation options, and protected natural  
9 lands. And consistent annual polls of San Diego  
10 regional residents by our partners, more than  
11 eight in 10 San Diegans believe climate change is  
12 happening.

13 As such, while again we don't have a  
14 formal position, we strongly encourage the county  
15 to ensure that the climate plan achieves the  
16 following: Helps to limit the type of sprawl  
17 development that could increase greenhouse gas  
18 emissions and exacerbates risks from climate  
19 change, which scientists have detailed we will  
20 increasingly face, including drought and  
21 wildfire; that it's in line with regional efforts  
22 to reduce regional VMTs, especially from  
23 transportation; ensures open space is protected  
24 and seizes opportunities to incorporate  
25 innovations around renewable energy and carbon

1 farming.

2 It's critical that the County take  
3 action today, not just for today's generations,  
4 but also for future generations. Thank you.

5 CHAIR KRISTIN GASPAR: Thank you. Next  
6 speaker, please.

7 CARLA FARLEY: Good morning, Chairwoman  
8 Gaspar and the rest of our Board, County  
9 Supervisors. My name is Carla Farley. I'm the  
10 Vice President of the Greater San Diego  
11 Association of Realtors, which is our largest  
12 trade association here in San Diego, with over  
13 14,000 primary members, and just grown over  
14 20,000 collective members, and growing every day.

15 SDAR does share in the County's  
16 commitment to establish a sustainable and vibrant  
17 region, and we stand ready to support a plan that  
18 will accomplish our environmental goals. But we  
19 want to make sure that it's not imposing new  
20 burdens on our future and existing homeowners.

21 On behalf of the Association, I would  
22 like to thank our County staff, who worked with  
23 us a little earlier in this process to identify  
24 and eliminate some of the harmful provisions that  
25 would have unnecessarily increased housing costs,

1 and imposed a great deal of uncertainty on our  
2 industry.

3 Any decisions made today should take  
4 into consideration the impact the proposal will  
5 have on our housing supply and ultimately the  
6 cost of living here in San Diego.

7 We're building only at 50 percent of  
8 housing needs for our region today, which means  
9 the dream of homeownership is rapidly slipping  
10 away. San Diegans are forced to look elsewhere,  
11 drive long commutes, or worse, end up living on  
12 the streets. And we already know that that's a  
13 growing concern here in San Diego.

14 More than 40 percent of homeowners and  
15 60 percent of renters are now paying more than 30  
16 percent of their income on housing cost. These  
17 conditions are unsustainable. Unfortunately, our  
18 housing crisis will not be going away anytime  
19 soon.

20 While we appreciate the direction of  
21 Option 3, which aims to eliminate some of the  
22 more harmful and costly provisions of home  
23 owners, we urge our leaders here today to commit  
24 to opposing the costly mandates on housing and  
25 homeowners that would only perpetuate further

1 cost increases. Any requirements on homeowners  
2 should also be supported by incentives to comply.

3 CHAIR KRISTIN GASPAR: Thank you.

4 CARLA FARLEY: Thank you.

5 CHAIR KRISTIN GASPAR: Next speaker,  
6 please.

7 ANDREW POTTER: As the speaker is  
8 approaching the podium, I'd like to do a final  
9 call for [UNINTEL PHRASE].

10 MATTHEW ADAMS: Good morning. Matthew  
11 Adams with the Building Industry Association,  
12 producers of the most energy and water-efficient  
13 buildings in the world. And we're here today to  
14 speak on the Climate Action Plan.

15 I'd like to start first by recognizing  
16 the outreach by your staff, to the BIA, and other  
17 members of the regulated community. It was very  
18 extensive. It was very collaborative. And that  
19 kind of outreach is very much appreciated and I  
20 wanted to recognize your staff for those efforts.

21 Mark Wardlaw and his team, Michael de  
22 la Rosa, they were there all the time. And they  
23 didn't always tell us what we wanted to hear, but  
24 they always told us what we needed to hear, and  
25 that's very important.

1                   We're here today in support of Option 3  
2 because we all understand that the State has made  
3 climate change and greenhouse gas reductions its  
4 singular top priority. So, we need this  
5 collaborative process to hit these marks that  
6 have come down from the State. And we believe  
7 Option 3 puts you on the path to achieve those  
8 targets, which is why we stand before you.

9                   I know there's some discussions on a  
10 modified Option 3, which will deal with some  
11 water issues. Some things to keep in mind that if  
12 you have to do the water reductions, you also  
13 have that two-tree mandate, which is kind of in  
14 conflict with that reduction.

15                   And we'd also ask that you consider  
16 looking at opening the special landscape area,  
17 because you have areas because of biofiltration  
18 systems and slopes and the like, they need  
19 different kinds of plants. They need moderate  
20 water use plants, so have the deeper roots so the  
21 slopes stay in there. And you need certain plants  
22 in the biofiltration systems to keep them  
23 functioning. If you're reducing too much water to  
24 them, that will run into a problem.

25                   The special landscape areas, a

1 methodology by which you can figure out which  
2 ones you can remove from your water calculation  
3 to make it more palatable.

4 So, I thank you for that, and I  
5 absolutely agree with the issues on the vesting  
6 tentative maps as well. Thank you.

7 CHAIR KRISTIN GASPAR: Thank you.

8 ANDREW POTTER: Next I'd like to call  
9 forward the group presentation in opposition.  
10 David Engle, Linda Pratt and Bob Leter. You'll  
11 have 10 minutes to address the Board. All three  
12 members of your group must provide testimony.  
13 Please self-regulate your time with the timer on  
14 the podium, and begin by stating your name for  
15 the audio record.

16 DAVID ENGLE: Good morning. My name is  
17 David Engle. I reside in Del Mar, California. I'm  
18 a cofounder of Stay Cool for Grandkids, an all-  
19 volunteer San Diego nonprofit.

20 Stay Cool educates grandparents about  
21 the risk global warming poses to our grandkids.  
22 Our mission is to protect grandkids from the  
23 worst effects of climate change by encouraging  
24 policies that reduce emissions. I speak on behalf  
25 of our 275 members and their grandchildren. We

1 oppose adoption of the County's draft Climate  
2 Action Plan as currently written.

3           The science of global warming is clear.  
4 The atmospheric level of carbon dioxide, the  
5 primary cause of warming, has been rising  
6 steadily the 1950s. Unfortunately, CO2 is a very  
7 stable molecule that lasts a century or more.  
8 That means that each pound of CO2 we add to the  
9 air now will still be there when our grandkids  
10 are adults. And each additional pound of CO2  
11 contributes to more solar heat trapped in our  
12 atmosphere.

13           Climate scientists have warned us we  
14 are approaching the tipping point of CO2  
15 concentration that will guarantee dangerous and  
16 irreversible global warming. Unless we quickly  
17 reduce emissions, that tipping point will be  
18 exceeded in a decade or less. That is why strong,  
19 effective climate action plans by communities are  
20 important.

21           Stay Cool appreciates the County has  
22 drafted a Climate Action Plan, but we are  
23 disappointed in the implementation details, which  
24 we think are vague and likely to be ineffective.  
25 As the County's highest elected officials, you

1 have a duty to craft plans that serve the  
2 interests not only of today's adults but also the  
3 wellbeing of tomorrow's adults.

4 Perhaps some of you don't take the  
5 threats of global warming seriously and have  
6 wondered what's the hurry? Believe me, there is  
7 no time to waste.

8 I beseech you for the future of my  
9 granddaughter, Violet, and all the grandkids of  
10 San Diego County, do not approve an ineffective  
11 Climate Action Plan. You must do better for our  
12 grandchildren. Thank you.

13 LINDA GIANNELLI PRATT: My name is Linda  
14 Giannelli Prat and I reside in San Diego,  
15 California. My family lives in BonSol and has  
16 lived there since 1965. I joined Stay Cool for  
17 Grandkids to advocate for future generations.

18 Prior to retirement, I was part of the  
19 City of San Diego's team that developed their  
20 Climate Action Plan, and I do totally understand  
21 the complexities and the opportunities inherent  
22 in this planning process.

23 Let me just say that releasing the  
24 modified Option 3 after 5:00 PM last night,  
25 defeats the idea of an open and transparent

1 government. While I have not had the chance to  
2 review it, I already see that removing Zero Net  
3 Energy construction and reducing renewable energy  
4 back to 90 percent is supposedly offset by the  
5 local direct investment program. Quite frankly,  
6 the value of that program to reduce greenhouse  
7 gas emissions is seriously debatable.

8 I implore you to consider the weight of  
9 your decision on our grandchildren and future  
10 generations. Intergenerational equity is the  
11 heart of the lawsuit Juliana v. United States.  
12 The 21 plaintiffs ranging in age from 10 to 20  
13 years old state that the Federal Government's  
14 refusal to take serious action against climate  
15 change unlawfully puts the well-being of current  
16 generations ahead of future generations.

17 In November 2017, the 9th Circuit Court  
18 of Appeals allowed the suit to go to trial. Judge  
19 Aikin set a judicial precedent in her decision.  
20 She said, and I quote, "Exercising my reasoned  
21 judgment, I have no doubt that the right to a  
22 climate system capable of sustaining human life  
23 is fundamental to a free and ordered society."

24 Much has been said about the cost we  
25 might bear to achieve an effective CAP. Well, let

1 me tell you, children alive today may have a \$535  
2 trillion economic liability to pay for technology  
3 required to mitigate greenhouse gas emissions,  
4 according to a recent report. Added to that are  
5 the costs associated with increasing natural  
6 disasters, resource scarcity, and other climate  
7 impacts."

8                   In San Diego County, there are  
9 currently 750,000 children under the age of 18.  
10 Is it fair to pass on these economic, social and  
11 environmental burdens to them? The noblest motive  
12 is the public good. And that should be for today  
13 and the future.

14                   You can vote to send this plan back for  
15 meaningful improvements, because there is no time  
16 to delay.

17                   BOB LEITER: Hi, I'm Bob Leiter, and I  
18 live in Poway, along with my wife. And our kids  
19 and grandkids also live in Poway. And I'm a  
20 retired urban planner. I've worked with many of  
21 you over the years. I'm also a card-carrying  
22 grandfather. I have 17-year-old granddaughter and  
23 an eight-year-old grandson. So, I feel like I'm  
24 kind of representing two constituencies.

25                   One, urban planners have been heavily

1 involved in the planning and the implementation  
2 of climate action plans now in California over  
3 the last 10 years or so. And I really think it's  
4 important and I have a good understanding of it.  
5 But I also think the things that Linda and David  
6 talked about are important as a grandfather.

7 We've worked with your staff and your  
8 consultants for over a year and a half now trying  
9 to help them develop an ambitious and effective  
10 Climate Action Plan. I want to personally thank  
11 Mary Kopaskie Brown and Michael de la Rosa, who  
12 were sort of our shepherds through the process.

13 One of the good things the staff did  
14 was put us in contact with key staff in their  
15 department to help us understand the process and  
16 provide good input when it was needed.

17 However, at this point, we're opposed  
18 to the adoption of the plan in its current form,  
19 and I'd like to briefly review our seven  
20 recommendations for how you can improve the plan,  
21 which are set forth in the letter we submitted to  
22 you dated February 9th.

23 First, the final CAP should include  
24 additional built environment and transportation  
25 GHG reduction measures that will reduce vehicle

1 miles traveled. According to the staff report to  
2 the Planning Commission, and I heard it again  
3 today, the County has limited options under its  
4 control for implementing transportation-based  
5 strategies, and therefore, relies heavily on  
6 energy based solutions.

7 We strongly disagree with that  
8 statement. We believe the County has direct  
9 control over land use and transportation planning  
10 within your communities. And really, it was  
11 mentioned, the SANDAG has authority. The whole  
12 idea of SANDAG was to work collaboratively with  
13 local governments.

14 Good example, in Otay Ranch, the  
15 regional planning agency laid out the concept for  
16 a regional bus rapid transit development, but it  
17 was the City and the County that came up with the  
18 concept of where to locate the routes within the  
19 villages and creating a good village oriented  
20 development.

21 So, I do think the County has a long  
22 way to go in terms of adding built environment  
23 and transportation measures, and that that will  
24 seriously significantly improve the plan.

25 Secondly, it kind of goes along with

1 that, we think you should reduce your reliance on  
2 the direct investment program and clarify how the  
3 program would be effectively implemented. We  
4 understand the concept, but we think you're  
5 putting a lot--way too much reliance on that  
6 particular program.

7 Third, the final CAP should include an  
8 analysis that demonstrates how your plan and  
9 measures are consistent with the regional plans  
10 and other state and regional policies and plans.

11 Again, the way the State of California  
12 has approached greenhouse gas emission reduction,  
13 we're all in this together. The State, the  
14 regional agencies, Caltrans and the local  
15 governments all have a roll to play, and we want  
16 to make sure that there's been a good  
17 coordination of the planning between SANDAG and  
18 the County.

19 Next, we think there needs to be a  
20 better explanation in the plan for how the  
21 General Plan Amendments are being evaluated in  
22 relation to the adopted CAP. We still think  
23 there's confusion among the stakeholders about  
24 how that is actually going to work. We still  
25 support the 100 percent renewable energy by 2030,

1 as Linda has mentioned. We do think there should  
2 be a chapter on social equity issues and specific  
3 recommendations.

4 And finally, we agree with concerns  
5 about housing affordability, but we there needs  
6 to be additional analysis before modifying any  
7 conditions.

8 So, thank you for your time, and we  
9 appreciate your hard work on this.

10 CHAIR KRISTIN GASPAR: Thank you for  
11 your presentation.

12 ANDREW POTTER: I will now call for the  
13 individual speakers in opposition. I'll call  
14 forward the first five. Bill Tippetts, George  
15 Courser, Carl Yaeckel, Maris Brancheau and Chris  
16 Garrett. You'll have two minutes to address the  
17 Board. Please begin by stating your name for the  
18 audio record.

19 BILL TIPPETS: Good morning, Chair  
20 Gaspar, Board Members. Bill Tippetts, representing  
21 the Southwest Wetlands Interpretive Association.  
22 I don't normally agree with things that Jim  
23 Weiland would say about processes like this, but  
24 I do agree with his comment in this case that  
25 this is about as important as the MSCP.

1 Supervisor Jacob was there at the beginning. I  
2 was there at the beginning. This is the thing  
3 now. It's a decade old, if not generational  
4 thing.

5 SWIA has been involved in lots of CAPs  
6 for the last five years, and we think the staff's  
7 doing a very good job, but for five changes that  
8 we put in our letter. And we would not agree that  
9 the Board should adopt the CAP and certify the  
10 EIR unless those recommendations are included.

11 One is your own staff report says that  
12 you're going to apply--be consistent with the--  
13 one minute left?--with the state goals, but your  
14 baseline has to be the 2020 emissions number, not  
15 the 2012 baseline. It's in your own report. You  
16 can't do it that way because that really affects  
17 2030 and 2050 targets.

18 You need to go back--the staff should  
19 go back and be consistent with the GPU 2011 smart  
20 growth areas to reduce [UNINTEL]. Reliance on the  
21 untested development--the direct investment  
22 program is not appropriate. It's too untested.

23 Place reasonable limits on the use of  
24 offside credits. Right now, there is no limit  
25 that potentially a GPA could use offside credits

1 from Brazil. It's untested and inappropriate and  
2 does not have the County then reducing greenhouse  
3 within the County.

4 Fourth, include essential equity  
5 component. We think that's good. Do not remove  
6 those four measures--was five--now the four  
7 measures, because that was 60,000 metric tons per  
8 year of greenhouse gas savings that would have  
9 been through the building sector, and you've  
10 dumped that onto the direct investment program  
11 and other things that are less secure.

12 In summary, we would prefer to see  
13 Option 1 with our recommendations. Thank you very  
14 much.

15 CHAIR KRISTIN GASPAR: Thank you. You  
16 did it.

17 GEORGE COURSER: Good morning, Chair  
18 Gaspar, Supervisors. My name is George Courser.  
19 I'm a volunteer with Sierra Club, San Diego. And  
20 Sierra Club's had an extended conversation with  
21 the County to curb GHG inventory and emissions  
22 from vehicles.

23 Vehicle miles traveled account for 45  
24 percent of the emissions that [UNINTEL] SANDAG,  
25 AQMD, Caltrans and the California Office of

1 Planning and Research are all focused on  
2 reducing, getting cars off the road.  
3 Unfortunately, the proposed CAP shows that this  
4 has been more or less a one-sided conversation  
5 with the County regarding VMT reductions. And the  
6 advantages of reducing VMT are really obvious.  
7 However, they're largely ignored in this CAP,  
8 even though VMT is growing right amongst our  
9 County.

10 Sierra Club has sent the Supervisors  
11 and staff a white paper. It describes pretty much  
12 in detail what's going on with VMT and how to cut  
13 VMT. The basics of VMT reduction are pretty  
14 simple. We spend less time in our cars, we have  
15 less gas to buy, we reduce air pollution, and we  
16 have, you know, better air quality. And  
17 implementing VMT reduction strategies should be a  
18 core part of the CAP. We don't see that.

19 We can save, you know, the time going  
20 to work, the time in our neighborhoods shopping,  
21 and getting our kids to school. But  
22 unfortunately, CARB, SANDAG, Caltrans, AQMD, all  
23 the planning can't be accomplished unless the  
24 County is right there with them. And that's what  
25 we see lacking. Unfortunately, the situation, you

1 know, it points to a situation just last night.  
2 Sherman Heights, they had a community planning  
3 group. CARB staff was there addressing and  
4 interacting with the community. These... Well,  
5 thank you very much.

6 CHAIR KRISTIN GASPAR: We'll find--  
7 that's a cliffhanger for us.

8 GEORGE COURSER: Yes it is. Thank you.

9 CHAIR KRISTIN GASPAR: We're going to  
10 find out what happened. I think you just became  
11 the most popular person in the room. You might  
12 want to see him after the meeting to get the rest  
13 of the story. Good morning.

14 CARL YAECKEL: Good morning. My name is  
15 Carl Yaeckel. I am a local chapter leader and  
16 volunteer with Citizens Climate Lobby, and we're  
17 a nationwide nonpartisan group that works to  
18 build political will to find climate solutions.

19 Why are we here today? Why are you  
20 here? I know why I'm here. I'm here for a two-  
21 year-old girl named Olivia. And she has curly red  
22 hair and bright blue eyes, and she doesn't know a  
23 darned thing about climate change. But you do.  
24 And if you don't know, shame on you. The entire  
25 human race is facing a crisis and people all over

1 the world are looking to their leaders in  
2 government to lead.

3 So, you have a choice today, and you've  
4 had a choice through this whole process, and I  
5 fear you've made the wrong choice because I look  
6 at this and I say this is a plan put together by  
7 the lawyers--and I say that with love, because  
8 I'm a lawyer--to scrape by in your court case, to  
9 scrape by compliance with state law. But we need  
10 more than that from our leaders. We need more  
11 than state law requires. We need more than some  
12 grumpy judge may require next month.

13 We need you to lead us toward 100  
14 percent clean energy. And that's the spirit you  
15 have to have going forward, because the battle  
16 against climate change is going on all over the  
17 world and it has to be won everywhere or it will  
18 be won nowhere. Thank you.

19 CHAIR KRISTIN GASPAR: Thank you. Next  
20 speaker, please.

21 MARIS BRANCHEAU: Good morning. My name  
22 is Maris Brancheau and I represent the Protect  
23 our Communities Foundation, which is a 501(c)(3)  
24 based in Santa Ysabel, California, originally  
25 formed by Backcountry residents to protest the

1 Sunrise Powerlink, and existing today to promote  
2 smart energy and to protect Backcountry rural  
3 places from unnecessary energy infrastructure.

4 First, this plan does not conform to  
5 the requirements under CEQA that all viable  
6 alternatives be studied, because the County has  
7 rejected a distributed generation 100 percent  
8 alternative.

9 The County has enough rooftop space to  
10 meet its renewable energy needs, especially if  
11 the County were to survey the amount of space  
12 available in parking lots and on commercial  
13 rooftops. The CAP fails by rejecting the viable  
14 distributed generational alterative without a  
15 full analysis under CEQA.

16 Secondly, POC strongly supports the  
17 County moving towards off the grid solutions for  
18 the 10,000 or so meters in the unincorporated  
19 area that have been subjected to power shutoffs.  
20 And we're grateful to Supervisor Jacob for her  
21 recent letter to the CPUC about this matter.

22 Battery storage opportunities with  
23 large-scale battery projects recently launched in  
24 Vermont and Australia have shown that home solar  
25 and battery storage can generate 100 percent of

1 the energy needed, and we don't need these large  
2 solar projects that some of the other speakers  
3 were talking about.

4 Third, POC supports the position of the  
5 Sierra Club and the other environmental groups  
6 who have studied the proposed CAP and found it  
7 lacking. Saying no today might not be the easiest  
8 thing to do to send this back to staff, but it is  
9 the right thing to do, to make sure that the  
10 County has a legally defensible, properly  
11 evaluated, CEQA compliant plan to deal with the  
12 climate impacts of the General Plan Update.

13 Please send this CAP back for full  
14 analysis of a 100 percent distributed generation  
15 alternative. A reminder that this CAP is  
16 mitigation for all the entitlements approved  
17 under the General Plan Update in 2011. Thank you.

18 CHAIR KRISTIN GASPAR: Next speaker,  
19 please.

20 ANDREW POTTER: As the next speaker is  
21 approaching, I'd like to call forward the next  
22 group of five speakers. Kathy Van Ness, Dan  
23 Silver, Jack Shu, Andrew Yancy and Frank Landis.

24 CHRIS GARRETT: Hi. My name's Chris  
25 Garrett, Latham & Watkins, 12670 High Bluff. I've

1 been writing to the County on climate change  
2 issues for the past three years on behalf of the  
3 Golden Door, which is a resort international  
4 brand grove and agricultural operation.

5 We want to thank the staff for their  
6 strong efforts on this plan, though we oppose it,  
7 in particular, the actions on the agricultural  
8 items. The electric motors and everything else  
9 makes sense.

10 As our General Manager, Kathy Van Ness,  
11 will tell you, we've ordered 15,000 trees, which  
12 are going to be planted in our grove operations.  
13 And if anyone wants our carbon credits, let us  
14 know. So, we're sure happy for that.

15 We've sent a lot of paper to you. I'm  
16 not going to cover that paper. I want to focus on  
17 two practical things that perhaps could resolve  
18 our concerns.

19 First of all, you're here today because  
20 you said you would do a Climate Action Plan in  
21 the 2011 General Plan covering the 2011 General  
22 Plan. We support that. Unfortunately, the staff  
23 made the policy choice to not only cover in the  
24 2011 General Plan, but also possible General Plan  
25 changes that would happen in the future with

1 preapproved mitigation, with a specialized  
2 threshold, and with a checklist.

3           And we were told in the Planning  
4 Commission that future projects, including  
5 General Plan changes, could come in and their  
6 CEQA review would be just going with the  
7 checklist--are you consistent with the plan.  
8 That's a policy choice. We'd urge you to reverse  
9 that policy choice.

10           As your staff said today, yes, these  
11 General Plan Amendments will have to do CEQA and  
12 they will have to mitigate, but they'll be able  
13 to tier off of the Climate Action Plan, follow  
14 the mitigation here. They won't do their own  
15 standalone GHG analysis. Send it back to the  
16 Planning Commission. Ask them to amend these  
17 documents so that there is standalone GHG  
18 analysis for each of these projects. And this  
19 Climate Action Plan only covers the 2011 General  
20 Plan, not all these future General Plan  
21 Amendments.

22           In my 15 seconds left, I would mention  
23 VMT as well. It's important to address VMT in  
24 these documents. Supervisor Roberts has a point  
25 of view, which I understand, about VMT, and we

1 just think the documents need to address it, if  
2 that's what you want to do. If you limit the  
3 General Plan, just the 2011 General Plan, you  
4 won't have to worry about VMT as much because  
5 SANDAG has already done the analysis.

6 CHAIR KRISTIN GASPAR: Thank you.

7 CHRIS GARRETT: The VMT problem comes  
8 when you add in these extra General Plan  
9 amendments. I've run out of time, or I could tell  
10 you what the cliffhanger was.

11 CHAIR KRISTIN GASPAR: [UNINTEL]

12 CHRIS GARRETT: I was at the same  
13 meeting with Mr. Courser. Thank you.

14 CHAIR KRISTIN GASPAR: You never know.  
15 If anyone has any time left that knows the  
16 conclusion, please utilize it wisely.

17 Welcome.

18 KATHY VAN NESS: Hi, Madam Chair,  
19 members of the Board, and staff. I'm Kathy Van  
20 Ness, General Manager and COO of the Golden Door.  
21 And I'm happy to be here today to talk about we  
22 are committed to sustainability in environment.  
23 We work on this every single day at the Golden  
24 Door.

25 The Climate Action Plan represents the

1 County's promise to its residents that we'll do  
2 our fair share to curb the growing threat of  
3 climate change. However, we remain concerned the  
4 proposed plan fall short.

5 In particular, the CAP plan provides a  
6 framework that would allow sprawl development  
7 projects to meet the County's greenhouse gas  
8 requirements simply by paying for credits  
9 anywhere in the world, that allegedly would then  
10 result in emissions reductions.

11 We're concerned the County will not be  
12 able to enforce or even verify these reductions.  
13 Just consider the plausibility of buying  
14 something in a foreign country for our local  
15 community.

16 We are also concerned the residents  
17 will be deprived of important co-benefits and  
18 opportunities of just really seriously building a  
19 green economy. Local efforts to reduce greenhouse  
20 gas emissions can be reduced harmful air  
21 pollutants and traffic congestions that impact  
22 people right here.

23 Also, greenhouse gas reductions are new  
24 investments. They're new jobs. Green technology  
25 and jobs are going to be the fastest growing

1 thing in the industry today. These important co-  
2 benefits should be kept here, right in our  
3 county, not shipped abroad, where we don't even  
4 understand clearly what it means.

5 The Climate Action Plan should align  
6 with smart growth principles and focus on  
7 development near existing populations, and  
8 affordable transit, not far away from urban  
9 populations, where there is actually no structure  
10 or no infrastructure.

11 By doing this, the County can reduce  
12 traffic congestion and support regional  
13 transportation investments that rely on smart  
14 growth planning. Thank you very much.

15 CHAIR KRISTIN GASPAR: Thank you.

16 ANDREW YANCY: Madam Chair, Honorable  
17 Commissioners, counsel and staff, I'm Andrew  
18 Yancy, an attorney with Latham & Watkins. I  
19 represent the Golden Door and also cover  
20 greenhouse gas issues for our firm.

21 I will 'd like to talk about our  
22 concerns with Mitigation Measure GHG-1, which is  
23 this separate program included in the CAP CIR. It  
24 addresses General Plan Amendments. We've  
25 submitted a detailed letter to you, as well as

1 several others to the Planning Commission and  
2 staff.

3 To talk about this more in detail, just  
4 to let you know, the summary of our concerns are  
5 that for General Plan Amendments there is not  
6 enough focus on VMT. There's no requirements for  
7 VMT reduction. There's no requirements for local  
8 offset projects. But instead, General Plan  
9 Amendments developing in the rural areas of the  
10 County would be allowed to purchase unlimited  
11 offsets from foreign countries in order to do  
12 their GHG mitigation.

13 Now, that has some inconsistencies with  
14 CARB's guidance, the State expert agency. That's  
15 going to cause some issues for SANDAG in meeting  
16 its own GHG reduction targets under SummitBridge  
17 375.

18 So, it seems that this is a prudent  
19 time for the County to coordinate with SANDAG and  
20 with CARB. In fact, when the County passed the  
21 General Plan in 2011, it thought the same. Policy  
22 COS-20.3 refers to regional collaboration with  
23 state agencies and SANDAG regarding air quality  
24 planning efforts. Policy LU-4.1 also requires  
25 participation in regional planning, particularly

1 regarding SummitBridge 375.

2 Now, I'm not aware that that's been  
3 done. In fact, I believe my colleague, Mr.  
4 Garrett, and I have done more to coordinate with  
5 SANDAG and CARB than the County has in this  
6 matter. We've written letters talking about this  
7 separate program for GPAs. We've appeared at  
8 public meetings, including the one last night in  
9 Sherman Heights, where CARB staff came down to  
10 San Diego to talk to us about their plans. No  
11 County representation was there.

12 I'd also like to address environmental  
13 justice. This really is an environmental justice  
14 issue. There are communities in San Diego that  
15 could really benefit from VMT reduction, from  
16 local offset programs, from investment and  
17 transit, from programs that help them buy these  
18 electric cars. Instead allowing an unlimited  
19 purchase of offset credits from foreign countries  
20 does a disservice to those local environmental  
21 justice communities here in San Diego. Thank you.

22 CHAIR KRISTIN GASPAR: Thank you.

23 DAN SILVER: Good morning, Chair Gaspar,  
24 Board members. Dan Silver, Endangered Habitats  
25 League. We regretfully ask you to send this item

1 back for additional work. It is in the CAP's  
2 treatment of General Plan Amendments that its  
3 flaws become overwhelming.

4 The County of San Diego absolutely  
5 should not facilitate sprawl development with  
6 this CAP. The County has basic absolute control  
7 over General Plan Amendments. Even so, there is  
8 no measure to reduce vehicle miles traveled in  
9 newly planned residential development.

10 According to the Air Resources Board,  
11 reducing VMTs is "essential". The SANDAG SCS  
12 follows this advice. It is unnecessary under CEQA  
13 to include this optional pathway for GPA  
14 conformance. These GPAs will forever undermine  
15 San Diego's ability to reduce carbon emissions.

16 As you've heard, there are further  
17 problems. GPAs can buy their way out of sprawl  
18 with offsets, including in foreign countries. The  
19 only such limit is "feasibility", but feasibility  
20 is never defined. Certainly, overseas credits are  
21 unenforceable, unless you have a very large  
22 travel budget.

23 If covered at all, newly planned  
24 development should go into smart growth  
25 opportunity areas, as defined by SANDAG, or

1 otherwise make a fair share contribution to SCS  
2 VMT reduction targets. And there should be a  
3 strict percentage on how much emission reductions  
4 can occur offsite as opposed to on-site. Thank  
5 you very much.

6 CHAIR KRISTIN GASPAR: Thank you.  
7 Welcome.

8 JACK SHU: Hi. I'm Jack Shu with the  
9 Cleveland National Forest Foundation, from La  
10 Mesa, California.

11 Let's remember what this is all about.  
12 It's about good science and information. Ninety-  
13 seven percent of scientists says this is  
14 happening and it's human-caused. We know that  
15 greenhouse gas emissions causes temperature rise.  
16 For the past million years, this is going on.  
17 It's gone skyrocketed in terms of greenhouse gas  
18 emissions. We have to control this.

19 Go on, next, next. We have to get it  
20 down below 350. Okay, keep going. And we've got  
21 drought happening. We suffer from drought now. We  
22 know it's going to continue. Next slide.

23 We know about fires. It's affecting us.  
24 Put that into your equation of cost analysis.  
25 Next slide. We're going to get flooded out. Put

1 that into your cost analysis for future  
2 generations. Your districts are all going to  
3 change.

4 Yet after years of litigation and  
5 having some of the best scientists and abilities  
6 and one of the wealthiest communities in the  
7 world, this is our--this is what you come up  
8 with. The green line, or that center little line,  
9 that's what you came up with. The yellow stuff is  
10 this dreamed up offsite stuff.

11 And lastly, in terms of transportation,  
12 your greatest source of greenhouse gas emissions,  
13 you have the red area, an area that you  
14 completely did not come up with any solutions.  
15 Essentially, you have no plan, you don't have a  
16 CAP. You've done nothing except a green little  
17 sliver going into 2050.

18 You know, a judge said a number of  
19 years ago with regards to greenhouse gas  
20 emissions, don't kick the can down the road.  
21 Here, if you pass this the way it is now, without  
22 major amendments and dealing with urban growth  
23 boundaries--and really addressing VMT, you're  
24 kicking the can off the cliff. Thank you.

25 CHAIR KRISTIN GASPAR: Thank you. Next

1 speaker, please.

2 ANDREW POTTER: As the next speaker is  
3 approaching, I'd like to call forward the  
4 remaining speakers in opposition. Sophie Wolfram,  
5 Joy Frew, Cody Patterson, Michael Bullock, Josh  
6 Chattan-Brown.

7 FRANK LANDIS: Hi, my name is Frank  
8 Landis. I'm a San Diego resident. I'm  
9 representing the California Native Plants  
10 Society. I'm the Conservation Chair and Vice  
11 President of the local chapter.

12 Madam Chairman Gaspar and members of  
13 the Board, thank you for taking my testimony.  
14 CNPS strongly supports the County's having a  
15 Climate Action Plan that works 100 percent.  
16 Unfortunately, this is not the plan, which is why  
17 we oppose the current version before you.

18 The proposal passed by the Planning  
19 Commission achieves about 92 percent of the  
20 inadequate greenhouse gas reduction that the  
21 Planning Development Services brought before  
22 them, and we need a plan that works 100 percent.  
23 And also, I can't really say what the modified  
24 proposal is because I only had an hour and a half  
25 to look at it while I was waiting to testify.

1           As others have said, there's a laundry  
2 list of issues. We've heard about VMTs. We agree.  
3 We've heard about the 1990 baseline. We agree.  
4 We've heard about the General Plan Amendments  
5 tiering off of this, which we agree. General Plan  
6 Amendments are an addition. They shouldn't be  
7 under this CAP.

8           Also, the Planning Commission  
9 eliminated Mitigation Measures E-1.1, E-2.2 and  
10 W-1.2, I believe. These represent at least 8  
11 percent of the County greenhouse gas reductions  
12 alone, so that's where the 92 percent comes from.  
13 And overreliance on direct investment and carbon  
14 offsets won't work because these are hard to do  
15 correctly over the long term in a changing  
16 climate.

17           I'll expand on the last two. The three  
18 mitigation members were lobbied against by the  
19 building industry because they will raise  
20 developers' costs, and this is true. However, if  
21 I remember correctly, one of the Planning  
22 Commissioners who supported them mentioned the  
23 \$10,000 he spent on solar at his home in Hawaii  
24 as reason for supporting their proposal. That's  
25 over four times what I spent on high-end solar

1 panels on my middle-class home.

2 The costs he and the lobbyists  
3 mentioned in supporting this measure are far  
4 higher than I experienced as a middle-class  
5 homeowner, and I would gently suggest that the  
6 building industry protests a little bit too much,  
7 and that removing the mitigation measures will  
8 cost the County more than the building industry  
9 will gain. The measures are good--the mitigations  
10 are a good deal for the County as a whole, and I  
11 think they should be retained.

12 Directed investment and off-site  
13 carbon--and carbon offset off-site would be great  
14 if Planning and Development Services knew the  
15 technical aspects of what they're getting into.  
16 I'm afraid they don't. These things have to work  
17 for 100 years, and keeping a tree growing 100  
18 years, whether it's a street tree, an orange  
19 tree, or a tree up in Cuyamaca is a really hard  
20 thing to do in a changing climate. And that's  
21 what the problem is that they haven't addressed.

22 So, thank you for taking my testimony.

23 CHAIR KRISTIN GASPAR: Thank you. Next  
24 speaker, please.

25 SOPHIE WOLFRAM: Good morning. My name

1 is Sophie Wolfram. I'm with Climate Action  
2 Campaign. The final CAP is currently inadequate  
3 to sufficiently reduce emissions. We offer the  
4 following recommendations to improve it.

5 First, I'll agree with comments  
6 previously made by other speakers in opposition  
7 regarding the need for greater reductions from  
8 built environment and transportation, problems  
9 with offsite offsets, and overreliance on the  
10 direct investment strategy.

11 In addition, we recommend inclusion of  
12 100 percent clean energy, which should be  
13 achieved through Community Choice Energy on the  
14 fastest possible timeline. We are literally being  
15 left behind as L.A. County and Riverside County  
16 both move forward with Community Choice Energy  
17 because of the rate savings for customers.

18 Meanwhile, in San Diego County, we have  
19 the highest rates for electricity in the state,  
20 and the most impacted by rate increases are  
21 customers on CARE. The Office of Ratepayer  
22 Advocates has chastised SDG&E for the huge rate  
23 increases, and the only way to contain costs is  
24 through competition.

25 The County, meanwhile, is shielded from

1 rate increases by direct access, but families are  
2 hurt and that's not fair. They should have the  
3 option to benefit from Community Choice Energy  
4 just as the County benefits from its alternative  
5 to SDG&E.

6 Finally, the CAP needs to include  
7 serious treatments of social equity that  
8 addresses how the County will prioritize high-  
9 scoring communities and CalEnviroScreen, the  
10 State's Environmental Justice screening tool, or  
11 other screening tools for disadvantaged  
12 communities.

13 In its current form, we ask that the  
14 Board reject the CAP for being inadequate to  
15 sufficiently reduce emissions and return it to  
16 staff for significant improvements. Thank you.

17 CHAIR KRISTIN GASPAR: Thank you. Next  
18 speaker, please.

19 JOY FREW: Good morning. My name is Joy  
20 Frew and I represent the Fallbrook Climate Action  
21 Team. And I want to thank you for giving us the  
22 opportunity to speak today.

23 I am, and the people I represent, are  
24 in favor of mass transit. A year ago I came to  
25 speak with the Planning Commission members, or

1 the staff members, about the problem of lack of  
2 public transportation from Fallbrook. And we were  
3 told that it's not anything that County can do  
4 anything about completely, because we don't have  
5 complete purview over it. But yet, Supervisor  
6 Horn has been the Chair of the North County  
7 Transit District. And I know you all are part of  
8 the SANDAG, so it's kind of like you're on a  
9 circular firing squad and, you know, you are the  
10 perpetrator and the victim.

11 But actually, the County and people in  
12 the unincorporated areas are the victim. For  
13 increased greenhouse gases, 45 percent of the  
14 greenhouse gas emissions are from vehicle miles.  
15 And you told us from the beginning you're not  
16 going to do anything to address it in the Climate  
17 Action Plan.

18 So, I'd like to see it go back to the  
19 table. I'm really disappointed that you've wasted  
20 all of our taxpayer money when you're not really  
21 going to address the issue. That's very  
22 disappointing. But I do want to thank Supervisor  
23 Jacob for taking leadership and asking your  
24 fellow Supervisors to support Community Choice  
25 Aggregation. Thank you for that.

1 CHAIR KRISTIN GASPAR: Thank you. Next  
2 speaker, please.

3 CODY PATTERSON: Cody Patterson, 7633  
4 County Camino [UNINTEL PHRASE] California. I also  
5 own and manage 310 acres, half a section in San  
6 Isabel, an unincorporated area.

7 Chairwoman Gaspar, Supervisors, staff,  
8 thank you for the opportunity to speak. First let  
9 me say staff have clearly invested substantial  
10 time and energy in this CAP document and within  
11 the parameters established by their superiors,  
12 done admirable work. But this is not the Climate  
13 Action Plan you would put together if you  
14 actually thought greenhouse gas reduction were  
15 essential to stave off global and regional  
16 calamity.

17 This is the kind of plan you put  
18 together so you can satisfy the letter of  
19 California state law and have cover 20 years from  
20 now, when we've failed to hit our carbon targets  
21 and are suffering the consequences. We did our  
22 best. Well, honestly, this isn't our best. Not  
23 even close.

24 I can tell you right now this plan  
25 isn't going to sufficiently reduce our County's

1 greenhouse gas emissions. This CAP leaves  
2 virtually untouched the primary determinant of  
3 the County's ability to hit its greenhouse gas  
4 targets, which is land use.

5 Staff explicitly stated in the Planning  
6 Commission hearing that the CAP is not a land-use  
7 control document, which they noted is the  
8 exclusive preserve of the General Plan. But the  
9 CAP also doesn't mandate any alterations of the  
10 General Plan.

11 Furthermore, this plan doesn't  
12 establish adequate constraints on General Plan  
13 Amendments, which obviously are the single most  
14 significant threat to GHG reductions in the  
15 unincorporated county.

16 There is absolutely no way to achieve  
17 meaningful reduction of GHGs without constraining  
18 leapfrog development and sprawl, and directing  
19 growth into transit-oriented, mixed use, in-field  
20 development, with on-site affordable units. Far  
21 from mandating the development of mass transit in  
22 collaboration with SANDAG and MTS, the plan only  
23 mentions public transit as a supporting effort of  
24 T-1.3. The plan mandates no change to land use  
25 and no expansion of mass transit.

1 Frankly, the only way the County is  
2 going to dramatically reduce GHG emissions in the  
3 unincorporated areas is to collaborate with  
4 cities to focus in-field development and  
5 population growth in the incorporated areas.

6 This plan is not just woefully  
7 inadequate, it is willfully inadequate. There is  
8 no pain in this plan. You don't finish a  
9 marathon, much less win one, without pain,  
10 without exertion, without exhaustion, without  
11 collapsing at the finish line. This plan is jog  
12 walking.

13 CHAIR KRISTIN GASPAR: Thank you.

14 CODY PATTERSON: Thank you.

15 CHAIR KRISTIN GASPAR: Wow, you had an  
16 extra second. One of you needs to sing. It's like  
17 seventh inning stretch, so hopefully, you have  
18 some time left.

19 MIKE BULLOCK: Hello, Honorable Board.  
20 I'm Mike Bullock. And even though I mention the  
21 Sierra Club, I speak only for myself. The final  
22 published ruling against the County said, "The  
23 Sierra Club also provided specific examples of  
24 feasible greenhouse gas reduction measures that  
25 would actually reduce greenhouse gas emissions

1 and could be adopted without delay." The County  
2 rejected these mitigation measures without  
3 substantial evidence for doing so.

4 This time around, the Sierra Club as  
5 proposed the same demonstration car parking  
6 system. The CAP argues weakly that it is  
7 infeasible. It claims it would not be feasible  
8 because the County has different work locations.  
9 But of course, the pricing and earnings for  
10 employees could easily be site specific.

11 The County also asserts unions would be  
12 opposed. But of course, the unions are much more  
13 concerned about our climate crisis than most  
14 Republicans, for example. And besides, the  
15 proposal includes an add-in payment, so that even  
16 employees that drive every day will break even  
17 under the plan. The result is that every worker  
18 would have a new option to earn more money than  
19 they are earning under the current system.  
20 Something that would not be opposed by the  
21 unions.

22 Finally, instead of mitigating the  
23 approval of additional urban sprawl with carbon  
24 offsets that will most likely be out of County,  
25 please mitigate by not approving such sprawl.

1 Governor Brown has said, "Humanity must  
2 reverse course or face extinction." The County  
3 must reverse course right now at this meeting.  
4 Please put the car parking proposal into the CAP,  
5 adding to your T-2.3. Thank you.

6 CHAIR KRISTIN GASPAR: Thank you, sir.  
7 Welcome.

8 JOSH CHATTAN-BROWN: Good morning,  
9 Honorable members of the Board. My name is Josh  
10 Chattan-Brown. I'm an attorney with Chattan-Brown  
11 & Carstens, here today on behalf of the Sierra  
12 Club.

13 We urge the Board today to correct the  
14 deficiencies we identified along with many  
15 others. Staff has argued, including today, that  
16 the CAP is not a land use document. As a result,  
17 the County continues to process major general  
18 plan amendments [UNINTEL] in Sierra that result  
19 in sprawl and additional vehicle miles traveled,  
20 without considering those impacts through the  
21 CAP. Staff is wrong.

22 The CAP is inextricably connected to  
23 land use planning. I remind the Board that the  
24 CAP was mitigation for the 2011 Gen. Plan Update  
25 GHG impacts. And the Board should not increase

1 VMTs by processing and approving development on  
2 lands that GPU contemplated would be reserved as  
3 green fields, which are rural, agricultural or  
4 open space uses, until the County first shows  
5 that it can meet the GHG emission reduction  
6 commitment in the County that it made in 2011.

7 The CASP is clear. The only way that  
8 the County would be able to approve such new  
9 largescale development on green fields would be  
10 through the use of offsets. The County agreed in  
11 2011 to reduce GHG emissions in the County, and  
12 now the CAP would allow offsets, not only out of  
13 county, but also out of country, raising serious  
14 questions about their enforceability.

15 As Mr. Courser previously alluded to,  
16 despite recognizing that transportation is by far  
17 the largest contributor to GHGs at 45 percent of  
18 the County's total GHG emissions, the CAP only  
19 proposes to implement measures that would produce  
20 a meager 13 percent GHG reduction in this area by  
21 2030.

22 Lastly, the proposed threshold of  
23 significance is inadequate because it would allow  
24 GHG emissions from a project to be considered  
25 below the level of significance if the County

1 find that the project is consistent with the CAP.  
2 The GHG impacts for large projects must be  
3 quantified and mitigated.

4 Looks like I'm out of time, so I'll be  
5 in the back with George and Chris, if you'd like  
6 any more information. Thanks.

7 ANDREW POTTER: Chairwoman Gaspar, that  
8 includes public testimony on this item.

9 CHAIR KRISTIN GASPAR: Well, a big thank  
10 you for all the time that you've dedicated to us  
11 today and the testimony provided. Thank you for  
12 complying with the tight timeframe in which you  
13 had to speak. And really appreciate all of the  
14 input that you've given.

15 First, I'd like to start out by asking  
16 legal counsel a question, because they love when  
17 you do this. But to clarify for the record, what  
18 real flexibility to we have here today? Given the  
19 legal challenge that we're up against, can we  
20 make changes on the spot today to the measures  
21 themselves as outlined in the CAP?

22 CLAUDIA SILVA: The measures that are  
23 presented before you have been fully analyzed,  
24 not only individually to make sure there is  
25 sufficient evidence within the record to support

1 how they were calculated and determined, as well  
2 as the methodology of how they're all  
3 interrelated to achieve the needed reductions.

4 Changes today on the fly to any  
5 particular measure would require a level of  
6 analysis that could not occur without substantial  
7 time and effort to rerun models, to redo the  
8 analysis, and that would require additional time.  
9 And we cannot say with any degree of certainty  
10 whether those changes could even achieve the  
11 total numbers of reductions that are targeted.

12 CHAIR KRISTIN GASPAR: But I appreciate  
13 that, and unfortunately, it is the case that  
14 we're simply out of time. I know several speakers  
15 pointed to that today. They understand the legal  
16 challenge that we're under, and we do have very  
17 narrow options, albeit options, presented before  
18 the Board today.

19 I'm very concerned about the late  
20 letter that was received by the County  
21 threatening additional litigation. It's evident  
22 that if we do not comply with all demands  
23 outlined in that letter, we will find ourselves  
24 back in court. And tragically, it's ironic and  
25 discouraging at the same time that we'll be

1 spending thousands more on attorneys instead of  
2 additional environmental initiatives and work.

3 I want you to know that I've studied  
4 this plan extensively. I thank staff for the time  
5 that you spent with me. We had to separate out  
6 the briefing into two segments. It ran so long,  
7 but the hours of your time was really important  
8 to me.

9 But at the end of the day, I'm  
10 concerned about a number of things, such as  
11 implementation itself, the costs involved,  
12 consumers and residents, and impacts to the CAP  
13 on our housing shortage, which is a crisis.

14 Looking at our regional housing needs  
15 assessment, or some would call the [UNINTEL]  
16 numbers, we are way behind in meeting our  
17 mandated affordable housing for the San Diego  
18 region.

19 In our 10-year housing cycle, which  
20 states 2010 to 2020, we were allocated 22,412  
21 units. We are eight years in and nearing the  
22 conclusion of this housing cycle, and we have  
23 built a total of 4,644 units out of 22,412. And  
24 ladies and gentlemen, these units do not just go  
25 away.

1           To put it into perspective, at the pace  
2 that we're actually building this affordable  
3 housing, I will be 67 years old by the time we  
4 meet this goal. We will fall well short of our  
5 obligation and allocation, and we will have  
6 roughly 16,000 units on the table when the next  
7 [UNINTEL] allocation comes in 2020. Then we will  
8 be responsible for adding the unmet units to the  
9 new units that will be handed by the State.

10           If you look at how well we're doing  
11 building very low-income affordable housing, the  
12 picture gets even weaker. In 2017, there was one  
13 unit built. In 2016, zero. In 2015, one; 2014,  
14 zero. Need I go on? It's not good, and we know  
15 this. All of us as a community, we know this.

16           I have three children at home. I grew  
17 up in this county, and I'm raising my family  
18 here. Will my kids be able to do the same? Will  
19 yours?

20           I also want to briefly discuss the  
21 renewable energy program options. As we move  
22 forward in this implementation planning stage,  
23 it's my expectation that a comparative analysis  
24 is done to study all viable options. It should be  
25 the apples to apples comparison that several

1 speakers brought up today.

2 Last week I had the pleasure of meeting  
3 with the American Society of Landscape  
4 Architects. I applaud these professionals for the  
5 innovative ways they are using landscape project  
6 design to address environmental goals and solve  
7 environmental challenges.

8 It's also my expectation as we move  
9 forward with implementation that professional  
10 associations such as the American Society of  
11 Landscape Architects should be consulted for  
12 their guidance, their innovation, and their best  
13 management practices, that will help us not only  
14 to meet our environmental goals, but to exceed  
15 them.

16 It's important to recognize that all  
17 CAP measures come with a cost. And at the end of  
18 the day, all of these costs are realized either  
19 directly or indirectly by our residents, the many  
20 San Diegan residents who are working hard day in  
21 and day out to make ends meet in expensive San  
22 Diego County. Our residents are relying on us to  
23 meet our environmental goals and to perform a  
24 cost analysis of all aspects of this plan as we  
25 forward in the implementation stage.

1           Having shared my concerns with you, I  
2 believe that the best way to move forward and  
3 move our County forward is with Option 3. As  
4 such, I would like to make a very extensive  
5 motion at this time to, number one, adopt the  
6 California Environmental Quality Act findings  
7 which include the Certification of Findings  
8 regarding significant effects of the project, the  
9 mitigation and monitoring program, the statement  
10 of overriding considerations, and the  
11 recirculation statement prepared pursuant to CEQA  
12 Guidelines, Sections 15088.5, 15090, 15091,  
13 15093, and 15097, and certify the final  
14 supplemental environmental impact report final  
15 SEIR; adopt the guidelines for determining  
16 significance for climate change dated January  
17 2018; adopt the resolution of the County of San  
18 Diego Board of Supervisors; adopting the  
19 Greenhouse Gas Threshold of Significance dated  
20 January 2081; adopt the draft final climate  
21 action plan Option 3, Residential and  
22 Nonresidential development which includes the  
23 final SEIR; increase solid waste diversion  
24 alternative; and 100 percent renewable energy  
25 alternative; and remove five reduction measures

1 with a modification to one reduction measure.

2 To adopt the Climate Action Plan  
3 Consistency Review Checklist dated January 2018;  
4 adopt the report format and content requirement  
5 for climate change dated January 2018; adopt the  
6 resolution of the County of San Diego Board of  
7 Supervisors updating the 2011 General Plan,  
8 update program environmental impact report  
9 mitigation measures CC1.2, CC1.7, and CC1.8.  
10 Adopt the resolution of the County of San Diego  
11 Board of Supervisors adopting the General Plan  
12 Amendment PDS2016GPA16-007 amending the 2011  
13 General Plan Update Goal COS20 and Policy  
14 COS20.1.

15 Adopt the resolution of the County of  
16 San Diego Board of Supervisors to apply for and  
17 accept grant funding to support the Climate  
18 Action Plan and authorize the chief  
19 administrative officer or designee to apply for  
20 and accept grant funds and negotiate contracts to  
21 support implementation of the Climate Action  
22 Plan.

23 That was a lot. Looking for a second.

24 Thank you, supervisor. We'll move  
25 forward with the discussion with our Vice

1 Chairwoman Jacob.

2 VICE CHAIR DIANNE JACOB: Thank you,  
3 Madam Chair. I'd like to thank everyone that came  
4 down to speak on this and thank the staff for  
5 their work and all of the input that has been  
6 received here today, and then as we've gone  
7 through this process. Just a question on the  
8 motion. Is that basically the modified staff  
9 recommendation?

10 CHAIR KRISTIN GASPAR: This is actually  
11 the Planning Commission recommendation, Option 3  
12 without the modification by staff. 100 percent  
13 renewable energy option.

14 VICE CHAIR DIANNE JACOB: We do--there's  
15 no doubt we do have a difficult task before us,  
16 and it's a balancing act between trying to  
17 provide affordable housing in this region and  
18 also adding cost to that affordable housing. But  
19 I would submit that there are other conflicting  
20 policies that we've been dealing with over the  
21 years in terms of that conflict in public policy,  
22 and I would name just a couple.

23 If you look at prevailing wage,  
24 prevailing wage has increased the cost of housing  
25 over the years. Project labor agreements have

1 increased housing costs over the years, and  
2 there's probably some others--storm water  
3 requirements and other public policies that are  
4 in conflict with our ability to provide for  
5 affordable housing.

6 I think what we're faced with here is,  
7 how do we balance those two as we look at the  
8 conflicts between trying to provide affordable  
9 housing and then what's the right option here.  
10 What I'm looking at is, what is the best option  
11 in terms of what's best for the people in this  
12 region, particularly our grandchildren and great  
13 grandchildren into the future. What is the best  
14 legal option, and counsel has said all of the  
15 options before us today are legal. Then, what's  
16 realistic and what is practical to achieve, and  
17 it seems like with many of what staff has before  
18 us, it's all going to depend on implementation  
19 and the comparative analysis. And it's that old  
20 saying, the devil is in the details.

21 Having said that, I have a couple of  
22 questions. There was a comment that was made  
23 about--that this is basically going to allow  
24 developers to provide plan amendments that will  
25 buy their way into sprawl. And reference was made

1 to the checklist. And I have the checklist in  
2 front of me and I'd like staff to respond exactly  
3 what does this mean and who would it apply to in  
4 terms of development proposals?

5 MAN 1: Supervisor Jacob, through the  
6 Chair. The checklist would be used by General  
7 Plan consistent projects. Once they provide  
8 substantial evidence that they meet all the  
9 measures in that checklist, their analysis for  
10 greenhouse gas emissions would be assumed to be  
11 consistent with the Climate Action Plan, and  
12 therefore their cumulative impacts to greenhouse  
13 gas emissions would be reduced to a level of less  
14 than significant.

15 That checklist is not used by General  
16 Plan amendments. General Plan amendments do not  
17 tier from the cap or are not afforded any  
18 streamlining benefits from the cap. General Plan  
19 amendments are not in the baseline inventory or  
20 the projections for the cap; they're simply  
21 analyzed as cumulative impacts and the County has  
22 feasible mitigation and we must apply feasible  
23 mitigation when there are cumulative impacts.

24 VICE CHAIR DIANNE JACOB: Okay, I hear  
25 what you're saying. Then, explain to me number

1 one on the checklist, "Is the proposed project  
2 consistent with the existing General Plan  
3 regional category land use designations and  
4 zoning designations?" That's pretty clear.

5 And then it--also, "If yes, proceed to  
6 step two," which is cap measures consistency of  
7 the checklist. But--and it does say, "If no  
8 proceed to question two below," and then question  
9 two below, "Does the project include a land use  
10 element under zoning designation amendment that  
11 would result in an equivalent or less GHG  
12 intensive project when compared to the existing  
13 designations?"

14 That doesn't seem to be consistent, to  
15 me, with what you just said.

16 MAN 1: Supervisor Jacob, that piece of  
17 the checklist--so, what the checklist is meant to  
18 capture is General Plan consistent projects that  
19 are consistent with the density or intensity in  
20 the General Plan. We recognize General Plan  
21 amendments in process excluded that there may be  
22 certain scenarios where a GPA comes in to, for  
23 example, become consistent with--or requires a  
24 rezone to be consistent with land use or vice  
25 versa.

1           That would afford those projects that  
2 aren't increasing any density or intensity an  
3 ability to use the checklist as well, because  
4 they would stay below that density that was  
5 approved in the 2011 General Plan.

6           VICE CHAIR DIANNE JACOB: Thank you for  
7 that. I think the checklist needs to be clearer  
8 then, exactly what it applies to and to make sure  
9 that there's no misunderstanding. Because I heard  
10 some testimony today where at least there are  
11 some individuals that think that this is going to  
12 enhance the ability of General Plan Amendments to  
13 work its way through the process. So, could we  
14 add that to the motion for staff to clarify on  
15 the checklist exactly what this checklist applies  
16 to as was stated?

17           CHAIR KRISTIN GASPAR: You able to  
18 comply with that request? Perfect.

19           MAN 1: Yes.

20           VICE CHAIR DIANNE JACOB: Another--

21           CHAIR KRISTIN GASPAR: Is the seconder  
22 okay with the modification? Thank you.

23           VICE CHAIR DIANNE JACOB: Another  
24 question that I had, T-1.3 Update Community  
25 Plans. We just spent millions of dollars and a

1 lot of years updating our General Plan and our  
2 Community Plans. There are some Community Plans  
3 yet to be done. They're in my district and I  
4 understand that--I think there might be one or  
5 two in Bill's district.

6 What's staff thinking on updating these  
7 community plans? I mean, haven't we spent enough  
8 money on this? What's the goal to be achieved  
9 here?

10 MARK WARDLAW: Through the Chair. The  
11 goal T-1.3 is to secure vehicle mile trip  
12 reductions through more impactful and progressive  
13 community plans, meaning that we actually focus  
14 on achieving what the General Plan actually  
15 states in terms of density and mix of use.

16 So, in order to achieve the densities  
17 that have been established in the General Plan,  
18 each community plan update will focus on the  
19 market conditions, making sure that we understand  
20 what's truly economically viable and then what  
21 barriers exist to achieving the density in the  
22 General Plan, focusing on clear standards and  
23 guidelines that simplify the permitting process  
24 with the idea of reducing permitting time and  
25 costs associated with development, and then

1 identifying the facilities and improvements that  
2 are needed to achieve transit-ready communities.

3 So, the densities in the General Plan  
4 actually--especially in the village districts,  
5 can support transit. Transit won't come if the  
6 density in the population is not there. The  
7 future of transit within the region may not be  
8 heavy rail or light rail, and it might not even  
9 be bus service as the way we see it now. It might  
10 be carshare, rideshare, and autonomous vehicles.  
11 But without the achievement of the density, then  
12 we won't be ready and it will not come. So, it's  
13 a chicken and egg situation for us.

14 By focusing on facilities and achieving  
15 the improvements necessary for that such as  
16 sidewalks and bike facilities, parks and trails,  
17 street and road improvements, and on-street  
18 parking improvements, and then transportation  
19 demand management shared parking programs like  
20 park and ride lots, shared parking, parking and  
21 loading for rideshare and van pool systems,  
22 transit amenities, and car and bike share  
23 programs; those are the impactful types of  
24 studies that we'll include in the community plans  
25 knowing that they haven't been updated

1 substantially since--quite some time.

2           And then finally, identifying the  
3 incentives and the tools of public-private  
4 partnerships that can ease development and make  
5 it happen more timely.

6           VICE CHAIR DIANNE JACOB: Well, Madam  
7 Chair, I think there's a big problem with that  
8 because the unincorporated area is not an urban  
9 area. And two-thirds of the unincorporated area--  
10 the eastern part of the unincorporated area, is  
11 ground water dependent. There's no sewer systems.  
12 There's no imported water, no imported--well,  
13 they're not hooking up to a sewer system, so  
14 you've got some constraints. And when you talk  
15 about improving density to have transit, totally  
16 unrealistic.

17           And vehicles travel--vehicle miles  
18 traveled, we've got 2,000 miles of roads in the  
19 unincorporated area. It's a very different  
20 situation, and I'm not sure in my mind how you're  
21 going to be achieving anything substantial in  
22 terms of what we're dealing with today by  
23 updating and wasting money on community plan  
24 updates. And I can see a real problem and a  
25 conflict there for the future.

1           Those are my comments. Good luck with  
2 that. I don't think it's going to happen. I would  
3 only ask the Chair, in terms of comparative  
4 analysis, if we could include just a couple  
5 directions to staff because I want to make sure  
6 that when they do the comparative analysis that  
7 they hit on these points.

8           One direction to staff would be through  
9 the comparative analysis for the implementation  
10 of the renewable energy, E2.1; to also focus on  
11 the development of local community-based energy  
12 generation such as rooftop solar and microgrids  
13 and off-the-grid systems. I think that should be  
14 included in the analysis.

15           And then also to direct staff to  
16 develop a way for large or small-scale wind or  
17 solar projects that would benefit the local  
18 community they are located in and provide a  
19 benefit to San Diego rate payers. I'd like to see  
20 that analysis and something developed to do that;  
21 although, I would just say as a comment that I'm  
22 not a big fan of these large projects and I know  
23 one that was recently approved by this Board--  
24 Madam Chair, you weren't here--but it doesn't  
25 benefit anybody in the San Diego region because

1 the energy is going up north, and that is not  
2 helpful, I don't think, to meeting our goals.

3 I also--what you mentioned, Madam  
4 Chair, about the landscape. I think that there  
5 should be some special landscape areas  
6 recognized, different ways of doing things. I  
7 know there's been examples presented to me in  
8 terms of storm water requirements that you can  
9 actually do some unique landscaping projects that  
10 would add to the parks or a trail or some other  
11 amenity and still satisfy the storm water, and  
12 there may be some landscape planning that can be  
13 done here. And I think we need to do a lot more  
14 to reduce water reduction in our landscape  
15 planning.

16 And then I would aggressively pursue  
17 the CCA that was mentioned. It is a part of this  
18 plan; although, some have some problems with it,  
19 but I think that that needs to seriously be  
20 looked at as far as a choice. And then finally,  
21 when we look at comparative analysis to include  
22 not just the cost analysis of the projects that  
23 you're looking at, but let's look at the cost to  
24 the consumers, to the rate payers, when we're  
25 looking at this.

1           So, most of my comments are geared  
2 towards doing a very thorough analysis,  
3 comparative analysis, on our energy options, and  
4 I would appreciate that being added to the  
5 motion.

6           CHAIR KRISTIN GASPAR: Sure, I do not  
7 disagree with anything that you've outlined, as  
8 long as the seconder is okay with including those  
9 comments. He looks agreeable. Thank you very  
10 much. Supervisor Roberts.

11           SUPERVISOR RON ROBERTS: Thank you,  
12 Madam Chairwoman. First of all, I want to thank  
13 everybody for the testimony, and I want to thank  
14 staff and our legal people for all the work  
15 that's been put into this. In some senses this  
16 sounds like a very complex issue. But others  
17 it's--this is pretty simple, okay.

18           We're talking about greenhouse gas and  
19 we're talking about reducing by some 807,000-plus  
20 tons--metric tons of CO2 equivalent per year, and  
21 we lose sight of that. Okay, I've heard a lot of  
22 testimony that this is--it's absolutely essential  
23 we get that done, and then get diverted into all  
24 sorts of things that really are removing sort of  
25 the priority of getting that done.

1                   And let me also make clear, you know, I  
2 hear about grandkids. I've got three grandkids. I  
3 was reminded when I went to grandparents' day  
4 last week, not just for them for the other  
5 grandkids. I've got a lifetime of working now on  
6 public transit and on air quality issues, and I  
7 will guarantee you there are a few people in this  
8 room that can go back as far as I can, greenhouse  
9 gas, and understand when that first started as a  
10 concern in Scripps Institution of Oceanography  
11 here in San Diego.

12                   Amazing research was really before  
13 there was a public theory that was espoused. They  
14 were sending scientists to the Antarctica, one  
15 who happened to be a close friend of mine. Told  
16 me what he was doing in terms of drilling the  
17 cores and measuring the CO2 and CO2 equivalents  
18 going way, way, way back, way before I was on  
19 this Board.

20                   So, these are things--and I'll also  
21 admit that I believe that there is a problem that  
22 we're faced with, that we have to reduce  
23 greenhouse gas. There's no question of that in my  
24 mind. I'm not a denier. I believe in that  
25 strongly. But I also believe that we don't have

1 to maximize the amount of pain we inflict on  
2 people to get to that goal of 897,145 metric tons  
3 of reduction. We can get that.

4 I'm just about to reach my 23rd  
5 anniversary on the Air Resources Board. We have  
6 an incredible history that we have been able to  
7 reduce, in real terms, in real numbers, in  
8 absolute tons right across the board, of all of  
9 those things that we have deemed to be a concern-  
10 -things that have become a concern that we  
11 couldn't even measure when I started on the Air  
12 Board. We used to talk about PM10. Couldn't  
13 really deal with it, but we talked about.

14 Today we're regulating PM2.5, which we  
15 couldn't begin to do even though we knew there  
16 were health issues, but we didn't know how to get  
17 after it. We didn't have the technology available  
18 to deal with it, and today we are dealing with it  
19 and it's made dramatic difference.

20 And those differences are not just in  
21 communities--undisadvantaged communities, they're  
22 in advantaged communities. In fact, on our 50th  
23 anniversary meeting last week, we were given  
24 charts that the State did--State Air Resources  
25 Board did, that showed how the convergence now,

1 there's not a whole lot of difference between  
2 communities in terms of the impacts. Dramatic  
3 changes. Dramatic changes.

4 Now, the State subscribed to this Cap-  
5 and-Trade Program, and the Cap-and-Trade Program  
6 doesn't require that you stay inside the State of  
7 California to make changes and to mitigate.  
8 Greenhouse gas is not the same as air quality.  
9 Air quality is a localized issue. It's here.  
10 We're putting something in the air here and it's-  
11 -air quality concern. You're affected by it. You  
12 got to clean up your neighborhood.

13 In our case, we have an air district  
14 that this Board's been responsible for, and I'll  
15 share with you--not to be bragging--we've done a  
16 pretty good job. It's not just the State that's  
17 doing a good job; we're doing a good job in San  
18 Diego. We've managed to dramatically decrease air  
19 pollution. But fundamentally, greenhouse gas is  
20 different.

21 If I can reduce greenhouse gas  
22 emissions on the North Pole, then just is good  
23 for the planet. It doesn't make a difference. I  
24 need to be able to verify that I'm actually  
25 getting real reductions. Don't know that there's

1 many emissions on the North Pole, so it's  
2 probably not a good example, but I keep hearing  
3 it's got to be done in San Diego County. The  
4 priority should be get it done, period.

5           If we can go to Imperial County and we  
6 can develop a program with people--the farmers in  
7 Imperial County, do it. As long as it's  
8 verifiable, we can certify, and we can--we know  
9 it's sustainable.

10           It seems to me that that's the key, and  
11 I think that is missed in a big way. All of a  
12 sudden, we're turning this program and concern  
13 with saving the planet--we got to have a job--  
14 jobs in our neighborhoods, okay. The jobs in our  
15 neighborhoods are important, but we need to--you  
16 know, you've got to get these things lined up.  
17 What's most important?

18           And when I look at the charts, you  
19 know, and I see the severity of what is here, I  
20 believe that stuff. What I don't believe is the  
21 manner in which some people want to go about  
22 this.

23           I have a concern about your motion, and  
24 my preference, which I would like to make a  
25 substitute motion for, is that we approve

1 Modified Option 3 as opposed to Option 3, and I  
2 think the points that were made by--early on in  
3 this hearing by the Taxpayers' Association, by  
4 the Chamber of Commerce, and by the United  
5 African American Ministers Alliance are very  
6 valid concerns.

7 Cost-benefit has always been a part of  
8 the work that the California Air Resources Board  
9 has done. It has always been. We have always  
10 looked, okay, there's always a lot of ways to do,  
11 but what's the most cost-effective way of doing  
12 these things? That's why we have a Cap-and-Trade  
13 Program instead of a carbon tax. Yet, what I'm  
14 concerned about is the uncertainties that we're  
15 going to need to deal with when we're talking  
16 about 100 percent. And we may get to 100. We may  
17 find that as a viable strategy.

18 But the fact of the matter, Modified  
19 Option 3 gets us to the 897,154 metric tons, and  
20 it does that and allows us a little bit of  
21 flexibility not knowing exactly the cost impacts  
22 of going that extra 10 percent, which I've found  
23 as we've worked through these things over the  
24 years, that's--that can be a very, very expensive  
25 proposition and I'd like us to be able to deal on

1 a basis of where this Board is continuing to get  
2 updated, understanding what the new technologies  
3 are, what the issues are.

4 What we want to do is make sure we get  
5 to that goal. I'll say it once again, 897,000  
6 metric tons per year. That's the goal. That's  
7 what's really important here.

8 We went through an amazing rezoning  
9 General Plan update here. Madam Chairwoman, you  
10 weren't here to see what we went through, but I  
11 would share with you, we reduced housing capacity  
12 in rural areas. We shrunk the community  
13 footprint, if you will. We decreased the number  
14 of roads by, if I remember, almost 800 miles of  
15 new roads that were going to be needed, okay. We  
16 decreased density on about a half million acres,  
17 if I remember, and we heard from a lot of people.

18 Today, we're facing something quite  
19 different. We're facing a major housing crisis in  
20 San Diego. Now, we're facing a major housing  
21 crisis in California, and there's no question  
22 about it. And when I talk about those grandkids,  
23 that's in my mind, too. I want to meet the  
24 climate goals, but I also want to have economic  
25 opportunity for those youngsters.

1           This climate action plan doesn't add or  
2 remove units. This is--it's not what it's about.  
3 It's about reaching those goals, and projects  
4 that are seeking amendments, they're going to  
5 have to answer to the environmental issues that  
6 involve--whatever issues may be involved with  
7 their projects, so what I want to see us have--  
8 maintain a strong economy as well as a clean  
9 environment and a reduction in greenhouse gas.

10           It's very difficult to predict the  
11 future, and as Mr. Wardlaw was talking about  
12 transportation and other things, you know, people  
13 are talking about--in some rural areas, you know,  
14 need public transit. And yeah, we're not  
15 responsible but some of us have been involved  
16 with that. It's really hard to send today's  
17 technology buses or vans, you know, when a trip  
18 takes almost \$30 of subsidy per trip per  
19 passenger. That's--you know, that's hard to  
20 figure out.

21           Just like when we said, you know, there  
22 are certain parts of the county where there  
23 wasn't water and there wasn't perc-- soils so it  
24 didn't make sense to have as much housing there.  
25 Public transit kind of works that way, and public

1 transit's going to change. And I--in spite of  
2 that fact, I worked many years to get extension  
3 of the light rail and the project that's under  
4 construction right now in the City of San Diego  
5 going.

6 All of this is going to change. It's  
7 going to change pretty substantially. When you  
8 can have driverless vehicles--electric driverless  
9 vehicle, maybe pick you up in your door, pick up  
10 a few other people going in the same general  
11 direction, and drop you off generally where you  
12 want to be; that's got to be something hard to  
13 compete with. And whether it's public transit or  
14 private, I don't know. But these changes are  
15 coming. There's no question about it. Will  
16 vehicle mile travel go up or down?

17 I would argue that I'm not sure that  
18 that's an important issue as long as the  
19 greenhouse gases are going down. Vehicle mile  
20 travel may stay steady, it may go up, it may go  
21 down. I've shared with this Board now--I'll share  
22 with you again, I've got a little chart. I don't  
23 know if I can get it up on the screen, but this  
24 whole notion of tying the planning to that metric  
25 raises major questions in my mind.

1 I was told years ago we couldn't drive  
2 down air pollution unless we reduce vehicle miles  
3 traveled and also reduce the number of houses  
4 that were built and stop the growth of San Diego,  
5 okay. This is our track record over the last 23  
6 years or so. You'll see that vehicle mile travel  
7 has gone up, population has gone up, and that  
8 blue line shows you air pollution has declined  
9 substantially.

10 We don't have the track record yet that  
11 I can show you the greenhouse gas, but there's no  
12 reason to think that we can't cause it to have  
13 the same relationship that we can reduce  
14 greenhouse gas at the same time that vehicle mile  
15 travels and population growth may increase, and I  
16 feel very strongly if you look at what's  
17 happening in transit and you look at--I mean, if  
18 you look at the changes that are coming for cars,  
19 we are becoming increasingly electrified for our  
20 cars.

21 It's not just the trolley that's  
22 electrified, we're looking at cars and buses and  
23 vans and everything else, and it's not that far  
24 down the road. It may be--you know, there may be  
25 a preponderance of hybrids today, and I'm one of

1     them, but in the future it's clear to me while  
2     this--when this range increases happen and I--you  
3     know, program that we were showing new car, you  
4     know, with a 200 mile plus range that are  
5     commonly available now, all electrics, the  
6     dynamic is changing dramatically.

7                     And you couple that technology where I  
8     can send a driverless car to pick you up--which  
9     in public transit may just--the largest cost  
10    factor is our drivers. That's the biggest part of  
11    our operational expense, is our employees. You  
12    can't do away with employees, and I'm not saying  
13    that's the goal, but you start transporting  
14    people and you--in driverless vehicles, that's  
15    why Uber and Lyft and Google and everybody else  
16    is putting so much effort into that, because  
17    that's where it's going to be at.

18                    It's going to be a different kind of  
19    ridesharing, perhaps. It's going to be a  
20    different kind of public transit, and I think  
21    maybe Mark in his comments got that right.

22                    We're doing a pretty good job, okay.  
23    Not a pretty good job, we're doing a very good  
24    job, and we're going to keep doing it. I have  
25    just as much confidence that we can do the same

1 for greenhouse gas emissions.

2 Now, if the rest of the world doesn't  
3 follow us, then we're in big trouble; it's not  
4 going to make a whole lot of difference. But I'm  
5 seeing that, and I've spoken on this issue in  
6 China and in other foreign countries. I'll just  
7 tell you, the world is changing dramatically. And  
8 I've seen it going on and we think that it's not,  
9 but it is.

10 I was concerned when I saw some of the  
11 early options with the cost increases for housing  
12 and for commercial development. They weren't just  
13 large, they were extremely large, and while there  
14 is still some in here, I think we're at a more  
15 manageable level and it's a compromise that I'm  
16 willing to make.

17 But I also want staff to keep an eye  
18 and be innovative, because anything we can do to  
19 bring down the cost of housing, I think, is long  
20 overdue. I'm spending a lot of my time working on  
21 homelessness in San Diego, and this Board has  
22 taken the lead on that in committing properties  
23 for affordable housing, in committing a major  
24 investment fund to instill both innovative  
25 projects and other projects and get things going

1 here.

2                   So, you know, I'm very proud of what  
3 this Board has done. I think we have to be  
4 vigilant and we have to--the numbers that you  
5 pointed out, we're way behind. You know, we could  
6 absorb 100,000 units overnight and not even think  
7 about it and give people choices. You know, not  
8 everybody is as fortunate, I think, as I am. I've  
9 heard people testifying who live a long way off  
10 from here, and I live about a mile and a half  
11 from here.

12                   I suspect I've had a lot fewer vehicle  
13 miles traveled than most of you. But not  
14 everybody can make that choice. Yeah, not  
15 everybody has been as fortunate and maybe making  
16 the right decisions. I knew when I finished  
17 school that--and moved back to San Diego, I  
18 wanted to live as close to the center of the city  
19 as I could. And I didn't know about greenhouse  
20 gas then. That was a whole lot of reasons, but  
21 I've committed my own choices to that.

22                   But I want people to have choices. And  
23 when you're out looking for a job, you might not  
24 find a job in your neighborhood. This is this  
25 model that's out there that is so fraudulent,

1 that you're going to work in the same  
2 neighborhood you live and you're going to walk to  
3 work and you're going to have the grocery store  
4 next to you and your barber shop will be there  
5 and your doctors will be there and the hospital  
6 will be around the corner.

7           And you won't have any bad habits like  
8 golf where you have to get on the trolley with  
9 your golf bag and drive--you know, and go  
10 somewhere. You know, it's an image that works for  
11 some people, but it doesn't work for everybody,  
12 and I feel very strongly about this. I want to do  
13 the right thing. I want to get the vehicle mile  
14 travel. It's something we can monitor, but it  
15 doesn't direct policy and we may find out in the  
16 future that, just as reducing air pollution, that  
17 it was largely irrelevant.

18           And we shouldn't say we have to do this  
19 only in the county. We have verifiable programs  
20 outside of the county; we should be able to do  
21 it, if we're sincerely wanting to reduce  
22 greenhouse gas. We don't have to do it in most  
23 expensive--if we can find effective--cost  
24 effective programs that are outside the county  
25 just as the State has, we ought to do it that

1 way.

2                   What we ought to do is keep our eye on  
3 the goal and make sure that we are annually  
4 meeting obligations and getting to that goal, and  
5 someday somebody will pop a bottle of champagne  
6 and say, hey, guess what? We reached that magic  
7 number, but guess what? We've decided that  
8 because there are places on the planet, aren't  
9 doing enough, we're going to do a little more.  
10 But you move that goal way down the road, but  
11 keep your eye focused on that goal now.

12                   Modified Option 3 does all of these  
13 things. I think it gives us a platform for going  
14 forward that is far, far better, gives us the  
15 flexibility that we may need, and gives us  
16 absolutely the opportunity to get to that  
17 reduction in greenhouse gas, and that's why I'm  
18 offering that as a substitute motion. I think  
19 it's the better solution, and I think we're on  
20 the right track and I think we're going to get  
21 there.

22                   CHAIR KRISTIN GASPAR: Okay, we have a  
23 substitute motion on the floor. Is there a second  
24 on the substitute motion?

25                   SUPERVISOR GREG COX: I'll second the

1 motion.

2 CHAIR KRISTIN GASPAR: Okay. I don't  
3 know how the Board likes to handle it. On the  
4 City Council level, we voted immediately on the  
5 substitute motion. Is it the preference of the  
6 Board to do so?

7 SUPERVISOR GREG COX: No.

8 CHAIR KRISTIN GASPAR: Okay. Roberts  
9 Rules of Order affords you the opportunity to do  
10 it otherwise.

11 SUPERVISOR RON ROBERTS: Well, you  
12 should give people a chance to discuss it.

13 CHAIR KRISTIN GASPAR: And you can, but  
14 procedurally when you have a substitute motion  
15 the book says you should vote on it immediately,  
16 but I'm happy to afford that flexibility and hear  
17 from Supervisor Cox. I don't want to stress you  
18 out, but I do have an appointment that's  
19 happening. We were supposed to break today from  
20 12 to 1:30, so hopefully we can do this as  
21 efficiently as possible.

22 SUPERVISOR COX: I--

23 VICE CHAIR DIANNE JACOB: Could I just  
24 ask--I had asked the Chair on her motion to  
25 include certain points in that motion. Would that

1 be acceptable to the maker and the second?

2 SUPERVISOR RON ROBERTS: I'm hesitant to  
3 do that because of the caveats that staff has  
4 given us.

5 VICE CHAIR DIANNE JACOB: Because of the  
6 what?

7 SUPERVISOR RON ROBERTS: The staff has  
8 been concerned about sort of the rippling effect  
9 of making changes, and you know, I--the number of  
10 differences--

11 VICE CHAIR DIANNE JACOB: It's not a  
12 change.

13 SUPERVISOR GREG COX: She didn't--

14 SUPERVISOR RON ROBERTS: Oh, the  
15 additional items?

16 VICE CHAIR DIANNE JACOB: Yes.

17 SUPERVISOR RON ROBERTS: Oh, I would  
18 feel very comfortable with those, Supervisor.

19 VICE CHAIR DIANNE JACOB: Okay.

20 SUPERVISOR RON ROBERTS: Yes, I would.

21 VICE CHAIR DIANNE JACOB: So, the only  
22 difference here is 90 percent or 100 percent.

23 SUPERVISOR RON ROBERTS: That's right.

24 SUPERVISOR GREG COX: And the original  
25 motion stands.

1 SUPERVISOR RON ROBERTS: And I would  
2 feel comfortable with that.

3 SUPERVISOR GREG COX: Madam Chair, thank  
4 you. I would also thank everybody for coming down  
5 to testify today. I appreciate the commitment and  
6 the time and the effort that everybody has put  
7 into this. Regardless of which Climate Action  
8 Plan option the Board chooses today, I think our  
9 staff has laid out a great plan that will allow  
10 us to achieve the State greenhouse gas emission  
11 reduction goals by 2020 and by 2030. I want to  
12 thank the staff again for all the hard work they  
13 put in in creating this--what I consider to be a  
14 very comprehensive plan.

15 After hearing the different  
16 stakeholders, the public, and receiving staff's  
17 report and comments, I'm really strongly in favor  
18 of the Modified Option 3 proposal that Supervisor  
19 Roberts has offered as amendment.

20 This option represents 26 different  
21 measures that we have the ability to track, that  
22 are realistic to achieve, and that are  
23 enforceable and that make an impact locally. When  
24 considering wholesale policies like the Climate  
25 Action Plan, we need to take into account a

1 number of things, and one of those is housing  
2 affordability.

3 So, we've heard people speak today  
4 about their children and their grandchildren and  
5 about wanting to have a clean environment. That  
6 is absolutely important, but it's also, I think,  
7 important that we provide an opportunity for our  
8 kids and grandkids to be able to afford to buy a  
9 house here, and not force them to move to some  
10 other state or some other place across the  
11 country.

12 There was a recent Union-Tribune  
13 article that cited a nationwide study that it  
14 would take a San Diegan with a bachelor's degree  
15 and no debt about 12.4 years to save for a down  
16 payment for a condo that costs \$377,100. Those  
17 are hard to find anywhere in this region. For  
18 someone with a bachelor's degree and student  
19 debt, it would take 16.3 years.

20 And someone with no college degree is  
21 looking at 24.4 years. It's no wonder that  
22 families that are facing the hard choice between  
23 struggling to stay here and moving somewhere else  
24 to achieve a more affordable home, is a reality.

25 Modified Option 3 takes into

1 consideration impacts to housing costs. It brings  
2 the incremental impact on a new home from \$15,381  
3 down to \$1,500. That difference can represent  
4 years of savings for some families.

5 Modified Option 3 also recommends a  
6 target of achieving 90 percent renewable  
7 electricity. To be clear, this Board is not  
8 making the decision today on what model to move  
9 forward with on a renewable energy program. Our  
10 County staff has already indicated that's  
11 something that they're going to be evaluating and  
12 returning to us within the next 18 months to  
13 present their findings from an analysis between  
14 the different renewable energy program models.

15 Today, we're only looking at either a  
16 commitment or 90 percent or 100 percent target  
17 for renewable energy. While I'm a big fan of  
18 renewable energy and its positive impact to our  
19 air quality and environment, I believe that at  
20 this point in time, the 90 percent threshold is  
21 more appropriate and a more realistic target to  
22 have us work towards.

23 It commits the county to a very high  
24 percentage of renewable energy and provides  
25 alternatives to achieving our greenhouse gas

1 reduction targets. I say this understanding that  
2 the cap is a living document that is to be  
3 updated every five years and that there will be  
4 opportunities to revisit these measures as we  
5 move into the implementation of this plan.

6 Now, I know in accepting or offering  
7 Modified Option 3, it does indicate that we would  
8 look at modifying or updating community plans--15  
9 community plans instead of 10 community plans. As  
10 I recall, I think we have about 26 community  
11 plans in the unincorporated area of the county,  
12 and I would just point out that we did the  
13 General Plan update in 2011.

14 That means that over the next 19 years,  
15 we would be updating 15 of those community plans.  
16 I don't think that's unreasonable. In fact, I  
17 think it's something we should be doing. If we  
18 recall, it took us 32 years to do a General Plan  
19 update. I think the community plans are certain  
20 significant building blocks of our General Plan,  
21 and we ought to be taking 15 of those community  
22 plans over the next--now it would be what, 12  
23 years--to update and make sure that they are  
24 consistent and to figure out ways that we can  
25 address vehicle miles traveled. I think that's an

1 appropriate way to deal with that issue.

2 And I guess I would point out that the  
3 Climate Action Plan is not a cap or a ceiling. In  
4 this Climate Action Plan, we're going to be  
5 trying to reduce 897,145 metric tons of CO2. That  
6 is a target that we absolutely have to make, but  
7 it's not a ceiling.

8 To me, it's a floor, and we've got 51  
9 different measures that staff has laid out, not  
10 all of which were going to be addressed in what  
11 is included in Modified Option 3, but are other  
12 measures that could be implemented and should be  
13 implemented where we can realistically do that as  
14 we move forward over the next 12 years in  
15 implementing this Climate Action Plan.

16 No matter which option we choose today,  
17 our county is taking a huge step towards ensuring  
18 a cleaner, greener future for today and for  
19 generations yet to come. We're working to protect  
20 the sunshine, the beaches, and the clean air that  
21 makes this San Diego region so beautiful and  
22 beloved by all. There's something we can--this is  
23 something that we can and we should be very proud  
24 of, and I think Modified Option 3 is the best  
25 roadmap to get to that goal. Thank you.

1 CHAIR KRISTIN GASPAR: Thank you,  
2 Supervisor. Supervisor Horn.

3 SUPERVISOR BILL HORN: Thank you, Madam  
4 Chair. I'll try to get you to your appointment  
5 before 1:30, whatever it is. I won't be a long-  
6 winded as my colleagues here. Now you know why I  
7 voted against the General Plan. I brought up a  
8 lot of these issues when that plan was here and I  
9 voted no, and I was the only one on this Board  
10 who voted no.

11 So, now we're stuck with a cap  
12 mitigation measure on that General Plan, and make  
13 no mistake, the minute we vote on this they're  
14 going to file another lawsuit. That's what they  
15 do. They want you to quit building roads and  
16 everybody to jump on public transit. They  
17 obviously are not like me who has to drive two  
18 hours a day to work, home--two hours here and two  
19 hours back, every day, even when the traffic is  
20 good. If the traffic is not good, it's like  
21 yesterday which took, what, two-and-a-half hours  
22 to get here.

23 And I enjoy the drive. I memorize  
24 things and listen to the radio and what have you,  
25 but the point is, many of us--in Dianne's

1 district and my district I think there's--I don't  
2 know what the current population--last time I  
3 looked it was like 539,000 people--who live in  
4 the unincorporated area, in these outlying areas.  
5 I know you'd like us all to get on public  
6 transit.

7 I've sat on the North County Transit  
8 Board for the last 23 years, both the buses and  
9 the heavy rail, and I'm sure MTS is the same way,  
10 but we have declining ridership at the moment.  
11 We're not sure where that's going to stay, but as  
12 far as the cost of our drivers, Ron, we  
13 outsourced our drivers a few years ago, so that  
14 put us in the black. But that's a problem.

15 And out where I live, if I were to  
16 catch the bus at 7:00 in the morning, I'd be here  
17 about 4 in the afternoon. That's about how long  
18 it would take, and that's even with rapid service  
19 once I got there.

20 So, you're not going to get us out of  
21 our cars. I happen to live on a farm. I've been a  
22 farmer for 40-some-odd years. I enjoy that  
23 lifestyle. I enjoy growing crops. I see [UNINTEL]  
24 in the audience.

25 My electric bills are far too high for

1 pumping water, but the point is, it's a way of  
2 life and we're part of your economy. We're not  
3 the biggest part of it, but we--you know, we're  
4 the fourth largest industry in the county, and  
5 many of you want to keep us green. You want us to  
6 keep those hills green and you want us to  
7 continue to produce that product. But at the same  
8 time, you penalize us with some of these  
9 regulations--horrendous regulations.

10 So, I looked at the plan, I studied  
11 these things. I spent a long time on this.  
12 Frankly, I want to thank Sara and Mark and their  
13 entire [UNINTEL] team, and I usually don't  
14 compliment you guys because I'm usually on the  
15 other side, but I will say, what you've provided  
16 us with options was terrific, and I--the public  
17 is not seeing the size of these notebooks that we  
18 have that we got from [UNINTEL] that we have to  
19 look at and study.

20 But at the same time, I'm interested in  
21 resolving this issue with the Court. That's the  
22 biggest issue to me. And if it's--I think 100  
23 percent will make the judge happy, I want that.  
24 If it's 90 percent, if we can achieve that, I'll  
25 go with that. I prefer 90 percent rather than

1 100. I think 100 is a goal, but at the same time  
2 I don't know that you're ever going to achieve  
3 that goal. I don't know. I'm concerned.

4           You know, Ron mentioned, and I give the  
5 entire Board credit for this, but years ago--and  
6 I've lived here my entire life and I'm 74 years  
7 old. I don't know if you remember the air in the  
8 old days when the wind blew in from L.A. I'm sure  
9 Ron does. It looked like fog, but it was smog.  
10 And as far as clean air goes, I will give the  
11 County of San Diego Boards before us and ours  
12 included, for cleaning up this air. You go  
13 outside, and it's a beautiful day. And the reason  
14 it's a beautiful day is because it's not full of  
15 smog, fog, or whatever you want to call it.

16           So, we've done a good job there. I  
17 think we've done a good job in the other areas.  
18 I'm concerned with the stats that the Chairwoman  
19 gave us, because this is a big issue to me. We  
20 haven't been building the houses; we rejected the  
21 build. We just haven't been doing it. You know, I  
22 was concerned and Ron and I talked about this  
23 earlier.

24           We just approved two projects this year  
25 that declined--I mean, they went from 1,400

1 houses down to, what, 400 or something like that.  
2 I want--I want those extra houses banked  
3 somewhere else. I want--if you--if we have a  
4 developer who can come in here and get that  
5 density bonus and move it into his neighborhood  
6 and can pay for that, I want to sell him those  
7 increases.

8                   And I'm going to provide a Board  
9 [UNINTEL] to make that kind of thing happen,  
10 because I think we ought to meet our target. And  
11 as much as I sit on SANDAG and I hear the same  
12 speakers that come to SANDAG. They want to move  
13 your road money over to buses or trains, and I've  
14 been on buses and trains for a long time, 23  
15 years.

16                   I don't care--even if we tripled the  
17 number of riders in a daily capacity, you're  
18 still not going to get people out of their cars.  
19 I mean, even though more people would be riding  
20 those vehicles, you're still going to have a  
21 problem. You're going to have a clogged I-5 and a  
22 clogged I-15 and a clogged 8, because the transit  
23 doesn't go everywhere.

24                   It's great when you're in the middle of  
25 the City of San Diego and you can go from La Mesa

1 to downtown on a red train, but at the same time  
2 that doesn't happen everywhere and so I will  
3 vote--I could vote on both of these. I seconded  
4 the first motion so we'd have the discussion  
5 because I wanted to have the discussion. I don't  
6 care whether it's 90 or 100. What I care is what  
7 will the judge want, and I've--I just want to get  
8 rid of the lawsuit, is what I'm concerned about.

9 We're not going to get rid of the folks  
10 who want us to save every poll bearer in the  
11 town, but it's not going to happen. So, anyway, I  
12 just want to make progress here, and I will--  
13 depends on how my colleagues vote, I'd like to  
14 know how you're all going to vote, but I don't  
15 care whether it's 90 or 100. I don't care--I  
16 really don't care whether it's 90 or 100, I just  
17 want to resolve the issue.

18 CHAIR KRISTIN GASPAR: Thank you,  
19 Supervisor, and I agree with you that another  
20 goal is to get this out of court and into action,  
21 and that's why I think that the 100 percent helps  
22 us to get there faster, and that's why I  
23 supported that original motion that was on the  
24 table. Supervisor Jacob.

25 VICE CHAIR DIANNE JACOB: Thank you,

1 Madam Chair. I'll try to be brief, but just a  
2 question to counsel. One of the things we're  
3 trying to do is satisfy the judge. You know, it's  
4 not the most important issue that's before us,  
5 obviously, the main issue, but is it--do you  
6 think it's going to make a substantial difference  
7 to the judge whether it's 90 percent or 100  
8 percent?

9 CLAUDIA SILVA: Supervisor Jacob through  
10 the Chair, the--of the staff recommendation and  
11 all options presented to you including the  
12 modified option are all substantiated by  
13 substantial evidence in the record and they have  
14 an environmental impact report that has also  
15 analyzed all those impacts.

16 The judge's requirement is to have a  
17 Climate Action Plan that complies with CEQA. We  
18 believe the Climate Action Plan does comply with  
19 CEQA. The various options that are presented to  
20 you are already analyzed and contain the  
21 appropriate findings to do that. I wouldn't  
22 presume to know what the judge may have a  
23 preference for, whether it's 90 or 100 percent,  
24 but based on the contents of the documents, the  
25 sufficiency of the records, the appendices to the

1 Climate Action Plan, the Environmental Impact  
2 Report and all of its technical reports and  
3 studies, do support the findings that are before  
4 you for consideration on each of those options.

5 VICE CHAIR DIANNE JACOB: So, I guess we  
6 won't know until we get before the judge. When I  
7 started off, I indicated that, you know, where I  
8 sit on this is, you know, what's best for the  
9 people and the future--folks in this county,  
10 what's legal, what's realistic, what's practical.  
11 And when I look at the last two, what's  
12 realistic, what's practical; although I support  
13 the Chair's motion on that, but I could go either  
14 way also.

15 Maybe the 90 percent is more realistic,  
16 more practical in terms of getting there. The--  
17 so, I could go either way. I don't know where  
18 that leaves us, but I just want to make one other  
19 comment. When we talk about updating community  
20 plans because Modified Option is 15, not 10. You  
21 know, it's just about as bad, and maybe Greg's  
22 right that in 19, 20 years they'll need to be  
23 updated.

24 Maybe the whole General Plan will be--  
25 need to be updated again. But I would just say in

1 our back-country areas, particularly that are  
2 ground water dependent, no sewer service, I would  
3 submit to you the best way--you're not going to  
4 reduce vehicle miles traveled. Forget that.  
5 You're not going to have public transit out  
6 there. I mean, it's ridiculous to even think that  
7 you're going to do that.

8           And as Ron mentioned, I'm not sure that  
9 that's related to what we're trying to accomplish  
10 here today anyway. I would submit that as much as  
11 we can have self-sustainable housing and with  
12 electric cars you're going to reduce your GHG.  
13 That would be my vision, my goal, for our back-  
14 country areas and I would also submit to the  
15 board, you're going to have more affordable  
16 housing out there than you can produce in an  
17 urban area because you will not only have just  
18 the initial cost of your house that is self-  
19 sustainable, but you've got your water source,  
20 you've got your sewer source.

21           You're not dependent on outside sources  
22 and energy, that you will have less affording--  
23 more affordable, not just the initial costs but  
24 ongoing costs into the future. So, I would hope  
25 that you would take a look at that. None of us

1 are going to be here in 19 years, at least on  
2 this board when whoever is looking at this, but I  
3 would hope that would put--be put in this  
4 somewhere into our process and what we're doing  
5 today.

6 So, we just need to get off the dime on  
7 this and if the best way to do it is with the  
8 substitute motion, I can vote for that, but Madam  
9 Chair I'd kind of put it in your lap because I  
10 could also go with the 100 percent, so...

11 CHAIR KRISTIN GASPAR: Supervisor Cox,  
12 you had additional comment?

13 SUPERVISOR GREG COX: Just real brief. I  
14 don't think our role here is to try to anticipate  
15 what a judge may decide is the best way to get to  
16 our target. We have a target of 897,145 metric  
17 tons that we have to achieve. How we get there, I  
18 think, give us more flexibility on Modified  
19 Option 3, and I certainly hope we go far beyond  
20 that.

21 That should be something that we strive  
22 for. But I think whatever we do is going to be a  
23 potential target that people are going hold us  
24 to, and that's where I think having a little more  
25 flexibility in how we get to that target and

1 hopefully go beyond it, Modified Option 3 gives  
2 us that opportunity.

3 CHAIR KRISTIN GASPAR: Thank you. With  
4 that, I'll support my colleagues in the Modified  
5 3 Option for my vote today. I think we've  
6 exhausted discussion and we will vote.

7 ANDREW POTTER: Chairwoman Gaspar,  
8 [UNINTEL] counsel has a couple comments to make.

9 CHAIR KRISTIN GASPAR: We will not vote.

10 CLAUDIA SILVA: Thank you. Madam Chair,  
11 the original motion placed had 10 separate listed  
12 items as part of that original motion. Modified  
13 Option 3 is contained in supplemental  
14 information--it's titled Supplemental Information  
15 Modifying Option 3. There's two quick corrections  
16 to two of those line items I'd just like to read  
17 in the record as part of the motion for accuracy.

18 Item one, adopt the California  
19 Environmental Quality Act Findings for Modified  
20 Option 3 which include the certification and  
21 findings regarding significant effects of the  
22 project, the mitigation and monitoring reporting  
23 program, the statement of overriding  
24 considerations and the recirculation statement  
25 prepared pursuant to CEQA Guidelines Sections

1 15088.5, 15090, 15091, 15093, and 15097 and  
2 certify the final supplemental environmental  
3 impact report, final SEIR. The changes to the  
4 modified CEQA findings are attached in  
5 Supplemental Information Modifying Option 3  
6 Attachment D.

7           The other item is item four of the  
8 original motion which is adopt draft climate--  
9 Final Climate Action Plan for Modified Option 3  
10 which included the draft final SEIR. Increased  
11 solid wasted diversion alternative would replace  
12 the components of GHG Reduction Measure SW-1.1,  
13 remove GHG Reduction Measures G-3.1, E-1.1, E-  
14 1.3, E-2.2; accelerate implementation of GHG  
15 Reduction Measure T-1.3 by updating 15 community  
16 plans by 2030 and an additional four community  
17 plans between 2031 and 2040; a local direct  
18 investment program would be implemented to  
19 achieve a total reduction of 176,614 metric tons  
20 and measure E-1.2 would be modified to include a  
21 program for existing homeowners meeting certain  
22 income criteria to reduce the cost to replace  
23 natural gas tank based water heaters with solar,  
24 electric, or tankless gas. All of those are  
25 attached in the Supplemental Information

1 Modifying Option 3 Attachment A.

2 In addition, there were two additional  
3 attachments, B and C, to the Supplemental  
4 Information that should also be incorporated into  
5 that.

6 ANDREW POTTER: And I will also add that  
7 an errata has been distributed with language for  
8 Exhibit A to Attachment F-1 and Exhibit A to  
9 Attachment F-2 that's currently located in the  
10 record as Attachment C of the Board Letter, the  
11 General Plan Amendment for Climate Action Plan.  
12 For clarity purposes, these exhibits were  
13 attached to the errata and added to Attachment F-  
14 1 and Attachment F-2 respectively as part of the  
15 motion.

16 VICE CHAIR DIANNE JACOB: And just to  
17 clarify, the motion also includes the additions  
18 that had mentioned earlier.

19 CHAIR KRISTIN GASPAR: What would we do  
20 without this team. We're going to vote on the  
21 substitute motion.

22 ANDREW POTTER: Chairwoman Gaspar, that  
23 motion passes unanimously with all board members  
24 being present and voting aye.

25 CHAIR KRISTIN GASPAR: Thank you. That

1 was easy. Okay. I'm actually--if our Vice  
2 Chairwoman wouldn't mind handling the  
3 adjournment, I thank you for being here today and  
4 being a part of this important issue for the  
5 County. And I'll turn things over into the  
6 capable hands of our Vice Chair Jacob.

7 VICE CHAIR DIANNE JACOB: Thank you,  
8 Madam Chair. We have two adjournments of the  
9 meeting today. Supervisor Cox and Supervisor Cox.

10 SUPERVISOR GREG COX: thank you, Madam  
11 Chair. Actually, ironically both of these  
12 individuals that I'm going to ask us to adjourn  
13 today's meeting in honor of, suffered what I  
14 think was one of the greatest indignities that  
15 we've had to deal with and that is, during World  
16 War II when a lot of our American citizens that  
17 were of Japanese ancestry were basically forced  
18 into internment camps.

19 The first one is Ben Segawa who is a  
20 Bonita resident, and he was a survivor of the  
21 camp over in Arizona. He was there for, I think,  
22 three years but he went on to come back to his  
23 home community of Chula Vista, became a very  
24 successful and important member of the community.  
25 He passed away on January 26th at the age of 87.

1                   Mr. Segawa was raised in South County  
2 where his family farmed 40 acres of spinach,  
3 string bean, and beets. In 1942, when he was 11  
4 years old, he and his family were forced into an  
5 internment camp in Arizona. Almost 18,000  
6 Japanese Americans were imprisoned there  
7 including more than 100--1,100, I should say,  
8 from San Diego.

9                   Living conditions were harsh, but after  
10 more than two years at the camp, Mr. Segawa and  
11 his family were allowed to return home. He  
12 continued farming, then later sold pesticides and  
13 equipment to other farmers and became a real  
14 estate agent. In his later years, Mr. Segawa  
15 began raising awareness of the plight of  
16 internment camp survivors and helped create the  
17 Japanese American Historical Society of San  
18 Diego.

19                   Mr. Segawa is survived by his wife  
20 Grace, his sons Mike, Randy, and Eric, and a  
21 daughter Debra. Ben Segawa survived one of the  
22 darkest chapters in American history to become an  
23 inspiration for our community and our nation, and  
24 we will dearly miss him.

25                   The second adjournment is in memory of

1 Dr. John K. Yamamoto, a long-time popular Bonita  
2 dentist who was very active in the community. He  
3 passed away on January 5th at the age of 78. Dr.  
4 Yamamoto graduated from Chula Vista high school.  
5 He served in the U.S. Army after high school and  
6 later he attended San Diego State University and  
7 dental school in Ohio before beginning his  
8 medical career in Chula Vista in 1971.

9 Dr. Yamamoto not only was my wife's  
10 dentist, but he was a student in my aunt's class  
11 at Feaster Elementary School when he came back  
12 from being interred up at Santa Anita racetrack.  
13 He and his family, his parents and siblings  
14 basically lived in a horse stall at Santa Anita  
15 racetrack for, I believe, three years.

16 When he came back to Chula Vista, my  
17 aunt as he later related to me was very helpful  
18 in trying to reintegrate him and other Japanese  
19 American students that came back after they were  
20 interred at various locations across California  
21 and the west.

22 He became a very popular dentist,  
23 treating thousands of patients over a 44-year  
24 career, earning the nickname Dr. Painless. Dr.  
25 Yamamoto also found time to serve his community,

1 helping to launch the United Asian American  
2 Council. He became a renowned martial art  
3 instructor. In fact, he had black belts in two  
4 different martial arts and also was involved in  
5 coaching Little League baseball.

6 Dr. Yamamoto is survived by his wife  
7 Amy and his children Lisa and David. Dr. John K.  
8 Yamamoto was one of those trusted figures who are  
9 woven into the fabric of our communities, and he  
10 will be dearly missed by his patients and by many  
11 other people who had the opportunity to know him  
12 over the years.

13 Thank you, Madam Chair.

14 VICE CHAIR DIANNE JACOB: Thank you,  
15 Supervisor, and I'd like to thank all of those  
16 that have stuck with us this afternoon--it is  
17 afternoon already, and for your patience during  
18 this hearing. And with that, our meeting is  
19 adjourned.

20 ANDREW POTTER: The next regular meeting  
21 of the Board will take place on Tuesday, March  
22 13th, 2018. The annual State of the County  
23 address will take place on Tuesday, February 27th  
24 at 6 p.m. at the Scripps Seaside Forum in La  
25 Jolla.

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C E R T I F I C A T I O N

I, Sonya Ledanski Hyde, certify that the foregoing transcript is a true and accurate record of the proceedings.

Date: February 20, 2018



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Sonya Ledanski Hyde

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[2030 - accelerate]

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[acceleration - advocate]

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[advocates - andrew]

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[andrew - august]

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[aunt - board]

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[carbon - chastised]

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[comes - conform]

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[conformance - county]

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[county - debt]

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[force - general]

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[general - grandchildren]

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[grandchildren - hearing]

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[imperative - informed]

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[informs - jacob]

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[largescale - lose]

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[lot - members]

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[practices - projects]

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[projects - reached]

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[region - residents]

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[residents - san]

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[shipped - spending]

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[spent - submit]

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[target - think]

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[think - travel]

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[world - zoning]

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March 29, 2018

**VIA EMAIL AND U.S. MAIL**

Ashley Smith  
Planning and Development Services  
County of San Diego  
5510 Overland Avenue, Suite 310  
San Diego, CA 92123

Re: Newland Sierra (Log No. PDS2015-ER-15-08-001; SCH No. 2015021036, Project Numbers: PDS2015-GPA-15-001, PDS2015-SP-15-001, PDS2015-REZ-15-001, PDS2015-TM-5597, PDSXXXX-HLP-XXX) – Transmittal of Report by Camille Sears Discussing Flaws in the Air Quality Analysis for the Newland Sierra Project

Dear Ms. Smith:

As you know, we represent Golden Door Properties, LLC (“Golden Door”), a world-class resort and agricultural operation in rural Twin Oaks Valley. The Golden Door has restored farming and beekeeping on its property, including the replanting of many new trees on the property—sharing its bounty at a community Farm Stand and through retail operations. The Golden Door has raised many concerns with the County about the proposed Newland Sierra Project and the impacts of adding urban density the size of the City of Del Mar in our rural community.

We write today with particular respect to the Project’s air quality and health impacts. Newland proposes ten years of construction that would involve at least 10,700,000 cubic yards of cut and fill. Air emissions are a significant concern for nearby residents and businesses. Attached is a report from Camille Sears—an expert air quality consultant and modeler with over 35 years of experience—which describes significant flaws in the air quality analysis and health risk assessment for the Newland Sierra Project’s Draft Environmental Impact Report (“DEIR”).

Ms. Sears’ report concludes that the Newland Sierra DEIR improperly omits modeling analysis of significant construction emissions, underestimates constructions emissions, fails to include wind erosion in its analysis, fails to disclose the crystalline silica content of on-site soil, and incorrectly models construction and operational emissions of diesel particulate matter. Her report describes flaws in methodology and significant impacts that were not previously

identified. Ms. Sears' modeling runs show significant impacts to several residences and businesses in the area, including the Golden Door and the Deer Springs Oaks Mobile Home Park. The report demonstrates substantially worse impacts than what were identified in the DEIR.

These omissions and flawed analyses are significant legal errors that must be fixed. The County must provide adequate analysis of air emissions before the public and decisionmakers can understand the project's impacts. In this case, the DEIR must be recirculated for an additional comment period before publication of the final EIR so that the public has a chance to propose potential mitigation or alternatives for these impacts. (See *Communities for a Better Environment v. City of Richmond* (2010) 184 Cal.App.4th 70, 95 [recirculation required when important information omitted]; see also *Laurel Heights Improvement Assn. v. Regents of University of California* (1993) 6 Cal.4th 1112, 1120; *Save Our Peninsula Committee v. Monterey Cty. Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 130.)

Ms. Sears report is based on her review of the DEIR, including technical documents that were just recently provided to the Golden Door for review and analysis. In July 2017, during the public comment period for the Newland Sierra DEIR, Golden Door requested technical reports on air quality and greenhouse gas emissions under the Public Records Act. These technical reports provided the basis for the County's consultants' analysis in the DEIR; however, the files were not provided to the public as part of the DEIR. The County refused to provide the requested files. After several rounds of communications, the Golden Door was forced to file a lawsuit under the Public Records Act to obtain the documents, which the County eventually provided as part of a settlement agreement. Because the County did not provide these technical files as part of the DEIR, Ms. Sears' report is provided now at the earliest time possible and should be made part of the record in this matter and considered as part of the County's responses on the DEIR.

Thank you for your time and attention to our comments. Please do not hesitate to contact us should you have any questions or comments.

Best regards,

*Andrew D. Yancey*

Andrew D. Yancey  
of LATHAM & WATKINS LLP

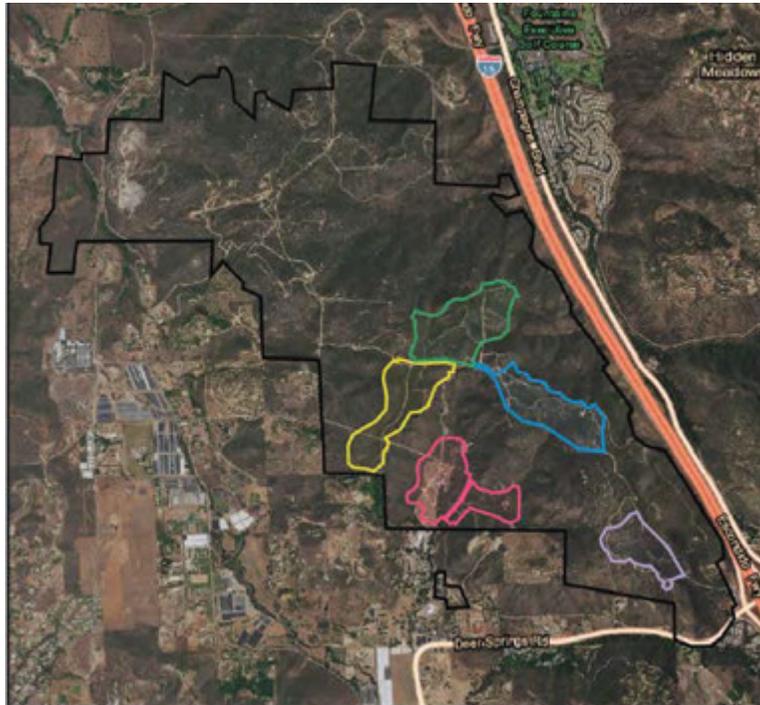
cc: Kathy Van Ness, Golden Door  
County Board of Supervisors  
County Planning Commission  
Darin Neufeld, County Planning and Development Services  
Mark Slovick, County Planning and Development Services  
William W. Witt, Office of County Counsel  
Claudia Silva, Office of County Counsel

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Dan Silver, Endangered Habitats League  
George Courser, Sierra Club  
Duncan McFetridge, Cleveland National Forest Foundation  
Stephanie Saathoff, Clay Co.  
Denise Price, Clay Co.  
Chris Garrett, Latham & Watkins

*Attachment*

**Air Quality Comments  
on the  
Draft Environmental Impact Report  
for the  
Newland Sierra Project**



**Prepared by:**

**Camille Sears**

**February 28, 2018**

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**Exhibits:**

- A. Project Location and Emission Source Maps
- B. Phase 1 Construction: Fugitive Dust PM10 and PM2.5 Emission Calculations
- C. Escondido and KCRQ Meteorological Data: Wind Roses
- D. Air Concentration Maps: Phase 1 Construction PM10 and PM2.5
- E. Diesel Particulate Matter Health Risk Assessment: Emission Rate Inputs and Risk Calculations
- F. Diesel Particulate Matter Health Risk Assessment: Excess Cancer Risk Maps
- G. Curriculum vitae

## 1. Introduction

I reviewed the air quality and health risk assessment sections of the June 2017 Draft Environmental Impact Report (DEIR) for the proposed Newland Sierra Project (NSP), near Escondido, California. NSP is a planned community of residential, commercial, educational, and other uses on 1,985 acres (DEIR, p. S.0-1). In conjunction with the DEIR, I reviewed electronic CALEEMOD and Excel emission calculation files prepared by the DEIR-preparer, Dudek. I also reviewed AERMOD and HARP2 risk assessment input and output files prepared by Dudek.

The NSP DEIR addresses two general air quality aspects of the proposed project: construction activities and vehicle traffic occurring adjacent to the project site. The DEIR refers to the offsite vehicular traffic component as “operational emissions.”

The DEIR is tasked with determining whether NSP will cause significant environmental impacts, including effects on ambient air quality and health risks due to exposure of toxic air contaminants. The DEIR concludes that mitigated PM10 and PM2.5 emissions during construction activities will greatly exceed the significance thresholds established by the San Diego County Air Pollution Control District (SDAPCD) for these pollutants (DEIR, Air Quality Technical Appendix, p. 80). The DEIR also acknowledges that these significant PM10 and PM2.5 emissions will require air dispersion modeling to determine the magnitude and extent of air concentrations caused by these emissions:

In the event that emissions exceed these thresholds, modeling would be required to demonstrate that the project's total air quality impacts result in ground-level concentrations that are below the CAAQS and NAAQS, including appropriate background levels (DEIR, Air Quality Technical Appendix, p. 56).

The DEIR, however, fails to include any modeling analysis of these significant emissions. As such, the DEIR failed to prepare any ambient air quality modeling to determine whether NSP’s construction emissions would violate National Ambient Air Quality Standard (NAAQS) or California Air Quality Standard (CAAQS). Moreover, the DEIR incorrectly calculates construction fugitive PM10 and PM2.5 emissions, under-estimating the likely daily quantities of these pollutants.

The NSP DEIR is extremely limited in its scope of air quality impact and health risk assessment. The DEIR includes only two air dispersion modeling analyses and subsequent health risk assessment: an assessment of health risks from construction diesel particulate matter (DPM) emissions, and an analysis of vehicle traffic DPM exposures to future residents of the NSP.

The construction DPM health risk assessment is limited to a small portion of the proposed project site, and includes only a fraction of the total construction DPM emissions. Furthermore, the health risk analysis is limited to assessing exposures in a relatively small area near the intersection of I-15 and Deer Springs Road.

The operational DPM health risk assessment focuses on future vehicle traffic emissions and the health risks to NSP residents. From the DEIR:

The purpose of this health risk assessment (HRA) is to determine the impact to the future residents and the school site of the proposed project due to toxic air contaminant (TAC) emissions resulting from diesel and gasoline vehicle traffic along I-15 and Deer Springs Road as well as from a nearby gas station (DEIR, Air Quality Technical Appendix, Appendix C, p. iii).

The DEIR does not assess operational excess cancer risks to areas outside the NSP site.

My analyses and comments address a number of shortcomings and omissions in the NSP DEIR. In summary, my comments address the following DEIR deficiencies:

- The DEIR incorrectly calculates fugitive dust PM10 and PM2.5 emissions from construction activities. I corrected these emissions using USEPA's AP-42 emission factors with appropriate inputs.
- The DEIR fails to assess fugitive dust PM10 and PM2.5 emissions from wind erosion. I calculated wind erosion emissions for the NSP site.
- The DEIR fails to include any air dispersion modeling of construction emissions for verifying compliance with the PM10 CAAQS and the PM2.5 NAAQS. I prepared air dispersion modeling of construction PM10 and PM2.5 emissions, including a modeling analysis of wind erosion emissions.
- The DEIR incorrectly models construction DPM emissions, which only covers a small portion of the project site. I prepared an air dispersion modeling analysis of construction DPM emissions for the entire project site, including a 9-year exposure DPM health risk assessment.
- The DEIR incorrectly models operational DPM emissions, which only assesses future exposures to areas within the project site. I prepared an air dispersion modeling analysis of operational DPM emissions for a grid of receptors covering areas within the project site, extending to adjacent offsite residential areas. I prepared a DPM health risk assessment for 9-year exposures at these receptors.

When construction fugitive dust emissions are corrected, NSP is projected to cause or contribute to exceedances of the 24-hour PM2.5 NAAQS and the 24-hour PM10 CAAQS. In addition, a proper assessment of construction and operational DPM emissions from NSP reveals significant excess cancer risks to areas not identified in the DEIR. Many of my assumptions took a non-conservative approach, resulting in likely under-reporting of emissions. Impacts are likely even more significant than shown in my analysis. The DEIR is clearly deficient and inadequate, and should be revised to address emission rate, air dispersion modeling, and health risk assessment shortcomings.

## **2. Corrected NSP Construction Fugitive Dust Emissions**

As discussed above, the NSP DEIR includes PM10 and PM2.5 emission calculations from construction activities, but neglects to prepare any air dispersion modeling analyses of these emissions. My analyses address two deficiencies in the NSP DEIR: correcting the inappropriately-low PM10 and PM2.5 construction emissions presented in the DEIR and the complete lack of any air quality impact analyses of these emissions.

This section focuses on Phase 1 construction emissions for year 2018, which includes two broad categories, termed in the DEIR as site preparation and grading activities. The DEIR and appendices are silent on the detailed construction schedule by location within the NSP. For example, the DEIR includes construction scheduling for Phase 1 and Phase 2 activities, but provides no information on whether construction for all residential areas will occur at the same time (in parallel), or whether the construction of residential areas will occur sequentially.

Since the DEIR lacks any detailed information on the sequence of residential area construction, I had little choice but to distribute the daily construction emissions evenly over the entire Phase 1 construction area (See DEIR, Figure 1-32, Phasing Plan). This is a non-conservative approach (likely to under-predict air quality impacts), since the daily emissions are diluted over the maximum possible area of Phase 1 construction activities. The area of Phase 1 construction activities used in my air dispersion modeling analysis is shown in Exhibit A.

### **2.1 CalEEMod is Inappropriate for Calculating NSP's Construction Emissions**

The DEIR relies on the CalEEMod program to calculate the majority of NSP's construction and operational emission rates. CalEEMod is a database program distributed by the California Air Pollution Control Officer's Association (CAPCOA) for use in preparing many emission inventory types. CalEEMod, however, is not reliable for calculating fugitive dust emissions from NSP's construction activities.

First, CalEEMod is in many ways a "black box," where the actual emission calculations and coding are not available to the user or reviewer. As used in the NSP DEIR, CalEEMod does not display individual calculations from construction fugitive dust activities, but rather groups the output by site location, activity, and year.

Second, CalEEMod does not include the correct emission calculation methodologies for many of the most significant construction activities. This is evidenced in the DEIR, where the DEIR-preparer relied on AP-42 emission factors to calculate rock crushing and blasting emissions (DEIR, Air Quality Technical Appendix, Appendix D). CalEEMod also lacks the ability to calculate fugitive dust emissions from wind erosion.

Furthermore, and more importantly, CalEEMod uses an inappropriate unpaved road emission factor in calculating fugitive dust emissions from onsite hauling activities, which are the most significant source of PM10 and PM2.5 emissions during NSP's construction activities. CalEEMod uses the AP-

42 emission factor for unpaved public roads when calculating construction fugitive dust emissions.<sup>1</sup> As specified in the AP-42 emission factor for unpaved roads, there are two emission calculation equations: one for industrial roads, and another for public roads. The unpaved public road emission factor is limited to vehicles weighing between 1.5 and 3.0 tons.<sup>2</sup> NSPs' haul truck weigh approximately 35 tons, on average, as detailed below. The industrial unpaved emission factor in AP-42, which is designed for vehicles weighing from 2 to 290 tons, is the appropriate equation to use in calculating NSP's haul truck trips on unpaved roads. Using the inappropriate unpaved road emission factor in the NSP DEIR results in substantial under-predictions of fugitive PM10 and PM2.5 emissions from NSP's haul trucks.

## 2.2 Summary of Corrected Emissions

Table 1 shows the DEIR-calculated peak daily mitigated construction fugitive dust emissions. The DEIR uses CalEEMod for calculating construction activity emissions, and USEPA AP-42 factors for calculating emissions from blasting and rock crushing.

Table 1: DEIR-calculated construction fugitive PM emissions

| Activity                          | PM10<br>(lb/day) | PM2.5<br>(lb/day) |
|-----------------------------------|------------------|-------------------|
| Construction Activities (Phase 1) | 385.31           | 43.03             |
| Blasting (Phase 1)                | 55.89            | 3.22              |
| Rock Crushing (Phase 1)           | 71.03            | 12.70             |
| Total maximum daily emissions:    | 512.23           | 58.95             |

Table 2 shows corrected mitigated construction fugitive dust emissions, using USEPA AP-42 factors for calculating emissions haul trucks on unpaved roads, grading, and rock crushing. I did not revise the DEIR's blasting emission rate calculations, because the DEIR did not provide sufficient information for me to verify the blasting schedule.

Table 2: Corrected AP-42 construction fugitive PM emissions

| Activity                          | PM10<br>(lb/day) | PM2.5<br>(lb/day) |
|-----------------------------------|------------------|-------------------|
| Construction Activities (Phase 1) | 786.53           | 95.89             |
| Blasting (Phase 1)                | 55.89            | 3.22              |
| Rock Crushing (Phase 1)           | 138.41           | 19.74             |
| Maximum daily emissions:          | 980.84           | 118.85            |

The corrected emission rates shown in Table 2 do not include combustion DPM sources, or fugitive dust from wind erosion. A complete listing of PM10 and PM2.5 emissions I included in air

<sup>1</sup> CAPCOA, CalEEMod User's Guide, Appendix A: Calculation Details for CalEEMod, October 2017, p. 30). Available at: [http://www.aqmd.gov/docs/default-source/caleemod/02\\_appendix-a2016-3-2.pdf](http://www.aqmd.gov/docs/default-source/caleemod/02_appendix-a2016-3-2.pdf)

<sup>2</sup> EPA, AP-42, Section 13.2.2 – Unpaved Roads, November 2006, Table 13.2.2-3. Available at: <http://www.epa.gov/ttn/chief/ap42/ch13/final/c13s0202.pdf>

dispersion modeling analyses are shown in Exhibit B, and it should be noted that I did not amend the DEIR's DPM emission rate calculations. The following sections discuss the corrected fugitive dust emission rate calculations I performed for unpaved haul roads, dozing, grading, rock crushing, and wind erosion.

### 2.3 Unpaved Road Fugitive Dust Emissions

NSP's haul truck activities will generate fugitive PM<sub>2.5</sub> and PM<sub>10</sub> emissions when traveling on unpaved roads within the project site. As discussed above, the industrial unpaved road emission factor is the most appropriate equation for the weight and use of NSP's haul trucks. The emissions generated from this activity are mitigated by limiting the truck travel speed to 15 miles per hour (DEIR CalEEMod input and output files).

The equation used to calculate particulate matter (PM, or fugitive dust) emissions from NSP's haul truck traffic is obtained from EPA's air pollution emission factor equation for industrial unpaved roads.<sup>3</sup> This equation is as follows:

$$E = [k(s/12)^a * (W/3)^b] * [(365-P)/365]$$

Where: E = emission factor in the same units as k

k = particle size multiplier:  
0.15 lb/vehicle mile traveled (VMT) for PM<sub>2.5</sub>  
1.50 lb/VMT for PM<sub>10</sub><sup>4</sup>

s = road surface silt percentage (%)

W = average weight of vehicles (tons)

a = constant (0.9 for both PM<sub>2.5</sub> and PM<sub>10</sub>)

b = constant (0.45 for both PM<sub>2.5</sub> and PM<sub>10</sub>)

P = number of "wet" days with at least 0.254 mm (0.01 in) of precipitation during the averaging period

The values used for any of the variables in the above equation, s, W, and P, will have an impact on the final result, *i.e.*, the calculated particulate matter emission rates. Each of these inputs are discussed below.

#### *Silt content (s)*

Silt content is the fraction of silt in the unpaved road surface materials, with silt being defined as particles smaller than 75 micrometers in diameter.<sup>5</sup> USEPA provides typical silt percentage values for unpaved roads at industrial facilities. My analysis uses an unpaved road silt fraction of 8.5%, which is the average silt fraction for construction sites listed by the USEPA.<sup>6</sup> The DEIR also uses

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<sup>3</sup> *Id.*, p. 13.2.2-4.

<sup>4</sup> *Id.*, Table 13.2.2-2.

<sup>5</sup> *Id.*, p.13.2.2-1

<sup>6</sup> *Id.*, Table 13.2.2-1.

8.5% silt for its calculations of unpaved road fugitive dust, but again, the DEIR uses the inappropriate public road unpaved road emission factor.

*Truck weight (W)*

Vehicle weights are the other main component of the AP-42 emission factor for calculating PM2.5 and PM10 emission rates from unpaved roads. It is the average vehicle weight that is used for the emission calculation (usually the average of loaded and unloaded truck weights).<sup>7</sup>

The DEIR does not provide information on truck weights, with the CalEEMod emission calculation output files provided for my review list the Phase 1 construction haul trucks as being HHDT class.<sup>8</sup> For my emission rate analysis, I calculated a mean truck weight of 34.6 tons, as follows:

- Unloaded truck weight: 16.5 tons (33,000 lbs)<sup>9</sup>
- Haul truck load: 16 cubic yards (DEIR, Air Quality Technical Report, Appendix A)
- Material density: 2.26 tons/cubic yard (Rock Crushing Emissions spreadsheet used in DEIR emissions calculations)
- Haul truck material weight:  $16 \text{ yd}^3 * 2.26 \text{ tons/yd}^3 = 36.16 \text{ tons}$
- Loaded truck weight:  $= 16.5 \text{ tons} + 36.16 \text{ tons} = 52.66 \text{ tons}$
- Average unloaded/loaded haul truck weight:  $(16.5 \text{ tons} + 52.66 \text{ tons})/2 = 34.6 \text{ tons}$ .

For comparison, the USEPA, in developing AP-42 Section 13.2.1, identifies an average vehicle weight of 35 tons for heavy duty diesel trucks.<sup>10</sup> Heavier trucks result in higher fugitive dust emissions; as the weight of the trucks increase, so do the emissions.

*Rainfall correction (P)*

Short-term PM2.5 and PM10 emission rates should not be calculated using a rainfall correction, as there are many consecutive days in San Diego County when there is no rainfall. Accordingly, my unpaved road fugitive dust emission rate calculations did not apply a rainfall correction to 24-hour PM2.5 and PM10 emission rates.

Unpaved haul road PM2.5 and PM10 emission rates, using the above-described methods, are calculated and presented in Exhibit B. Table 3 lists a summary of these daily emission rates.

Table 3: AP-42 Unpaved Road Fugitive PM Emissions

| AP-42 Unpaved Road Emissions | PM10<br>(lb/day) | PM2.5<br>(lb/day) |
|------------------------------|------------------|-------------------|
| Phase 1 Site Preparation     | 15.35            | 1.53              |
| Phase 1 Grading Activities   | 430.77           | 43.08             |
| Total:                       | 446.12           | 44.61             |

<sup>7</sup> *Id.*, p.13.2.2-6.

<sup>8</sup> See CalEEMod Excel spreadsheet: Construction\_Winter\_OUTPUT.xls

<sup>9</sup> <https://www.afdc.energy.gov/data/10380>

<sup>10</sup> USEPA, Emission Factor Documentation for AP-42, Section 13.2.1, January 2011, p. 4-37; <http://www.epa.gov/ttn/chief/ap42/ch13/bgdocs/b13s0201.pdf>.

## 2.4 Fugitive Dust Emissions from Bulldozer/ Crawler Tractors

Equations used to calculate particulate matter (fugitive dust) emissions from the NSP's bulldozing and crawler tractors are obtained from EPA's air pollution emission factor equations for Western Surface Coal Mining, overburden material.<sup>11</sup> The bulldozing of overburden equations are as follows:

$$\text{PM}_{10} \text{ E} = k * [(1.0) * (s)^{1.5}] / (M)^{1.4} * (1-CE)$$

$$\text{PM}_{2.5} \text{ E} = k * [(5.7) * (s)^{1.2}] / (M)^{1.3} * (1-CE)$$

Where: E = emission factor in lb/hr

k = scaling factor:

0.75 scaling factor for PM<sub>10</sub>

0.022 scaling factor for PM<sub>2.5</sub><sup>12</sup>

s = material silt percentage (%)

Increasing silt content will increase fugitive dust emissions

M = material moisture content (%)

Increasing moisture content will decrease fugitive dust emissions

CE = wet suppression control efficiency

Increasing control efficiency will decrease fugitive dust emissions

It should be noted that the DEIR and the CalEEMod inputs often contain discrepancies. For example, for Phase 1 site preparation, the DEIR lists four crawler tractors (DEIR, p.2.3-69), while the CalEEMod input and output files assume three wheeled dozers. For my calculations, I applied the CalEEMod input values, since these are the basis for Dudek's technical analysis.

I used the same material silt and moisture percentages as the DEIR, but I included both bulldozers and crawler/tractors in these bulldozing emission calculations. A crawler tractor is essentially a bulldozer propelled on tracks (like a military tank), while the DEIR specifies bulldozers as being wheeled.

The DEIR assumes a 61% fugitive dust control efficiency by applying water at specific intervals. The 61% control efficiency apparently comes from the South Coast Air Quality Management District (SCAQMD) CEQA Handbook Fugitive Dust Mitigation Tables, but the DEIR does not provide an actual reference.<sup>13</sup>

Bulldozing and crawler tractor PM<sub>2.5</sub> and PM<sub>10</sub> emission rates, using the above-described methods, are calculated and presented in Exhibit B. Table 4 lists a summary of these daily emission rates.

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<sup>11</sup> EPA, AP-42, Section 11.9 – Western Surface Coal Mining, October 1998, Table 11.9-1. Available at: <https://www3.epa.gov/ttn/chief/ap42/ch11/final/c11s09.pdf>

<sup>12</sup> *Id.*

<sup>13</sup> [http://www.aqmd.gov/ceqa/handbook/mitigation/fugitive/MM\\_fugitive.html](http://www.aqmd.gov/ceqa/handbook/mitigation/fugitive/MM_fugitive.html)

Table 4: AP-42 Bulldozing and Crawler Tractor Fugitive PM Emissions

| AP-42 Bulldozing/ Crawler Tractor Emissions | PM10<br>(lb/day) | PM2.5<br>(lb/day) |
|---------------------------------------------|------------------|-------------------|
| Phase 1 Site Preparation                    | 7.05             | 3.87              |
| Phase 1 Grading Activities                  | 25.83            | 14.20             |
| Total:                                      | 32.88            | 18.07             |

## 2.5 Fugitive Dust Emissions from Grading Equipment

Equations used to calculate particulate matter (fugitive dust) emissions from the NSP’s graders and scrapers are obtained from EPA’s air pollution emission factor equations for Western Surface Coal Mining, overburden material.<sup>14</sup> The grading of overburden equations are as follows:

$$PM10 E = k * [(0.051) * (s)^{2.0}] * (1-CE)$$

$$PM2.5 E = k * [(0.040) * (s)^{2.5}] * (1-CE)$$

Where: E = emission factor in lb/VMT

k = scaling factor:

0.60 scaling factor for PM10

0.031 scaling factor for PM2.5<sup>15</sup>

s = material silt percentage (%)

Increasing silt content will increase fugitive dust emissions

CE = wet suppression control efficiency

Increasing control efficiency will decrease fugitive dust emissions

The DEIR assumes a 61% fugitive dust control efficiency by applying water at specific intervals

CaleEMod does not include emission calculations for scrapers, thus the DEIR substantially under-estimates this fugitive dust emission component. I used the same material silt percentage as the DEIR, but I included both graders and scrapers in these grading emission calculations as both types of equipment generate fugitive dust emissions. A scraper is a large mechanical device that excavates and then stores the material it excavates, while a grader consists of only a blade to move and shape material.<sup>16</sup> In terms of fugitive dust potential, a scraper can cause much more emissions than a grader, due to the mechanical rasping and excavation activities of the scraper.

I applied the same USEPA AP-42 emission factors for both scrapers and graders, which will almost certainly under-estimate emissions from scrapers. USEPA AP-42 Section 13.2.3 (Heavy Construction Operations) indicates fugitive emissions from scrapers are much greater than from

<sup>14</sup> EPA, AP-42, Section 11.9 – Western Surface Coal Mining, October 1998, Table 11.9-1. Available at: <https://www3.epa.gov/ttn/chief/ap42/ch11/final/c11s09.pdf>

<sup>15</sup> *Id.*

<sup>16</sup> Images of construction equipment can be found at: <https://www.slideshare.net/isnindian/scraper-rippergraderdozer>

graders. USEPA’s scraper particulate matter emission factor is approximately 20 lb/VMT PM, which is roughly four time greater than the emission factor for scrapers. I chose to use USEPA’s scraper emission factor for graders due to the lower emission factor rating for scrapers.<sup>17</sup> This is a non-conservative approach that likely result in under-reporting emissions.

Grader and Scraper PM2.5 and PM10 emission rates, using the above-described methods, are calculated and presented in Exhibit B. Table 5 lists a summary of these daily emission rates. The DEIR did not assume any graders or scrapers for Phase 1 site preparation.

Table 5: AP-42 Grader and Scraper Tractor Fugitive PM Emissions

| AP-42 Grader/ Scraper Emissions | PM10<br>(lb/day) | PM2.5<br>(lb/day) |
|---------------------------------|------------------|-------------------|
| Phase 1 Site Preparation        |                  |                   |
| Phase 1 Grading Activities      | 307.53           | 33.21             |
| Total:                          | 307.53           | 33.21             |

## 2.6 Fugitive Dust Emissions from Rock Crushing

Equations used to calculate particulate matter (fugitive dust) emissions from the rock crushing emissions are obtained from USEPA’s air pollution emission factor equations for Crushed Stone Processing (AP-42 Section 11.9.2) and Aggregate Handling and Storage Piles (AP-42 Section 13.2.4). I did not revise the DEIR stone crushing emissions, but the DEIR used an anomalously low wind speed for calculating fugitive dust emissions during crushed stone drops and transfers.

The material handling equation is as follows:

$$E = k * [(0.0032) * (U/5)^{1.3}] / (M/2)^{1.4} * (1-CE)$$

Where: E = emission factor in lb/hr

k = scaling factor:  
 0.35 scaling factor for PM10  
 0.053 scaling factor for PM2.5<sup>18</sup>

U = mean wind speed during emission period (mph)  
 Increasing wind speed will increase fugitive dust emissions

M = material moisture content (%)  
 Increasing moisture content will decrease fugitive dust emissions

CE = wet suppression control efficiency  
 Increasing control efficiency will decrease fugitive dust emissions

<sup>17</sup> EPA, AP-42, Section 13.2.3 – Heavy Construction Operations, January 1995, Table 13.2.3-1. Available at: <https://www3.epa.gov/ttn/chief/ap42/ch13/final/c13s02-3.pdf>

<sup>18</sup>EPA, AP-42, Section 13.2.4 – Aggregate Handling and Storage Piles, November 2006, p. 13.2.2-4. Available at: <https://www3.epa.gov/ttn/chief/ap42/ch13/final/c13s0204.pdf>

The DEIR analysis assumed a mean wind speed of 2.98 mph, obtained as the average of all wind speeds included in the 2010-2012 Escondido meteorological data used in the DEIR DPM health risk assessment. Because the appropriate analysis for an EIR relies on peak daily emissions, the DEIR's approach will under-estimate fugitive dust from rock crushing material handling. Construction emissions are limited to hours 0700 through 1600 (DEIR DPM Health Risk Assessment Modeling Inputs), so peak wind speeds during this period should be used in the material handling fugitive dust emission rate calculations. I calculated the peak average wind speed during hours 0700 – 1600 to be 11.6 mph, again using the 2010-2012 Escondido meteorological data.

The DEIR assumes a 3% moisture content for material handling and did not apply any control (mitigation) measures to this activity. As these values seem reasonable given the project material and activities, I did not revise these DEIR assumptions.

Rock crushing and subsequent material handling PM2.5 and PM10 emission rates, using the above-described methods, are calculated and presented in Exhibit B. Table 6 lists a summary of these daily emission rates.

Table 6: AP-42 Rock Crushing and Handling Fugitive PM Emissions

| AP-42 Rock Crushing and Material Handling Emissions | PM10 (lb/day) | PM2.5 (lb/day) |
|-----------------------------------------------------|---------------|----------------|
| Phase 1 Site Preparation                            |               |                |
| Phase 1 Grading Activities                          | 138.41        | 19.74          |
| Total:                                              | 138.41        | 19.74          |

## 2.7 Fugitive Dust Emissions from Wind Erosion

As discussed above, the DEIR failed to consider wind erosion emissions in verifying compliance with emissions significance criteria or ambient air quality standards. Furthermore, CalEEMod does not have the ability to address wind erosion emissions. From the CalEEMod User's Guide:

Wind-blown fugitive dust is not calculated in CalEEMod because of the number of input parameters required such as soil type, moisture content, wind speed, etc. This limitation could result in underestimated fugitive dust emissions if high wind and loose soil are substantial characteristics for a given land use/construction scenario.<sup>19</sup>

Fugitive dust emissions from wind erosion activities are typically calculated using USEPA's emission factors for industrial wind erosion.<sup>20</sup> USEPA's industrial wind erosion equation is as follows:

<sup>19</sup> CAPCOA, CalEEMod User's Guide, Technical Paper, July 2011, p. 4). Available at: <http://www.aqmd.gov/docs/default-source/caleemod/techpaper.pdf>

<sup>20</sup> EPA, AP-42, Section 13.2.5 – Industrial Wind Erosion, November 2006. Available at: <https://www3.epa.gov/ttn/chief/ap42/ch13/final/c13s0205.pdf>

$$P = 58*(u^* - u_t^*)^2 + 25*(u^* - u_t^*)$$

$$P = 0 \text{ for } u^* \leq u_t^*$$

Where:

$u^*$  = friction velocity (m/s)

$u_t^*$  = threshold friction velocity (m/s)

$u^* = 0.053 * u_{10}^+$

$u_{10}^+$  = fastest mile of reference anemometer for period between disturbances (m/s)

The fastest two-minute wind speed of 30 mph or greater equals a fastest mile

The 2010 – 2012 Escondido meteorological data do not include the fastest two-minute wind speed information necessary for calculating wind erosion emissions. To overcome this deficiency, I processed five years of meteorological data (2013 – 2017) from the McClellan – Palomar Airport (KCRQ), which is a National Weather Service ASOS site that measures two-minute wind speed data.<sup>21</sup> KCRQ is roughly 15 kilometers west of the NSP site, while the Escondido data were measured about 11 kilometers south of the NSP site.

To illustrate the potential for wind erosion fugitive dust emissions (as PM10) in the NSP area, I assessed one wind event comprising peak easterly Santa Ana winds exceeding two-minute wind speeds of approximately 30 mph. This event occurred on May 13, 2014, and was a dry easterly wind event (wind blowing from the east towards the coast). I also assessed potential wind erosion emissions from this event using the Pacific Northwest National Laboratory (PNNL) DUSTRAN model, which was validated by comparing DUSTRAN-calculated dust concentrations with observations of wind erosion on the US Department of Energy’s Hanford Site in southeastern Washington.<sup>22</sup> A summary of the fugitive dust emissions (as PM10) calculated by USEPA AP-42 Section 13.2.5 and DUSTRAN are shown in Table 7.

Table 7: Wind Erosion Fugitive PM10 Emission Rate Calculations

| Wind Erosion PM 10 Emission Calculations for May 13, 2014 | AP42, 13.2.5 | DUSTRAN   |
|-----------------------------------------------------------|--------------|-----------|
| Threshold friction velocity (m/s):                        | 0.62         | 0.42      |
| Total particulate emissions (g/m <sup>2</sup> ):          | 1.98         | 11.05     |
| Maximum particulate emissions (g/m <sup>2</sup> ):        | 1.69         | 4.36      |
| Area or subarea (m <sup>2</sup> ):                        | 1,109,040    | 1,109,040 |
| Total particulate emissions (tons/day):                   | 2.43         | 13.50     |
| Total particulate emissions (pounds/day):                 | 4,851        | 27,006    |

As can be seen from Table 7, extremely large quantities of fugitive PM10 emissions are possible during wind erosion events at the NSP site, greatly exceeding the quantities identified in the DEIR from mechanically-induced fugitive dust sources. This is particularly true for the DUSTRAN

<sup>21</sup> ASOS is an acronym for Automated Surface Observing Systems; see: <http://www.nws.noaa.gov/ost/asostech.html>

<sup>22</sup> Shaw, William J., et al. at PNNL, An evaluation of the wind erosion module in DUSTRAN, Atmospheric Environment, 42 (2008), pp. 1907–1921.

emission rate calculations. The area of wind erosion emissions (1,109,040 square-meters), is the Phase 1 construction area of the Hillside, Knoll, Mesa, Terraces, and Valley residential area developments.

Wind erosion PM10 emission rates, using the above-described methods, are calculated and presented in Exhibit B. For purposes of air dispersion modeling described below, I limited my analysis to the USEPA industrial wind erosion (AP-42 Section 13.2.5) calculations, which are significantly lower than those calculated by DUSTRAN.

### **3. Air Dispersion Modeling Analysis of Corrected NSP Construction Fugitive Dust Emissions**

I prepared air dispersion modeling of 24-hour PM10 and PM2.5 impacts from NSP's construction emissions, using USEPA's AERMOD model, version 16216r. This is the latest version of the model. For this analysis, the pollutants of concern are the 24-hour PM2.5 NAAQS and the 24-hour PM10 CAAQS. The 24-hour PM10 CAAQS is  $50 \mu\text{g}/\text{m}^3$ , represented as the absolute highest 24-hour value. The 24-hour PM2.5 NAAQS is  $35 \mu\text{g}/\text{m}^3$ , represented as the 8<sup>th</sup>-highest 24-hour value averaged over three years.

I modeled the construction fugitive dust emissions using AREAPOLY sources covering the areas of Phase 1 construction activities. These areas are shown in Exhibit A, and total 1,109,040 square-meters. As described earlier, I evenly-distributed the calculated emissions throughout these areas, which is likely to under-estimate modeled impacts.

AREAPOLY sources require the following AERMOD inputs:

- A source identifier number or name;
- Source Location X (Easting) coordinate (UTM Zone 11, NAD83);
- Source Location Y (Northing) coordinate (UTM Zone 11, NAD83);
- Source base elevation (meters above sea level);
- Emission flux of PM10 and PM2.5 ( $\text{g}/(\text{s}\cdot\text{m}^2)$ );
- Release height of the area source (meters);
- Number of polygon vertices;
- X and Y coordinates for each polygon vertex (UTM Zone 11, NAD83);
- Initial vertical dispersion of the area source plume ( $\text{SZ}_0$ , in meters).

I assessed release heights equal to 5.0 meters and initial vertical dispersion ( $\text{SZ}_0$ ) of 2.33 meters (5 meters/ 2.15) for each AREAPOLY source modeled. With the exception of wind erosion emissions, I modeled all emission sources using a unit emission rate (since each source is modeled separately). For AREAPOLY PM10 sources (other than wind erosion), I used a unit emission rate of  $1.00\text{E}-05 \text{ g}/(\text{s}\cdot\text{m}^2)$ . For AREAPOLY PM2.5 sources (other than wind erosion), I used a unit emission rate of  $1.00\text{E}-06 \text{ g}/(\text{s}\cdot\text{m}^2)$ . This is a standard air quality modeling practice known as "chi-over-Q," which allows efficient post-processing of modeled results using the actual emission rate of each pollutant for each source. This method is particularly useful for modeling sources with many pollutants, or scenarios with multiple or changing emission rates, since the source only needs to be modeled once.

The unit emission rate output can be post-processed with the actual emission rate of each pollutant without having to re-run the model each time. I used the actual calculated hourly PM10 emission rates when modeling wind erosion impacts.

Modeled source and receptor locations also require terrain elevation data, in meters above sea level. I obtained the terrain elevation data for these locations using the National Elevation Dataset (NED) GeoTiff file for the area, which includes the NSP site and the surrounding locations. GeoTiff is a binary file that includes data descriptors and geo-referencing information necessary for extracting terrain elevations. I extracted terrain elevations from 1/3<sup>rd</sup> arc-second (10-meter resolution) NED files using USEPA's AERMAP program, v. 11103. AERMAP is included in the regulatory-approved AERMOD modeling system.

### 3.1 Meteorological Data and Background Air Quality

I used 2010 – 2012 Escondido meteorological data for modeling fugitive dust emissions and assessing compliance with the 24-hour PM10 CAAQS and 24-hour PM2.5 NAAQS. This is the same meteorological data set used in DEIR for preparing their DPM health risk assessment. For wind erosion emissions, I used KCRQ 2013 – 2017 meteorological data, as this data set has wind measurements necessary for calculating wind erosion emissions. Wind roses of the 2010-2012 Escondido meteorological data and the 2013 – 2017 KCRQ data are shown in Exhibit C.

Air quality data are used to determine whether an area is attaining state and national ambient air quality standards. These data are also used to develop background air quality levels, which are then added to project-incremental impacts to determine compliance with the applicable CAAQS and NAAQS.

Background PM2.5 and PM10 air quality data are available from the SDAPCD site in Escondido, which was closed in 2015. Although the site is no longer operating, it is applicable for background particulate matter levels as it is in relatively close-proximity to NSP. For 2015, PM10 was not measured for a complete year at Escondido. The maximum 24-hour PM10 concentration measured at Escondido in 2015 was 30  $\mu\text{g}/\text{m}^3$ . For years 2013 – 2015, the 24-hour PM2.5 design concentration (in the form of the PM2.5 NAAQS) was 26.8  $\mu\text{g}/\text{m}^3$ .<sup>23</sup>

### 3.2 NSP PM10 Impacts Exceed the 24-Hour PM10 CAAQS

I performed air dispersion modeling to calculate the highest 24-hour PM10 concentrations attributable to NSP's construction activities, modeled with three-years of Escondido meteorological data. The modeling shows significant violations of the 24-hour PM10 CAAQS (50  $\mu\text{g}/\text{m}^3$ ), extending well beyond the NSP site. Importantly, the modeled 24-hour PM10 impacts exceed the CAAQS without the addition of background levels. A map showing the locations of 24-hour PM10 impacts from NSP's construction emissions, overlaid onto aerial imagery, are shown in Exhibit D. This map includes two 24-hour PM10 isopleths: 100% of the CAAQS (50  $\mu\text{g}/\text{m}^3$ ) and 200% of the CAAQS (100  $\mu\text{g}/\text{m}^3$ ). These isopleth maps do not include the background PM10 concentrations

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<sup>23</sup> SDAPCD, Annual Air Quality Monitoring Network Plan: 2015, July 2016.

discussed in Section 3.1.

### 3.3 NSP PM2.5 Impacts Exceed the 24-Hour PM2.5 NAAQS

I also performed air dispersion modeling to calculate eighth-highest 24-hour PM2.5 concentrations attributable to NSP, averaged over three-years of modeled Escondido meteorological data. The modeling shows violations of the 24-hour PM2.5 NAAQS ( $35 \mu\text{g}/\text{m}^3$ ) when including background PM2.5 data measured at Escondido. Maps showing the locations of 24-hour PM2.5 impacts from NSP's construction emissions, overlaid onto aerial imagery, are shown in Exhibit D. These isopleth maps are presented two ways: without and with the background PM2.5 concentrations discussed in Section 3.1. The map showing 24-hour PM2.5 impacts without background values includes isopleths of 10 and  $15 \mu\text{g}/\text{m}^3$ , which are levels chosen to depict modeled concentrations near the NSP site boundary. The map showing 24-hour PM2.5 impacts with background values includes a  $35 \mu\text{g}/\text{m}^3$  isopleth, which is the 24-hour PM2.5 NAAQS.

### 3.4 NSP Wind Erosion Fugitive Dust Impacts

I modeled NSP wind erosion emissions using May 13, 2014 meteorological data from the KCRQ ASOS site. As discussed above, I only assessed the wind erosion emissions calculated using USEPA's industrial wind erosion equations, which are much smaller than those calculated by PNNL's DUSTRAN program.

Since wind erosion is limited to two hours during the wind conditions of May 13, 2014, I assessed both one-hour and 24-hour PM10 impacts. One-hour PM10 impacts from wind erosion exceed  $200 \mu\text{g}/\text{m}^3$  well-beyond the NSP site boundary, while 24-hour PM10 impacts are roughly  $20 \mu\text{g}/\text{m}^3$  at the NSP boundary. The 24-hour wind erosion PM10 impacts will exacerbate the already significant 24-hour PM10 CAAQS violations that are modeled to occur from NSP's mechanical construction activities. While there are no one-hour CAAQS or NAAQS levels established for PM10, the one-hour PM10 impacts may contribute to acute adverse health effects, including asthma.<sup>24</sup> Maps showing the locations of one-hour and 24-hour PM10 impacts from NSP wind erosion emissions, overlaid onto aerial imagery, are shown in Exhibit D.

## 4. Health Risk Assessment of NSP Diesel Particulate Matter Emissions

Diesel engine exhaust is classified by the State of California as a toxic air contaminant (TAC) and as a chemical known to cause cancer in humans.<sup>25</sup> Diesel engine exhaust is also a Proposition 65 listed carcinogen, which requires notification to individuals when the exposure exceeds the No Significant Risk Level (NSRL) of 10 per million excess cancer risk.<sup>26</sup>

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<sup>24</sup> Delfino, Ralph J., et. al., Association of Asthma Symptoms with Peak Particulate Air Pollution and Effect Modification by Anti-inflammatory Medication Use, *Environmental Health Perspectives*, 110, 10, 2002, pp. A607 – A617.

<sup>25</sup> California Office of Environmental Health Hazard Assessment, *Health Risk Assessment for Diesel Exhaust*, May 1998.

<sup>26</sup> California Office of Environmental Health Hazard Assessment, *Safe Drinking Water and Toxic Enforcement Act of 1986, Chemicals Known to the State to Cause Cancer or Reproductive Toxicity*, June 19, 2015.

Although there are many toxic constituents in diesel exhaust, e.g. benzene, aldehydes, and metals, it is diesel particulate matter (DPM) that is used to assess excess cancer risks from diesel engine exhaust. The California Air Resources Board (CARB) and the California Office of Environmental Hazard Assessment (OEHHA) developed a DPM inhalation cancer potency factor which is used to assess diesel engine exhaust excess cancer risks. From OEHHA and CARB:

The inhalation cancer potency factor was derived from whole diesel exhaust and should be used only for impacts from the inhalation pathway (based on diesel PM measurements). The inhalation impacts from speciated emissions from diesel-fueled engines are already accounted for in the inhalation cancer potency factor.<sup>27</sup>

The DPM inhalation cancer potency factor, with units of inverse air concentration ( $(\mu\text{g}/\text{m}^3)^{-1}$ ), is used to convert DPM air concentrations to a unitless value of excess cancer risk. For DPM, OEHHA and CARB have identified an inhalation cancer potency factor of  $3.00\text{E}-04 (\mu\text{g}/\text{m}^3)^{-1}$ , and an oral potency slope of  $1.1 (\text{mg}/(\text{kg}\cdot\text{day}))^{-1}$  for dose calculations.<sup>28</sup>

Using OEHHA's 2015 Health Risk Assessment Guidelines, I calculated the excess cancer risk from exposure to  $1.0 \mu\text{g}/\text{m}^3$  of DPM for the first nine years of a child's life, from birth onwards. This is the most sensitive 9-year period of life, and OEHHA has developed age sensitivity factors and age-specific breathing rates for children which greatly increase the excess cancer risk compared to the same exposure for adults.<sup>29</sup> Applying OEHHA's guidelines, I calculate an excess cancer risk of  $6.27\text{E}-04$  (627 per million) for exposure to  $1.0 \mu\text{g}/\text{m}^3$  of DPM for the first nine years of a child's life. This value, which is calculated and shown in Exhibit E, is applied during post-processing of the modeled DPM air concentrations.

As discussed above, the DEIR incorrectly models construction DPM emissions, only covering a small portion of the project site and assessing only a fraction of the total construction DPM emissions. I prepared an air dispersion modeling analysis and health risk assessment (HRA) of construction DPM emissions for the entire project site, including a 9-year exposure DPM HRA.

The construction DPM emissions I modeled in this HRA are presented in Exhibit E. Consistent with the 24-hour PM<sub>10</sub> and PM<sub>2.5</sub> modeling analyses, I distributed these DPM emissions evenly over the entire Phase 1 construction area. This approach is likely to underestimate DPM air concentrations and associated health risks, but is necessitated by the lack of construction sequence information in the DEIR.

The DEIR also incorrectly models operational DPM emissions, and only assesses future exposures to areas within the NSP site. I prepared an air dispersion modeling analysis of operational DPM emissions for a wide-area of receptors, which forms the basis for a 9-year exposure DPM HRA. For

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<sup>27</sup> Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values, Updated February 23, 2017, p. 15.

<sup>28</sup> Id., p.7.

<sup>29</sup> California Office of Environmental Health Assessment, Air Toxics Hot Spots Program Risk Assessment Guidelines, Guidance Manual for Preparation of Health Risk Assessments, February 2015.

the operational DPM HRA, I used the same source and DPM emission rate information assessed in the DEIR, but added additional receptors to assess off-site and additional on-site exposures.

I limited the operational DPM HRA to the off-site vehicle emissions assessed in the DEIR, omitting the gas station since fueling operations do not directly emit DPM. These off-site vehicle activities are modeled as adjacent AERMOD volume sources, which require the following inputs:

- A source identifier number or name;
- Source Location X (Easting) coordinate (UTM Zone 11, NAD83);
- Source Location Y (Northing) coordinate (UTM Zone 11, NAD83);
- Source base elevation (meters above sea level);
- Emission rate of DPM (g/s);
- Center height of the volume source (meters);
- Initial horizontal dispersion of the area source plume (SYINIT – meters).
- Initial vertical dispersion of the area source plume (SZINIT – meters).

Consistent with the DEIR, I applied a series of adjacent volume sources, using the following parameters:

- Release height = 1.6 meters for I-15, Mesa Rock Rd. to I-15, and Mesa Rock Rd. to I-15 segments;
- SYINIT = road width/2.15 = 13.58 meters for I-15;
- SYINIT = road width/2.15 = 6.53 meters for Mesa Rock Rd. to I-15;
- SYINIT = road width/2.15 = 6.77 meters for Deer Springs Rd.;
- SZINIT = 1.6/2.15 = 0.74 meters for I-15, Mesa Rock Rd. and Deer Springs Rd. segments.<sup>30</sup>

I modeled all DPM sources for NSP's operational HRA with a unit emission rate of 1.0 g/s. This will facilitate post-processing using actual DPM emission rates by source, and the calculated excess cancer risk associated with 1.0  $\mu\text{g}/\text{m}^3$  of DPM exposure.

For both construction and operational emissions, modeled unit emission rate DPM concentrations are post-processed with both actual emission rates and 9-year excess cancer risk health risk multipliers. Modeled construction and operational DPM emission rates, including excess cancer risk post-processing inputs, are shown in Exhibit E.

#### 4.1 Excess Cancer Risks from Construction DPM Emissions

I performed air dispersion modeling to calculate period average construction DPM concentrations, modeled with three-years of Escondido meteorological data. These DPM air concentrations are converted to excess cancer risk values using the construction emissions and risk calculation information provided in Exhibit E. Maps showing the locations of 5 and 10 per million excess cancer risks from NSP's construction DPM emissions, overlaid onto aerial imagery, are shown in

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<sup>30</sup> USEPA, Haul Road Workgroup Final Report Submission to EPA-OAQPS, March 2, 2012, pp. 4-6.

Exhibit F. The 10 per million risk isopleth represents DPM exposures at the SDAPCD excess cancer risk significance level; the 5 per million risk isopleth is one-half the significance level ((DEIR, Air Quality Technical Appendix, Appendix C, p. iv).

#### 4.2 Excess Cancer Risks from Operational DPM Emissions

I performed air dispersion modeling to calculate period average operational DPM concentrations, modeled with three-years of Escondido meteorological data. These DPM air concentrations are converted to excess cancer risk values using the operational emissions and risk calculation information provided in Exhibit E. Maps showing the locations of 5 and 10 per million excess cancer risks from NSP's construction DPM emissions, overlaid onto aerial imagery, are shown in Exhibit F. The 10 per million risk isopleth represents DPM exposures at the SDAPCD excess cancer risk significance level; the 5 per million risk isopleth is one-half the significance level.

### 5. Crystalline Silica

The DEIR obliquely addresses crystalline silica emissions, but fails to identify the crystalline silica content of the NSP site soils and subsequent fugitive dust emissions. This is a relatively simple measurement, but the DEIR has not performed this task. Given the magnitude of the fugitive dust emissions, and resulting ambient air concentrations of PM10 and PM2.5, this is a significant omission in the DEIR.

California has established a chronic reference exposure level of  $3.0 \mu\text{g}/\text{m}^3$  for crystalline silica.<sup>31</sup> The DEIR should obtain site-specific crystalline silica content data of the NSP site soils, and apply these mass-fraction levels to annual-average modeled PM10 emissions caused by construction activities.

### 6. Concluding Remarks

Corrected construction fugitive dust emissions will cause modeled impacts above the 24-hour PM10 CAAQS ( $50 \mu\text{g}/\text{m}^3$ ) and 24-hour PM2.5 NAAQS ( $35 \mu\text{g}/\text{m}^3$ ). Wind erosion events can add significantly to the air quality impacts caused by NSP's construction activities. In addition, construction and operational DPM emissions result in excess cancer risks greater than the 10 per million significance threshold. The NSP DEIR failed to identify these significant findings.

The DEIR assesses construction emissions (although incorrectly) within the project site, but fails to quantify PM10 and PM2.5 emissions that will be associated with off-site road widening and construction. This is particularly important for residential and other uses along Deer Springs Road, including the Golden Door Resort, which will be exposed to impacts from both NSP's on-site and off-site construction emissions.

The DEIR modeling uses actual terrain data for its limited modeling analyses. My re-analyses of the DEIR shortcomings also use actual terrain elevations (obtained using AERMAP). This, however, is

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<sup>31</sup> Consolidated Table of OEHHA/ARB Approved Risk Assessment Health Values, Updated February 23, 2017, p. 11.

not necessarily a complete analysis of possible air quality impacts. The USEPA acknowledges potential concerns regarding modeled impacts in areas of terrain that are both lower and higher than the emission source.<sup>32</sup> In essence, and most importantly for the NSP site location, AERMOD does not account for downslope flow that can occur during stable conditions, thus under-estimating modeled impacts in areas downslope of the emission sources. Furthermore, AERMOD may not adequately calculate air impacts in areas upslope from emission sources. The area surrounding the NSP site includes areas of terrain that are both lower and higher than the emission source terrain elevations, depending on the plume travel direction.

To address this concern, the DEIR air dispersion modeling should be assessed with both actual and flat terrain for sources and receptors, as is currently required by the South Coast Air Quality Management District (SCAQMD).<sup>33</sup> In other words, the DEIR should assess ambient air impacts in two ways: using the AERMOD default method of using actual terrain and the non-default method of applying flat terrain. The maximum ambient air impacts from these two methods is to be used for assessing compliance with the NAAQS, CAAQS, or other standards. From the SCAQMD:

If some receptors are lower and some receptors are higher than the base elevation of the source, AERMOD should be run twice – once using the default option and the second time using the non-default option. The maximum ground-level concentration from both runs should be reported.

The NSP DEIR should be revised and recirculated to address the emission rate, air dispersion modeling, and health risk assessment shortcomings discussed above.

Thank you for the opportunity to provide comments on the NSP DEIR. My CV is attached as Exhibit G.

In summary, I hold B.S. (1978) and M.S. (1980) degrees in Atmospheric Science from the University of California at Davis. I specialize in atmospheric dispersion modeling, which uses regulatory-approved computer programs to estimate chemical concentrations in the air. I have prepared well over 1,000 air dispersion modeling analyses requiring on-site or site-specific meteorological data. I have extensive experience with many different air dispersion programs, including the ISC, AERMOD, OCD, MPTER, COMPLEX-I, CRSTER, and other plume models, as well as the MESOPUFF, MESOPUFF II, INPUFF, and CALMET/CALPUFF puff models. In addition, I have prepared hundreds of health risk assessments of major air toxics sources in California and the United States.

I also have extensive experience calculating air pollution emissions, including fugitive dust sources from scores of complex projects. In 2010, I provided detailed comments to USEPA regarding revision of AP-42 Section 13.2.1, Paved Roads. I have been qualified to calculate fugitive dust emissions in United States District Court proceedings.

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<sup>32</sup> [https://www3.epa.gov/ttn/scram/7thconf/aermod/aermod\\_implmnt\\_guide\\_3August2015.pdf](https://www3.epa.gov/ttn/scram/7thconf/aermod/aermod_implmnt_guide_3August2015.pdf), p. 9.

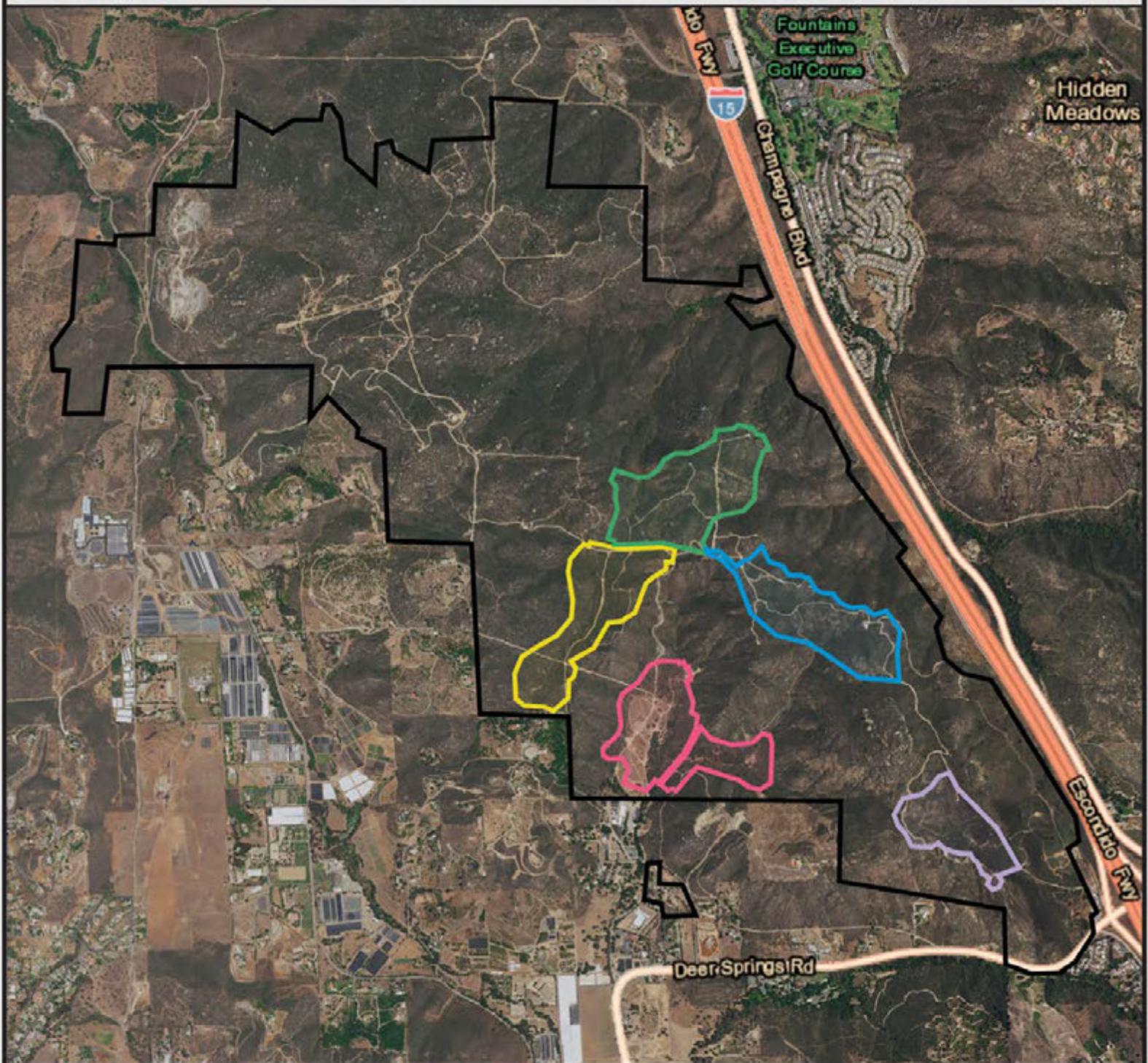
<sup>33</sup> <http://www.aqmd.gov/home/library/air-quality-data-studies/meteorological-data/modeling-guidance>.

## **Exhibit A:**

Project Location and Emission Source Maps

# Newland Sierra Project

## Phase 1 Construction Activities



- |                                                                                              |                                                                                                      |
|----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
|  Knoll    |  Valley           |
|  Mesa     |  Terraces         |
|  Hillside |  Project Boundary |



# Newland Sierra Project

## DEIR Modeled Operational Sources



- Deer Springs 1
- Deer Springs 2
- I15
- Gas Station
- Project Boundary



## **Exhibit B:**

Phase 1 Construction  
Fugitive Dust PM10 and PM2.5 Emission Calculations

Calculation of Unpaved Roadway Emissions  
 AP-42 Program Emission Factors

Equation from AP-42 Chapter 13.2.2, November 2006, Equations 1a, 2

**Newland Sierra Phase 1 Construction: Site Preparation**

$$E_{(lb\ PM/VMT)} = [k(s/12)^a * (W/3)^b] * [(365-P)/365]$$

| value of a |      |      |
|------------|------|------|
| PM2.5      | PM10 | PM30 |
| 0.9        | 0.9  | 0.7  |

**Input Variables**

| Description                                                                                   | Variable | Value |
|-----------------------------------------------------------------------------------------------|----------|-------|
| Particle size multiplier for PM2.5 (lb/VMT)                                                   | k        | 0.15  |
| Particle size multiplier for PM10 (lb/VMT)                                                    | k        | 1.5   |
| Particle size multiplier for PM30 (lb/VMT)                                                    | k        | 4.9   |
| Road surface silt percentage (%)                                                              | s        | 8.500 |
| Constant for PM2.5, PM10, PM30                                                                | b        | 0.45  |
| Number of days in the averaging period                                                        | N (days) | ---   |
| Operating hrs/day                                                                             | (hrs)    |       |
| Number of days with at least 0.254 mm (0.01 in) of precipitation during the averaging period. | P (days) | 0     |
| Control Efficiency                                                                            | CE       | 0%    |

Number of wet days set to 0 for 24-hr qcalcs  
 (No rain during 24-hour period)

**Vehicle Weight and VMT**

| Vehicle Type | Empty Weight (tons) | Loaded Weight (tons) | Average Vehicle Weight (tons) | VMT/day | Days/Yr | VMT/Yr   |
|--------------|---------------------|----------------------|-------------------------------|---------|---------|----------|
| Size group 1 | 16.5                | 52.7                 | 34.6                          | 4.65    |         | 1,753.10 |

**Qcalcs**

| Paved Roadway Emissions |       | $E_{(lb/VMT)}$ | (lb/day) | (g/s) |  |
|-------------------------|-------|----------------|----------|-------|--|
| Size group 1            | PM2.5 | 0.33           | 1.5349   |       |  |
|                         | PM10  | 3.30           | 15.3487  |       |  |
|                         | PM30  | 11.56          | 53.72    |       |  |

VMT/day: 4.6452      360 haul trips  
 31 days  
 0.4 One-way distance (mi)  
 1 trip multiplier

Calculation of Unpaved Roadway Emissions  
 AP-42 Program Emission Factors

Equation from AP-42 Chapter 13.2.2, November 2006, Equations 1a, 2

**Newland Sierra Phase 1 Construction: Grading**

$$E_{(lb\ PM/VMT)} = [k(s/12)^a * (W/3)^b] * [(365-P)/365]$$

| value of a |      |      |
|------------|------|------|
| PM2.5      | PM10 | PM30 |
| 0.9        | 0.9  | 0.7  |

**Input Variables**

| Description                                                                                   | Variable | Value |
|-----------------------------------------------------------------------------------------------|----------|-------|
| Particle size multiplier for PM2.5 (lb/VMT)                                                   | k        | 0.15  |
| Particle size multiplier for PM10 (lb/VMT)                                                    | k        | 1.5   |
| Particle size multiplier for PM30 (lb/VMT)                                                    | k        | 4.9   |
| Road surface silt percentage (%)                                                              | s        | 8.500 |
| Constant for PM2.5, PM10, PM30                                                                | b        | 0.45  |
| Number of days in the averaging period                                                        | N (days) | ---   |
| Operating hrs/day                                                                             | (hrs)    |       |
| Number of days with at least 0.254 mm (0.01 in) of precipitation during the averaging period. | P (days) | 0     |
| Control Efficiency                                                                            | CE       | 0%    |

Number of wet days set to 0 for 24-hr qcalcs  
 (No rain during 24-hour period)

**Vehicle Weight and VMT**

| Vehicle Type | Empty Weight (tons) | Loaded Weight (tons) | Average Vehicle Weight (tons) | VMT/day | Days/Yr | VMT/Yr   |
|--------------|---------------------|----------------------|-------------------------------|---------|---------|----------|
| Size group 1 | 16.5                | 52.7                 | 34.6                          | 130.37  |         | 1,753.10 |

**Qcalcs**

| Paved Roadway Emissions |       | $E_{(lb/VMT)}$ | (lb/day) | (g/s) |  |
|-------------------------|-------|----------------|----------|-------|--|
| Size group 1            | PM2.5 | 0.33           | 43.0771  |       |  |
|                         | PM10  | 3.30           | 430.7707 |       |  |
|                         | PM30  | 11.56          | 1507.66  |       |  |

VMT/day: 130.3690      290071 haul trips  
 890 days  
 0.4 One-way distance (mi)  
 1 trip multiplier

**Newland Sierra: Phase 1 Site Preparation PM10**  
**Bulldozing of Overburden**  
From AP-42, Chapter 11.9 - Western Surface Coal Mining

$$\text{PM15 } E = [(1.0) * (s)^{1.5}] / (M)^{1.4} \quad (\text{from AP-42, Table 11.9-1; bulldozing overburden})$$

Where,

E = Emission rate for PM15 (lb/hr)

s = Material silt content (%)

M = Material Moisture Content (%)

EXP1 = 1.5

EXP2 = 1.4

---

Material Silt Content = 6.90 %  
Material Moisture Content = 7.90 %  
Scaling Factor = 0.75

Control Efficiency (Wet Suppression) = 61 %

Hours/Day of Bulldozing = 8.00 Hrs/Day

E = 0.39 lb/hr PM15  
E = 0.29 lb/hr PM10  
E = 2.35 lb/day PM10  
Number of dozers: 3.00  
Total emissions: 7.04584 lb/day PM10

**Newland Sierra: Phase 1 Site Preparation PM2.5**

**Bulldozing of Overburden**

From AP-42, Chapter 11.9 - Western Surface Coal Mining

$$\text{PM30 } E = [(5.7) * (s)^{1.2}] / (M)^{1.3} \quad \text{(from AP-42, Table 11.9-1; bulldozing overburden)}$$

Where,

E = Emission rate for PM30 (lb/hr)

s = Material silt content (%)

M = Material Moisture Content (%)

EXP1 = 1.2

EXP2 = 1.3

---

Material Silt Content = 6.90 %  
Material Moisture Content = 7.90 %  
Scaling Factor = 0.105

Control Efficiency (Wet Suppression) = 61 %

Hours/Day of Bulldozing = 8.00 Hrs/Day

E = 1.54 lb/hr PM30  
E = 0.16 lb/hr PM2.5  
E = 1.29 lb/day PM2.5  
Number of dozers: 3.00  
Total emissions: 3.8730 lb/day PM2.5

**Newland Sierra: Phase 1 Grading PM10**

**Bulldozing of Overburden**

From AP-42, Chapter 11.9 - Western Surface Coal Mining

$$\text{PM15 } E = [(1.0) * (s)^{1.5}] / (M)^{1.4} \quad (\text{from AP-42, Table 11.9-1; bulldozing overburden})$$

Where,

E = Emission rate for PM15 (lb/hr)

s = Material silt content (%)

M = Material Moisture Content (%)

EXP1 = 1.5

EXP2 = 1.4

---

Material Silt Content = 6.90 %  
Material Moisture Content = 7.90 %  
Scaling Factor = 0.75

Control Efficiency (Wet Suppression) = 61 %

Hours/Day of Bulldozing = 8.00 Hrs/Day

E = 0.39 lb/hr PM15  
E = 0.29 lb/hr PM10  
E = 2.35 lb/day PM10  
Number of dozers: 11.00  
Total emissions: 25.8347 lb/day PM10

**Newland Sierra: Phase 1 Grading PM2.5**

**Bulldozing of Overburden**

From AP-42, Chapter 11.9 - Western Surface Coal Mining

$$\text{PM30 E} = [(5.7) * (s)^{1.2}] / (M)^{1.3} \quad (\text{from AP-42, Table 11.9-1; bulldozing overburden})$$

Where,

E = Emission rate for PM30 (lb/hr)

s = Material silt content (%)

M = Material Moisture Content (%)

EXP1 = 1.2

EXP2 = 1.3

---

Material Silt Content = 6.90 %  
Material Moisture Content = 7.90 %  
Scaling Factor = 0.105

Control Efficiency (Wet Suppression) = 61 %

Hours/Day of Bulldozing = 8.00 Hrs/Day

E = 1.54 lb/hr PM30  
E = 0.16 lb/hr PM2.5  
E = 1.29 lb/day PM2.5  
Number of dozers: 11.00  
Total emissions: 14.2009 lb/day PM2.5

**Newland Sierra: Phase 1 Site Preparation PM10**  
**Grading of overburden**  
 From AP-42, Chapter 11.9 - Western Surface Coal Mining

$PM10\ E = k * 0.051 * (s)^{2.0}$  (from AP-42, Table 11.9-1; grading)

Where,  
 E = Emission rate for PM10 (lb/VMT)  
 s = Grader speed (mph)  
 EXP1 = 2.0

Mean grader speed = 7.10 mph (from AP-42, Table 11.9-3; grading)  
 k scaling Factor = 0.60 adjust from PM15 to PM10

Control Efficiency (Wet Suppression) = 61 %

Hours/Day of grading = 8.00 Hrs/Day  
 Number of graders/scrapers =  
 VMT/day of grading = 12.53 VMT/day

E = 1.00 lb/VMT PM15  
 E = 0.60 lb/VMT PM10  
 E = 7.5381 lb/day PM10

AP-42 Section 13.2.3 (Heavy Construction Operations) indicates fugitive emissions from scrapers are much greater than from graders. Scraper EF is approx. 20 lb/VMT PM, with EF rating of E.

| Acres | Blade width (ft) | VMT      | days | VMT/day  |
|-------|------------------|----------|------|----------|
| 565   | 12               | 388.4375 | 31   | 12.53024 |

**Newland Sierra: Phase 1 Site Preparation PM2.5**

**Grading of overburden**

From AP-42, Chapter 11.9 - Western Surface Coal Mining

$$\text{PM2.5 E} = k \cdot 0.040 \cdot (s)^{2.5} \quad (\text{from AP-42, Table 11.9-1; grading})$$

Where,

E = Emission rate for PM2.5 (lb/VMT)

s = Grader speed (mph)

EXP1 = 2.5

---

Mean grader speed = 7.10 mph (from AP-42, Table 11.9-3; grading)  
k scaling Factor = 0.031 adjust from PM30 to PM2.5

Control Efficiency (Wet Suppression) = 61 %

Hours/Day of grading = 8.00 Hrs/Day

Number of graders/scrapers =

VMT/day of grading = 12.53 VMT/day

E = 2.10 lb/VMT PM30

E = 0.06 lb/VMT PM2.5

E = 0.8139 lb/day PM2.5

AP-42 Section 13.2.3 (Heavy Construction Operations) indicates fugitive emissions from scrapers are much greater than from graders. Scraper EF is approx. 20 lb/VMT PM, with EF rating of E.

| Acres | Blade width (ft) | VMT      | days | VMT/day  |
|-------|------------------|----------|------|----------|
| 565   | 12               | 388.4375 | 31   | 12.53024 |

**Newland Sierra: Phase 1 Grading PM10**

**Grading of overburden**

From AP-42, Chapter 11.9 - Western Surface Coal Mining

$$\text{PM10 E} = k \cdot 0.051 \cdot (s)^{2.0} \quad (\text{from AP-42, Table 11.9-1; grading})$$

Where,

E = Emission rate for PM10 (lb/VMT)

s = Grader speed (mph)

EXP1 = 2.0

---

|                     |          |                                     |
|---------------------|----------|-------------------------------------|
| Mean grader speed = | 7.10 mph | (from AP-42, Table 11.9-3; grading) |
| k scaling Factor =  | 0.60     | adjust from PM15 to PM10            |

|                                        |      |
|----------------------------------------|------|
| Control Efficiency (Wet Suppression) = | 61 % |
|----------------------------------------|------|

|                              |                |
|------------------------------|----------------|
| Hours/Day of grading =       | 8.00 Hrs/Day   |
| Number of graders/scrapers = | 9.00           |
| VMT/day of grading =         | 511.20 VMT/day |

|     |                  |
|-----|------------------|
| E = | 1.00 lb/VMT PM15 |
|-----|------------------|

|     |                  |
|-----|------------------|
| E = | 0.60 lb/VMT PM10 |
|-----|------------------|

|     |                      |
|-----|----------------------|
| E = | 307.5343 lb/day PM10 |
|-----|----------------------|

AP-42 Section 13.2.3 (Heavy Construction Operations) indicates fugitive emissions from scrapers are much greater than from graders. Scraper EF is approx. 20 lb/VMT PM, with EF rating of E.

**Newland Sierra: Phase 1 Grading PM2.5**

**Grading of overburden**

From AP-42, Chapter 11.9 - Western Surface Coal Mining

$$\text{PM2.5 E} = k \cdot 0.040 \cdot (s)^{2.5} \quad (\text{from AP-42, Table 11.9-1; grading})$$

Where,

E = Emission rate for PM2.5 (lb/VMT)

s = Grader speed (mph)

EXP1 = 2.5

---

Mean grader speed = 7.10 mph (from AP-42, Table 11.9-3; grading)  
k scaling Factor = 0.031 adjust from PM30 to PM2.5

Control Efficiency (Wet Suppression) = 61 %

Hours/Day of grading = 8.00 Hrs/Day  
Number of graders/scrapers = 9.00  
VMT/day of grading = 511.20 VMT/day

E = 2.10 lb/VMT PM30

E = 0.06 lb/VMT PM2.5

E = 33.2065 lb/day PM2.5

AP-42 Section 13.2.3 (Heavy Construction Operations) indicates fugitive emissions from scrapers are much greater than from graders. Scraper EF is approx. 20 lb/VMT PM, with EF rating of E.

**Newland Sierra  
Rock Crusher Emissions  
Per Crushing Facility**

**Production Rate Information**

|       |            |
|-------|------------|
| 2,500 | cu yd/day  |
| 2.26  | tons/cu yd |
| 5,650 | ton/day    |

**Drop Operations Formula**

|                                                             |           |
|-------------------------------------------------------------|-----------|
| $EF(PM) = (k \cdot 0.0032) \cdot (U/5)^{1.3} / (M/2)^{1.4}$ |           |
| k (PM <sub>10</sub> ) =                                     | 0.35      |
| k (PM <sub>2.5</sub> ) =                                    | 0.053     |
| U =                                                         | 11.60 mph |
| M =                                                         | 3 %       |

| Equipment Type             | Throughput | PM <sub>10</sub>         |                | PM <sub>2.5</sub>        |                |
|----------------------------|------------|--------------------------|----------------|--------------------------|----------------|
|                            | Tons/day   | Emission Factor (lb/ton) | Daily (lb/day) | Emission Factor (lb/ton) | Daily (lb/day) |
| Hopper Loading             | 5,650      | 0.001896                 | 10.71          | 0.000287                 | 1.622          |
| Primary Crusher            | 5,650      | 0.00054                  | 3.05           | 0.0001                   | 0.565          |
| Conveyor Transfer          | 5,650      | 0.000046                 | 0.26           | 0.000013                 | 0.073          |
| Screen 1                   | 5,650      | 0.00074                  | 4.18           | 0.00005                  | 0.283          |
| Conveyor Transfer          | 1,695      | 0.000046                 | 0.08           | 0.000013                 | 0.022          |
| Conveyor Transfer to Pile  | 1,695      | 0.001896                 | 3.21           | 0.000287                 | 0.487          |
| Conveyor Transfer          | 3,955      | 0.000046                 | 0.18           | 0.000013                 | 0.051          |
| Secondary Crusher          | 3,955      | 0.00054                  | 2.14           | 0.000100                 | 0.396          |
| Conveyor Transfer          | 3,955      | 0.000046                 | 0.18           | 0.000013                 | 0.051          |
| Screen 2                   | 3,955      | 0.00074                  | 2.93           | 0.00005                  | 0.198          |
| Conveyor Transfer          | 3,955      | 0.000046                 | 0.18           | 0.000013                 | 0.051          |
| Conveyor Transfer to Pile  | 3,955      | 0.001896                 | 7.50           | 0.000287                 | 1.135          |
| <b>Total Rock Crushing</b> |            |                          | <b>34.60</b>   |                          | <b>4.93</b>    |

Notes:

- Emission Factors from AP-42, Section 11.19.2 (Crushed Stone Processing), Table 11.19.2-2 (controlled factors).
- Emission Factor for drop operation (conveyor to product pile) from AP-42, Section 13.2.4 (Aggregate Handling and Storage Piles), Equation 1. Wind speed is obtained from peak mean value of Escondido 2010-12 met data, hours 0700-1600. Moisture content is assumed to be 3%.

**Phase 1**

No. of Rock Crushing Facilities 4

|                            | PM <sub>10</sub> | PM <sub>2.5</sub> |
|----------------------------|------------------|-------------------|
| <b>Total Rock Crushing</b> | 138.4114         | 19.7388           |

**Mitigated Construction PM10 and PM2.5 Emissions  
(lb/day)**

|                              |                               | Fugitive<br>PM10<br>(lb/day) | Exhaust<br>PM10<br>(lb/day) | Fugitive<br>PM2.5<br>(lb/day) | Exhaust<br>PM2.5<br>(lb/day) |
|------------------------------|-------------------------------|------------------------------|-----------------------------|-------------------------------|------------------------------|
| <b>P1 Site Preparation</b>   |                               |                              |                             |                               |                              |
|                              | Location                      |                              |                             |                               |                              |
| Fugitive Dust                | Onsite                        | 7.0458                       |                             | 3.8730                        |                              |
| Off-road                     | Onsite                        |                              | 0.0660                      |                               | 0.0660                       |
| Hauling                      | Onsite                        | 15.3487                      | 0.0016                      | 1.5349                        | 0.0016                       |
| <b>P1 Grading</b>            |                               |                              |                             |                               |                              |
|                              | Location                      |                              |                             |                               |                              |
| Dozers/crawler tractors      | Onsite                        | 25.8347                      |                             | 14.2009                       |                              |
| Graders/scrapers             | Onsite                        | 307.5343                     |                             | 33.2065                       |                              |
| Off-road                     | Onsite                        |                              | 0.6395                      |                               | 0.6395                       |
| Hauling                      | Onsite                        | 430.7707                     | 0.0458                      | 43.0771                       | 0.0438                       |
| Rock Crushing Fugitives      | Onsite                        | 138.4114                     |                             | 19.7388                       |                              |
| Rock Crushing Generator      | Onsite                        | 3.9400                       |                             | 3.9400                        |                              |
| Blasting                     | Onsite                        | 55.8919                      |                             | 3.2245                        |                              |
| <b>Sum:</b>                  |                               | <b>984.7776</b>              | <b>0.7529</b>               | <b>122.7957</b>               | <b>0.7509</b>                |
| <b>Sum with blasting:</b>    |                               | <b>985.5305</b>              | <b>lb/day</b>               | <b>123.5466</b>               | <b>lb/day</b>                |
| <b>Area (m<sup>2</sup>):</b> |                               | <b>1109040</b>               |                             | <b>1109040</b>                |                              |
| <b>MODHRS:</b>               |                               | <b>9</b>                     | <b>0700-1600</b>            | <b>9</b>                      | <b>0700-1600</b>             |
| <b>Daily MODHR average:</b>  | <b>Q (g/s-m<sup>2</sup>):</b> | <b>1.2441E-05</b>            |                             | <b>1.5596E-06</b>             |                              |
| <b>Annual average:</b>       | <b>Q (g/s-m<sup>2</sup>):</b> | <b>1.0634E-05</b>            |                             | <b>1.3331E-06</b>             |                              |
| <b>Q Hrs:</b>                | <b>2808</b>                   |                              |                             |                               |                              |
| <b>Mod Hrs:</b>              | <b>3285</b>                   |                              |                             |                               |                              |

Summary of Wind Erosion Emissions  
 Calculated by AP-42 Section 13.2.5 and DUSTAN

| Wind Erosion PM 10 Emission Calculations for<br>May 13, 2014 | AP42, 13.2.5 | DUSTAN    |
|--------------------------------------------------------------|--------------|-----------|
| Threshold friction velocity (m/s):                           | 0.62         | 0.42      |
| Total particulate emissions (g/m <sup>2</sup> ):             | 1.98         | 11.05     |
| Maximum particulate emissions (g/m <sup>2</sup> ):           | 1.69         | 4.36      |
| Area or subarea (m <sup>2</sup> ):                           | 1,109,040    | 1,109,040 |
| Total particulate emissions (tons/day):                      | 2.43         | 13.50     |
| Total particulate emissions (pounds/day):                    | 4,851        | 27,006    |

Summary of Wind Erosion Emission Calculation Inputs  
AP-42 Section 13.2.5 and DUSTRAN

Particle size multiplier (K): 0.5 PM10 (AP-42, Section 13.2.5, Table 13.2.5-1)  
 ANHT: 7.92 meters  
 Surface threshold ustar: 0.62 m/s (AP-42, Section 13.2.5, Table 13.2.5-2)  
 Surface area: 1,109,040 m<sup>2</sup>

Site-specific roughness length: 0.005 m

DUSTRAN inputs (User's Manual, Section 2.5.2):

| Threshold friction velocity for dry soil: |              | 0.2 m/s                                      |                              |                |  |
|-------------------------------------------|--------------|----------------------------------------------|------------------------------|----------------|--|
| Gillette & Passi Factor C:                |              | 1.00E-02 g/(m <sup>-6</sup> s <sup>3</sup> ) |                              |                |  |
| Soil Texture Class                        | Fraction (β) | Uplift availability (γ)                      | Dust productivity factor (δ) | δ (Normalized) |  |
| Clay (<2 μm)                              | 0.34         | 0.08                                         | 0.027                        | 0.045          |  |
| Small Silt (2-20 μm)                      | 0.28         | 1.00                                         | 0.280                        | 0.467          |  |
| Large Silt (20-50 μm)                     | 0.28         | 1.00                                         | 0.280                        | 0.467          |  |
| Sand (50-100 μm)                          | 0.10         | 0.12                                         | 0.012                        | 0.020          |  |
| Sum:                                      |              | 1.00                                         |                              | 1.00           |  |

Maximum water adsorption (w'): 7.4 %  
 Dust flux adj. for sand particles(G'): 1.02  
 Vegetation mask (α): 1.00 (1.00 = no vegetation; 0.00 = complete vegetation coverage)  
 Gravimetric soil moisture content (w): 12.0 %  
 Soil wetness factor (f<sub>w</sub>): 2.10  
 Threshold friction velocity for moist soil: 0.42 m/s

## **Exhibit C:**

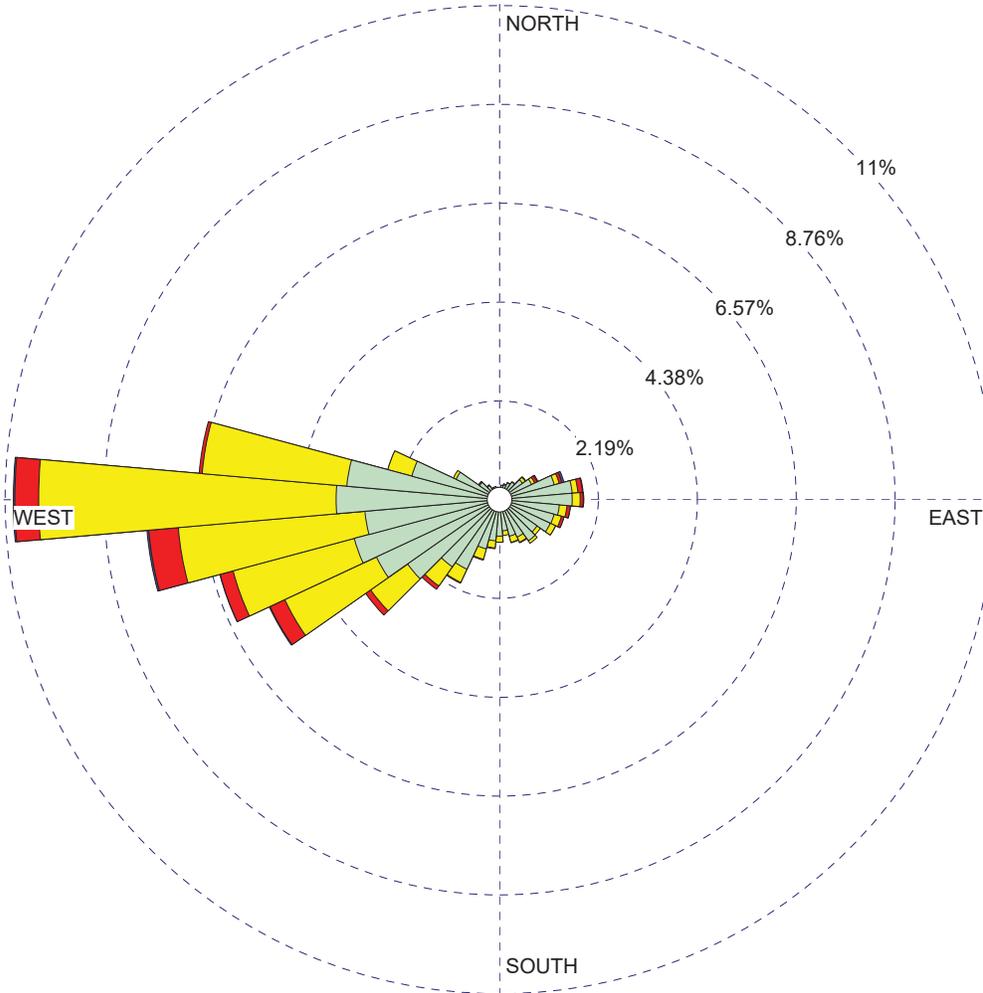
Escondido and KCRQ Meteorological Data  
Wind Roses

WIND ROSE PLOT:

**Escondido 2010-2012**  
**AERMET 14134 with SA**

DISPLAY:

**Wind Speed**  
**Direction (blowing from)**



WIND SPEED  
(Knots)

- >= 21.58
  - 17.11 - 21.58
  - 11.08 - 17.11
  - 7.00 - 11.08
  - 4.08 - 7.00
  - 0.97 - 4.08
- Calms: 27.42%

COMMENTS:

DATA PERIOD:

**Start Date: 1/1/2010 - 00:00**  
**End Date: 12/31/2012 - 23:59**

COMPANY NAME:

MODELER:

CALM WINDS:

**27.42%**

TOTAL COUNT:

**26289 hrs.**

AVG. WIND SPEED:

**2.59 Knots**

DATE:

**2/5/2018**

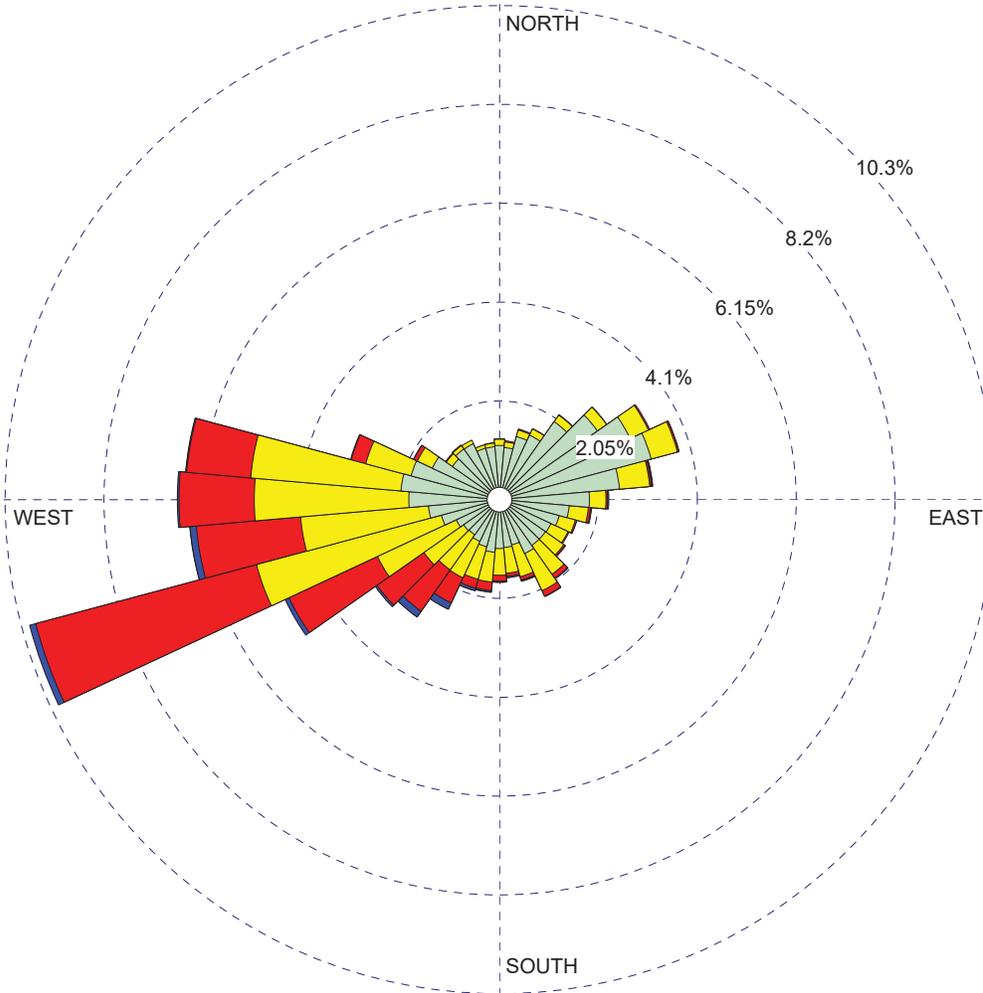
PROJECT NO.:

WIND ROSE PLOT:

**KCRQ; KNKX: 2013-2017**  
**AERMET 16216, no ADJ\_U\***

DISPLAY:

**Wind Speed**  
**Direction (blowing from)**



WIND SPEED  
(Knots)

- >= 21.58
- 17.11 - 21.58
- 11.08 - 17.11
- 7.00 - 11.08
- 4.08 - 7.00
- 0.97 - 4.08
- Calms: 1.59%

COMMENTS:

DATA PERIOD:

**Start Date: 1/1/2013 - 00:00**  
**End Date: 12/31/2017 - 23:59**

COMPANY NAME:

MODELER:

CALM WINDS:

**1.59%**

TOTAL COUNT:

**43660 hrs.**

AVG. WIND SPEED:

**4.47 Knots**

DATE:

**2/10/2018**

PROJECT NO.:

Precipitation Conditions for Determining Seasonal Bowen Ratios  
 (Based on 1981 through 2010 Precipitation Data from Oceanside Marina (USC00046377))

| Year      | Winter<br>Dec-Feb | Spring<br>Mar-May | Summer<br>Jun-Aug | Fall<br>Sep-Nov | Year<br>Jan-Dec | Winter<br>Dec-Feb | Spring<br>Mar-May | Summer<br>Jun-Aug | Fall<br>Sep-Nov | Year<br>Jan-Dec |
|-----------|-------------------|-------------------|-------------------|-----------------|-----------------|-------------------|-------------------|-------------------|-----------------|-----------------|
| 1981      | 3.35              | 2.91              | 0.04              | 2.00            | 8.30            | Dry               | Average           | Dry               | Average         | Average         |
| 1982      | 5.56              | 7.75              | 0.18              | 2.20            | 15.69           | Average           | Wet               | Average           | Wet             | Wet             |
| 1983      | 7.35              | 8.45              | 0.31              | 4.50            | 20.62           | Wet               | Wet               | Wet               | Wet             | Wet             |
| 1984      | 4.41              | 0.91              | 0.09              | 1.60            | 7.01            | Average           | Dry               | Dry               | Average         | Dry             |
| 1985      | 2.91              | 0.58              | 0.00              | 3.85            | 7.34            | Dry               | Dry               | Dry               | Wet             | Dry             |
| 1986      | 5.18              | 3.23              | 0.01              | 2.04            | 10.46           | Average           | Average           | Dry               | Average         | Average         |
| 1987      | 6.33              | 0.79              | 0.00              | 3.35            | 10.48           | Average           | Dry               | Dry               | Wet             | Average         |
| 1988      | 5.80              | 3.59              | 0.27              | 1.28            | 10.94           | Average           | Wet               | Wet               | Average         | Average         |
| 1989      | 1.16              | 1.32              | 0.03              | 0.63            | 3.15            | Dry               | Dry               | Dry               | Dry             | Dry             |
| 1990      | 3.68              | 1.57              | 0.74              | 0.54            | 6.54            | Dry               | Dry               | Wet               | Dry             | Dry             |
| 1991      | 4.82              | 5.31              | 0.00              | 0.25            | 10.39           | Average           | Wet               | Dry               | Dry             | Average         |
| 1992      | 8.84              | 3.24              | 0.22              | 0.18            | 12.48           | Wet               | Average           | Wet               | Dry             | Average         |
| 1993      | 12.42             | 1.33              | 1.16              | 0.64            | 15.55           | Wet               | Dry               | Wet               | Dry             | Wet             |
| 1994      | 3.50              | 3.48              | 0.00              | 0.06            | 7.04            | Dry               | Wet               | Dry               | Dry             | Dry             |
| 1995      | 9.34              | 6.59              | 0.50              | 0.10            | 16.54           | Wet               | Wet               | Wet               | Dry             | Wet             |
| 1996      | 6.42              | 1.20              | 0.04              | 3.28            | 10.94           | Average           | Dry               | Dry               | Wet             | Average         |
| 1997      | 5.80              | 0.91              | 0.00              | 2.82            | 9.53            | Average           | Dry               | Dry               | Wet             | Average         |
| 1998      | 11.13             | 5.51              | 0.00              | 1.45            | 18.09           | Wet               | Wet               | Dry               | Average         | Wet             |
| 1999      | 2.21              | 2.12              | 0.00              | 0.00            | 4.33            | Dry               | Average           | Dry               | Dry             | Dry             |
| 2000      | 3.97              | 1.76              | 0.00              | 2.37            | 8.10            | Dry               | Dry               | Dry               | Wet             | Average         |
| 2001      | 7.75              | 1.57              | 0.01              | 1.09            | 10.42           | Wet               | Dry               | Dry               | Dry             | Average         |
| 2002      | 2.80              | 0.95              | 0.00              | 1.59            | 5.34            | Dry               | Dry               | Dry               | Average         | Dry             |
| 2003      | 4.02              | 3.91              | 0.36              | 0.77            | 9.06            | Dry               | Wet               | Wet               | Dry             | Average         |
| 2004      | 6.54              | 0.72              | 0.00              | 5.48            | 12.73           | Average           | Dry               | Dry               | Wet             | Average         |
| 2005      | 11.31             | 2.09              | 0.00              | 1.77            | 15.17           | Wet               | Average           | Dry               | Average         | Wet             |
| 2006      | 1.82              | 2.69              | 0.19              | 0.22            | 4.91            | Dry               | Average           | Wet               | Dry             | Dry             |
| 2007      | 3.37              | 0.80              | 0.24              | 0.44            | 4.86            | Dry               | Dry               | Wet               | Dry             | Dry             |
| 2008      | 6.25              | 0.13              | 0.00              | 1.90            | 8.28            | Average           | Dry               | Dry               | Average         | Average         |
| 2009      | 3.91              | 0.08              | 0.00              | 0.32            | 4.31            | Dry               | Dry               | Dry               | Dry             | Dry             |
| 2010      | 14.36             | 2.29              | 0.01              | 4.24            | 20.90           | Wet               | Average           | Dry               | Wet             | Wet             |
| 2011      | 4.24              | 3.06              | 0.19              | 3.03            | 10.52           | Dry               | Average           | Wet               | Wet             | Average         |
| 2012      | 4.09              | 2.19              | 0.00              | 1.20            | 7.48            | Dry               | Average           | Dry               | Dry             | Dry             |
| 2013      | 1.72              | 2.05              | 0.00              | 1.59            | 5.36            | Dry               | Average           | Dry               | Average         | Dry             |
| 2014      | 5.40              | 0.87              | 0.09              | 0.80            | 7.16            | Average           | Dry               | Dry               | Dry             | Dry             |
| 2015      | 1.13              | 2.10              | 0.91              | 1.77            | 5.91            | Dry               | Average           | Wet               | Average         | Dry             |
| 2016      | 5.26              | 2.28              | 0.00              | 1.49            | 9.03            | Average           | Average           | Dry               | Average         | Average         |
| 2017      | 10.43             | 1.55              | 0.03              | 0.28            | 12.29           | Wet               | Dry               | Dry               | Dry             | Average         |
| Averages: | 5.88              | 2.59              | 0.15              | 1.70            | 10.32           |                   |                   |                   |                 |                 |

Precipitation units: inches

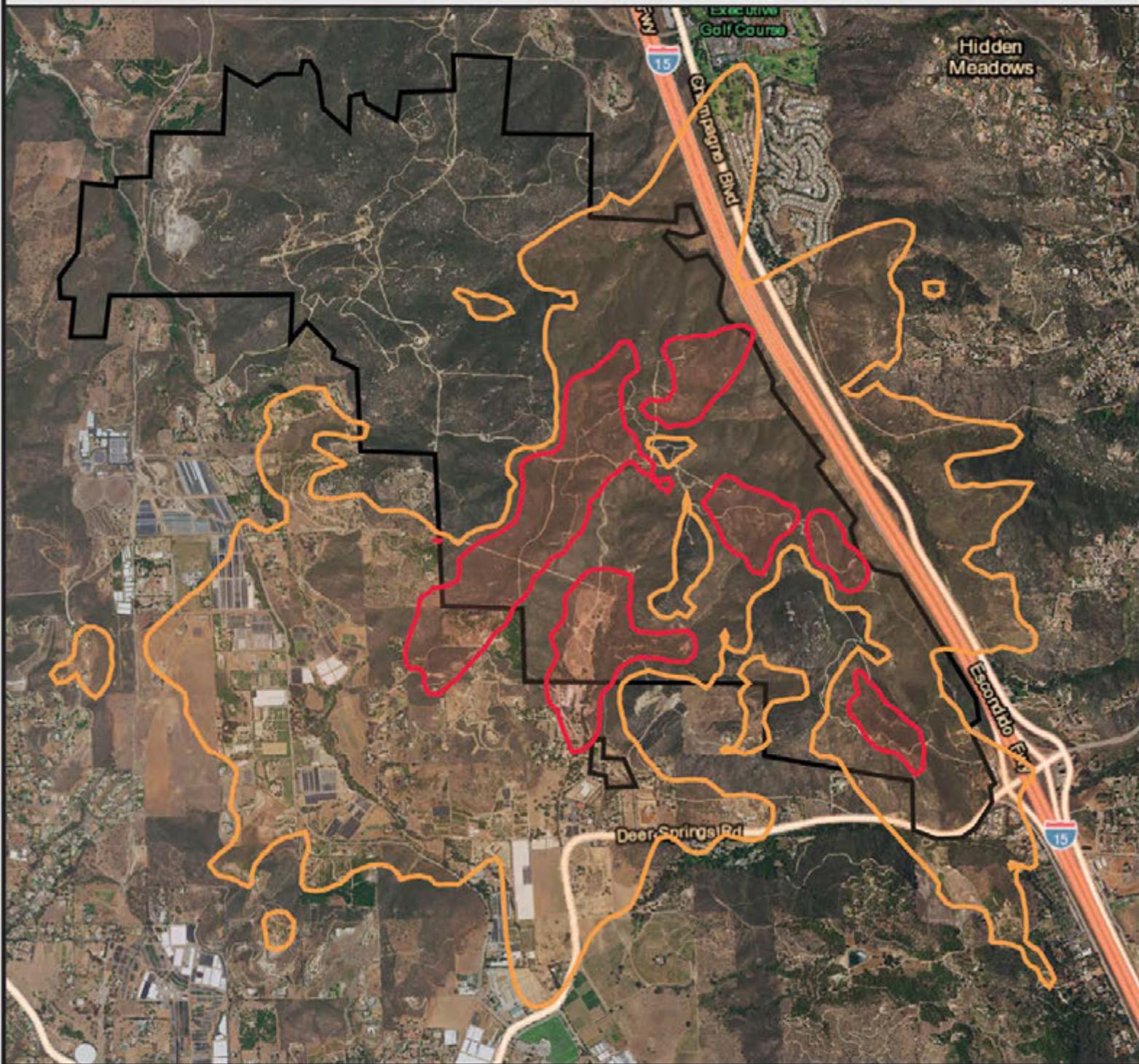
Average precipitation based on 1981 -- 2010 data

## **Exhibit D:**

Air Concentration Maps  
Phase 1 Construction PM10 and PM2.5

# Newland Sierra Project Phase 1 Construction Emissions

24-Hour PM<sub>10</sub> Concentrations without Background Levels  
Modeled with AERMOD 16216r, 2010-12 Escondido Meteorological Data



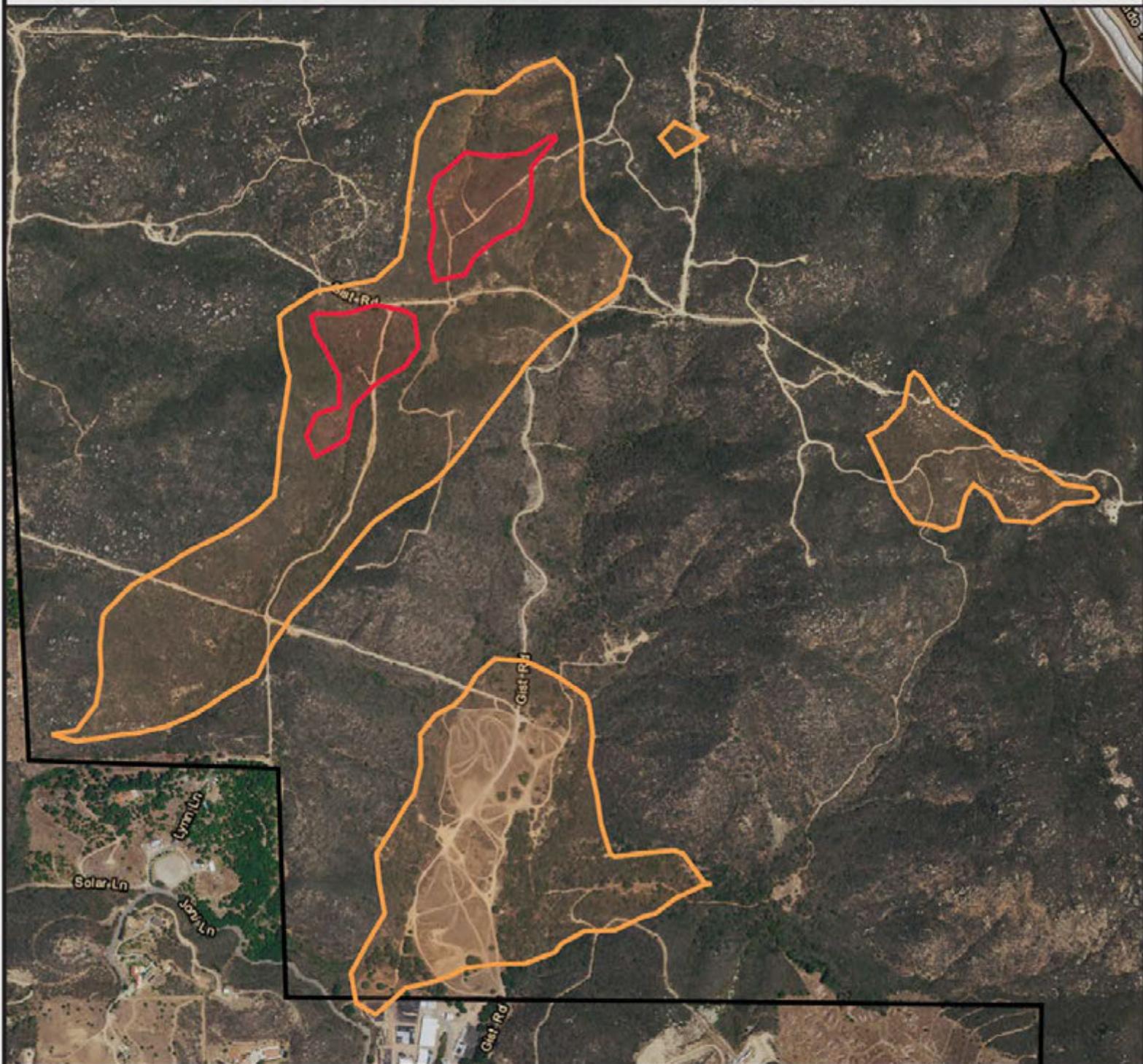
-  50 µg/m<sup>3</sup> (CAAQS)
-  100 µg/m<sup>3</sup>
-  Project Boundary

0 1 Km



# Newland Sierra Project Phase 1 Construction Emissions

24-Hour PM<sub>2.5</sub> Concentrations without Background Levels  
Modeled with AERMOD 16216r, 2010-12 Escondido Meteorological Data



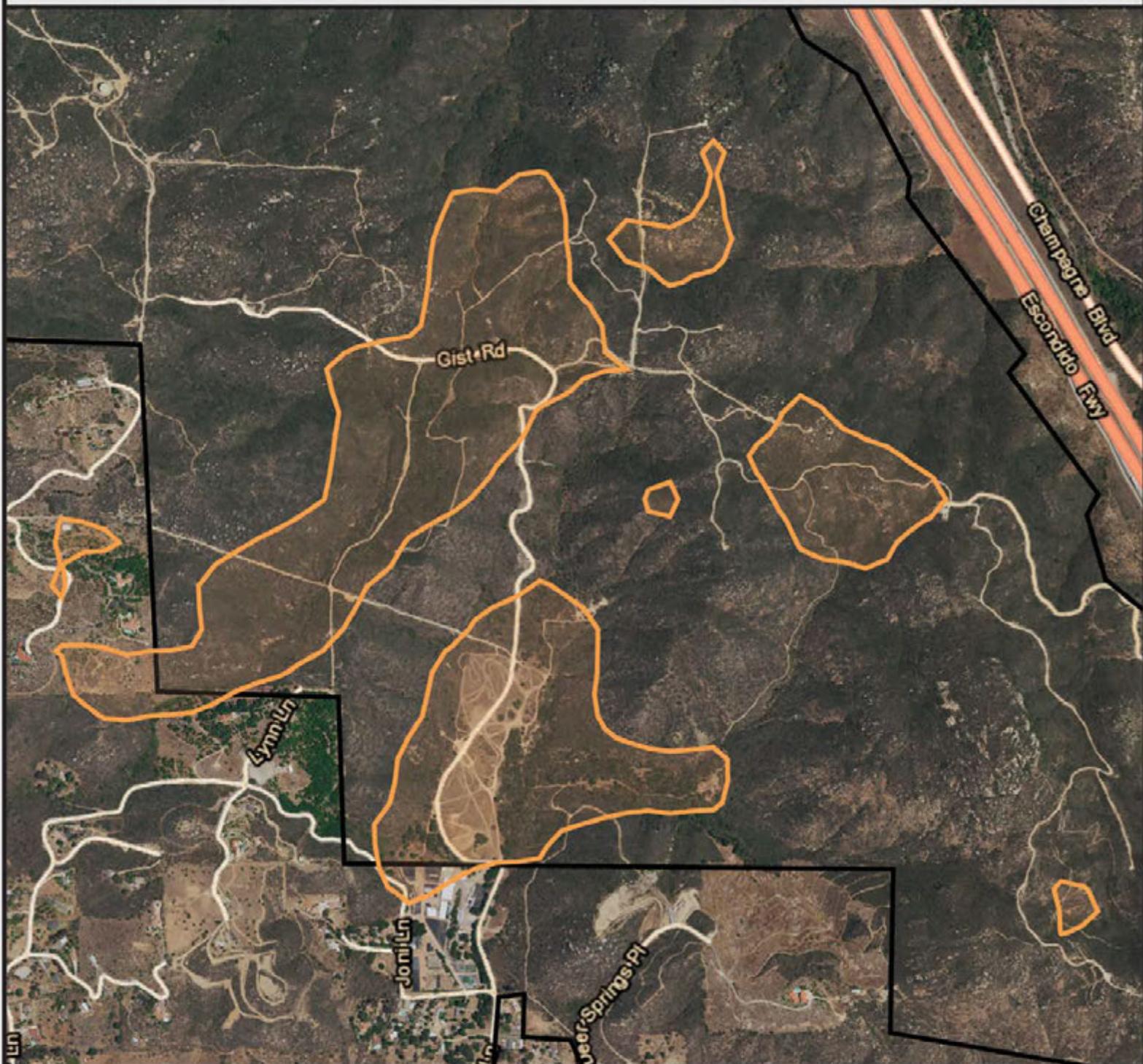
-  10  $\mu\text{g}/\text{m}^3$
-  15  $\mu\text{g}/\text{m}^3$
-  Project Boundary



# Newland Sierra Project Phase 1 Construction Emissions

24-Hour PM<sub>2.5</sub> Concentrations Including 26.8 µg/m<sup>3</sup> Background Level

Modeled with AERMOD 16216r, 2010-12 Escondido Meteorological Data



 35 µg/m<sup>3</sup> (NAAQS)

 Project Boundary

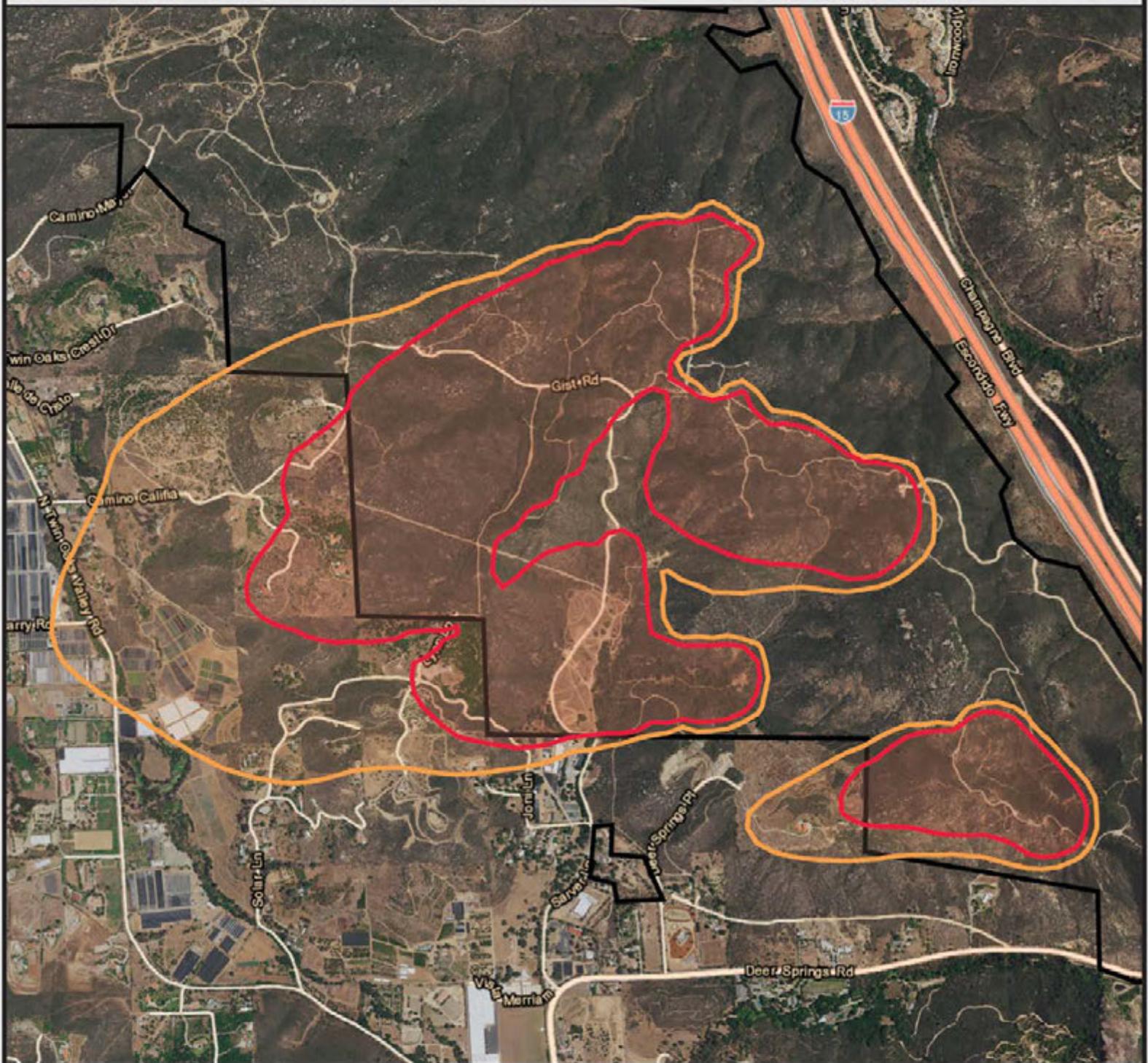
0 0.5 Km



# Newland Sierra Project Phase 1 Construction

## 1-Hour PM10 Concentrations from Wind Erosion Emissions

Modeled with AERMOD 16216r, 5/13/2014 KCRQ Meteorological Data

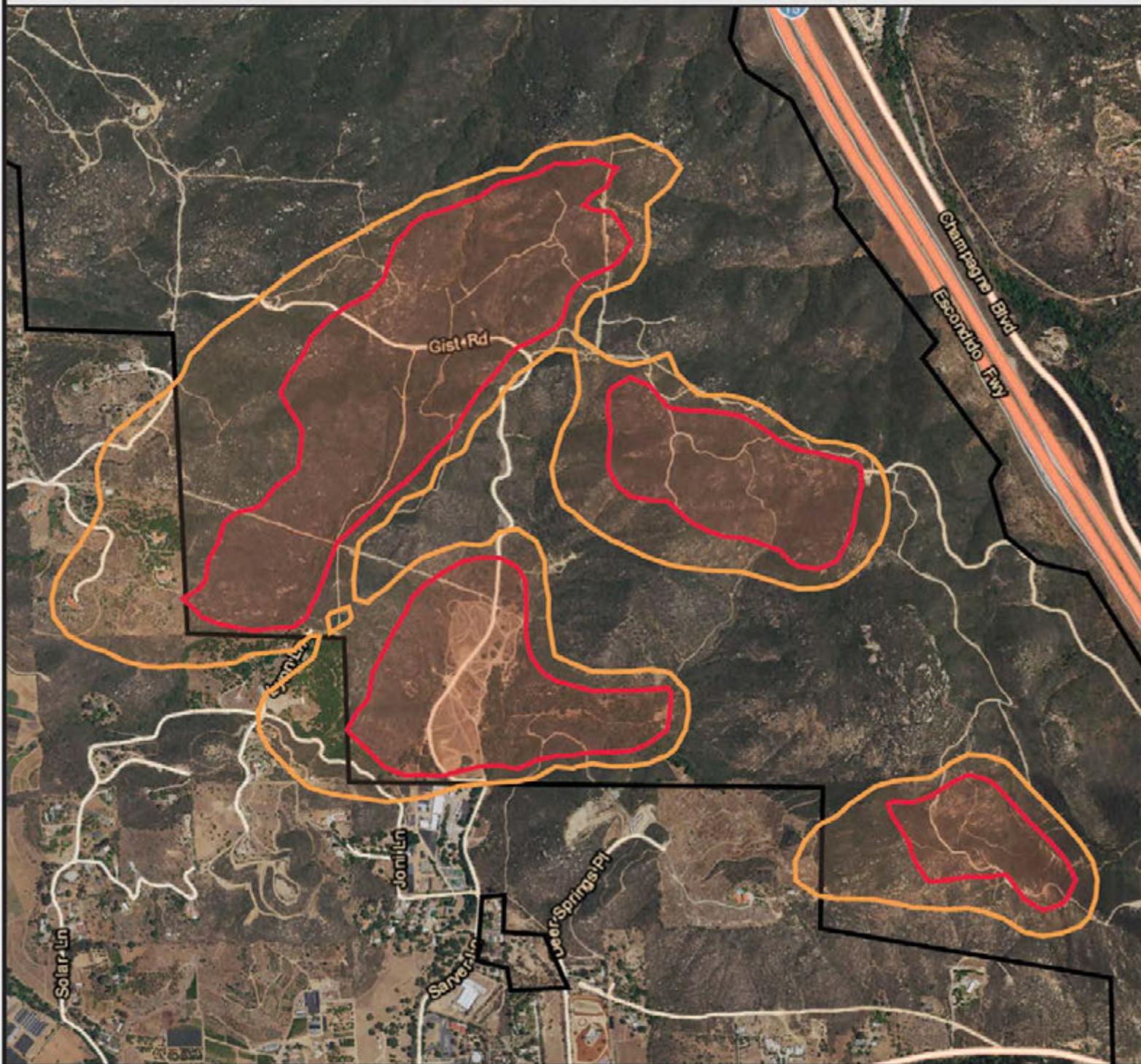


-  100  $\mu\text{g}/\text{m}^3$
-  200  $\mu\text{g}/\text{m}^3$
-  Project Site



# Newland Sierra Project Phase 1 Construction

24-Hour PM<sub>10</sub> Concentrations from Wind Erosion Emissions  
Modeled with AERMOD 16216r, 5/13/2014 KCRQ Meteorological Data



- 10  $\mu\text{g}/\text{m}^3$
- 20  $\mu\text{g}/\text{m}^3$
- Project Boundary

0 0.5 Km



## **Exhibit E:**

Diesel Particulate Matter Health Risk Assessment  
Emission Rate Inputs and Risk Calculations

9-Year Excess Cancer Risk  
From Exposure to 1.0 ug/m<sup>3</sup> DPM  
First 9-Years of Life

| <b>DPM</b>                             | 3 <sup>rd</sup><br>Trimester | 0<2<br>years | 2<9<br>years | 2<16<br>years | 16<30<br>years | 16<70<br>years | Year     | ECR for<br>year      |
|----------------------------------------|------------------------------|--------------|--------------|---------------|----------------|----------------|----------|----------------------|
| Mean inh (m <sup>3</sup> /kg-day)      | 0.225                        | 0.658        | 0.535        | 0.452         | 0.210          | 0.185          | 1        | 1.71E-04             |
| 95% inh (m <sup>3</sup> /kg-day)       | 0.361                        | 1.090        | 0.861        | 0.745         | 0.335          | 0.290          | 2        | 1.71E-04             |
| Age Sensitivity Factor                 | 10.0                         | 10.0         | 3.0          | 3.0           | 1.0            | 1.0            | 3        | 4.06E-05             |
| Duration (years)                       | 0.25                         | 2.0          | 7.0          | 14.0          | 14.0           | 54.0           | 4        | 4.06E-05             |
| FAH (% at home)                        | 1.00                         | 1.00         | 1.00         | 1.00          | 0.73           | 0.73           | 5        | 4.06E-05             |
| CPF ((mg/(kg-day)) <sup>-1</sup> )     | 1.1                          |              |              |               |                |                | 6        | 4.06E-05             |
| URV (µg/m <sup>3</sup> ) <sup>-1</sup> | 3.00E-04                     |              |              |               |                |                | 7        | 4.06E-05             |
| chi (µg/m <sup>3</sup> )               | 1.00E+00                     |              |              |               |                |                | 8        | 4.06E-05             |
| ECR                                    | 3.00E-04                     |              |              |               |                |                | 9        | 4.06E-05             |
|                                        |                              |              |              |               |                |                |          |                      |
| 95% tile inh                           | 3 <sup>rd</sup><br>Trimester | 0<2<br>years | 2<9<br>years | 2<16<br>years | 16<30<br>years | 16<70<br>years | ECR      | 9-yr total: 6.27E-04 |
| Dose-air (mg/(kg-day))                 | 3.61E-04                     | 1.09E-03     | 8.61E-04     | 7.45E-04      | 2.45E-04       | 2.12E-04       |          |                      |
| ECR - AB2588 9-yr                      | 1.42E-05                     | 3.43E-04     | 2.84E-04     |               |                |                | 6.41E-04 |                      |
| ECR - AB2588 30-yr                     | 1.42E-05                     | 3.43E-04     |              | 4.92E-04      | 5.38E-05       |                | 9.02E-04 |                      |
| ECR - AB2588 70-yr                     | 1.42E-05                     | 3.43E-04     |              | 4.92E-04      |                | 1.80E-04       | 1.03E-03 |                      |
| Adult ECR - no ASF                     | 8.32E-07                     | 6.65E-06     |              | 4.66E-05      |                | 1.80E-04       | 2.34E-04 |                      |

**Construction DPM Emissions  
and Excess Cancer Risk Post-Processing Inputs**

| Year                                   | CALEEMOD<br>DPM | Generator DPM<br>(lb/yr) | Construction<br>DPM<br>(lb/yr) | MODHRS/yr           | DPM<br>(g/s-m <sup>2</sup> )    | Mult for Post-<br>Processing<br>PM10 | ECR for year<br>from 1.0 µg/m <sup>3</sup><br>DPM | Total yearly<br>multiplier for<br>per million ECR<br>Output |
|----------------------------------------|-----------------|--------------------------|--------------------------------|---------------------|---------------------------------|--------------------------------------|---------------------------------------------------|-------------------------------------------------------------|
| 2018                                   | 240.80          | 810.67                   | 1051.47                        | 3285                | 3.6365E-08                      | 3.6365E-03                           | 1.71E-04                                          | 6.2288E-01                                                  |
| 2019                                   | 349.00          | 810.67                   | 1159.67                        | 3285                | 4.0107E-08                      | 4.0107E-03                           | 1.71E-04                                          | 6.8698E-01                                                  |
| 2020                                   | 422.20          | 810.67                   | 1232.87                        | 3294                | 4.2522E-08                      | 4.2522E-03                           | 4.06E-05                                          | 1.7260E-01                                                  |
| 2021                                   | 307.80          | 296.90                   | 604.70                         | 3285                | 2.0914E-08                      | 2.0914E-03                           | 4.06E-05                                          | 8.4888E-02                                                  |
| 2022                                   | 294.60          | 296.90                   | 591.50                         | 3285                | 2.0457E-08                      | 2.0457E-03                           | 4.06E-05                                          | 8.3035E-02                                                  |
| 2023                                   | 171.60          |                          | 171.60                         | 3285                | 5.9348E-09                      | 5.9348E-04                           | 4.06E-05                                          | 2.4089E-02                                                  |
| 2024                                   | 141.80          |                          | 141.80                         | 3294                | 4.8908E-09                      | 4.8908E-04                           | 4.06E-05                                          | 1.9852E-02                                                  |
| 2025                                   | 99.40           |                          | 99.40                          | 3285                | 3.4378E-09                      | 3.4378E-04                           | 4.06E-05                                          | 1.3954E-02                                                  |
| 2026                                   | 105.60          |                          | 105.60                         | 3285                | 3.6522E-09                      | 3.6522E-04                           | 4.06E-05                                          | 1.4824E-02                                                  |
| 2027                                   | 95.80           |                          | 95.80                          | 3285                | 3.3132E-09                      | 3.3132E-04                           |                                                   |                                                             |
| AREAPOLY sum: 1,109,040 m <sup>2</sup> |                 |                          |                                | First 9-yr average: | First 9-yr risk sum multiplier: |                                      |                                                   | 1.7231E+00                                                  |

9-yr risk sum from 1 µg/m<sup>3</sup> DPM: 6.27E-04

ECR for year does not include 3rd trimester risk  
Risk calcs begin at birth

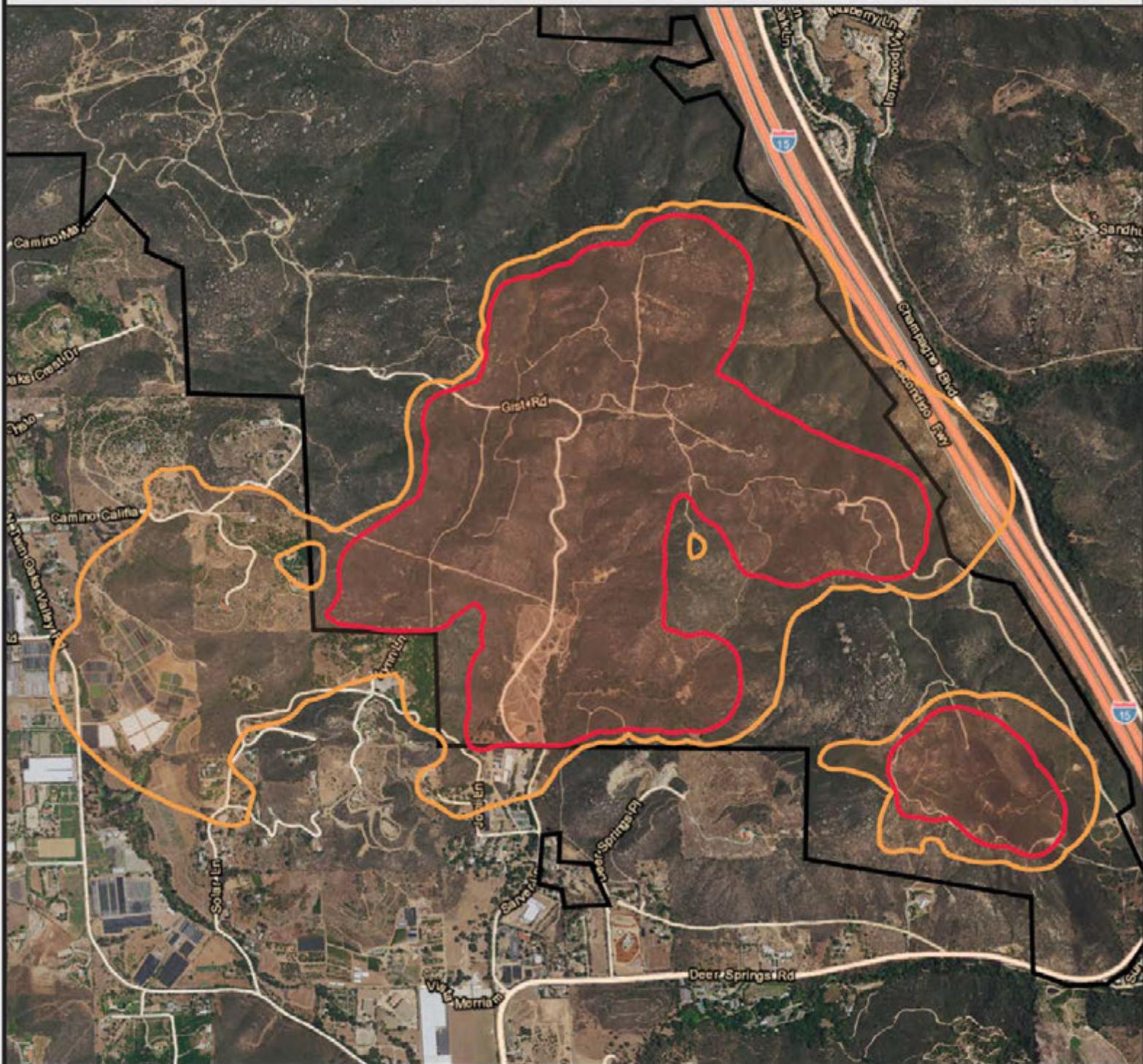
**Operation DPM Emissions  
and Excess Cancer Risk Post-Processing Inputs**

| SRCGRP | SRCRNG            | NVOL | DPM<br>(lb/yr) | DPM (g/s)<br>per source | 9-yr risk sum<br>from 1.0 $\mu\text{g}/\text{m}^3$<br>DPM: | Total multiplier<br>for 9-yr<br>per million ECR<br>Output |
|--------|-------------------|------|----------------|-------------------------|------------------------------------------------------------|-----------------------------------------------------------|
| I5     | L0000001-L0000098 | 98   | 105.146        | 1.54324E-05             | 6.27E-04                                                   | 9.68E-03                                                  |
| MESA   | L0004838-L0004851 | 14   | 1.232          | 1.26575E-06             | 6.27E-04                                                   | 7.94E-04                                                  |
| DEER   | L0004852-L0004940 | 93   | 11.553         | 1.78681E-06             | 6.27E-04                                                   | 1.12E-03                                                  |

## **Exhibit F:**

Diesel Particulate Matter Health Risk Assessment  
DPM Excess Cancer Risk Maps

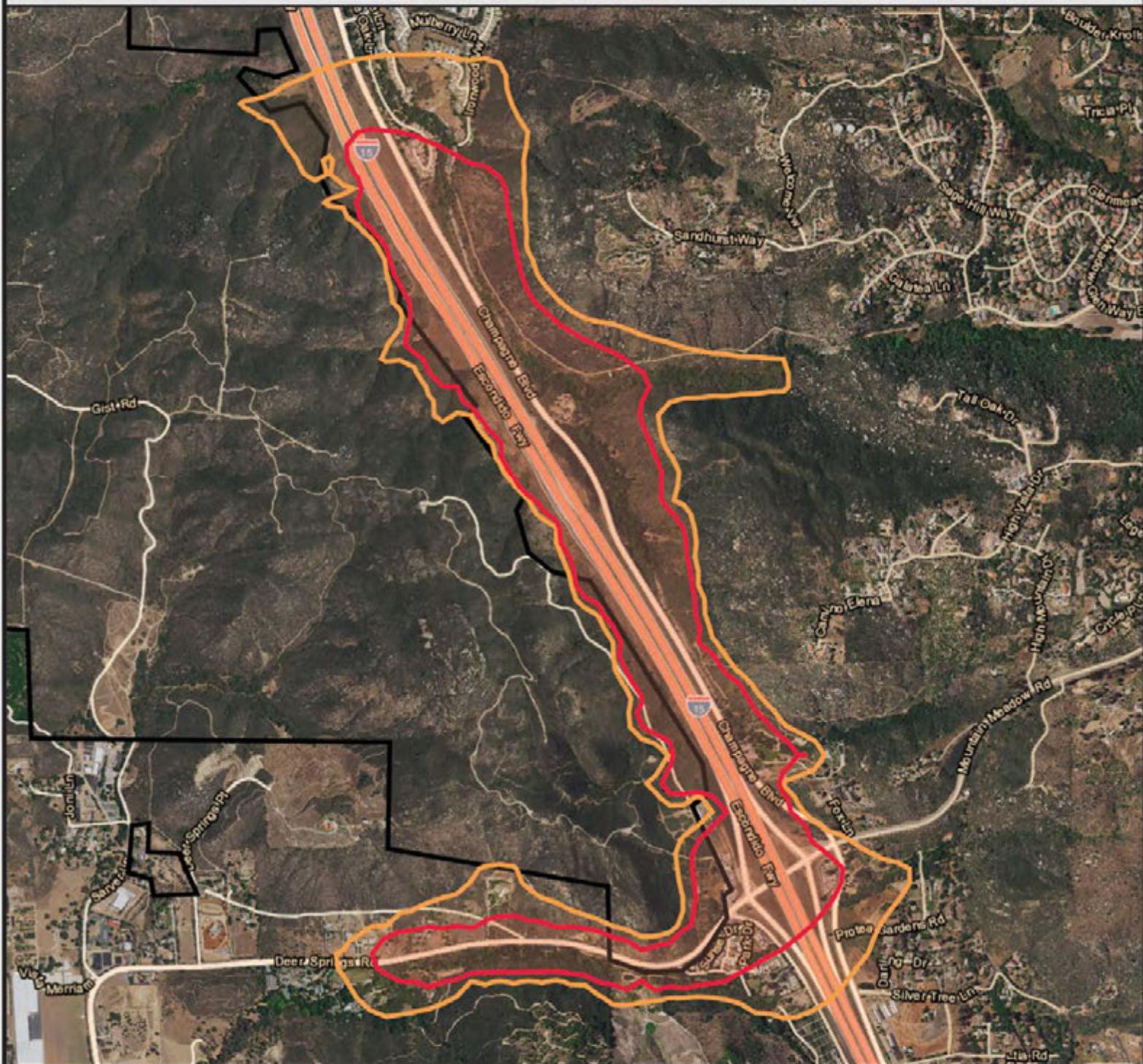
# Newland Sierra Project Phase 1 Construction DPM Emissions 9-Year Excess Cancer Risks from Diesel Particulate Matter Modeled with AERMOD 16216r, 2010-12 Escondido Meteorological Data



-  5 per million ECR
-  10 per million ECR
-  Project Boundary



# Newland Sierra Project Phase DEIR Operation DPM Emissions 9-Year Excess Cancer Risks from Diesel Particulate Matter Modeled with AERMOD 16216r, 2010-12 Escondido Meteorological Data



- 5 per million ECR
- 10 per million ECR
- Project Boundary



## **Exhibit G:**

Curriculum Vitae

# Camille Marie Sears

---

Tel: (805) 640-5208

e-mail: [camillesears@gmail.com](mailto:camillesears@gmail.com)

## Summary

I have over 35 years of regulatory and private-sector experience in air quality impact analyses, health risk assessments, meteorological monitoring, and geographic information systems. I specialize in litigation support; I have successfully provided testimony in numerous cases, both as an individual consultant and as part of a team of experts.

## Education

- M.S., Atmospheric Science, University of California, Davis, 1980.
- B.S., Atmospheric Science, University of California, Davis, 1978.

## Air Dispersion Modeling

- I am experienced in applying many different air dispersion models, including programs still in the development phase. I have prepared well over 1,000 air dispersion modeling analyses requiring the use of on-site or site-specific meteorological data. These runs were made with the USEPA ISC, OCD, MESOPUFF, INPUFF, CALPUFF, ISC-PRIME, AERMOD, COMPLEX-I, MPTER, and other air dispersion models.
- I prepared and submitted technical comments to the USEPA on beta-testing versions of AERMOD; these comments are being addressed and will be incorporated into the model and instructions when it is ready for regulatory application.
- I am experienced in performing air dispersion modeling for virtually every emission source type imaginable. I have modeled:
  - Refineries and associated activities;
  - Mobile sources, including cars, trains, airplanes, trucks, and ships;
  - Power plants, including natural gas and coal-fired;
  - Smelting operations;
  - Area sources, such as housing tracts, biocides from agricultural operations, landfills, highways, fugitive dust sources, airports, oil and gas seeps, and ponds;
  - Volume sources, including fugitive emissions from buildings and diesel construction combustion emissions;
  - Small sources, including dry cleaners, gas stations, surface coating operations, plating facilities, medical device manufacturers, coffee roasters, ethylene oxide sterilizers, degreasing operations, foundries, and printing companies;
  - Cooling towers and gas compressors;
  - Diatomaceous earth, rock and gravel plants, and other mining operations;
  - Offshore oil platforms, drilling rigs, and processing activities;
  - Onshore oil and gas exploration, storage, processing, and transport facilities;
  - Fugitive dust emissions from roads, wind erosion, and farming activities;
  - Radionuclide emissions from actual and potential releases.
- I have extensive experience in modeling plume depletion and deposition from air releases of particulate emissions.
- As a senior scientist, I developed the Santa Barbara County Air Pollution Control District (SBAPCD) protocol on air quality modeling. I developed extensive modeling capabilities for the SBAPCD on VAX 8600 and Intel I-860 computer systems; I acted as systems analyst for the SBAPCD air quality modeling system; I served as director of air quality analyses for numerous major energy projects; I performed air quality impact analyses using inert and photochemical models, including EPA, ARB and private-sector models; I performed technical review and evaluating air quality and wind field models; I developed software to prepare model inputs consistent with the SBAPCD protocol on air quality modeling for OCD, OCDCPM, MPTER, COMPLEX-I/II and ISC.
- I provided detailed review and comments on the development of the Minerals Management Service OCD model. I developed the technical requirements for and

supervised the development of the OCDCPM model, a hybrid of the OCD, COMPLEX-I and MPTER models.

- I prepared the "Modeling Exposures of Hazardous Materials Released During Transportation Incidents" report for the California Office of Environmental Health Hazard Assessment (OEHHA). This report examines and rates the ADAM, ALOHA, ARCHIE, CASRAM, DEGADIS, HGSYSTEM, SLAB, and TSCREEN models for transportation accident consequence analyses of a priority list of 50 chemicals chosen by OEHHA. The report includes a model selection guide for adequacy of assessing priority chemicals, averaging time capabilities, isopleth generating capabilities, model limitations and concerns, and model advantages.
- I am experienced in assessing uncertainty in emission rate calculations, source release, and dispersion modeling. I have developed numerous probability distributions for input to Monte Carlo simulations, and I was a member of the External Advisory Group for the California EPA *Air Toxics Hot Spots Program Risk Assessment Guidelines, Part IV, Technical Support Document for Exposure Assessment and Stochastic Analysis*.

### **Health Risk Assessment**

- I have prepared more than 300 health risk assessments of major air toxics sources. These assessments were prepared for AB 2588 (the Air Toxics "Hot Spots" Information and Assessment Act of 1987), Proposition 65, and other exposure analysis activities. More than 150 of these exposure assessments were prepared for Proposition 65 compliance verification in a litigation support setting.
- I reviewed approximately 300 other health risk assessments of toxic air pollution sources in California. The regulatory programs in this review include AB 2588, Proposition 65, the California Environmental Quality Act, and other exposure analysis activities. My clients include the California Attorney General's Office, the Los Angeles County District Attorney's Office, the SBAPCD, the South Coast Air Quality Management District, numerous environmental and community groups, and several plaintiff law firms.
- I am experienced in assessing public health risk from continuous, intermittent, and accidental releases of toxic emissions. I am experienced in generating graphical presentations of risk results, and characterizing risks from carcinogenic and acute and chronic noncarcinogenic pollutants.
- I am experienced in communicating adverse health risks discovered through the Proposition 65 and AB 2588 processes. I have presented risk assessment results in many public settings -- to industry, media, and the affected public.
- For four years, I was the Air Toxics Program Coordinator for the SBAPCD. My duties included: developing and managing the District air toxics program; supervising District staff assigned to the air toxics program; developing District air toxics rules, regulations, policies and procedures; management of all District air toxics efforts, including AB 2588, Proposition 65, and federal activities; developing and tracking the SBAPCD air toxics budget.
- I have prepared numerous calculations of exposures from indoor air pollutants. A few examples include: diesel PM<sub>10</sub> inside school buses, formaldehyde inside temporary school buildings, lead from disturbed paint, phenyl mercuric acetate from water-based paints and drywall mud, and tetrachloroethene from recently dry-cleaned clothes.

### **Litigation Support**

- I have prepared numerous analyses in support of litigation, both in Federal and State Courts. I am experienced in preparing F.R.C.P. Rule 26(a)(2) expert reports and providing deposition and trial testimony (I have prepared eight Rule 26 reports). Much of my work is focused on human dose and risk reconstruction resulting from multiple air emission sources (lifetime and specific events).

- I am experienced in preparing declarations (many dozens) and providing expert testimony in depositions and trials (see my testimony history).
- I am experienced in providing support for legal staff. I have assisted in preparing numerous interrogatories, questions for depositions, deposition reviews, various briefs and motions, and general consulting.
- Recent examples of my work include:

*DTSC v. Interstate Non-Ferrous; United States District Court, Eastern District of California (2002).*

In this case I performed air dispersion modeling, downwind soil deposition calculations, and resultant soil concentrations of dioxins (TCDD TEQ) from historical fires at a smelting facility. I prepared several Rule 26 Reports in my role of assisting the California Attorney General's Office in trying this matter.

*Akee v. Dow et al.; United States District Court, District of Hawaii (2003-2004).*

In this case I performed air dispersion modeling used to quantify air concentrations and reconstruct intake, dose, excess cancer risk, and noncancer chronic hazard indices resulting from soil fumigation activities on the island of Oahu, Hawaii. I modeled 319 separate AREAPOLY pineapple fields for the following chemicals: DBCP, EDB, 1,3-trichloropropene, 1,2-dichloropropane, and epichlorohydrin. I calculated chemical flux rates and modeled the emissions from these fumigants for years 1946 through 2001 (56 years) for 34 test plaintiffs and 97 distinct home, school, and work addresses. I prepared a Rule 26 Expert Report, successfully defended against Daubert challenges, and testified in trial.

*Lawrence O'Connor v. Boeing North America, Inc., United States District Court, Central District of California, Western Division (2004-2005).*

In this case I performed air dispersion modeling, quantified air concentrations, and reconstructed individual intake, dose, and excess cancer risks resulting from approximately 150 air toxics sources in Los Angeles and Ventura Counties, California. I prepared these analyses for years 1950 through 2000 (51 years) for 173 plaintiffs and 741 distinct home, school, and work addresses. I prepared several Rule 26 Reports, and the case settled on the eve of trial in September, 2005. Defendants did not attempt a Daubert challenge of my work.

- I have prepared scores of individual and region-wide health risk assessments in support of litigation. These analyses include specific sub-tasks, including: calculating emission rates, choosing proper meteorological data inputs, performing air dispersion modeling, and quantifying intake, dose, excess cancer risk, and acute/chronic noncancer health effects.
- I have prepared over 150 exposure assessments for Proposition 65 litigation support. In these analyses, my tasks include: reviewing AB 2588 risk assessments and other documents to assist in verifying compliance with Proposition 65; preparing exposure assessments consistent with Proposition 65 Regulations for carcinogens and reproductive toxicants; using a geographic information system (Atlas GIS) to prepare exposure maps that display areas of required warnings; calculating the number of residents and workers exposed to levels of risk requiring warnings (using the GIS); preparing declarations, providing staff support, and other expert services as required. I have also reviewed scores of other assessments for verifying compliance with Proposition 65. My proposition 65 litigation clients include the California Attorney General's Office, the Los Angeles County District Attorney's Office, As You Sow, California Community Health Advocates, Center for Environmental Health, California Earth Corps, Communities for a Better Environment, Environmental Defense Fund, Environmental Law Foundation, and People United for a Better Oakland.

### **Geographic Information Systems**

- ArcGIS: I am experienced in preparing presentation and testimony maps using ArcView versions 3 through 9.3. I developed methods to convert AutoCAD DXF files to ArcView polygon theme shape files for use in map overlays.

- I have created many presentation maps with ArcView using MrSID DOQQ and other aerial photos as a base and then overlaying exposure regions. This provides a detailed view (down to the house level) of where air concentrations and health risks are projected to occur.
- Using ArcView, I have created numerous presentations using USGS Topographic maps (as TIFF files) as the base on to which exposure regions are overlaid.
- MapInfo for Windows: I prepared numerous presentation maps including exposure isopleths, streets and highways, and sensitive receptors, labels. I developed procedures for importing Surfer isopleths in AutoCAD DXF format as a layer into MapInfo.
- Atlas GIS: I am experienced in preparing presentation maps with both the Windows and DOS versions of Atlas GIS. In addition to preparing maps, I use Atlas GIS to aggregate census data (at the block group level) within exposure isopleths to determine the number of individuals living and working within exposure zones. I am also experienced in geocoding large numbers of addresses and performing statistical analyses of exposed populations.
- I am experienced in preparing large-scale graphical displays, both in hard-copy and for PowerPoint presentations. These displays are used in trial testimony, public meetings, and other litigation support.
- I developed a Fortran program to modify AutoCAD DXF files, including batch-mode coordinate shifting for aligning overlays to different base maps.

#### **Ozone and Long-Range Transport**

- I developed emission reduction strategies and identified appropriate offset sources to mitigate project emissions liability. For VOC offsets, I developed and implemented procedures to account for reactivity of organic compound species for ozone impact mitigation. I wrote Fortran programs and developed a chemical database to calculate ozone formation potential using hydroxyl radical rate constants and an alkane/non-alkane reactive organic compound method.
- I provided technical support to the Joint Interagency Modeling Study and South Central Coast Cooperative Aerometric Monitoring Program. With the SBAPCD, I provided technical comments on analyses performed with the EKMA, AIRSHED, and PARIS models. I was responsible for developing emissions inventory for input into regional air quality planning models.
- I was the CEQA project manager for the Santa Barbara County Air Quality Attainment Plan Environmental Impact Report (EIR). My duties included: preparing initial study; preparation and release of the EIR Notice of Preparation; conducting public scoping hearings to obtain comments on the initial study; managing contractor efforts to prepare the draft EIR.
- I modified, tested, and compiled the Fortran code to the MESOPUFF model (the precursor to CALPUFF) to incorporate critical dividing streamline height algorithms. The model was then applied as part of a PSD analysis for a large copper-smelting facility.
- I am experienced in developing and analyzing wind fields for use in long-range transport and dispersion modeling.
- I have run CALPUFF numerous times. I use CALPUFF to assess visibility effects and both near-field and mesoscale air concentrations from various emission sources, including power plants.

#### **Emission Rate Calculations**

- I developed methods to estimate and verify source emission rates using air pollution measurements collected downwind of the emitting facility, local meteorological data, and dispersion models. This technique is useful in determining whether reported source emission rates are reasonable, and based on monitored and modeled air concentrations, revised emission rates can be created.

- I am experienced in developing emission inventories of hundreds of criteria and toxic air pollutant sources. I developed procedures and programs for quantifying emissions from many air emission sources, including: landfills, diesel exhaust sources, natural gas combustion activities, fugitive hydrocarbons from oil and gas facilities, dry cleaners, auto body shops, and ethylene oxide sterilizers.
- I have calculated flux rates (and modeled air concentrations) from hundreds of biocide applications to agricultural fields. Emission sources include aerial spraying, boom applications, and soil injection of fumigants.
- I am experienced in calculating emission rates using emission factors, source-test results, mass-balance equations, and other emission estimating techniques.
- I have been qualified in Federal court to provide opinions on calculating emission rates from fugitive sources of particulate matter.

### Software Development

- I am skilled in computer operation and programming, with an emphasis on Fortran 95.
- I am experienced with numerous USEPA dispersion models, modifying them for system-specific input and output, and compiling the code for personal use and distribution. I own and am experienced in using the following Fortran compilers: Lahey Fortran 95, Lahey Fortran 90 DOS-Extended; Lahey F77L-EM32 DOS-Extended; Microsoft PowerStation 32-bit DOS-Extended; and Microsoft 16-bit.
- I configured and operated an Intel I-860 based workstation for the SBAPCD toxics program. I created control files and recoded programs to run dispersion models and risk assessments in the 64-bit I-860 environment (using Portland Group Fortran).
- Using Microsoft Fortran PowerStation, I wrote programs to extract terrain elevations from both 10-meter and 30-meter USGS DEM files. Using a file of discrete x,y coordinates, these programs extract elevations within a user-chosen distance for each x,y pair. The code I wrote can be run in steps or batch mode, allowing numerous DEM files to be processed at once.
- I have written many hundreds of utilities to facilitate data processing, entry, and quality assurance. These utility programs are a "tool chest" from which I can draw upon to expedite my work.
- While at the SBAPCD, I designed the ACE2588 model - the first public domain multi-source, multi-pathway, multi-pollutant risk assessment model. I co-developed the structure of the ACE2588 input and output files, supervised the coding of the model, tested the model for quality assurance, and for over 10 years I provided technical support to about 200 users of the model. I was responsible for updating the model each year and ensuring that it is consistent with California Air Pollution Control Officer's Association (CAPCOA) Risk Assessment Guidelines.
- I developed and coded the ISC2ACE and ACE2 programs for distribution by CAPCOA. These programs were widely used in California for preparing AB 2588 and other program health risk assessments. ISC2ACE and ACE2 contain "compression" algorithms to reduce the hard drive and RAM requirements compared to ISCST2/ACE2588. I also developed ISC3ACE/ACE3 to incorporate the revised ISCST3 dispersion model requirements.
- I developed and coded the "HotSpot" system - a series of Fortran programs to expedite the review of air toxics emissions data, to prepare air quality modeling and risk assessment inputs, and to prepare graphical risk presentations.
- I customized ACE2588 and developed a mapping system for the SBAPCD. I modified the ACE2588 Fortran code to run on an Intel I-860 RISC workstation; I updated programs that allow SBAPCD staff to continue to use the "HotSpot" system – a series of programs that streamline preparing AB 2588 risk assessments; I developed a risk assessment mapping system based on MapInfo for Windows which linked the MapInfo mapping package to the "HotSpot" system.
- I developed software for electronic submittal of all AB 2588 reporting requirements for the SBAPCD. As an update to the "HotSpot" system software, I created software that

allows facilities to submit all AB 2588 reporting data, including that needed for risk prioritization, exposure assessment, and presentation mapping. The data submitted by the facility is then reformatted to both ATDIF and ATEDS formats for transmittal to the California Air Resources Board.

- I developed and coded Fortran programs for AB 2588 risk prioritization; both batch and interactive versions of the program were created. These programs were used by several air pollution control districts in California.

### **Air Quality and Meteorological Monitoring**

- I was responsible for the design, review, and evaluation of an offshore source tracer gas study. This project used both inert tracer gas and a visible release to track the onshore trajectory and terrain impaction of offshore-released buoyant plumes.
- I developed the technical requirements for the Santa Barbara County Air Quality/Meteorological Monitoring Protocol. I developed and implemented the protocol for siting pre- and post-construction air quality and meteorological PSD monitoring systems. I determined the instrumentation requirements, and designed and sited over 30 such PSD monitoring systems. Meteorological parameters measured included ambient temperature, wind speed, wind direction, sigma-theta (standard deviation of horizontal wind direction fluctuations), sigma-phi (standard deviation of vertical wind direction fluctuations), sigma-v (standard deviation of horizontal wind speed fluctuations), and sigma-w (standard deviation of vertical wind speed fluctuations). Air pollutants measured included PM<sub>10</sub>, SO<sub>2</sub>, NO, NO<sub>x</sub>, NO<sub>2</sub>, CO, O<sub>3</sub>, and H<sub>2</sub>S.
- I was responsible for data acquisition and quality assurance for an offshore meteorological monitoring station. Parameters measured included ambient temperature (and delta-T), wind speed, wind direction, and sigma-theta.
- In coordination with consultants performing air monitoring for verifying compliance with Proposition 65 and other regulatory programs, I wrote software to convert raw meteorological data to hourly-averaged values formatted for dispersion modeling input.
- Assisting the Ventura Unified School District, I collected air, soil, and surface samples and had them analyzed for chlorpyrifos contamination (caused by spray drift from a nearby citrus orchard). I also coordinated the analysis of the samples, and presented the results in a public meeting.
- Using summa canisters, I collected numerous VOC samples to characterize background and initial conditions for use in Santa Barbara County ozone attainment modeling. I also collected samples of air toxics (such as xylenes downwind of a medical device manufacturer) to assist in enforcement actions.
- For the California Attorney General's Office, I purchased, calibrated, and operated a carbon monoxide monitoring system. I measured and reported CO air concentrations resulting from numerous types of candles, gas appliances, and charcoal briquettes.

### **Support, Training, and Instruction**

- For 10 years, I provided ACE2588 risk assessment model support for CAPCOA. My tasks included: updating the ACE2588 risk assessment model Fortran code to increase user efficiency and to maintain consistency with the CAPCOA Risk Assessment Guidelines; modifying the Fortran code to the EPA ISC model to interface with ACE2588; writing utility programs to assist ACE2588 users; updating toxicity data files to maintain consistency with the CAPCOA Risk Assessment Guidelines; developing the distribution and installation package for ACE2588 and associated programs; providing technical support for all users of ACE2588.
- I instructed approximately 20 University Professors through the National Science Foundation Faculty Enhancement Program. Instruction topics included: dispersion modeling, meteorological data, environmental fate analysis, toxicology of air pollutants, and air toxics risk assessment; professors were also trained on the use of the ISC2ACE dispersion model and the ACE2 exposure assessment model.

- I was the instructor of the Air Pollution and Toxic Chemicals course for the University of California, Santa Barbara, Extension certificate program in Hazardous Materials Management. Topics covered in this course include: detailed review of criteria and noncriteria air pollutants; air toxics legislation and regulations; quantifying toxic air contaminant emissions; criteria and noncriteria pollutant monitoring; air quality modeling; health risk assessment procedures; health risk management; control/mitigating air pollutants; characteristics and modeling of spills and other short-term releases of air pollutants; acid deposition, precipitation and fog; indoor/occupational air pollution; the effect of chlorofluorocarbons on the stratospheric ozone layer. I taught this course for five years.
- I have trained numerous regulatory staff on the mechanics of dispersion modeling, health risk assessments, emission rate calculations, and presentation mapping. I provided detailed training to SBAPCD staff in using the HARP program, and in comparing and contrasting ACE2588 analyses to HARP.
- Through UCSB Extension, I taught a three-day course on dispersion modeling, preparing health risk assessments, and presentation mapping with Atlas GIS and MapInfo.
- I hold a lifetime California Community College Instructor Credential (Certificate No. 14571); Subject Matter Area: Physics.
- I have presented numerous guest lectures – at universities, public libraries, farm groups, and business organizations.

### **Indoor Air Quality**

- I prepared mercury exposure assessments caused by applying indoor latex paints containing phenylmercuric acetate as a biocide.
- Using a carbon monoxide monitor, I examined CO concentrations inside rooms of varying sizes and with a range of ventilation rates. Indoor sources of CO emissions included gas appliances and candles. I also examined CO concentrations within parking garages.
- I calculated air concentrations of tetrachloroethene inside homes and cars from offgassing dry-cleaned clothes.
- I examined air concentrations of formaldehyde inside manufactured homes and school buildings. I also calculated formaldehyde exposures from carpet emissions within homes.
- I assessed lead air exposures and surface deposition from deteriorating lead-based paint applications within apartments. I also calculated lead air concentrations and associated exposures resulting from milling of brass pipes and fittings.
- While employed by the SBAPCD, I assisted with exposure assessment and awareness activities for Santa Barbara County high-exposure radon areas.
- I calculated BTEX air concentrations and health risks inside homes from leaking underground fuel tanks and resultant contaminated soil plumes. I also assessed indoor VOC exposures and remediation options with the AERIS model.
- I have assessed indoor air concentrations from numerous volatile organic compound sources, including printing operations, microprocessor manufacturing, and solvent degreasing activities.
- I calculated indoor emission flux rates and air concentrations of elemental mercury for plaintiff litigation support purposes. This analysis included an exposure reconstruction (home, school, workplace, outside, and other locations) for 16 plaintiffs who had collected spilled mercury in their village. The study required room volume calculations, air exchange rates, exposure history reconstruction, mercury quantity and droplet size estimation, elemental mercury flux rate calculations (including decay with time), and resultant air concentration calculations. I calculated both peak acute (two-hour) and 24-hour average concentrations.
- I calculated emission rates of lead from disturbed paint surfaces. I then calculated indoor air concentrations of lead for plaintiff litigation support purposes.

### Publications

- To establish a legal record and to assist in environmental review, I prepared and submitted dozens of detailed comment letters to regulatory and decision-making bodies.
- I have contributed to over 100 Environmental Impact Statements/Reports and other technical documents required for regulatory decision-making.
- I prepared two software review columns for the *Journal of the Air and Waste Management Association*.
- Correlations of total, diffuse, and direct solar radiation with the percentage of possible sunshine for Davis, California. *Solar Energy*, 27(4):357-360 (1981).

### Employment History

- Self-Employed Air Quality Consultant 1992 to 2018
- Santa Barbara County APCD, Senior Scientist 1988 to 1992
- URS Consultants, Senior Scientist 1987 to 1988
- Santa Barbara County APCD, Air Quality Engineer 1983 to 1987
- Dames and Moore, Meteorologist 1982 to 1983
- UC Davis, Research Associate 1980 to 1981

### Testimony History

- People of the State of California v. McGhan Medical, Inc.  
Deposition: Two dates: June - July 1990
- People of the State of California v. Santa Maria Chili  
Deposition: Two dates: August 1990
- California Earth Corps v. Johnson Controls, Inc.  
Deposition: October 26, 1995
- Larry Dale Anderson v. Pacific Gas & Electric  
Deposition: January 4, 1996  
Arbitration: January 17, 1996
- Adams v. Shell Oil Company  
Deposition: July 3, 1996  
Trial: August 21, 1996  
Trial: August 22, 1996
- California Earth Corps v. Teledyne Battery Products  
Deposition: January 17, 1997
- Marlene Hook v. Lockheed Martin Corporation  
Deposition: December 15, 1997
- Lawrence O'Connor v. Boeing North America, Inc.  
Deposition: May 8, 1998
- Bristow v. Tri Cal  
Deposition: June 15, 1998
- Abeyta v. Pacific Refining Co.  
Deposition: January 16, 1999  
Arbitration: January 25, 1999
- Danny Aguayo v. Betz Laboratories, Inc.  
Deposition: July 10, 2000  
Deposition: July 11, 2000
- Marlene Hook v. Lockheed Martin Corporation  
Deposition: September 18, 2000  
Deposition: September 19, 2000
- Tressa Haddad v. Texaco  
Deposition: March 9, 2001

- California DTSC v. Interstate Non-Ferrous  
United States District Court, Eastern District of California,  
Case No. CV-F-97 50160 OWW LJO  
Deposition: April 18, 2002
- Akee v. Dow et al.  
United States District Court, District of Hawaii,  
Case No. CV 00 00382 BMK  
Deposition: April 16, 2003  
Deposition: April 17, 2003  
Deposition: January 7, 2004  
Trial: January 17, 2004  
Trial: January 20, 2004
- Center for Environmental Health v. Virginia Cleaners  
Superior Court of the State of California  
County of Alameda, Case No. 2002 07 6091  
Deposition: March 4, 2004
- Application for Certification for Small Power Plant Exemption – Riverside Energy  
Resource Center. Docket No. 04-SPPE-01.  
Evidentiary Hearing Testimony before the California Energy Resource Conservation  
And Development Commission: August 31, 2004
- Lawrence O'Connor v. Boeing North America, Inc.  
United States District Court, Central District of California,  
Western Division. Case No. CV 97-1554 DT (RCx)  
Deposition: March 1, 2005  
Deposition: March 2, 2005  
Deposition: March 3, 2005  
Deposition: March 15, 2005  
Deposition: April 25, 2005
- Clemente Alvarez, et al, v. Western Farm Service, Inc.  
Superior Court of the State of California  
County of Kern, Metropolitan Division. Case No. 250 621 AEW  
Deposition: April 11, 2005
- Gary June et al. v. Union Carbide Corporation & UMETCO Minerals Corporation  
United States District Court, District of Colorado,  
Case No. 04-CV-00123 MSK-MJW  
Deposition: January 9, 2007
- Alberto Achas Castillo, et al. v. Newmont Mining Corporation, et al.  
District Court, Denver County, Colorado,  
Case No. 01-CV-4453  
Deposition: February 19, 2007  
Deposition: February 20, 2007  
Arbitration: March 6, 2007  
Arbitration: March 7, 2007
- Jacobs Farm/Del Cabo Inc. v. Western Farm Service, Inc.  
Superior Court of the State of California  
County of Santa Cruz, Case No. CV 157041  
Deposition: May 8, 2008  
Deposition: August 26, 2008  
Trial: September 18, 2008  
Trial: September 24, 2008

- Environmental Law Foundation et al. v. Laidlaw Transit Inc. et al.  
Superior Court of the State of California  
County of San Francisco, Case No. CGC-06-451832  
Deposition: July 8, 2008
- Application of NRG Texas Power, LLC for State Air Quality Permit No. 79188  
and Prevention of Significant Deterioration Air Quality Permit PSD-TX-1072.  
State Office of Administrative Hearings Docket No. 582-08-0861;  
TCEQ Docket No. 2007-1820-AIR.  
Deposition: February 12, 2009  
Hearing: February 24, 2009
- Application of IPA Coletto Creek, LLC for State Air Quality Permit No. 83778  
and Prevention of Significant Deterioration Air Quality Permit PSD-TX-1118 and for  
Hazardous Air Pollutant Major Source [FCAA § 112(G)] Permit HAP-14.  
State Office of Administrative Hearings Docket No. 582-09-2045;  
TCEQ Docket No. 2009-0032-AIR.  
Deposition: September 21, 2009  
Hearing: October 16, 2009
- Application of Las Brisas Energy Center, LLC for State Air Quality Permit No. 85013  
and Prevention of Significant Deterioration Air Quality Permit PSD-TX-1138 and for  
Hazardous Air Pollutant Major Source [FCAA § 112(G)] Permit HAP-48 and Plantwide  
Applicability Permit PAL41.  
State Office of Administrative Hearings Docket No. 582-09-2005;  
TCEQ Docket No. 2009-0033-AIR.  
Deposition: October 9, 2009  
Hearing: November 5, 2009  
Hearing: November 6, 2009
- Abarca, Raul Valencia, et al. v. Merck & Co., Inc., et al.  
United States District Court, Eastern District of California,  
Case No. 1:07-CV-00388-OWW-DLB  
Phase 1 Deposition: April 13, 2010  
Daubert Hearing: October 7, 2010  
Daubert Hearing: October 13, 2010  
Daubert Hearing: October 14, 2010  
Rule 706 Expert Hearing: December 2, 2010  
Phase 1 Trial: February 10, 2011  
Phase 2 Deposition: September 19, 2012
- Commonwealth of Kentucky, Energy and Environment Cabinet, File No. DAQ-41109-  
048. Sierra Club, Kentucky Environmental Foundation, and Kentuckians for the  
Commonwealth v. Energy and Environment Cabinet, Division for Air Quality, and East  
Kentucky Power Cooperative, Inc.  
Deposition: August 31, 2010
- Dorsey, Michael J., et al. v. Mid-Pacific Country Club  
First District Court, State of Hawaii  
Case No. 12-1-0158-01  
Deposition: November 17, 2013
- Global Community Monitor, et al. v. Lumber Liquidators, Inc. et al.  
Superior Court of the State of California  
County of Alameda. Case No. RG14733979  
Deposition: January 8, 2016  
Deposition: March 1, 2016

- Scott D. McClurg, et al. v. Mallinckrodt, Inc., et al.  
United States District Court, Eastern District of Missouri, Eastern Division  
Case No. 4:12-CV-00361-AGF  
Deposition: July 12, 2017  
Deposition: July 13, 2017  
Deposition: September 27, 2017

**LL-11**

FIRM / AFFILIATE OFFICES

|              |                  |
|--------------|------------------|
| Beijing      | Moscow           |
| Boston       | Munich           |
| Brussels     | New York         |
| Century City | Orange County    |
| Chicago      | Paris            |
| Dubai        | Riyadh           |
| Düsseldorf   | Rome             |
| Frankfurt    | San Diego        |
| Hamburg      | San Francisco    |
| Hong Kong    | Seoul            |
| Houston      | Shanghai         |
| London       | Silicon Valley   |
| Los Angeles  | Singapore        |
| Madrid       | Tokyo            |
| Milan        | Washington, D.C. |

March 30, 2018

VIA EMAIL AND FEDEX

Ashley Smith  
Planning and Development Services Department  
County of San Diego  
5510 Overland Avenue, Suite 310  
San Diego, CA 92123  
Email: [Ashley.Smith2@sdcounty.ca.gov](mailto:Ashley.Smith2@sdcounty.ca.gov)

Re: **Requirement to Fully Evaluate Water Conservation Feasibility and Impacts in Newland Sierra EIR**

Dear Ms. Smith:

I am writing on behalf of my client, Golden Door Properties, LLC (“Golden Door”), regarding the Court of Appeal’s recent decision in Golden Door Properties, LLC v. Vallecitos Water District. The appellate court’s written opinion,<sup>1</sup> as well as the statements of the court at the hearing for this case,<sup>2</sup> highlighted the critical role of the County of San Diego in fully and faithfully analyzing both the feasibility and potential impacts of the significant water conservation measures (approx. 36% cutback for all existing water customers) that the Vallecitos Water District has stated will be required in order to ensure that there is enough water for the Newland Sierra project.

In sum, the Court of Appeal’s opinion highlighted critical deficiencies in the draft environmental impact report (“EIR”) for the Newland Sierra project. The County’s duty as lead agency under the California Environmental Quality Act is to correct these deficiencies—including a request to the District to modify, correct, or supplement its WSA and receipt of a revised water supply assessment (“WSA”)—and recirculate the draft EIR along with the revised WSA for further public review and comment.

As we have explained in our prior correspondence,<sup>3</sup> the County’s role as lead agency in the CEQA EIR process is indeed “to independently review the [WSA] document and ensure that

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<sup>1</sup> A copy of the Court of Appeal’s written opinion is attached hereto as Enclosure 1.

<sup>2</sup> An unofficial transcript of the argument and hearing before the Court of Appeal in San Diego on March 16, 2018, is attached hereto as Enclosure 2.

<sup>3</sup> See, e.g., Letter from Latham & Watkins on behalf of The Golden Door, dated August 14, 2017, at pp. 79-105; Letter from Latham & Watkins on behalf of The Golden Door, dated May 15, 2017, RE: *The*

the WSA is not built on unspecified and deferred ‘mitigation’ to substantiate the essential 36% water usage reduction.” The Court of Appeal affirmed this principle in its written opinion, stating that the County’s “function” under the CEQA process is to “to review the information in the WSA and to evaluate *any* objections and challenges to the accuracy of the information and analysis.” (Encl. 1 [Slip opinion at p. 23 (emphasis added)].)<sup>4</sup> The Court of Appeal also explained that “if the County does not properly perform its statutory obligations, Golden Door will have the right to seek a judicial remedy in the CEQA process.” (*Ibid.*) In other words, the County may not simply defer to the District’s conclusions in its WSA without independently evaluating those conclusions, including on issues regarding the District’s authority to implement drastic, permanent/long-term conservation mandates on existing customers throughout the District.

Unfortunately, the draft EIR for the Newland Sierra project does not undertake this analysis, stating only that previous efforts to conserve water to a level of a “25.6 percent reduction in water use demonstrates that Vallecitos’ customers can respond to calls for water conservation ....”<sup>5</sup> The draft EIR does not otherwise discuss whether this conservation level (either a 25.6% reduction or the 36% reduction that will be required as indicated by the District’s WSA) is actually “feasible,” nor does it disclose the potential impacts of such a drastic cutback on existing customers or on the environment. Additionally, the draft EIR fails to point to any official decision by the District to adopt or implement those cutbacks, such as the adoption of a new District ordinance regarding water usage, including any amendment to the District’s Urban Water Management Plan (“UWMP”) that would be required in order make such a decision and any other official action required by District Ordinance No. 198.

“Feasible” is defined clearly by CEQA: “‘Feasible’ means capable of being accomplished in a successful manner within a reasonable period of time, taking into account *economic, environmental, legal, social*, and technological factors.” (14 Cal. Code Regs., section 15364 [emphasis added].) But, as noted, the Newland Sierra draft EIR does not actually evaluate whether the 36% cutback required to accommodate the project is “capable of being accomplished in a successful manner within a reasonable period of time, taking into account *economic, environmental, legal, social*, and technological factors.” The draft EIR just assumes, based on unique circumstances of the past, that a level of 25.6% reduction can be achieved. The draft EIR does not evaluate whether a greater 36% cutback could be achieved, particularly given the legal obstacles we have identified in our previous correspondence. These “legal factors” include the fact that the governing UWMP does not provide that the District’s supply deficit will be achieved solely through “Conservation Required” on existing customers. The County has not disclosed or analyzed the fact that a formal amendment to the UWMP under the Water Code

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*County's Responsibility Regarding Analysis of the Vallecitos Water District's Water Supply Assessment for the Newland Sierra Project.*

<sup>4</sup> See also p. 3, explaining that the decision “does not preclude Golden Door from challenging the WSA in the CEQA proceedings and/or challenging any later-approved Water Verification under applicable statutory procedures.”; p. 24, explaining that “The lead agency *must* evaluate the comments and include written responses to the comments in the final EIR.” (emphasis added).

<sup>5</sup> Newland Sierra Draft EIR, Chapter 2.14, at p. 2.14-39.

must be undertaken and approved by the District before the project may proceed. Similarly, another “legal factor” affecting the feasibility of District-wide, permanent/long-term conservation mandates includes the fact that District Ordinance No. 198 generally prohibits new potable water connections under Drought Response Level 3, which is the level that the District would need to enact in order to achieve a District-wide 36% conservation mandate.

Notably, the Court of Appeal also highlighted the requirement in Water Code section 10911 that requires the District to “set[] forth the measures that are being undertaken to acquire and develop those water supplies.” Simply stating without any detail or analysis that “Conservation Required” will make up for the entirety of the 25% to 36% supply deficits in future years does not comply with Section 10911, particularly given the legal obstacles that we have noted for enacting such drastic permanent water conservation mandates.

As the Court of Appeal aptly noted in its written opinion, “Thus, even assuming the WSA concludes that water supply deficits can be remedied solely by conservation measures, this does not necessarily mean the District *has the authority to implement those measures.*” (Enclosure 1 [Slip opn. at p. 21 (emphasis in original)].) The Court of Appeal underscored this point again in its opinion, writing “If Golden Door shows during the CEQA process that the current Water Management Plan would preclude the District from requiring the level of conservation set forth in the WSA, the disclosure of this fact would be potentially relevant in determining whether the water supply would be sufficient for the project demands.” (*Ibid.*)

Though the draft EIR notes that District Ordinance 198 and the UWMP exist, it does not provide any substantive disclosure or discussion regarding the impact of these legal requirements and limitations on the feasibility of this level of conservation mandates (36% reduction across all existing customers).

Finally, it is important to note that the Court of Appeal expressed similar concerns to those expressed by the Golden Door regarding the District’s WSA:

- Justice O’Rourke: “It doesn’t sound like very good water management from what you are portraying to build a subdivision and users that you can’t support. South Africa now has a couple of cities undergoing similar problems with this very moment of running out of water.” (Enclosure 2 [March 16 hearing transcript, at p. 7].)
- Justice Haller: “I think all of us have great concern over your concern about the water.” (*Id.* at p. 8.)

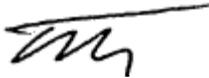
As the Court of Appeal explained, “When a WSA ‘is found to be incomplete or to contain inaccurate information or faulty analysis, the lead agency should request the water supplier to modify, correct or supplement the WSA.’” (Enclosure 1 [Slip opn. at p. 22].) Consistent with this explanation of the law, the Golden Door requests that the County direct the District to modify, correct, or supplement the WSA to provide an honest and complete analysis of water supply in the District under sections 10910 and 10911 of the Water Code. A revised WSA should include, among other things, detail regarding the water conservation mandates

LATHAM & WATKINS<sup>LLP</sup>

contemplated by the District to accommodate its water supplies to make way for the project, i.e., “the measures that are being undertaken to acquire and develop [the District’s] water supplies.”

Thank you for your consideration, and we look forward to seeing how the County addresses these important concerns.

Best regards,



Taiga Takahashi  
of LATHAM & WATKINS LLP

cc: County Board of Supervisors  
County Planning Commission  
Mark Wardlaw  
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Twin Oaks Valley Community Planning Group  
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Christopher Garrett, Esq.

**ENCLOSURE 1**

**ENCLOSURE 1**

Filed 3/26/18

**NOT TO BE PUBLISHED IN OFFICIAL REPORTS**

California Rules of Court, rule 8.1115(a), prohibits courts and parties from citing or relying on opinions not certified for publication or ordered published, except as specified by rule 8.1115(b). This opinion has not been certified for publication or ordered published for purposes of rule 8.1115.

COURT OF APPEAL, FOURTH APPELLATE DISTRICT

DIVISION ONE

STATE OF CALIFORNIA

GOLDEN DOOR PROPERTIES, LLC,

Plaintiff and Appellant,

v.

VALLECITOS WATER DISTRICT,

Defendant and Respondent;

COUNTY OF SAN DIEGO et al.,

Real Parties in Interest and  
Respondents.

D072280

(Super. Ct. No.  
37-2016-00037559-CU-WM-NC)

APPEAL from a judgment of the Superior Court of San Diego County, Ronald Frazier, Judge. Affirmed.

Latham & Watkins, Christopher W. Garrett and Taiga Takahashi for Plaintiff and Appellant.

Law Offices of Scott & Jackson and Jeffrey G. Scott for Defendant and Respondent.

Thomas E. Montgomery, County Counsel, and Claudia G. Silva, Assistant County Counsel, for Real Party in Interest and Respondent the County of San Diego.

Gatzke Dillon & Ballance, Mark J. Dillon, Michael P. Masterson and David Hubbard for Real Party in Interest and Respondent Newland Sierra, LLC.

Newland Sierra, LLC seeks to build a large residential development in an unincorporated rural area of northeastern San Diego County (County). An adjacent property owner, Golden Door Properties, LLC (Golden Door), filed a lawsuit against the public water supplier for the proposed project (Vallecitos Water District (District)), and named Newland Sierra and the County as real parties in interest. In the amended complaint, Golden Door challenged two statutory assessments in which the District concluded there is sufficient water supply for the project. The court sustained a demurrer without leave to amend on grounds of lack of finality, failure to exhaust remedies, and mootness. We affirm.

## OVERVIEW

As part of its lead agency review under the California Environmental Quality Act (CEQA), the County requested the District to prepare two statutory documents known as a Water Supply Assessment (WSA) and a Water Verification to analyze water availability for the project. (See Wat. Code, § 10910; Gov. Code, § 66473.7.)<sup>1</sup> The

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<sup>1</sup> All unspecified statutory references are to the Water Code.

District prepared the WSA and Water Verification in a single combined document. After a public hearing, the District's board approved the report and transmitted it to the County.

Before the County analyzed the District's report and incorporated it into its environmental impact report (EIR), Golden Door filed a writ of mandate petition and complaint, requesting the superior court to declare the Water Verification invalid because it contained flawed analysis, was inconsistent with the District's general water planning document, and violated applicable statutes.

In response, the District rescinded its Water Verification and reissued the report solely as a WSA. Golden Door then amended its complaint to include this fact. In its amended complaint, Golden Door asserted similar challenges to the WSA and also requested that the court address its challenges to the Water Verification (despite that it no longer existed) as an exception to the mootness doctrine.

Defendants successfully demurred to the amended complaint, and Golden Door contends the court erred on numerous grounds. We reject these contentions. Golden Door's challenges to the WSA are barred because governing law precludes claims against a public water supplier for an alleged inadequate WSA while the CEQA process is ongoing. (*California Water Impact Network v. Newhall County Water Dist.* (2008) 161 Cal.App.4th 1464, 1477-1491 (*California Water*)). Golden Door's challenges to the rescinded Water Verification are moot and there are no valid exceptions to the mootness doctrine under the circumstances of the case. This affirmance does not preclude Golden Door from challenging the WSA in the CEQA proceedings and/or challenging any later-approved Water Verification under applicable statutory procedures.

## FACTUAL AND PROCEDURAL BACKGROUND

We summarize the facts based on the properly pleaded allegations, inferences from the factual allegations, information in materials attached to the complaint, and matters properly subject to judicial notice. (See *Yvanova v. New Century Mortgage Corp.* (2016) 62 Cal.4th 919, 924.)

In January 2015, Newland Sierra submitted an application to the County (the lead agency under CEQA) for its proposed development. The proposal includes a planned community with 2,135 homes, 81,000 square feet of commercial development, a school, vineyards, open space conservation areas, parks, and equestrian facilities.

The next month, the County issued a notice of preparation of the project's EIR. The County then requested the District (the water supplier for the project area) to prepare a WSA and a Water Verification for the proposed project. Under applicable statutes, the purpose of these documents is to evaluate whether total water supplies during a specified period will meet the projected water demand of a proposed project. (See *Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40 Cal.4th 412, 433 (*Vineyard*)). Although the documents have a similar objective, the function of each document and the rules governing challenges to each document differ.

The WSA is primarily an informational report for CEQA purposes. Governing law requires CEQA lead agencies to request the potential water supplier to prepare a WSA. (See §§ 10910-10911; Gov. Code, § 66473.7.) After receiving the WSA, the lead agency must consider the analysis as part of the basis for disclosing whether sufficient water supplies exist for the project. (*Vineyard, supra*, 40 Cal.4th at pp. 428-435.)

Objections to the conclusions or analysis contained in a WSA are generally limited to challenges brought in the EIR process or as part of a Water Verification proceeding. (*California Water, supra*, 161 Cal.App.4th at pp. 1477-1491.)

Unlike the WSA, a Water Verification can be prepared by the water supplier at any time during the approval process and is not necessarily part of the EIR analysis. (See *Vineyard, supra*, 40 Cal.4th at p. 433.) The agency may prepare the Water Verification as a stand-alone document or as part of a WSA report. A Water Verification is a precondition to the project's final subdivision map approval, and is required to provide "firm assurances" of adequate water supply. (*Vineyard, supra*, 40 Cal.4th at p. 434.) A Water Verification thus serves as a fail-safe mechanism: a subdivision generally cannot be approved until and unless the local water agency determines there is sufficient water to supply the project. The water supplier can rely on a WSA in preparing the Water Verification. (Gov. Code, § 66473.7, subd. (c)(2).) A local agency or any other interested party has 90 days from the issuance of the Water Verification to bring a writ of mandate petition challenging the report. (Gov. Code, §§ 66499.37, 66473.7, subds. (b)(2), (o).)

On October 5, 2016, after a public hearing, the District adopted the combined WSA and a Water Verification report (Combined Report) that concluded there was sufficient water supply for the Newland Sierra project. Three weeks later, Golden Door filed a superior court action against the District, challenging the District's approval of the Combined Report, and seeking to prohibit the County from using or relying on the report

in its CEQA analysis. Golden Door named the County and Newland Sierra as real parties in interest.

In the lawsuit, Golden Door alleged the conclusions in the Combined Report were flawed in numerous ways. Of relevance here, Golden Door asserted that the conclusions were predicated on water conservation measures that would substantially reduce water availability for existing users. It maintained that this compelled conservation was inconsistent with: (1) the District's Urban Water Management Plan (Water Management Plan), a planning document that must be prepared every five years to evaluate the region's water supply and demand over a 20-year period (§§ 10620, 10621); and (2) certain "water duty factors" adopted in September 2016.

Golden Door claimed the Water Management Plan projects a 20-year *water supply deficit* under all scenarios—showing a deficit in 2020, 2025, 2030, and 2035 in normal, dry, and multiple dry year scenarios. Golden Door alleged that "[i]n an attempt to mask this fatal flaw," the Combined Report relies on a "'Conservation Required' " figure that creates "a new rationing requirement" that allegedly "makes up as much as 36 percent of the District's demand." Golden Door maintained that this new conservation requirement will apply "perpetually on a District wide-basis" in contradiction to the Water Management Plan, and therefore it constituted a de facto amendment to the Water Management Plan and water duty factors, without providing the statutorily-required notice and comment periods. (See §§ 10621, 10642, 10608.26.) Golden Door further alleged that the conservation measures identified in the Combined Report violate District

Ordinance No. 198, which sets forth the District's drought management plan, including a process for instituting drought response levels.

In response to the complaint, Newland Sierra requested (with the County's support) that the District rescind its action approving the Combined Report, and instead issue the report solely as a WSA (and defer the adoption of a Water Verification until a later stage of the project). On November 16, 2016, the District's board agreed with this proposal and adopted the WSA as a single report (without the Water Verification). The resolution vacating the Combined Report stated that "the Board of Directions of the District deems it would serve the best interests of the District and the public served to avoid costly litigation by rescinding the action approving the [Combined Report]."

The newly approved WSA report contained conclusions and analysis essentially identical to the Combined Report. The WSA concludes that "with development of the resources identified, there will be sufficient water supplies over a 20-year planning horizon to meet the projected demand of the proposed Project and the existing and other planned development projects within the District's service area." The WSA states that "Conservation is an important component of the District's water supply plan to meet future demands, fulfilling as much as . . . approximately 36% of the demand requirements . . . to meet 2020 demands under multi-dry year conditions, but lessening over time to . . . approximately 26% of the demand requirements . . . in 2025 through 2035."

Golden Door then filed an amended writ of mandate petition and complaint. The first six causes of action seek declaratory relief challenging the conclusions of the rescinded Water Verification. The seventh through thirteenth causes of action challenge

the legal adequacy and validity of the WSA. The allegations identified the same alleged deficiencies as were identified in the initial petition/complaint. On its challenge to the (rescinded) Water Verification, Golden Door added that the matter was not moot because (1) "the District's ability to verify a water supply for the [Project] is a matter of continuing public interest and the need for the [Water Verification] is highly likely to recur" despite that the actual "verification may not occur for several years"; (2) property owners and voters in a potential County referendum concerning the proposed project need to have a current understanding as to "whether the District could legally verify the Newland Project's water supply"; and (3) "[b]ecause the District re-approved the same water availability analysis in both the [Combined Report] and [the reissued WSA], it is highly likely that the District would re-approve the existing analysis for a [Water Verification] on a later date . . . ."

Newland Sierra filed a demurrer, asserting: (1) the first through fifth causes of action challenging the Water Verification are moot and not ripe because the District rescinded the Water Verification on November 16, 2016, and Golden Door's allegations do not establish grounds for an exception to the mootness doctrine; (2) the seventh through thirteenth causes of action challenging the WSA are unmeritorious because the District's act of approving the WSA is not a "final act" for purposes of mandamus review

and/or Golden Door failed to exhaust its administrative remedies provided in the CEQA statutory scheme, relying on *California Water, supra*, 161 Cal.App.4th 1464.<sup>2</sup>

The County and the District also filed demurrers, and both joined in Newland Sierra's supporting memorandum of points and authorities.

In its tentative ruling, the court found in defendants' favor based on its conclusion that Golden Door's challenge to the Water Verification was moot, and the challenges to the WSA were premature, citing *California Water*. At the hearing on the motion, Golden Door's counsel focused on the WSA challenge, and stated he agreed *California Water* "stands for the general proposition that challenges to [WSA's] can only be brought after there's an approved environmental impact report . . . . Therefore . . . we were pleading uphill when we filed this case . . . ." But counsel argued this is an "appropriate case" to make an exception because Golden Door's challenges concern the inconsistency between the WSA and the Water Management Plan (and Ordinance 198), and the County will not consider those issues in the CEQA process because they concern procedural matters and constitute de facto amendments of the District's governing rules. In support, Golden Door's counsel discussed the County's "silence" in the demurrer proceedings:

"[T]he County has been strangely silent in these proceedings. . . . [¶] . . . Instead of filing a pleading saying, 'Yes, every claim that's been raised in this petition and complaint, every one of those claims will be adjudicated by the County. Don't worry. We're the agency that has this administrative remedy. It is an available administrative remedy. It's timely, and we will look at all these issues.' Instead, we

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<sup>2</sup> Newland Sierra also challenged the sixth cause of action on separate grounds, but because Golden Door concedes the demurrer was proper on this cause of action, we need not discuss these grounds.

just have a simple joinder and silence from the County about whether we're going to see that. [¶] . . . [¶]

"So without a commitment by the County to provide that type of review of all those issues rather than just a weighing of, on the face of [the WSA], does it say [there is sufficient] water . . . . [I]n these unique circumstances[,] . . . we don't think we have an available administrative remedy.

"And in part, what I'm concerned about is the developer, [which has] filed the only [memorandum of points and authorities] here, will say, 'You have a great remedy,' and then when the County issues [the EIR] and we say, 'Wait a minute, there're all these problems with the WSA,' they'll say, 'Too bad. It's not our purview. We're just a CEQA agency. We just weigh it as a piece of evidence.' "

Newland Sierra's counsel countered that the case fell squarely within the *California Water* decision, and Golden Door would have the opportunity to raise all of the challenges raised in its current complaint in the CEQA action:

"Every one of those arguments needs to be presented to the County as a basis for invalidating the EIR's water supply section, and the County will then have the full record before it and it will make the call. It will make the judgment call. . . . [¶] So everything you heard today . . . is the outline, the transcript, the script for what needs to be presented to the County . . . once the draft EIR is released, and it's not even out yet. So we've got to get the EIR out. It's got to be vetted publicly. It's got to go through hearing processes. Counsel's going to . . . have remedies. They just have to be patient."

The court then asked, "You're saying they do have the administrative remedy?"

Newland Sierra's counsel responded:

"They do have an administrative remedy . . . . [¶] . . . [¶] And counsel can use every one of those arguments to try to convince the County . . . to deny this project. . . . And if they're successful, the project could be denied and at which time litigating over advisory water supply documents on a project that was never approved would be just a colossal waste of everyone's time, energy, money, and resources, including this Court's. [¶] . . . [¶] . . . [I]f the water situation is so dire with so many deficiencies and shortfalls and

deficits, then the County—under the WSA law [as interpreted in *California Water*], . . . is free to accept/reject that WSA. They're free to request additional information. It's a process, and we have to allow the process, and counsel at bottom has to wait. They have remedies."

After Newland Sierra's counsel completed this argument, assistant County counsel Claudia Silva made a brief comment: "Good afternoon, your Honor. I just wanted to address very quickly the County's silence. Until there's a certified [EIR] or at least a draft EIR that's gone out . . . [,] [¶]. . . [¶] . . . the role of the County is in that EIR process, and that's the scope of our role, not to sit as a super legislature over the [D]istrict on this particular WSA process."

Golden Door's counsel responded:

"What Ms. Silva said I think proves my point, which is . . . that the County can accept or reject the information in the document. None of them say that the County will review whether or not it conflicts with the [D]istrict's . . . Water Management Plan. None of them say that the County will determine whether or not it conflicts with a prior ordinance which the [D]istrict adopted which said 'No new water hookups if you're cutting existing users back over 30 percent.' . . .

"And so simply we have a situation where—and the law is simply that [the WSA] just floats around as an informational document. The [D]istrict won't even be a party to the CEQA proceedings. . . . [S]ince [the County] [doesn't] sit as a super legislature or a super judiciary . . . where they adjudicate the validity of the WSA, we'll never get that determination and we'll never get to the 36 percent cutback that's embodied in their set aside."

After taking the matter under submission, the court issued a final judgment adhering to its tentative ruling and sustained the demurrer without leave to amend. The court found the challenges to the Water Verification are moot because the Water Verification was "rescinded" and the court was "not persuaded" the asserted exceptions to

the mootness doctrine applied. The court further found the principles set forth in *California Water* barred Golden Door's challenges to the WSA.

## DISCUSSION

### I. *Review Standard*

"On appeal from a judgment dismissing an action after sustaining a demurrer without leave to amend, the 'reviewing court gives the complaint a reasonable interpretation, and treats the demurrer as admitting all material facts properly pleaded.' [Citation.] It 'is error for a trial court to sustain a demurrer [if] the plaintiff has stated a cause of action under any possible legal theory.' " (*Soto v. Motel 6 Operating, L.P.* (2016) 4 Cal.App.5th 385, 389.)

We apply a de novo review, and are not bound by the trial court's construction of the complaint. (*Soto, supra*, 4 Cal.App.5th at p. 389.) We accept as true the well-pleaded material facts, as well as the reasonable inferences that may be drawn from these facts. (*Fremont Indem. Co. v. Fremont General Corp.* (2007) 148 Cal.App.4th 97, 111.) "Whether the plaintiff will be able to prove these allegations is not relevant; our focus is on the legal sufficiency of the complaint." (*Los Altos Golf and Country Club v. County of Santa Clara* (2008) 165 Cal.App.4th 198, 203, italics omitted.)

### II. *Challenges to WSA*

#### A. *Applicable Law*

In the CEQA process, the lead agency must request a WSA from the water supplier before approving a specified project (including the Newland Sierra project). (§ 10910, subs. (b), (c)(1).) The WSA must evaluate whether the total water supplies

during a 20-year period will meet the projected water demand of the proposed project. (§ 10910, subd. (c)(4).) The water supplier may incorporate into the WSA information from the water system's most recent Water Management Plan, if the plan contained an evaluation of the potential project demand. (§ 10910, subd. (c)(2).) But if the plan did not include this information, the WSA for the project "shall include a discussion" as to "whether the public water system's total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to the public water system's existing and planned future uses . . . ." (§ 10910, subd. (c)(3).)

The WSA shall also identify any existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and describe the quantities of water received in prior years by the public water system under the existing water supply entitlements, water rights, or water service contracts. (§ 10910, subd. (d)(1).) "If, as a result of its assessment, the public water system concludes that its water supplies are, or will be, insufficient, the public water system shall provide to the city or county its plans for acquiring additional water supplies, setting forth the measures that are being undertaken to acquire and develop those water supplies." (§ 10911, subd. (a).)

The statutes specify the timeframe for preparing and submitting a WSA. Specifically, the "governing body" of each public water system is required to "approve" the WSA at a regular or special meeting and must submit the WSA to the lead agency not later than 90 days from the date on which the request was received. (§ 10910, subd.

(g)(1.) If the water supplier fails to submit the WSA, the lead agency may seek a writ of mandamus to compel the water supplier to comply. (§ 10910, subd. (g)(3).) After the water supplier provides the WSA to the lead agency, the lead agency must include the WSA in any CEQA environmental documents prepared for the project, and may include an evaluation of the information contained in the WSA. (§ 10911, subds. (b), (c).) Based on its evaluation, the lead agency "shall determine, based on the entire record, whether projected water supplies will be sufficient to satisfy the demands of the project, in addition to existing and planned future uses. If the [lead agency] determines that water supplies will not be sufficient, [it] shall include that determination in its findings for the project." (§ 10911, subd. (c).)

#### B. California Water

Ten years ago, the *California Water* court extensively reviewed this statutory scheme in addressing an environmental organization's (C-WIN) challenge to a water district's WSA in factual circumstances very similar to those found here. (*California Water, supra*, 161 Cal.App.4th at pp. 1478-1481.) There, a water agency prepared a WSA at the request of the CEQA lead agency (the City) that was conducting a CEQA evaluation of a proposed industrial/business park development. (*Id.* at p. 1473.) Before the City had an opportunity to review and evaluate the WSA and incorporate it into the EIR, C-WIN filed a writ of mandate petition and complaint in the superior court, alleging the WSA was legally deficient and misleading in various respects. (*Id.* at p. 1474.) As here, the challenger named the water district, the lead agency, and the project developer as defendants or real parties in interest. (*Id.* at p. 1474 & fn. 7.)

These defendants moved for judgment on the pleadings, raising several arguments, including: (1) under the applicable statutes the WSA was a "technical informational document and not a final act or determination" subject to judicial review; and (2) the challenger (C-WIN) failed to exhaust its administrative remedies and was required to first raise objections with the lead agency in the EIR proceedings. (*California Water, supra*, 161 Cal.App.4th at pp. 1474-1475.) The trial court agreed, and granted the motion for judgment on the pleadings without reaching the merits of C-WIN's challenges. (*Id.* at p. 1475.) The Court of Appeal affirmed on both alternative grounds. (*Id.* at pp. 1482-1491.)

Regarding the first (finality) ground, the court explained that a public agency's determination is not subject to judicial challenge until it is final in the sense that the agency " 'possesses "no further power to reconsider or rehear the claim," ' " and that whether an administrative determination is final depends on the governing statutes. (*California Water, supra*, 161 Cal.App.4th at pp. 1485-1486.) After reviewing the WSA statutes, the court concluded the Legislature did not intend the WSA to be final for purposes of the mandamus remedy because its primary purpose in the EIR process is an informational tool, and not a final action for purposes of ensuring or requiring water supply. (*Ibid.*)

The court explained: "[T]he code is . . . clear that nothing in the WSA itself or the statutes governing its preparation actually imposes any duty upon the water supplier to provide water services to the project. (See . . . § 10914.) Thus, . . . the WSA is . . . a technical, informational advisory opinion of the water provider. Though the WSA is

required by statute to include an assessment of certain statutorily identified water supply issues and is required to be included in the EIR, the WSA's role in the EIR process is akin to that of other informational opinions provided by other entities concerning potential environmental impacts—such as traffic, population density or air quality. The fact that the duties of the water provider in preparing the WSA and responsibility of the lead agency in requesting the WSA are committed to statute does not change the fundamental nature of the WSA itself as an advisory and informational document." (*California Water, supra*, 161 Cal.App.4th at p. 1486.)

The court also supported its conclusion by discussing legislative history showing that the WSA requirement "was motivated by a concern that certain counties and cities were either ignoring or inadequately considering water supply issues prior to approving new developments. While the Legislature wanted to ensure that lead agencies thoroughly considered water supply issues and wanted to add transparency to the entire process, the Legislature committed the final determination on water supply issues to the lead agency, *not the water providers*. Indeed an earlier iteration of the WSA law that gave the water providers ultimate determination of whether insufficient water supplies constituted 'significant environmental effects under CEQA' was rejected because opponents viewed it as shifting land use decisionmaking authority from the cities and counties to water suppliers." (*California Water, supra*, 161 Cal.App.4th at p. 1486.)

The court additionally considered the related Water Verification statutes: "[O]n the same day the Legislature enacted [the WSA law], it also enacted [the law] which provides nonagency third parties with an opportunity to seek judicial intervention [to

challenge a Water Verification] under Government Code section 66473.7 to compel a water system to comply with the [W]ater [V]erification law. That the Legislature omitted the right to third party judicial intervention from [the WSA statutes] is instructive as to how the WSA should be viewed in the larger context of the EIR process. The WSA is but an interlocutory and preliminary step in the EIR process, and in general, interim determinations are not subject to mandamus review." (*California Water, supra*, 161 Cal.App.4th at p. 1486.)

The court also emphasized the lead agency's review powers after the water agency's "final" approval of its WSA: "Once the WSA is approved by the water provider's governing board the WSA is submitted to the lead agency. The lead agency may then evaluate the information included in the WSA. [(§ 10911, subd. (c).)] [This power to 'evaluate' the WSA necessarily invests the lead agency with the authority to consider, assess and examine the quality of the information in the WSA and endows the lead agency with the right to pass judgment upon the WSA. *While the lead agency must include the WSA in the EIR, the lead agency is not required to accept the WSA's conclusions. The lead agency may in evaluating the WSA accept or disagree with the water provider's analysis or may request additional information from the water provider. In any event, the lead agency is required by statute to make the ultimate determination, based on the entire record, whether water supplies are sufficient.* [(§ 10911, subd. (c).)]

The lead agency may make a finding that adequate water supplies exist (or do not exist) to meet the project's anticipated demand, even if that finding is inconsistent with the

conclusions in the [WSA]." (*California Water, supra*, 161 Cal.App.4th at p. 1487, italics added, fn. omitted.)

The *California Water* court thus concluded: "[B]ecause the adoption of a WSA does not create a right or entitlement to water service or impose, expand, or limit any duty concerning the obligation of a public water system to provide certain service and because the lead agency has a separate (from the water provider's WSA) and independent obligation to assess the sufficiency of water supplies for the proposed project, . . . the WSA is not a final agency decision, determination or action as that term is used in the context of mandamus relief. Under the WSA law framework, the 'final' decision for the purposes of writ review occurs only after the lead agency acts—completes its obligations under the WSA and CEQA." (*California Water, supra*, 161 Cal.App.4th at pp. 1487-1488.)

The *California Water* court also found C-WIN was barred from judicially challenging the WSA by the separate (but functionally similar) administrative exhaustion doctrine, explaining the "exhaustion requirement[] . . . avoid[s] . . . premature interruption of administrative processes, allowing an agency to develop the necessary factual background of the case, letting the agency apply its expertise and exercise its statutory discretion, and administrative efficiency and judicial economy." (*California Water, supra*, 161 Cal.App.4th at pp. 1489-1490.) C-WIN argued this doctrine was inapplicable because it could not obtain relief in the CEQA process as the "'City had no authority to disapprove, modify or set-aside the WSA' . . . ." (*Id.* at p. 1490.) The *California Water* court disagreed, reiterating that a lead agency has the statutory authority

"to evaluate the WSA and the concomitant duty to make the final determination on the sufficiency of water supplies," and is empowered "to approve or disapprove the WSA or to request the Water District to revise, modify, amend or supplement the WSA." (*Ibid.*) The court emphasized "the adequacy of the WSA will [be subject to] judicial review" in the CEQA process, noting that a prior EIR for the same project had been successfully challenged based on a deficient water analysis. (*Id.* at p. 1491.)

The court further noted that to the extent C-WIN was arguing the lead agency had no authority to review its challenges to the WSA, this argument should be made first to the administrative agency: "[I]t lies within the power of the administrative agency to determine in the first instance and before judicial relief may be obtained whether a given controversy falls within its granted jurisdiction." (*California Water, supra*, 161 Cal.App.4th at p. 1491.) The court also observed that requiring exhaustion of administrative remedies "conserves the parties' and the court's resources and avoids the possibility of multiple and simultaneous litigation as well as inconsistent rulings concerning the same project. In addition, . . . a direct challenge to a WSA in the middle of the EIR review proceedings could delay the review process and could preclude the lead agency from completing and certifying the EIR within the timeframes required under CEQA." (*Ibid.*)

### C. California Water Bars Golden Door's WSA Challenges

As a sister Court of Appeal, we are not bound by *California Water*. (*Mega Life & Health Ins. Co. v. Superior Court* (2009) 172 Cal.App.4th 1522, 1529.) But we choose to follow its holding because we find its analysis persuasive. On our own independent

review of the applicable statutes, we agree with the court's reasoning and conclusion. For purposes of mandamus review, a WSA is not final when it is approved by the water supplier and the administrative exhaustion doctrine generally requires the applicant to first challenge the WSA through the CEQA process.

Golden Door does not identify grounds to show *California Water* improperly interpreted the governing statutes, and instead argues its holding should not bar this action because Golden Door will not have an available remedy in the CEQA process under the unique circumstances of this case. We find these arguments unavailing.

First, Golden Door contends the WSA constitutes a "de facto amendment" of the Water Management Plan, to which the CEQA process is inapplicable, and thus Golden Door cannot obtain relief in the CEQA process. It asserts that the WSA declares future year supply deficits will be "resolved solely through" conservation measures and there is no support in the existing Water Management Plan to permit water supply problems to be addressed in this fashion. Golden Door thus argues the WSA has effectively amended the Water Management Plan for all future projects. Golden Door likewise emphasizes its allegations that the WSA is inconsistent with District Ordinance 198, which requires specific findings before instituting drought procedures, and argues that the WSA constitutes an improper amendment of this ordinance. Golden Door thus contends that if it is not permitted to challenge the WSA at this time (outside the EIR process), the public will be at risk of "being force-fed" Water Management Plan amendments and District Ordinance 198 determinations in the future, and the WSA determinations will become "baked into" the District's water analysis process.

These arguments reflect a misunderstanding of the WSA's function in the environmental review process. Even assuming the WSA is inconsistent with the Water Management Plan or a District ordinance, this does not mean that it *changes* these documents. As discussed in *California Water*, the WSA does not create a right or entitlement to water service, and is solely an informational report. (*California Water, supra*, 161 Cal.App.4th at pp. 1486, 1487-1488; § 10914.) Thus, even assuming the WSA concludes that water supply deficits can be remedied solely by conservation measures, this does not necessarily mean the District *has the authority to implement those measures*.

Golden Door characterizes the claimed inconsistencies between the WSA and the Water Management Plan as procedural defects, but this does not take Golden Door's challenge outside the normal CEQA process for challenging a WSA. If Golden Door shows during the CEQA process that the current Water Management Plan would preclude the District from requiring the level of conservation set forth in the WSA, the disclosure of this fact would be potentially relevant in determining whether the water supply would be sufficient for the project demands. (See, e.g., *Preserve Wild Santee v. City of Santee* (2012) 210 Cal.App.4th 260, 274-275, 282-286 [rejecting a WSA in an EIR because it did not explain a substantial discrepancy between the estimated water demand for a project and the available water supply].) Moreover, as the *California Water* court observed, whether the lead agency has the authority to consider certain challenges to a WSA should be considered in the first instance by the administrative agency (here the

County), and not by the courts. (*California Water, supra*, 161 Cal.App.4th at pp. 1490-1491.)

Golden Door next argues this case is distinguishable from *California Water* because it has alleged facts showing it would be futile to challenge the WSA in the CEQA process. In support, Golden Door relies on its allegation that: "'County staff have stated that they intend to rely upon the [WSA] as approved by the District and that they will not reexamine the facts or analysis used by the District in approving the [WSA].'" Even assuming this allegation is true, it would not preclude Golden Door from challenging the County's acceptance of an allegedly flawed WSA report. When a WSA "is found to be incomplete or to contain inaccurate information or faulty analysis, the lead agency should request the water supplier to modify, correct or supplement the WSA." (*California Water supra*, 161 Cal.App.4th at p. 1487, fn. 21.) If, as Golden Door suggests, the County will not perform this statutory obligation to review the accuracy of the information provided in the informational documents (particularly when such information has been challenged in the EIR process), an objector can challenge the EIR through the statutory procedures. Thus, the claim that the County will not perform its duties is premature and, as in *California Water*, it is not subject to attack through a direct challenge to the WSA.

Golden Door additionally relies on the brief remark made by the assistant County counsel during the hearing on the demurrer: "I just wanted to address very quickly the County's silence. Until there's a certified [EIR], or at least a draft EIR that's gone out[,]

... [¶] ... [¶] ... the role of the County is in that EIR process, and that's the scope of our role, not to sit as a super legislature over the [D]istrict on this particular WSA process."

Golden Door argues this statement confirms the County has no intention of evaluating the correctness of the WSA's conclusions. Golden Door's characterization of County counsel's remarks is not reasonable. Viewed in context, County counsel was responding to Golden Door's counsel's argument that he was concerned his client would not have the opportunity to raise challenges to the WSA in the CEQA process because the County merely joined in Newland Sierra's arguments and never affirmatively stated that it would " 'look at all these issues.' " Reasonably understood, County counsel's response to this concern was to emphasize the *timing* of its participation in the environmental evaluation process. County counsel correctly described that the local agency does not become involved in the water supplier's analysis *until* the EIR evaluation, explaining, "that's the scope of our role, not to sit as a super legislature over the district *on this particular WSA process.*" (Italics added.) This statement does not suggest the County will not perform its function to review the information in the WSA and to evaluate any objections and challenges to the accuracy of the information and analysis. In any event, as discussed above, if the County does not properly perform its statutory obligations, Golden Door will have the right to seek a judicial remedy in the CEQA process.

Golden Door's reliance on *Action Apartment Ass'n v. Santa Monica Rent Control Bd.* (2001) 94 Cal.App.4th 587 is misplaced. In that case, the court held the administrative remedies were inadequate as applied to a landlord seeking relief from a

law regarding the payment of interest earned on security deposits. Although we agree with *Action Apartment* that the existence of an administrative remedy does not bar a judicial action *if* the administrative remedy would be inadequate, Golden Door has not shown the remedy is inadequate given the statutory scheme governing WSA's and EIR's.

Golden Door requests that we take judicial notice of portions of the draft EIR for the project, and argues that these portions confirm the County will not effectively analyze or understand flaws in the WSA, including the District's improper reliance on conservation measures to satisfy new water demands arising from the project. We decline to take judicial notice of this document. The draft EIR was circulated for public comment in June 2017, one month after the trial court judgment in the case. It is a fundamental appellate principle that an appellate court reviews the judgment based on the record at the time the court made its challenged rulings. (See *Reserve Insurance Co. v. Pisciotta* (1982) 30 Cal.3d 800, 813.)

Moreover, the draft EIR would not change the result in this case because it does not support Golden Door's assertion that it does not have an adequate remedy in the EIR process. A draft EIR is not a final document. The public (including Golden Door) will have the opportunity to review and comment on the information contained in the draft EIR, including identifying omissions or flaws in the analysis and/or asserting that the document does not sufficiently or accurately identify possible environmental impacts. (Cal. Code Regs., tit. 14, §§ 15200, 15204, subd. (a).) The lead agency must evaluate the comments and include written responses to the comments in the final EIR. (Cal. Code Regs., tit. 14, § 15088, subd. (a).) If a party believes the responses do not sufficiently

address its concerns, it may seek judicial review. Given this process, the allegation that a *draft* EIR does not discuss or resolve Golden Door's concerns with the WSA does not mean Golden Door does not have an adequate remedy in the CEQA process. The existence of the draft EIR underscores the propriety of the *California Water* decision.

### III. *Challenges to Verification*

Golden Door also challenges the court's ruling sustaining the demurrer on the first through fifth causes of action that challenge the Water Verification.

The first five causes of action seek declaratory relief determining that the Water Verification (contained in the rescinded Combined Report) violates applicable law because it fails to provide "firm assurances" of sufficient water supplies for the project, fails to adequately analyze potential groundwater impacts, and fails to ensure priority of water to low income households.

A necessary predicate for declaratory relief is the existence of an actual, present controversy between the parties. (*Linda Vista Village San Diego Homeowners Association, Inc. v. Tecolote Investors, LLC* (2015) 234 Cal.App.4th 166, 181; *Otay Land Co. v. Royal Indem. Co.* (2008) 169 Cal.App.4th 556, 562-563.) "For a probable future controversy to constitute an 'actual controversy,' however, the probable controversy must be ripe." (*Environmental Defense Project of Sierra County v. County of Sierra* (2008) 158 Cal.App.4th 877, 885 (*Environmental Defense*)). "A 'controversy is "ripe" when it has reached . . . the point that the facts have sufficiently congealed to permit an intelligent and useful decision to be made.'" (*Ibid.*) Whether an "actual controversy" exists is a

question of law. (*Wilson & Wilson v. City Council of Redwood City* (2011) 191 Cal.App.4th 1559, 1582.)

There is no present controversy concerning the Water Verification because the District rescinded its approval of this document. Therefore the matter is moot. (See *National Ass'n of Wine Bottlers v. Paul* (1969) 268 Cal.App.2d 741, 743, 746-748 [case challenging agency's orders moot after marketing order was rescinded].) Seeking to avoid this bar, Golden Door contends the dispute is highly "likely to recur" because it is reasonable to conclude the District will issue the same or similar Water Verification later in the approval process. Golden Door relies on the fact that the District reissued the identical Combined Report, except that it called the document a "WSA."

An appellate court retains discretion to decide a moot issue under various circumstances, including if the case presents an important issue of public interest that is likely to recur. (See *Californians for Alternatives to Toxics v. California Dept. of Pesticide Regulation* (2006) 136 Cal.App.4th 1049, 1069; *County of Fresno v. Shelton* (1998) 66 Cal.App.4th 996, 1006.) This exception is inapplicable here.

First, it is speculative to conclude the issue will recur, i.e., that District will issue the same Water Verification. As discussed, the WSA will undergo scrutiny in the EIR administrative process (by the lead agency, other agencies, and the public, including potential judicial challenges). It is certainly possible that during this process the analysis of water supplies will change, triggering needed modifications to the Water Verification. Further, the Water Verification need not be issued until the final subdivision map phase (Gov. Code, § 66473.7), which—as Golden Door concedes in its amended complaint—

"may not occur for several years." At that time, there may be different District board members, a different Water Management Plan, and different facts surrounding water supply and demand issues in the relevant geographic areas. Although Golden Door alleged that the District is likely to adopt the same Water Verification, this claim is speculative in light of the record before us. In reviewing a ruling on a demurer, we disregard "conclusions of fact or law, opinions, speculation, or allegations contrary to law or judicially noticed facts." (*Shea Homes Ltd. Partnership v. County of Alameda* (2003) 110 Cal.App.4th 1246, 1254.)

This case is distinguishable from our recent decision in *Cleveland National Forest Foundation v. San Diego Association of Governments* (2017) 17 Cal.App.5th 413. In *Cleveland National*, this court considered a case remanded from the California Supreme Court after the high court held a portion of an EIR was inadequate. (*Id.* at pp. 421-422.) The issue for our consideration was whether the entire case should be remanded to the trial court, or whether we should rule on the contentions relating to the portions of the EIR that the California Supreme Court did not address. (*Id.* at pp. 422-424.) The public entity argued the issues were moot because the existing EIR would need modifications. (*Id.* at p. 423.) But the majority of this court rejected this claim, noting there was no evidence in the record that the EIR had been decertified and could no longer be relied upon. (*Id.* at pp. 423-424.)

Here, by contrast, the evidence is undisputed that the Water Verification no longer exists and cannot be relied upon for a project approval, and there is no evidentiary basis

for concluding a new Water Verification would be the same or similar to the former Water Verification. Thus, any opinion would be advisory.

Golden Door relies on a line of cases recognizing that declaratory relief may be appropriate if the facts show a public entity will continue to engage in the challenged practice in the future. (See, e.g., *Environmental Defense, supra*, 158 Cal.App.4th at pp. 886-887; *California Alliance for Utility etc. Education v. City of San Diego* (1997) 56 Cal.App.4th 1024, 1029-1030.) Those cases are distinguishable because they contain facts showing (or supporting a reasonable inference) that the challenged actions will continue. For example, in *Environmental Defense*, the public entity "made it clear" it would continue engaging in the same challenged zoning practice "in the future." (158 Cal.App.4th at p. 886.) In this case, there are no factual allegations from which we can draw a reasonable inference that the District would reissue the *same* Water Verification in the future.

Golden Door notes that the District has an alleged practice of issuing a WSA and Water Verification as a single document, and argues we should infer from this fact that the new Water Verification will be the same as the existing WSA. This inference is not reasonable. It may be reasonable to infer that when the two statutorily-required documents are issued at the same time, they will have the same or similar analyses and conclusions. But when, as here, the WSA and Water Verification will likely be issued years apart, this logic of the inference falls away.

Further, contrary to Golden Door's assertions, the fact that the District vacated the Water Verification to avoid the current litigation does not mean the issue is ripe. The

Legislature provided public water agencies the discretion to wait until the final subdivision map process to approve a Water Verification. (Gov. Code, § 66473.7; see *Vineyard, supra*, 40 Cal.4th at p. 433.) Although an agency has the authority to issue the Verification earlier and to combine it with the WSA, the agency can reasonably decide that by doing so and triggering an immediate challenge, the agency would be subjecting the public to unnecessary litigation costs before there is any certainty that the project will be approved and will move forward. This decision does not show any form of bad faith or suggest the issue is not moot.

Additionally, the question of the propriety of any approved Water Verification will not evade review, an important factor in finding an exception to the mootness doctrine. (See *Cleveland National Forest Foundation v. San Diego Association of Governments* (2017) 3 Cal.5th 497, 511; *In re Conservatorship of Person of John L.* (2010) 48 Cal.4th 131, 142, fn. 2.) If the County certifies the EIR and approves the project, the project cannot move forward (i.e. no final subdivision map can be approved) *until* the District approves a new Water Verification showing its ability to provide a "sufficient water supply that will meet the projected demand associated with the proposed [development]." (Gov. Code, § 66473.7, subd. (c); *Vineyard, supra*, 40 Cal.4th at p. 453.) The statutes provide that once the water supplier approves the Water Verification, a third party objector (such as Golden Door) may bring a judicial challenge to the report's analysis and/or conclusions. (Gov. Code, §§ 66473.7, subd. (o), 66499.37.)

Finally, we find unhelpful Golden Door's focus on the fact that water supply and demand issues are matters of strong public interest. We agree with this fact, but the

specific question before us here concerns the adequacy of a Water Verification to ensure a project has sufficient water supply in a situation when the Water Verification has not yet been issued. There is no public interest in issuing an advisory opinion on this matter, particularly because it would bypass the specific statutory scheme governing challenges to a Water Verification and would potentially overlap with the County's consideration of the same issues with respect to the WSA. There is no public interest in permitting premature judicial intervention. The project cannot go forward without a certified EIR and a Water Verification. In its appellate brief, Newland Sierra acknowledges that Golden Door "retains the right to challenge the EIR, the WSA prepared for the EIR, and the Water Verification" at the appropriate times. The County and the District expressly joined in this brief, which necessarily includes this acknowledgment.

#### DISPOSITION

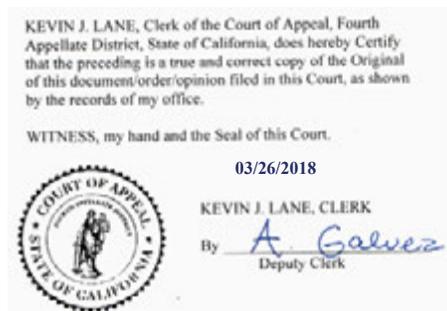
Judgment affirmed. Appellant to bear respondents' costs on appeal.

HALLER, J.

WE CONCUR:

NARES, Acting P. J.

O'ROURKE, J.



Unofficial Transcript  
Golden Door Properties v. Vallecitos Water District  
March 16, 2018

| <u>Speaker</u> | <u>Dialogue</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Justice Nares  | (Beginning of audio recording) ... Justice Haller and to my left is Justice O'Rourke. This panel will hear Golden Door Properties versus Vallecitos Water District and Newland Sierra. Come forward please. I think Justice McConnell already told you about the time limits, etc. That's number 40. You can state your name as you make your presentation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Mr. Garrett    | Ready for me to be at the podium?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Justice Nares  | Yes. Oh, we need more chairs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Mr. Scott      | No, no, no, that's okay. We can sit over here. We just wanted to make our appearances.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Justice Nares  | Are you sure, because –                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Mr. Scott      | Yes.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Justice Nares  | Very well. Once we start hearing from the other side, you can make your appearances at that time. Thank you. Counsel?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Mr. Garrett    | <p>Good afternoon your honor, my name is Chris Garrett, Latham and Watkins, and I'm representing the Golden Door, the appellant today. We obviously have the burden here, and I wanted – I do think in this situation, we're dealing with the facts as pleaded in our First Amended Complaint, and I do think it's very important to talk about those facts as we pled them.</p> <p>The growth and infrastructure for growth is vitally important for California's today. It's vitally important to us as an agricultural and hospitality operation. We have 35,000 to 40,000 trees. We just purchased 10,000 new avocado citrus trees to be planted. We use some water from Vallecitos. We also use water from groundwater.</p> <p>What's happening with water and water infrastructure is extremely important. And it's extremely important to us as a member of the community that there be the infrastructure and the water supplies in place for growth – thus, our interest in this case.</p> <p>California has a very clear and specified way to make sure that we have enough water and water infrastructure for our projects. That consists of everything we cited in our brief. I'm not going to go through that in detail</p> |

**ENCLOSURE 2**

**ENCLOSURE 2**

| <u>Speaker</u> | <u>Dialogue</u> |
|----------------|-----------------|
|----------------|-----------------|

but obviously, the Urban Water Management Plans, which are the cookbooks for making sure that there's enough water there before houses are built, plans are made, things are committed, and there are the two stages: the water supply assessment and the water supply verification.

We are one of 70,000 water users who depend on Vallecitos for water. As alleged in our First Amended Complaint, the District first adopted –

Justice Haller

You know, it might be a little more helpful to get to what really are the issues, and the issue is I think whether or not, the decision is final for purposes of you being able to act upon it, whether you exhausted your administrative remedies. We're very familiar with what's in your complaint. I just think that might be a better use of your time.

Mr. Garrett

Right. Thank you very much.

The decision that the District took – there were two of them – in October and November of 2016. The first decision was embodied in a document labeled Water Supply Verification. The second decision, the decision was made again in the document labeled Water Supply Assessment.

In our view, this is a very extraordinary document. It could have been called a resolution. It could have been called a district ordinance. It could have been called a banana. And our point, this was not the run of mill water supply assessment that was ultimately adopted in November.

This water supply assessment had something in it which no other water supply assessment which has ever been reviewed by a court had in it, and that is a District commitment to a – the “Conservation Required” number for all of the Vallecitos customers. All 70,000 of them. What the District did in order to balance the books and to show that there was enough water to allow for new connections was to say we are 35% short in 2020 for our users in a normal water year. So, how do we balance those books? And this is shown in appellant's appendix 517 which includes the table from the Water Supply Assessment. Those books in 2020 where the supply was 21,000 acre-feet, the demand total which they estimated in the latest water – Urban Water Management Plan was 32,000 and then there – that's a difference of 11,447 acre-feet for the total demand in the District, a deficit was shown in the Urban Water Management Plan.

So, how did they balance the books and come up with enough water to serve new development? They added a factor which they called

| <u>Speaker</u> | <u>Dialogue</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                | “Conservation Required,” which basically the decision that we’re going to force existing users to cut back from the demands that we’ve already estimated they would normally have.                                                                                                                                                                                                                                                                                                                         |
| Justice Haller | Again, we are aware of that. The question I’m try to get you to is, is the Water Supply Assessment a final – is final for legal purposes?                                                                                                                                                                                                                                                                                                                                                                  |
| Mr. Garrett    | Right.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Justice Haller | It’s now a part of EIR, and there’s full opportunity within that process for it to be – it is an informational document. I know you are very unhappy with it. Water is very important.                                                                                                                                                                                                                                                                                                                     |
|                | This project can never be completed unless, at the end of the day, the EIR gets through and is not challenged and, number 2, that there is – that the subdivision map is approved and one of the approvals has to be sufficient water. And I know you don’t think that this WSA is valid and I understand what you are saying. But what we are trying to get to is, is this the right time or the right forum to be challenging it.                                                                        |
| Mr. Garrett    | Let me give you the shortest most precise answer I can. This WSA included the “Conservation Required” number. That was a final decision. As shown in the County’s environmental impact report, that was treated as a final decision – a commitment by the District to reduce the 70,000 existing users’ water usage from what was shown in Urban Water Management Plan by 35 percent. There will be no review of that decision in the County’s EIR. That’s the water supply assessment which is normally – |
| Justice Haller | That it becomes part of the EIR that it cannot be challenged like any other informational document within the EIR?                                                                                                                                                                                                                                                                                                                                                                                         |
| Mr. Garrett    | Well I think the answer is –                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Justice Haller | Or is that –                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Mr. Garrett    | Maybe no. Maybe no and we are very concerned because –                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Justice Haller | Well, one of the things that has to be looked at in a EIR is the supply of water. Is it not?                                                                                                                                                                                                                                                                                                                                                                                                               |
| Mr. Garrett    | Yes, that’s right.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

| <u>Speaker</u> | <u>Dialogue</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Justice Haller | And if – the public, you, neighbors, any number of people have the right to say: This simply is not supported; it’s not reliable.                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Mr. Garrett    | Right. And the EIR which we would request the Court take judicial notice of from the County says –                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Justice Haller | Now it’s just a draft EIR, correct?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Mr. Garrett    | That’s right, the draft –                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Justice Haller | And the draft EIR had not been adopted at the time of the hearing?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Mr. Garrett    | Right.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Justice Haller | Okay.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Mr. Garrett    | Your honor, and I think what we want to say is it’s indicative of why our administrative remedy in this case is not adequate because that commitment to the “Conservation Required” is not going to be reviewed by the County in the EIR CEQA process.                                                                                                                                                                                                                                                                                                 |
| Justice Haller | Well, it’s not a matter of them reviewing it. It’s a matter of they have to put it out for public comment.                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Mr. Garrett    | Right.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Justice Haller | And then it is subject to criticism from the public is it not?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Mr. Garrett    | That’s right.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Justice Haller | Alright, and if they don’t follow that process, that’s a basis to challenge the EIR is it not?                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Mr. Garrett    | If the information is lacking – for example, in this court in the Save Wild Santee, found the information lacking, then you’re right. There is a remedy at that point to say, County, you made the wrong call, the information doesn’t support the conclusion that there is enough water there – the factual information.<br><br>That whole statutory scheme is based on the concept that the water supply assessment is information, not decision-making by the District. It doesn’t embody – in this case, the water assessment embodies a decision. |

| <u>Speaker</u>   | <u>Dialogue</u>                                                                                                                                                                                                                                                                                                             |
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| Justice O'Rourke | What we are trying to ask you is what would preclude you from raising this point later?                                                                                                                                                                                                                                     |
| Mr. Garrett      | Your honor, I think what would happen and what has happened so far in the draft, which may happen when the County if they approve the project and certify the final, is they assume the 35 percent "Conservation Required" in 2020 from all 70,000 users is a given – is a touchstone which they, the County, can't review. |
| Justice O'Rourke | It's not – that doesn't answer the question. What precludes you from raising these issues later?                                                                                                                                                                                                                            |
| Mr. Garrett      | Well the standard – in a CEQA case, you weigh the information, and the question is, was the County's decision supported by substantial evidence.                                                                                                                                                                            |
| Justice O'Rourke | Can't you say the information provided by the water district is spurious and not credible and below the proven needs of the users? Can't you say that later? Our concern is this – that you're seeking a premature decision or should be say the advisory opinion from this court.                                          |
| Mr. Garrett      | Yes.                                                                                                                                                                                                                                                                                                                        |
| Justice O'Rourke | That's where we are getting at.                                                                                                                                                                                                                                                                                             |
| Justice Nares    | That's really the heart of our concern.                                                                                                                                                                                                                                                                                     |
| Mr. Garrett      | Yes. Understood. And in most cases, the water supply assessment is just information but what I'm saying here is that the County – there is a decision buried in here which the County is not reviewing.                                                                                                                     |
| Justice O'Rourke | But if the County won't let you raise the point, you come here on a writ, can't you?                                                                                                                                                                                                                                        |
| Mr. Garrett      | Yes.                                                                                                                                                                                                                                                                                                                        |
| Justice Haller   | Or you can come here and (inaudible) about what they did based on that.                                                                                                                                                                                                                                                     |
| Mr. Garrett      | And we will attempt to raise as much as we can.                                                                                                                                                                                                                                                                             |
| Justice Haller   | And you can challenge the EIR on that basis as well, can you not?                                                                                                                                                                                                                                                           |
| Mr. Garrett      | Well, we can challenge the EIR, and what I would like to example is that it's not clear what we will have same ability to challenge this decision                                                                                                                                                                           |

| <u>Speaker</u>   | <u>Dialogue</u>                                                                                                                                                                                                                                                                                                                                                      |
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|                  | that's embedded in this WSA in the CEQA process or in the Water Supply Verification process.                                                                                                                                                                                                                                                                         |
| Justice Haller   | We have 90 days after that is adopted. Do you know?                                                                                                                                                                                                                                                                                                                  |
| Mr. Garrett      | We can file the actions. We can file the lawsuits. But it's – what the issue is, is whether the County's decision that there was enough water for the project, is it supported by substantial evidence. So in that situation, the court is looking to see if there is evidence there. They are not weighing the evidence.                                            |
|                  | The County doesn't sit – as counsel for the County said in the trial court hearing, it doesn't sit as a super legislature. So the County is not reviewing and saying, was that a wise decision by the District to order that 35% cut back.                                                                                                                           |
| Justice Haller   | But –                                                                                                                                                                                                                                                                                                                                                                |
| Justice O'Rourke | But if you want an advisory opinion from us that it's not enough water, so that when you want to challenge everything down the road, you can point to our decision. It's a judicial determination of your point.                                                                                                                                                     |
| Mr. Garrett      | Well, let me put it this –                                                                                                                                                                                                                                                                                                                                           |
| Justice O'Rourke | I'm not sure we are equipped to give you that at this juncture, or at any juncture.                                                                                                                                                                                                                                                                                  |
| Mr. Garrett      | We're not – I'm not asking for a judicial decision that there is not enough water. What I'm asking for is the judicial decision that our first amended complaint stated a cause of action that embedded in the WSA was a decision by the District which was an invalid decision to order –                                                                           |
| Justice O'Rourke | It amounts to the same thing though doesn't it?                                                                                                                                                                                                                                                                                                                      |
| Mr. Garrett      | No, I don't – with all due respect your honor –                                                                                                                                                                                                                                                                                                                      |
| Justice O'Rourke | But you've got it nicely packaged and tight in the (inaudible) but that's basically what you are asking for counsel.                                                                                                                                                                                                                                                 |
| Mr. Garrett      | Well, I have searched and I have never found in a CEQA case, a situation where a lead agency like the County looks at a decision that one of the advisory decisions had made and says that is an incorrect legal decision; we the County sitting as the super legislature rule that that ordered 35% cutback which makes the books balanced that that was an invalid |

| <u>Speaker</u>   | <u>Dialogue</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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|                  | cutback because it conflicted with the District's Urban Water Management Plan.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Justice O'Rourke | It doesn't sound like very good water management from what you are portraying to build a subdivision and users that you can't support. South Africa now has a couple of cities undergoing similar problems with this very moment of running out of water.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Mr. Garrett      | And your honor, we do have a process in place and ordinarily, the process works. What happened here was embedded in the decision-making. First, it was a water supply verification. I mean, literally, the same words and we could challenge and the statute very clearly said we can sue can challenge that water supply verification and we did. That was how this case started. No one disagreed when we first filed our lawsuit against exactly those same words that we had a cause of action and that we were entitled to bring it because the Legislature specifically said there was a 90-day statute of limitations for the water supply verification. The label was changed. They changed it to water supply assessment. If they changed it to district resolution or district ordinance, I believe you would agree that we have a cause of action to say that ordinance is invalid because it conflicts with the Urban Water Management Plan. |
| Justice Haller   | So, you are saying that we should look below the surface so to speak and call it for what it is?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Mr. Garrett      | I think in this situation when you are looking at a demurrer and we pled it with a great deal of specificity, we pled –                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Justice O'Rourke | Can you allege that they are involved in a deceptive scheme by changing the labeling? What if you alleged it was –                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Mr. Garrett      | The only – what we alleged was that it word for word the same. They changed the label. And the only explanation given in the preceding was that they wanted to avoid costly litigation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Justice Haller   | Wait – what they did was they invalidated the WSV. It's not as if they changed labels. They have the right – the WSA can be filed at – the verification plan can be filed either with the EIR at the same time at that or at a later proceeding.<br><br>They initially filed them together, then when this litigation occurred, they decided we are not going to fight that battle right now. So they                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

| <u>Speaker</u> | <u>Dialogue</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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|                | therefore, invalidated that. So what's before us only is the WSA, which will become a part of the EIR.                                                                                                                                                                                                                                                                                                                                                                                                       |
| Mr. Garrett    | Your honor, I don't think we disagree. I just do want to say that the facts are that there was a single document. The heading was WSA/WSV. And that's what we sued on. And that – at that time everyone agreed that was a valid lawsuit. After our lawsuit was filed, the exact – this is what we pled – I mean, this is – I'm not making this up from – the exact same document was approved. But the title was changed and one footnote was changed. That's what we pled. That was the demurrer that the – |
| Justice Haller | I think all of us have great concern over your concern about the water. Your biggest issue here is whether you are just premature as we have been trying to discuss with you.                                                                                                                                                                                                                                                                                                                                |
| Mr. Garrett    | Right, and let me just – again, I'd rather answer your questions than say anything, but to go back to the question about WSA, I agree – normally, it would be premature. We just have an unusual fact pattern here which was decided on demurrer and I believe –                                                                                                                                                                                                                                             |
| Justice Nares  | Have you seen this fact pattern in any other water case?                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Mr. Garrett    | No, I haven't.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Justice Haller | So, you don't think the water case out of Los Angeles – really, yours is virtually on point?                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Mr. Garrett    | No, I don't because in that situation and C-WIN there was no –                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Justice Haller | Factual difference.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Mr. Garrett    | There was no allegation that the District – it was actually the city in approving the water supply assessment – was changing – was making a decision about that would affect all 70,000 users like requiring them to cut back. And in C-WIN, there was no argument that the water supply assessment conflicted with the Urban Water Management Plan. So, I mean, to us, those are two distinguishing things.                                                                                                 |
| Justice Haller | I think – the time for you to address the WSA is in connection with the EIR –                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Mr. Garrett    | Right.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

| <u>Speaker</u>   | <u>Dialogue</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
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| Justice Haller   | And the time to address the W – water verification is at the point in time when final approval is being given and you have complete rights to be able to do that.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Mr. Garrett      | I agree with everything you said. I don't disagree with any of that except in the last sentence, the last phrase that you used, the nuances – if you look at the standard of review that is court or the trial court would apply, in looking at the County's decision to certify the EIR, the standard of decision there does not allow the court – first of all, the water district is not a party to that proceeding. So, the court does not have jurisdiction to say that the District acted improperly in making a decision in within that WSA.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Justice O'Rourke | They have the power to say there's not enough water.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Mr. Garrett      | Yes they do.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Justice O'Rourke | Based on the record.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Mr. Garrett      | Let me give you a counterfactual.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Justice O'Rourke | Done that many times at the court haven't we?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Mr. Garrett      | <p>I would submit that if the District had adopted an ordinance that said, we've decided to cut things back. We are going cut thing things back by 35 percent. You know, our books don't balance right now. We are the only District in the state where they don't balance. We have this huge – we're going to change that and we are going to force all the District residents to cut back by that amount.</p> <p>Just assume that happened and assume it was supported by substantial evidence and they had details about how they were going to do that. And then they adopted this WSA, I'd be out of luck. Because at that point, there would be evidence in the record that the District had made a decision that justified that departure from the Urban Water Management Plan. So, for in that situation, I have no cause of action against the County for saying you were wrong when you said there was not enough – there was sufficient water because the County relied upon a District decision that all the users were going to be forced to cut back by 35 percent.</p> <p>So, it's that decision which I don't – I believe under the standard of review under CEQA, it's not clear that we'll be able to raise that issue, that legal issue. And again, the court –</p> |

| <u>Speaker</u> | <u>Dialogue</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
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| Justice Haller | Counsel, you may want to be careful about certain statements you're making today because they may come back to bite you in the CEQA.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Mr. Garrett    | May come back to haunt me. Right – well, that's true. But I imagine that the court will rule what the appropriate way is on the law regardless of what I say today. And I'll have to act upon that. And at least I will know that I did not fail to sue when I needed to sue.<br><br>So I would say that. And again I would say secondly, we have the problem of the – what standard of review for the County to use and in this situation, we have the facts shown in our request for judicial notice where the County did except the District's decision to cut back. I mean, an integral part of their discussion about the water and the draft EIR is – this all makes sense. There will be these cutbacks. The District has said they will cause these cutbacks to take place. And unless, in a challenge that EIR, it is certain that my client can say, that assumption about that District decision is an incorrect decision. You the County should have looked beyond that and weighed whether that was the correct policy decision by the District or the correct legal decision by the District. Then, it's very difficult to say that the County's made a mistake. |
| Justice Haller | Well we'll see what the public has to say during the public period.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Mr. Garrett    | I neglected to save any time for rebuttal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Justice Nares  | You may save time for rebuttal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Mr. Garrett    | Thank you.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Justice Nares  | Everybody is going to be heard.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Mr. Garrett    | Okay. Thank you.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Mr. Hubbard    | Good afternoon. My name is David Hubbard. I will be speaking on the behalf of Newland Sierra. I'm not sure if counsel for the County or the water district intends to make a presentation. I think they are available to answer questions of the panel.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Justice Nares  | And who do you represent?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Mr. Hubbard    | I represent Newland Sierra.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Justice Nares  | Okay.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

| <u>Speaker</u> | <u>Dialogue</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
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| Mr. Hubbard    | <p>Real Party in Interest. I'd really just like to make couple of quick points. The trial court properly followed the very clear directions that are provided in the C-WIN case. And in that case, the court held as a matter of law, a WSA is not a decisional document. It's not a final document that represents an action by the water district. It is informational only. The court even likened it to technical report that gets attached to an EIR. And for that reason, the court in C-WIN determined as a matter of law, the time and place to challenge anything associated with the WSA is during the CEQA process: make your comments known to lead agency, exhaust your administrative remedies, and if you are not happy with the result from the CEQA process, then you go and file a petition for writ of mandate in the superior court, and you can challenge the WSA at that point. As to – and that's what the court held, and that's what should happen in this case, and there is no prejudice to anyone here. No argument that Golden Door would like to make, no remedy that they would seek is foreclosed by letting the CEQA process run its course and then giving them the opportunity to sue at that point.</p> <p>But there is another issue that has gotten somewhat lost here. And that is Golden Door has yet another opportunity to challenge the WSA and that's through Government Code 66473.7 subdivision o. And what happens under that provision is that any member of the public that does not agree with the sufficiency of the water verification that the water district must issue before Newland Sierra can turn any dirt on their project at all, any person who is upset, doesn't agree with it, doesn't believe that the grounds on which the water verification was issued are sound, they can within 90 days to challenge it.</p> <p>Both of those remedies remain open for Golden Door. But we are just not there yet. The CEQA process has to complete itself. The County has to decide whether they want to approve this project at all. They may not. And if they decide to deny the project, all this goes away. But if they approve the project, still nothing can happen at Newland Sierra until they get their project specific water verification from the water district.</p> <p>And once that water verification is issued, Golden Door or any other person who wants to challenge it has ninety days to do so. And all of those issues about how the conservation requirements might be imposed or what – who's going to be affected by them, all of those things can be adjusted at that time.</p> <p>Again we're just not there yet. So, the fundamental point is that the demurrer takes nothing away from Golden Door. They lose nothing by it. All it requires is that they await the final decision from the County</p> |

| <u>Speaker</u> | <u>Dialogue</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
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|                | and the water district. I'm happy to answer any questions you might have.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Justice Nares  | Apparently none. Thank you.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Mr. Hubbard    | Thank you.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Justice Nares  | Anyone else wish to be heard? Just a second. Okay. Then, you may close.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Mr. Garrett    | <p>One thing that counsel just said is that after the EIR is finished, we can challenge the WSA at that time. That's actually not a correct statement. Again, the form of action is we can sue the County and we can say the County made the wrong decision in certifying the EIR and made the wrong decision because its decision wasn't supported by substantial evidence on certain issues, on water for whatever example. We cannot sue to overturn the WSA. There is no remedy for that. It's not provided under CEQA. It's not provided under the Water Code. The water district is not a party. So the WSA is a document that what was adopted in November of 2016 will stand regardless of what happens in CEQA.</p> <p>That's also true under the water supply verification process. And again, as we pled, that document embodies a present decision by the District – a decision at that time in 2016 to cut us all back by 35 percent – “Conservation Required.” Again, that's what we pled. And we believe that to be the case.</p> <p>We already here are facing the 35 percent cutback and neither the CEQA remedy nor the WSV remedy will allow us to overturn that decision. We literally have no other forum where the District will be a party. Where we can adjudicate the merits of the decision that is located there.</p> <p>The other thing I wanted to mention is that in the WSV process, the Legislature specifies that the WSA is substantial evidence. So, when we get to the WSV process, if you reject my lawsuit today and the – goes forward and the WSV can happen at any time whether or not the EIR is certified or not certified, the first thing is that the WSA is substantial evidence.</p> <p>Is the court in that situation in reviewing a WSV allowed to pierce that evidence and go behind it and say, we're going to go back several years to 2016 and decide that the WSA was wrongly taken and the conservation decision made in that WSA was wrongly decided by that</p> |

| <u>Speaker</u>   | <u>Dialogue</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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|                  | District for various legal reasons under the Water Code or the Urban Water Management Plan?                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                  | Again, I don't believe that the statute makes that clear at that time. We will make that argument if our lawsuit is rejected here but I would submit to the court that we run a substantial risk of not being able to overturn that decision and being faced with a substantial evidence review with the WSA that embodies decisions, and the court is going to say that was a policy decision by the District so we can't disregard that. The other question is what happens –                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Justice O'Rourke | You've made your record for a due process argument down the road haven't you –                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Mr. Garrett      | Well, I would love –                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Justice O'Rourke | – for the hearing you are entitled to.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Mr. Garrett      | I would love to say that due process applies to every legal challenge to every project but there are times when there are not remedies or you have to choose the right remedy, and if you don't pick the right remedy, you're out of luck. The last thing I wanted to say was that what happens if the project is rejected? What if the County says, no we're not going to approve the project for some other reason. What if the WSV isn't approved? The WSA still stands. It still embodies this cutback by 35%, and what are we to think? The District now decided that all 70,000 of us must cut back, and we don't have the water up to 2035, and this water is being saved, if you will, for new development and the existing users have to cutback.<br><br>Now that maybe a great policy decision by the District, but I submit its a policy decision that has to be made by the District via an ordinance, a resolution, and if they make that decision, it needs to be consistent with the Urban Water Management Plan. And, so we have no remedy in that situation either. Thank you. |
| Justice Nares    | Thank you very much. Thank you, the matter is submitted.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

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April 11, 2018

**VIA EMAIL AND U.S. MAIL**

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San Diego, CA 92123

Re: Newland Sierra (Log No. PDS2015-ER-15-08-001; SCH No. 2015021036, Project Numbers: PDS2015-GPA-15-001, PDS2015-SP-15-001, PDS2015-REZ-15-001, PDS2015-TM-5597, PDSXXXX-HLP-XXX) – Transmittal of Report by Megan Jennings, Ph. D., re Biological Resource Planning with Respect to the Newland Sierra Project

Dear Ms. Smith:

As you know, we represent Golden Door Properties, LLC (“Golden Door”), a world-class resort and agricultural operation in rural Twin Oaks Valley. The Golden Door has restored farming and beekeeping on its property, including the replanting of many new trees on the property—sharing its bounty at a community Farm Stand and through retail operations. The Golden Door has raised many concerns with the County about the proposed Newland Sierra Project and the impacts of adding urban density the size of the City of Del Mar in our rural community.

We write today with particular respect to the Project’s biological resources analysis. The Golden Door and expert biologist Megan Jennings, Ph. D., have previously raised concerns regarding the Project’s impacts on wildlife connectivity and habitat fragmentation, and have provided comments to the County describing the draft environmental impact report’s (“DEIR”) flaws in analyzing these impacts. Attached is an additional report from Dr. Jennings supplementing prior comments. This report discusses the interrelation of wildfire risk and cumulative development projects to the proposed Project’s biological impacts. In particular, her report discusses the need for corridor redundancy as part of sound biological planning.

**LATHAM & WATKINS** LLP

Please consider this report as part of the record for the Newland Project. Thank you for your time and attention to our comments. Please do not hesitate to contact us should you have any questions or comments.

Best regards,

*Andrew D. Yancey*

Andrew D. Yancey  
of LATHAM & WATKINS LLP

cc: Kathy Van Ness, Golden Door  
County Board of Supervisors  
County Planning Commission  
Darin Neufeld, County Planning and Development Services  
Mark Slovick, County Planning and Development Services  
William W. Witt, Office of County Counsel  
Claudia Silva, Office of County Counsel  
Dan Silver, Endangered Habitats League  
George Courser, Sierra Club  
Duncan McFetridge, Cleveland National Forest Foundation  
Stephanie Saathoff, Clay Co.  
Denise Price, Clay Co.  
Chris Garrett, Latham & Watkins

Attachment

# **Effects of Wildfire on Wildlife and Connectivity**

*Prepared by: Megan K. Jennings, Ph.D.*

January 23, 2018

## **Introduction**

In southern California, where human impacts from development are limiting habitat connectivity for wide-ranging vertebrate species, fire is a disturbance regime that may also fragment habitats, further impacting those species. Although fire is a natural process in the southwestern U.S., increasing human development near open spaces has led to unnatural fire regimes with increased fire starts and an increased potential for vegetation-type conversion as a result. In the biodiversity hotspot of southern California, many studies have focused on the effects of urbanization and landscape fragmentation on wildlife. However, there has been relatively little attention to how human-mediated landscape fragmentation may influence natural disturbance processes, like wildfire, and how these synergistic disturbances impact wildlife populations.

Both fire frequency and size are increasing in southern California and are correlated with increasing anthropogenic development and human population growth in the region (Syphard et al. 2007, 2009). These studies suggest that at high human population densities, fire is eliminated from the ecosystem when contiguous vegetation necessary to carry fire is broken up by asphalt, concrete, and buildings. However, at intermediate human densities, housing developments and roadways are a source of increased fire ignitions which then spread into wildlands (Syphard et al. 2007, 2009). Both scenarios (too little fire, too frequent fire) present potential threats for species and community dynamics in southern California as shifts in the natural fire regime, coupled with increasing habitat fragmentation, have the potential to impact wildlife populations, communities, and entire ecosystems. In the highly urbanized landscape of southern California, long-term impacts such as habitat fragmentation and loss and shifts in disturbance regimes like the natural fire cycles, have resulted in persistent landscape changes (Syphard et al. 2009).

This report focuses on the impacts to wildlife connectivity posed by the proposed Newland Sierra project in the context of wildfires and the need for corridor redundancy. The Newland Sierra project proposes to build more than 2,100 homes on the I-15 corridor in the unincorporated portion of San Diego County between Escondido and Temecula. The project would be located in the area proposed for the North County Multiple Species Conservation Program (NCMSCP) on a site that has been identified as pre-approved mitigation area (PAMA).

As described in my previous reports (Jennings 2017a, 2017b), this project poses risks to wildlife connectivity in the area and could compromise overall design objectives of the NCMSCP. The proposed Newland Sierra project will significantly affect high quality core habitat and wildlife movement for both more common and sensitive and protected species to a degree that is not mitigated by the project design. The proposed project will have long-term direct and indirect impacts on wildlife from roadways, increased human activity, edge effects, human activity, and increasing fire frequency on wildlife movement. Due to the risks of wildfire and the numerous cumulative projects proposed along the I-15 corridor in northern San Diego County and southern Riverside County, it is particularly important to account for corridor redundancy in considering the Newland Sierra project. Regional connectivity plans must provide corridor redundancy to serve the range of species that may need to move between patches of habitat (Pinto and Keitt

2009, McRae et al. 2012), and to buffer against landscape disturbances, such as wildfires (Mcrae et al. 2008, McRae et al. 2012, Cushman et al. 2013, Olson and Burnett 2013). The biological analysis in the project's draft environmental impact report lacked sufficient consideration of these issues.

### **Impacts of Wildfires and Shifting Fire Frequencies on Wildlife**

Disturbances that occur at large spatial scales, such as Santa Ana wind-driven fires in southern California, like the recent Lilac Fire in San Diego County, are most likely to change landscape configuration, or pattern, which can lead to change in resource availability, environmental features, and corresponding responses in the structure of populations and communities, all key metrics to landscape integrity (Sousa 1984, Pickett and White 1985, Fraterrigo and Rusak 2008, Turner 2010). Large-scale landscape changes, particularly fragmentation (Gardner et al. 1993), have been shown to alter biotic interactions, and lead to a loss of connectivity evidenced by a decline in dispersal, reduced survival rates (Riley et al. 2003), and limited gene flow (Riley et al. 2006). In southern California, the two disturbances that overlap and interact, fire and human development, are the predominant drivers of the landscape. In this region, empirical evidence suggests a shift is underway in the disturbance regime (Keeley and Fotheringham 2003, Safford and Van de Water 2014).

Shifts in fire regime typically involve changes to fire intensity, size, frequency, type, seasonality, and severity (Flannigan et al. 2000). Fire-return intervals, the average time between two fire events, in the shrubland habitats like the areas where the Lilac Fire occurred and the Newland-Sierra development is proposed were historically 30 to 100 years. In similar areas of the County, fires are 33% more frequent now than pre-settlement, due in large part to increased development and roadways (Figure 1; Keeley et al. 1999, Safford and Van de Water 2014). This shifting disturbance regime with shortened intervals between fires interrupts the successional cycle, reduces plant diversity, and results in vegetation and habitat type change to non-native and grass dominated landscapes (Keeley 2005), reducing habitat suitability and connectivity for species dependent on intact shrubland landscape. Shifting weather patterns resulting from climate change may also contribute to the alteration of fire regimes in southern California. Climate models predict that temperatures will increase and humidity will decrease (Miller and Schlegel 2006). Under these conditions, Santa Ana winds, the hot, dry winds from the deserts in the east, may occur more often and later in the season when fuels loads are highest (Miller and Schlegel 2006, Guzman-Morales et al. 2016). The concurrent disturbances of expanding human development and a shifting climate may alter how fire structures the landscape. Extensive development, particularly in exurban areas, results in increases in human-caused ignitions and fires of large spatial extents (Syphard and Keeley 2015), as well as an overall increase in fire threat (Figure 2), which can have long-lasting impacts on the landscape and wildlife habitat.

Many wildlife species that occur in the Mediterranean-type ecosystems of southern California have adapted to wildfires. Wildlife exhibit differential responses to wildfires depending on the availability of refugia and species' mobility, which determine their susceptibility to impacts from the direct effects of the fire. Habitat and diet breadth, population size and growth rates, as well as landscape connectivity can affect post-fire colonization and overall resilience to these types of stochastic events. While some research efforts in southern California have taken advantage of the

natural experiment presented by San Diego's 2003 and 2007 wildfires to gather information about bird (Mendelsohn et al. 2008), small mammal (Brehme et al. 2011, Diffendorfer et al. 2012), large mammal (Schuette et al. 2014), and herpetofauna (Rochester et al. 2010) responses to wildfire, there is much to learn about individual- and population-level responses, in particular as it relates to increasing fire frequency. Linking the effects of shifting fire regimes on wildlife where frequent fire may result in vegetation type conversion from shrublands to grass-dominated habitats (Keeley 2005, Keeley and Brennan 2012) is a significant challenge. There is evidence of the effect of increasing fire frequency on some species, such as the iconic coastal sage scrub species, the threatened California gnatcatcher (*Polioptila californica californica*). Already challenged by habitat loss and fragmentation in the coastal regions of southern California, frequent fires have degraded habitat for the gnatcatcher (Winchell and Doherty 2014) as California sagebrush (*Artemisia californica*), laurel sumac (*Malosma laurina*), and white sage (*Salvia apiana*), key habitat elements for the bird, have been replaced by non-native annual grasses in areas that have experienced repeated fires. Habitat specialists and small species are not the only ones subject to the impacts of increasing fire frequency. Despite the fact that mountain lions (*Puma concolor*) are highly mobile and able to move away from fires, the species is potentially at risk from vegetation-type conversion to non-native annual grasslands (Jennings et al. 2016). Although this species may tolerate grasslands when moving between habitats (Zeller et al. 2014), habitat fragmentation between San Diego County and the Santa Ana Mountains to the north has limited gene flow and resulted in inbreeding for the southern California population (Ernest et al. 2014), a situation which further habitat degradation, particularly as a result of increasing fire frequency, could worsen.

### **Wildfire and Connectivity**

Habitat connectivity is essential to climate-smart landscape strategies (Heller and Zavaleta 2009) and strengthens ecosystem resilience to additional stressors such as habitat fragmentation (Beier and Gregory 2012), and other disturbances, e.g., fire and disease (Noss 1991, Hilty et al. 2006). Across much of southern California, the state's Natural Community Conservation Planning (NCCP) program and the federal Habitat Conservation Plan (HCP) have been used to establish conservation networks to protect natural communities and prevent further habitat fragmentation (Ogden Environmental and Energy Services 1996, Riverside County 2003). Although the direct effects of anthropogenic landscape alteration, namely habitat loss and fragmentation, are paramount in this region (Soulé 1991, Crooks 2002, Beier et al. 2006), the indirect effects of intense human development such as changing patterns of natural disturbance regimes, e.g. wildfire, may present an equally large risk to landscape integrity. As human populations in southern California have grown dramatically over the last century, particularly in coastal areas, short fire-return intervals paired with habitat fragmentation, may have synergistic and long-term impacts on landscape connectivity that present a formidable conservation challenge. Given that these disturbances exert measurable impacts individually (Lindenmayer et al. 2008, Turner 2010), it is likely that the synergistic effects of shifting disturbance regimes and fragmentation present a serious threat to landscape connectivity (Turner 2010).

Given the importance of landscape connectivity to ensuring population viability and persistence, accurate assessments of physical and functional connectivity are critical. Dynamic landscape processes, like wildfires, may impede movement for many species in the short-term, but an altered fire regime may permanently alter landscape linkages. In particular, shifting disturbance

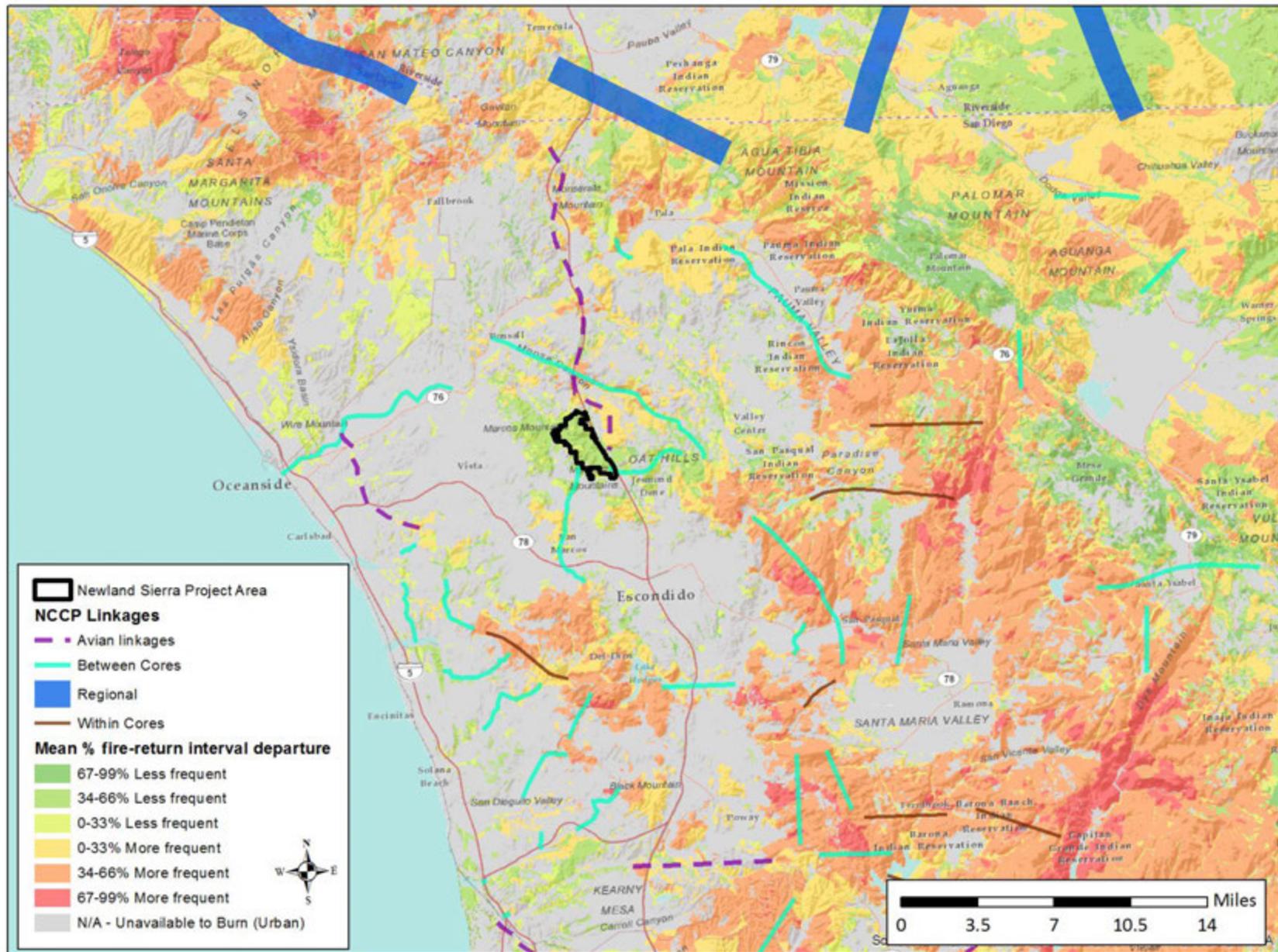
regimes, like the increase in fire frequency and size reported in southern California, may have synergistic impacts that erode landscape connectivity if efforts are not made to buffer the number or impacts of fire on landscape linkages. New approaches to identifying factors that impair physical and functional connectivity are needed to develop mitigation strategies to maintain landscape connectivity if urbanization is considered on fire-frequent landscapes, with a particular focus on the coastal areas that are most impacted by development, and foothills and valleys where the wildland-urban interface is most at risk for increases in fire frequencies and consequential type conversion.

Building resilience into these networks of conserved lands can be approached from two perspectives: 1) reducing ignitions in fire-prone areas, and 2) account for these altered disturbance dynamics in conservation planning efforts like the Draft NCMSCP. Robust measures to reduce ignitions should be employed. However, reducing ignitions alone is unlikely to protect San Diego County's open spaces from fire and must be paired with complementary approaches to provide for habitat and connectivity when fires do occur. This includes planning for redundancy in linkages connecting habitat patches (Pinto and Keitt 2009). Because a single path is unlikely to equally serve all individuals of a species, let alone all potential species that may need to move between patches of habitat, multiple corridors between landscape blocks are often necessary (Pinto and Keitt 2009, McRae et al. 2012). Furthermore, this redundancy can also buffer against uncertainty and dynamic processes, particularly disturbances, on the landscape (Mcrae et al. 2008, McRae et al. 2012, Cushman et al. 2013, Olson and Burnett 2013). As discussed in my previous comments on the Newland Sierra draft environmental impact report, the project's biological analysis is deficient in its consideration of corridor redundancy. Threats to wildlife connectivity from wildfire emphasize the need to consider corridor redundancy with respect to Newland Sierra and the NCMSCP.

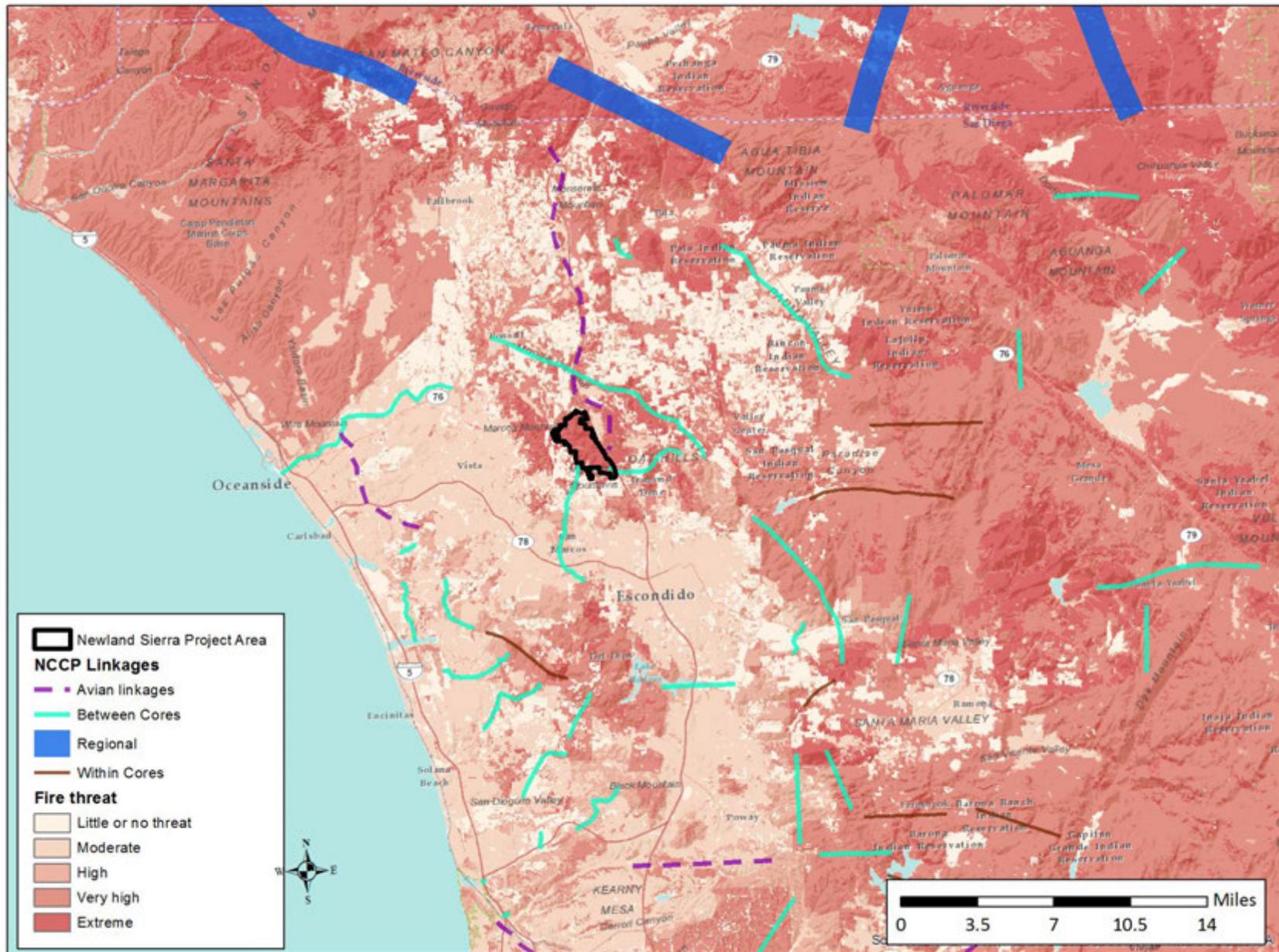
Furthermore, the assessment of connectivity and redundancy to provide for wildlife movement under a variety of conditions must be conducted at a regional scale. For San Diego County, this means consideration of conservation planning efforts and acquisitions as well as development projects in Orange and Riverside Counties. In particular, the Santa Ana-Palomar landscape linkage that has been identified as a critical movement corridor for many species (South Coast Wildlands 2008), most notably the mountain lion (Vickers et al. 2015), spans both San Diego and Riverside Counties and could be affected by several development projects that could limit functional connectivity in northern San Diego County.

Together with the cumulative projects proposed in this region, Newland Sierra could restrict wildlife movement in northern San Diego County as well as any opportunities to build resilience into a regional connectivity plan by providing for corridor redundancy. The Merriam Mountains area is currently one of the few shrub-dominated open spaces in San Diego County that has not experienced overly frequent wildfires which lead to increased risk of vegetation-type conversion from shrublands to non-native annual grasslands (Figure 1). Preserving a relatively intact landscape, such as the Merriam Mountains, is critical to developing a functional preserve system for the NCMSCP. However, the proposed Newland-Sierra Project's new roadways, increased traffic, homes, and increased wildland-urban edge are all known sources of fire ignitions in southern California (Syphard and Keeley 2015) that will threaten to increase the fire frequency in this area, which is already at high risk of fire due to the site's vegetation and terrain features

(Figure 2), as well as the risk of vegetation-type conversion. These same project elements will also further restrict wildlife movement in an area where movement is already constrained. The synergistic effects of restricted movement and habitat degradation caused by increasing fire frequency could greatly reduce connectivity in this region and threaten the functionality of the proposed preserve network under the NCMSCP. Figure 1 illustrates that few linkages remain in San Diego County that are not challenged by crossing urban development or areas that have burned repeatedly and are at risk for weed incursion, habitat degradation, and vegetation-type conversion. When dynamic landscape processes are considered, effective planning for landscape connectivity will require consideration of all potential projects that may affect wildlife movement as well as the synergistic disturbances that also affect landscape connectivity. The NCMSCP provides an opportunity for this type of regional wildlife connectivity planning, but individual development proposals considered in isolation and without adequately accounting for regional corridor redundancy could threaten the overall effectiveness of the planning process.



**Figure 1.** Map of fire-return interval departure (Safford and Van de Water 2014) for northern San Diego County and linkages identified in the [Management Strategic Plan Connectivity documents](#) for San Diego’s NCCP areas.



**Figure 2.** Map of fire threat for northern San Diego County as classified by [California’s Fire and Resource Assessment Program](#) and linkages identified in the [Management Strategic Plan Connectivity documents](#) for San Diego’s NCCP areas.

## References

- Beier, P., and A. J. Gregory. 2012. Desperately seeking stable 50-year-old landscapes with patches and long, wide corridors. *PLoS Biology* 10.
- Beier, P., K. Penrod, C. Luke, W. Spencer, and C. Cabañero. 2006. South Coast missing linkages: restoring connectivity to wildlands in the largest metropolitan area in the United States. Pages 555–586 in K. R. Crooks and M. A. Sanjayan, editors. *Connectivity conservation*. Cambridge University Press, Cambridge.
- Brehme, C. S., D. R. Clark, C. J. Rochester, and R. N. Fisher. 2011. Wildfires alter rodent community structure across four vegetation types in southern California, USA. *Fire Ecology* 7:81–98.
- Crooks, K. R. 2002. Relative sensitivities of mammalian carnivores to habitat fragmentation. *Conservation Biology* 16:488–502.
- Cushman, S. A., B. Mcrae, F. Adriaensen, P. Beier, M. Shirley, and K. Zeller. 2013. Biological corridors and connectivity. Pages 384–404 in D. W. Macdonald and K. J. Willis, editors. *Key Topics in Conservation Biology 2*. First edition. John Wiley & Sons, Ltd.
- Diffendorfer, J., G. M. Fleming, S. Tremor, W. Spencer, and J. L. Beyers. 2012. The role of fire severity, distance from fire perimeter and vegetation on post-fire recovery of small-mammal communities in chaparral. *International Journal of Wildland Fire* 21:436–448.
- Ernest, H. B., T. W. Vickers, S. A. Morrison, M. R. Buchalski, and W. M. Boyce. 2014. Fractured Genetic Connectivity Threatens a Southern California Puma (*Puma concolor*) Population. *PLoS One* 9.
- Flannigan, M. ., B. . Stocks, and B. . Wotton. 2000. Climate change and forest fires. *Science of The Total Environment* 262:221–229.
- Fraterrigo, J. M., and J. A. Rusak. 2008. Disturbance-driven changes in the variability of ecological patterns and processes. *Ecology Letters* 11:756-770.
- Gardner, R. ., R. V. O'Neill, and M. G. Turner. 1993. Ecological implications of landscape fragmentation. Pages 208–226 in S. T. A. Pickett and M. J. McDonnell, editors. *Humans as components of ecosystems: subtle human effects and the ecology of populated areas*. Springer-Verlag, New York.
- Guzman-Morales, J., A. Gershunov, J. Theiss, H. Li, and D. Cayan. 2016. Santa Ana Winds of Southern California: Their climatology, extremes, and behavior spanning six and a half decades. *Geophysical Research Letters* 43:2827–2834.
- Heller, N. E., and E. S. Zavaleta. 2009. Biodiversity management in the face of climate change: A review of 22 years of recommendations. *Biological Conservation* 142:14–32.
- Hilty, J. A., W. Z. Lidicker, and A. M. Merenlender. 2006. *Corridor ecology : the science and practice of linking landscapes for biodiversity conservation*. Island Press.

- Jennings, M. K. 2017a. Landscape Connectivity Issue Review, Newland Sierra June 2017 DEIR. 1 August 2017. 25pp. Technical Report.
- Jennings, M. K. 2017b. Merriam Mountains Wildlife Connectivity Review. 18 April 2017. 14pp. Technical Report.
- Jennings, M. K., R. L. Lewison, T. W. Vickers, and W. M. Boyce. 2016. Puma response to the effects of fire and urbanization. *The Journal of Wildlife Management* 80:221–234.
- Keeley, J. E. 2005. Fire as a threat to biodiversity in fire-type shrublands. USDA Forest Service General Technical Report PSW-GTR-195.
- Keeley, J. E., and T. J. Brennan. 2012. Fire-driven alien invasion in a fire-adapted ecosystem. *Oecologia* 169:1043–1052.
- Keeley, J. E., and C. J. Fotheringham. 2003. Impact of past, present, and future fire regimes on North American Mediterranean shrublands. Pages 218–262 *in* T. T. Veblen, W. L. Baker, G. Montenegro, and T. W. Swetnam, editors. *Fire and climatic change in temperate ecosystems of the western Americas*. Springer-Verlag, New York.
- Keeley, J. E., C. J. Fotheringham, and M. Morais. 1999. Reexamining Fire Suppression Impacts on Brushland Fire Regimes. *Science* 284:1829–1832.
- Lindenmayer, D., R. J. Hobbs, R. Montague-Drake, J. Alexandra, A. Bennett, M. Burgman, P. Cale, A. Calhoun, V. Cramer, P. Cullen, D. Driscoll, L. Fahrig, J. Fischer, J. Franklin, Y. Haila, M. Hunter, P. Gibbons, S. Lake, G. Luck, C. MacGregor, S. McIntyre, R. Mac Nally, A. Manning, J. Miller, H. Mooney, R. Noss, H. Possingham, D. Saunders, F. Schmiegelow, M. Scott, D. Simberloff, T. Sisk, G. Tabor, B. Walker, J. Wiens, J. Woinarski, and E. Zavaleta. 2008. A checklist for ecological management of landscapes for conservation. *Ecology Letters* 11:78–91.
- McRae, B. H., B. G. Dickson, T. H. Keitt, V. B. Shah, B. H. Mcrae, B. G. Dickson, T. H. Keitt, and V. B. Shah. 2008. Using Circuit Theory to Model Connectivity in Ecology, Evolution, and Conservation. *Ecology* 89:2712–2724.
- McRae, B. H., S. A. Hall, P. Beier, and D. M. Theobald. 2012. Where to Restore Ecological Connectivity? Detecting Barriers and Quantifying Restoration Benefits. *PLoS ONE* 7:e52604.
- Mendelsohn, M. B., C. S. Brehme, C. J. Rochester, D. C. Stokes, S. A. Hathaway, and R. N. Fisher. 2008. Responses in bird communities to wildland fires in southern California. *Fire Ecology Special Issue* 4.
- Miller, N. L., and N. J. Schlegel. 2006. Climate change projected fire weather sensitivity: California Santa Ana wind occurrence. *Geophysical Research Letters* 33.
- Noss, R. F. 1991. Landscape connectivity: different functions at different scales. Pages 27–39 *in* W. E. Hudson, editor. *Landscape linkages and biodiversity*. Island Press.
- Ogden Environmental and Energy Services. 1996. Biological Monitoring Plan for the Multiple

Species Conservation Plan. San Diego, CA.

- Olson, D. H., and K. M. Burnett. 2013. Geometry of forest landscape connectivity: Pathways for persistence. USDA Forest Service - General Technical Report PNW-GTR:220–238.
- Pickett, S. T. A., and P. S. White. 1985. The Ecology of Natural Disturbance and Patch Dynamics. Page The Ecology of Natural Disturbance and Patch Dynamics.
- Pinto, N., and T. H. Keitt. 2009. Beyond the least-cost path: Evaluating corridor redundancy using a graph-theoretic approach. *Landscape Ecology* 24:253–266.
- Riley, S. P. D., J. P. Pollinger, R. M. Sauvajot, E. C. York, C. Bromley, T. K. Fuller, and R. K. Wayne. 2006. A southern California freeway is a physical and social barrier to gene flow in carnivores. *Molecular Ecology* 15:1733–1741.
- Riley, S. P. D., R. M. Sauvajot, T. K. Fuller, E. C. York, D. A. Kamradt, C. Bromley, and R. K. Wayne. 2003. Effects of urbanization and habitat fragmentation on bobcats and coyotes in southern California. *Conservation Biology* 17:566–576.
- Riverside County. 2003. Western Riverside Multiple Species Habitat Conservation Plan Documents.
- Rochester, C. J., C. S. Brehme, D. R. Clark, D. C. Stokes, S. A. Hathaway, and R. N. Fisher. 2010. Reptile and Amphibian Responses to Large-Scale Wildfires in Southern California. *Journal of Herpetology* 44:333–351.
- Safford, H. D., and K. M. Van de Water. 2014. Using Fire Return Interval Departure (FRID) analysis to map spatial and temporal changes in fire frequency on National Forest lands in California. Pacific Southwest Research Station - Research Paper PSW-RP-266:1–59.
- Schuette, P. A., J. E. Diffendorfer, D. H. Deutschman, S. Tremor, and W. Spencer. 2014. Carnivore distributions across chaparral habitats exposed to wildfire and rural housing in southern California. *International Journal of Wildland Fire* 23:591–600.
- Soulé, M. E. 1991. Conservation: tactics for a constant crisis. *Science* 253:744–750.
- Sousa, W. P. 1984. The Role of Disturbance in Natural Communities. *Annual Review of Ecology and Systematics* 15:353–391.
- South Coast Wildlands. 2008. South Coast Missing Linkages: A Wildland Network for the South Coast Ecoregion.
- Syphard, A. D., and J. E. Keeley. 2015. Location, timing and extent of wildfire vary by cause of ignition. *International Journal of Wildland Fire* 24:37–47.
- Syphard, A. D., V. C. Radeloff, T. J. Hawbaker, and S. I. Stewart. 2009. Conservation Threats Due to Human-Caused Increases in Fire Frequency in Mediterranean-Climate Ecosystems. *Conservation Biology* 23:758–769.
- Syphard, A. D., V. C. Radeloff, J. E. Keeley, T. J. Hawbaker, M. K. Clayton, S. I. Stewart, and R. B. Hammer. 2007. Human influence on California fire regimes. *Ecological Applications*

17:1388–1402.

Turner, M. G. 2010. Disturbance and landscape dynamics in a changing world. *Ecology* 91:2833–2849.

Vickers, T. W., J. N. Sanchez, C. K. Johnson, S. A. Morrison, R. Botta, T. Smith, B. S. Cohen, P. R. Huber, H. B. Ernest, and W. M. Boyce. 2015. Survival and mortality of pumas (*Puma concolor*) in a fragmented, urbanizing landscape. *PLoS ONE* 10.

Winchell, C. S., and P. F. Doherty. 2014. Effects of habitat quality and wildfire on occupancy dynamics of Coastal California Gnatcatcher (*Poliophtila californica californica*). *The Condor* 116:538–545.

Zeller, K. A., K. McGarigal, P. Beier, S. A. Cushman, T. W. Vickers, and W. M. Boyce. 2014. Sensitivity of landscape resistance estimates based on point selection functions to scale and behavioral state: pumas as a case study. *Landscape Ecology* 29:541–557.

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April 12, 2018

**VIA EMAIL AND U.S. MAIL**

Josh Menvielle  
Land Use/Environmental Planner  
County of San Diego  
Planning & Development Services  
5510 Overland Avenue, Suite 310  
San Diego, CA 92123

Re: County's Incomplete Response to Golden Door's Public Records Act Request Regarding the Draft NC MSCP and Newland Sierra Project Site

Dear Mr. Menvielle:

I am writing on behalf of Golden Door Properties, LLC ("Golden Door") regarding its August 8, 2017 request under the Public Records Act for records relating to the North County Multiple Species Conservation Program ("NC MSCP") and the Newland Sierra project site. We thank you for your response; however, your response appears incomplete. Several of our requests were not met, and some documents appear to have been improperly withheld or redacted. We ask that you supplement your response within 10 calendar days of the date of this letter and provide any necessary clarifications regarding the County's basis for withholding certain information.

As you know, the Golden Door opposes the Newland Sierra project and has reviewed and commented on the County's environmental documents for that project. The biological analysis in the draft environmental impact report ("DEIR") for the Newland project relies on a proposed "hardline" designation for the project site in the NC MSCP—a plan that is in draft form and has not been published, despite previous representations that the draft plan would be made publicly available by the end of 2017. In order to more fully understand the County's purported justification for this proposed "hardline" designation, the Golden Door requested information from the County under the Public Records Act. The County has repeatedly asserted that it has scientific evidence to support its characterization of the Newland project site as a "hardline" in the NC MSCP; yet, this information has not been provided to the public. The documents produced by the County in response to the Golden Door's August 8, 2017 request fail to support the County's claims and raise significant concerns about the characterization of the Newland site as a "hardline" project in the draft NC MSCP. The effect of this failure is compounded because the Newland Sierra project's DEIR relies on these unsupported claims and illusory analysis regarding the NC MSCP to make significance determinations under the California Environmental Quality Act ("CEQA").

Unless the County provides this underlying analysis and evidence as previously requested, we must conclude that the inclusion of the Newland Sierra project in the NC MSCP was the result of a political concession in favor of a developer advocating for an unapproved amendment to the General Plan and not the result of an actual, good faith, substantive planning effort based on biological principles and evidence or an objective and good faith environmental review. The absence of this evidence calls into question the veracity of the following statements made in the County's June 5, 2017 letter (from County Planning and Services Director Mark Wardlaw):

- “[I]nclusion of the Project in the Draft Plan does not, in any manner, indicate County support for the Project or provide the Project with an approval advantage.”
- “The Project’s inclusion in the Draft Plan reflects the County’s view that the Project’s proposed development footprint and open space preserve area should be considered within the conservation analysis for the Draft Plan but does not give the project any preferential treatment or eliminate any mitigation requirements.”
- “A fundamental piece of the Draft Plan will be a conservation analysis that forms the scientific basis upon which the Wildlife Agencies will base their biological opinions and findings in order to issue the County an Incidental Take Permit per the Act. The conservation analysis is currently in a working draft form that includes a preliminary analysis of potential impacts in the planning area, as well as an analysis of potential build-out of a preserve through mitigation, avoidance, and land acquisition. In order to complete this analysis, the County conducted an assessment of potential projects that are currently expected to occur within the planning area for the Draft Plan.”

Should any such evidentiary support actually exist, the County must provide it to the public and re-circulate the Newland Sierra DEIR. If no such evidentiary support exists – which would be contrary to the County’s prior public statements – the County must remove any analysis or conclusions relying upon the non-existent biological analysis in the Newland Sierra DEIR and recirculate the document.

**I. THE COUNTY HAS FAILED TO PROPERLY DISCLOSE PUBLIC RECORDS IN RESPONSE TO THE GOLDEN DOOR’S REQUEST.**

The Golden Door’s August 8, 2017 records request cited specific language from (1) a June 5, 2017 letter from County Planning and Services Director Mark Wardlaw (**Attachment A**) and (2) a May 23, 2017 draft of the NC MSCP, and requested various documents and communications regarding the same. The County, however, has failed to provide such documents, which include a preliminary conservation analysis, documents pertaining to County biologists, a specific request from a project applicant, and specific biological surveys. Notably, we are now approaching a year that these issues continue to be unresolved, and the public has still not seen a revised draft of the NC MSCP or the explanations or analysis that Mr. Wardlaw promised in his letter from last June. Notably, Mr. Wardlaw repeatedly stated in his June 5, 2017

letter that a new draft NC MCSP, along with supporting evidence, would be released to the public for review “by the end of 2017.” Nearly half-way through 2018, we have yet to see this new draft or the supporting evidence that the County asserts exists but refuses to disclose.

**Preliminary Conservation Analysis.** The Golden Door requested the “preliminary conservation analysis” referenced in Mr. Wardlaw’s June 5, 2017 letter and various communications pertaining thereto. The documents produced by the County do not appear to include a “preliminary conservation analysis.” The County produced a document titled “Preliminary Comments on the Conservation Strategy Methodology by FWS for discussion at 4-13-17 meeting w/ County.” This document is attached as **Attachment B**. Attachment B appears to be a list of comments prepared by the U.S. Fish and Wildlife Service (“USFWS”) responding to a separate “conservation analysis” with specific page references. The underlying document to which the USFWS comments respond, however, is not provided. Further, the “preliminary conservation analysis” noted in Mr. Wardlaw’s letter appears to reference a document prepared by “County biologists,” not a document prepared by USFWS.<sup>1</sup>

Please provide the “preliminary conservation analysis” referenced in Mr. Wardlaw’s letter and the authors and date of such document. Please also provide all related documents and communications, as requested in the Golden Door’s August 8, 2017 letter, to the extent such documents have not already been disclosed. Should the County determine that any records or portions of records might be exempt from disclosure, pursuant to Government Code section 6253, please disclose the non-exempt portion of the document and redact the portion the County asserts is exempt from disclosure and state the specific legal basis upon which such information is being withheld.

**County Biologists.** The Golden Door requested communications related to the Newland Sierra project site and the “County biologists” referenced in Mr. Wardlaw’s June 5, 2017 letter. The documents produced by the County do not identify any “County biologists” and do not provide any contracts or other documents demonstrating a relationship between any biologists and the County that demonstrate the existence of any “County biologists.” The County’s own CEQA Guidelines require a memorandum of understanding following a specific form to be executed with consultants, such as any “County biologists” providing analysis for the NC MCSP.<sup>2</sup>

Two email chains produced by the County include communications with Tom Oberbauer of AECOM. One email chain from December 19, 2016, includes an email sent from County staff member Alexandra Elias to Mr. Oberbauer in which she asks whether Mr. Oberbauer is “doing

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<sup>1</sup> The complete sentence in Mr. Wardlaw’s June 5, 2017 letter referencing the “preliminary conservation analysis” reads as follows: “In conducting the preliminary conservation analysis, **County biologists** believe that the open space design and future preservation of the 1,209 acres of land that the Project proposes complements the anticipated preserve and Pre-Approved Mitigation Area for the Draft Plan.” (Emphasis added.)

<sup>2</sup> The County’s CEQA Guidelines, including a sample memorandum of understanding, are available online at <http://www.sandiegocounty.gov/pds/docs/CEQAGDLN.pdf>.

the ‘project review’ of the proposed Newland hardline for consistency with the Planning Agreement/NC Plan.” This email is attached as **Attachment C**. No response to Ms. Elias’s question is provided.

The second email chain ranges from December 7, 2016, to December 19, 2016, and includes a request from Ms. Elias to Mr. Oberbauer to “have a biologist that knows the NC plan look at a proposed hardline for a project to ensure that making findings can be made prior to including it in the Plan.” Ms. Elias goes on to note that draft findings and “other bio info” have already been prepared and are ready for Mr. Oberbauer’s review. In a subsequent email on this chain, Mr. Oberbauer states that he can review the information. The name of the project referenced in this second email chain is not provided, and no responsive analysis from Mr. Oberbauer is included. This second email chain is attached as **Attachment D**. We also note that portions of Attachment D have been improperly redacted. (Discussed further below.)

Based on review of the County’s production, therefore, it appears that the County considers Mr. Oberbauer to be its sole biologist, the County lacks any formal agreement with Mr. Oberbauer, and the County is unable to produce any biological analysis provided by Mr. Oberbauer. Moreover, it appears that Mr. Oberbauer was provided with findings and “other bio info” that had been prepared by someone else and that he did not provide any unique analysis or data. In addition, we note that Mr. Oberbauer is not included on the County’s list of approved CEQA consultants (**Attachment E**). Finally, Mr. Wardlaw’s letter referred to “County biologists” in the plural, but the documents produced by the County provide no indicia of any other individual that could potentially be construed as one of the “County biologists” referenced by Mr. Wardlaw.

Please provide the names of all “County biologists” referenced in Mr. Wardlaw’s letter, describe the relationship of such biologists to the County, and provide any documents, including contracts or other agreements, setting forth or describing the relationship between such biologists and the County. Please also provide all related documents and communications, as requested in the Golden Door’s August 8, 2017 letter, to the extent such documents have not already been disclosed. Should the County determine that any records or portions of records might be exempt from disclosure, pursuant to Government Code section 6253, please disclose the non-exempt portion of the document and redact the portion the County asserts is exempt from disclosure and state the specific legal basis upon which such information is being withheld.

**Applicant’s Request.** The Golden Door requested documents and communications related to the “applicant’s request” that the Newland Sierra project site be included as a “hardline” project in the draft NC MSCP, which is noted in a May 23, 2017 draft of the NC MSCP. The County produced no such request from the “applicant,” which is presumably Newland Sierra. Please provide the “applicant’s request” referenced in the May 23, 2017 draft of the NC MSCP and all related documents and communications, as requested in the Golden Door’s August 8, 2017 letter, to the extent such documents have not already been disclosed. Should the County determine that any records or portions of records might be exempt from disclosure, pursuant to Government Code section 6253, please disclose the non-exempt portion of the document and redact the portion the County asserts is exempt from disclosure and state the specific legal basis upon which such information is being withheld. Please note that any

communications from Newland Sierra or its representatives to the County regarding the NC MSCP may not be subject to any claim of privilege, because Newland Sierra is not a party to the NC MSCP.

**Biological Surveys.** The Golden Door requested specific “[b]iological surveys” referenced in the May 23, 2017 draft NC MSCP, which purportedly were conducted between 2000 and 2015, as well as related documents and communications. The County’s disclosure did not include any biological surveys. Please provide the “[b]iological surveys” referenced in the May 23, 2017 draft of the NC MSCP and all related documents and communications, as requested in the Golden Door’s August 8, 2017 letter, to the extent such documents have not already been disclosed. Should the County determine that any records or portions of records might be exempt from disclosure, pursuant to Government Code section 6253, please disclose the non-exempt portion of the document and redact the portion the County asserts is exempt from disclosure and state the specific legal basis upon which such information is being withheld.

## **II. THE COUNTY IMPROPERLY WITHHELD AND REDACTED DOCUMENTS**

In addition to our concerns that the County failed to provide documents responsive to the Golden Door’s request, we are concerned that certain documents and information have been improperly withheld or redacted. The California Public Records Act dictates that public records must be disclosed to the public, upon request, unless there is a legal basis not to do so. The County has asserted blanket privilege and withholding claims, without providing the specific basis for nondisclosure of the information. Any exemption to disclosure is narrowly construed. (*County of Los Angeles v. Superior Court* (2012) 211 Cal.App.4th 57, 63.)

**Withheld Documents.** Your letter dated September 8, 2017, states that “several” email chains were withheld pursuant to the attorney-client privilege and that two email chains were withheld because they would reflect or reveal the deliberative process between staff and management.

For the several email chains withheld pursuant to the attorney-client privilege, the County provides no information aside from its assertion of privilege. Please describe each email withheld pursuant to the attorney-client privilege, including the individuals sending or receiving the emails, the email’s date, the specific request from the Golden Door to which the email is responsive, and the basis for the privilege. In addition, please disclose whether any such emails have been shared with third parties, such as Newland Sierra, which may break any otherwise applicable privilege asserted by the County. Or, pursuant to Government Code section 6253, redact the portions of these records that the County asserts is privileged and produce the remainder of the document that is non-privileged, such as the email headers with factual information regarding the sender, addressees, cc’s, bcc’s, transmittal date and time, etc. Without such information, it is impossible for us to evaluate the County’s assertions of privilege with the information available to us.

For the two email chains withheld subject to the deliberative process privilege, a brief, conclusory, and insufficient description is provided. When asserting the deliberative process privilege, the burden is on the party asserting the privilege to establish the conditions for the

privilege. (See *Citizens for Open Gov't v. City of Lodi* (2012) 205 Cal.App.4th 296, 306; *Humane Society of U.S. v. Superior Court* (2013) 214 Cal.App.4th 1233, 1267.) Here, your September 8, 2017 letter describes that the two email chains withheld pursuant to the deliberative process privilege pertained to internal discussions regarding questions received from the public and a general policy statement about avoiding “chilling” staff’s communication. While we do not dispute the principles of this general policy statement about “chilling,” mere recitation of generally applicable policy is insufficient to invoke the deliberative process privilege. (*Citizens for Open Gov't, supra*, 205 Cal.App.4th at 307.) In addition, the deliberative process privilege is provided for senior public officials, not all levels of agency staff. (See *Regents of University of California v. Superior Court* (1999) 20 Cal.4th 509, 540.) The deliberative process privilege also is reserved for formulation of government policy, not any communication among or between staff members. (*Ibid.*).

Further explanation is required, and we request that for each withheld email you provide, at least, the individuals sending or receiving the emails, the email’s date, the specific request from the Golden Door to which the email is responsive, the question from the public being discussed, and a thorough description of the public’s interest in non-disclosure of each specific email in the importance CEQA places on public disclosure of information relating to a public agency’s environmental analysis. In addition, please disclose whether any such emails have been shared with third parties, such as Newland Sierra, which may break any otherwise applicable privilege asserted by the County. Or, pursuant to Government Code section 6253, redact the portions of these records that the County asserts is privileged and produce the remainder of the document that is non-privileged, such as the email headers with factual information regarding the sender, addressees, cc’s, bcc’s, transmittal date and time, etc. Without such information, it is impossible for us to evaluate the County’s assertions of privilege with the information available to us.

**Redacted Document.** In addition, the County redacted significant portions of an email chain between Mr. Oberbauer and County staff, which has been attached as **Attachment D**, including non-privileged information contained in the email headers. (See, e.g., California Civil Discovery Practice (4th ed Cal CEB) § 3.8 [“The privilege, however, protects only the content of the communication; it does not immunize the underlying facts from disclosure.”].) We are unaware of any privilege protecting the biologist’s communications with the County, and we ask that the County provide more detail on the basis for redacting the emails, including the factual information contained in the email headers. The basis for such redactions was not discussed in your letter of September 8, 2017. It appears that an attorney may be included on the email chain via a “gmail” account; therefore, more information is needed to understand any attorney-client relationship that may be implicated and how privilege is implicated for the redacted portions of the email chain. The County cannot properly claim a blanket privilege based on the mere inclusion of an attorney on the email.

Further, we do not believe the emails constitute a “deliberative process” because the biologist is not a member of the agency, nor is the County in the process of evaluating an action or making a decision. (Gov. Code §§ 6254(k), 6255; *Rogers v. Superior Court* (1993) 19 Cal.App.4th 469, 478 [citing *American Civil Liberties Union v. Deukmejian* (1982) 32 Cal.3d

440, 447]; see also *Times Mirror Co. v. Superior Court* (1991) 53 Cal.3d 1325, 1342.) The County must clarify its reasoning behind asserting the deliberative process privilege.

Moreover, we are concerned this email chain may have been shared with representatives of the Newland Sierra or other third parties that may break any otherwise applicable privilege, if one exists. We request the County to explain whether the emails have been shared with any third party and the basis for any assertion of the privilege with such parties.

Because these emails may contain important information regarding biological issues necessary for the public to adequately participate in the NC MSCP process and to understand the Newland Sierra DEIR's reliance on such information, please provide a response within 10 calendar days of the date of this letter. It has been nearly a year since the County asserted to us that evidence for the Newland Sierra project's inclusion in the NC MSCP indeed exists but, to date, no evidence to support that claim has been made available. Accordingly, if we do not hear back within a reasonable time period, please be advised that we are prepared to exercise our rights under Government Code sections 6258 and 6259 to judicial review of the propriety of the County's disclosure in this matter.

We thank you for your time and attention to this matter. Please do not hesitate to contact us should you have any questions or comments.

Sincerely,



Taiga Takahashi  
LATHAM & WATKINS LLP

Cc (email):

Mark Wardlaw, County Planning and Development Services  
Kathleen Flannery, County Planning and Development Services  
Lisa Gordon, County Planning and Development Services  
Mary Kopaskie, County Planning and Development Services  
Mark Slovic, County Planning and Development Services  
Ashley Smith, County Planning and Development Services  
William W. Witt, Esq., Office of County Counsel  
Claudia Silva, Esq., Office of County Counsel  
William Pettingill, Esq., Office of County Counsel  
Dan Silver, Endangered Habitats League  
Laura Hunter, Wildlife and Habitat Conservation Coalition  
Stephanie Saathoff, Clay Co.  
Denise Price, Clay Co.  
Christopher W. Garrett, Esq., Latham & Watkins LLP  
Andrew Yancey, Esq., Latham & Watkins LLP

**LATHAM & WATKINS** LLP

Kathy Van Ness, Golden Door

# Attachment A



# County of San Diego

**MARK WARDLAW**  
DIRECTOR

PLANNING & DEVELOPMENT SERVICES  
5510 OVERLAND AVENUE, SUITE 310, SAN DIEGO, CA 92123  
(858) 694-2962 • Fax (858) 694-2555  
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June 5, 2017

Latham & Watkins LLP  
Christopher W. Garrett  
12670 High Bluff Drive  
San Diego, CA 92130

## **RESPONSE TO "INVESTIGATION NEEDED INTO NEWLAND'S MISLEADING BACKROOM DEALING FOR ITS 'SIERRA' PROJECT AND POTENTIAL IMPLICATIONS FOR COUNTY STAFF"**

Dear Mr. Garrett,

At the request of the County Board of Supervisors and Chief Administrative Officer Helen Robbins-Meyer, Planning & Development Services (PDS) is responding to your May 17, 2017 letter titled "Investigation Needed into Newland's Misleading Backroom Dealing for Its 'Sierra' Project and Potential Implications For County Staff."

### **Background**

As you know, the County is currently processing an application submitted by Newland Sierra LLC for a proposed development project (Project) located north of Deer Springs Road, directly west of Interstate 15 in the North County Metropolitan Subregional Plan and Bonsall Community Plan areas, within unincorporated San Diego County. The Project includes a General Plan Amendment, Specific Plan, Rezone, and Tentative Map to subdivide approximately 1,985 acres into 2,135 dwelling units, 81,000 square feet of commercial space, a 6-acre school site, approximately 36 acres of public and private parks, 19 miles of trails and approximately 1,209 acres of biological open space. While the Project is located on a site similar to that on which the former Merriam Mountains project was proposed, it is a new application and includes a new project description.

### **County's Role in the Process**

As the lead agency, PDS completes an independent evaluation of private land development applications, including the Project, for compliance with applicable County, State and Federal laws, regulations and ordinances. As such, PDS is not an advocate for or against the Project, but acts in an independent regulatory capacity as the lead agency for the Project. Based on its independent evaluation of the Project's compliance with applicable requirements, PDS will

formulate a recommendation for the Planning Commission and then the Board of Supervisors (Board) who has the ultimate authority to (i) certify or decline to certify an Environmental Impact Report (EIR) for the Project; and (ii) approve or deny the Project. In addition, and as described more fully below, during the processing of the Project by the County, there will be extensive opportunities for public review and comment, including input from the appropriate community/ sponsor group, public review and comment of the Draft EIR, and public hearings held by both the Planning Commission and the Board about the Project and the evaluation. This is in addition to the public EIR scoping meeting and Notice of Preparation (NOP) public review period that have already occurred for the Project.

As part of the County's independent evaluation of projects, PDS consults with other agencies which may have additional permitting authorities. Your letter raises concerns that PDS staff are included on emails between the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) (collectively referred to as Wildlife Agencies) and the applicant. However, it is common practice for the County, a project applicant, and the Wildlife Agencies to communicate where a project will require approvals and/or concurrence from both the County and the Wildlife Agencies. It is also standard practice for the County to elevate issues within an agency to pursue issue resolution. The County's role in communicating with other agencies does not include advocating or lobbying these agencies to approve projects. The County has not traveled to the USFWS Regional Office in Sacramento or to the USFWS office in Washington, D.C. on behalf of the project applicant to circumvent working with the local USFWS Carlsbad Office.

While the County facilitates the public input process and consults with outside agencies, it should be clarified that the Building Industry Association (BIA) is independent from the County. None of the analysis or determinations made by PDS were based on the BIA matrix nor did the County have any involvement in its preparation. Lastly, PDS recovers the full cost of services related to the processing land development permit applications through deposit accounts that are paid for by project applicants. PDS does not use public funds to process permit applications.

### **Public Participation in the Process**

A Draft EIR is being prepared for the Project by the applicant and will be released for a 60-day public review and comment period. All public comments received during the comment period are responded to and included in a Final EIR to be presented to the Planning Commission and Board at noticed public hearings for consideration and action. The Project will also likely require permits from the California Regional Water Quality Control Board and the U.S. Army Corps of Engineers and will, therefore, also likely undergo public review in accordance with the National Environmental Policy Act (NEPA).

Impacts to biological resources are studied as part of the California Environmental Quality Act (CEQA) and NEPA processes and appropriate mitigation is required to be provided. Through analysis of the biological resources onsite, it has been determined that the Project will result in impacts to Diegan coastal sage scrub (CSS) and result in the need for "take" of the California gnatcatcher, a federally listed threatened species. In accordance with the Endangered

Species Act (Act), there are currently three options for the Project to pursue take authorization for the California gnatcatcher including: (i) obtaining a Section 7 permit; (ii) obtaining a Section 10 permit; or (iii) through the issuance of and concurrence on a Habitat Loss Permit (HLP) in accordance with Section 4(d) of the Act, State Natural Community Conservation Planning (NCCP) Act Conservation Guidelines and Process Guidelines, and the County's HLP Ordinance implementing the 4(d) process. The applicant's pursuit of these permits requires the County's involvement with and determinations by the Wildlife Agencies.

#### **Multiple Species Conversation Program – Draft North County Plan (Draft Plan)**

The Project is also located within the planning area for the Multiple Species Conservation Plan – Draft North County Plan (Draft Plan), a regional multi-species Habitat Conservation Plan (HCP) and NCCP currently being prepared for consideration and approval by the Board and the Wildlife Agencies. Should the Draft Plan be approved, it would provide a fourth option for the Project to pursue take authorization for the California gnatcatcher.

As part of the effort to develop the Draft Plan, the County is conducting stakeholder outreach and engagement to gather input and feedback from interested parties as we work with the Wildlife Agencies to develop the Draft Plan. The County intends to release a public review of the Draft Plan and kick-off scoping for the environmental documentation process by the end of 2017, including the issuance of a NOP.

Currently, the County shows the Project site as a proposed "hardline" (preserve and development area defined) project within the Draft Plan. As was done in the previous public review of a prior iteration of the Draft Plan that was released in 2009, the anticipated public review of the Draft Plan will include supplemental information within an appendix that explains and justifies why certain projects were included as proposed hardlines. Information provided below indicates some of the rationale for including proposed hardline projects, which will be fully articulated in the public review of the Draft Plan that is anticipated for release at the end of 2017. It should also be noted that although the Wildlife Agencies accepted a hardline for the former Merriam Mountains project, this Project does not propose to revise or rely upon that hardline, but instead proposes a new hardline based on the current proposed Project.

In order for a project to be included as a hardline within the approved Multiple Species Conservation Plan – North County Plan (Final Plan), the project footprint to be developed and the footprint to be preserved, including any offsite mitigation areas, must be concurred upon by the Wildlife Agencies, the project proponent, and the County. While the Project is the only proposed project included within the current Draft Plan that has not yet received Board approval, inclusion of the Project in the Draft Plan does not, in any manner, indicate County support for the Project or provide the Project with an approval advantage. The Project will separately need Board approval as required by applicable laws and ordinances, and if it is denied by the Board or significantly revised, it will be removed or modified within the Draft Plan. In addition to the Board's required approval of the Project, the Wildlife Agencies will also need to approve take, either through the incidental take permit for the Final Plan or via one of the other options listed above.

The Project's inclusion in the Draft Plan reflects the County's view that the Project's proposed development footprint and open space preserve area should be considered within the conservation analysis for the Draft Plan but does not give the project any preferential treatment or eliminate any mitigation requirements. A fundamental piece of the Draft Plan will be a conservation analysis that forms the scientific basis upon which the Wildlife Agencies will base their biological opinions and findings in order to issue the County an Incidental Take Permit per the Act. The conservation analysis is currently in a working draft form that includes a preliminary analysis of potential impacts in the planning area, as well as an analysis of potential build-out of a preserve through mitigation, avoidance, and land acquisition. In order to complete this analysis, the County conducted an assessment of potential projects that are currently expected to occur within the planning area for the Draft Plan.

The main purpose of identifying projects and including them as proposed hardlines is so they can be properly incorporated in the conservation analysis of the Draft Plan. Inclusion of the Project as a proposed hardline does not exempt the project from or eliminate the need for the Project to provide mitigation for its biological impacts under either the Act or CEQA. In conducting the preliminary conservation analysis, County biologists believe that the open space design and future preservation of the 1,209 acres of land that the Project proposes complements the anticipated preserve and Pre-Approved Mitigation Area for the Draft Plan. As a result, the Project has been included in the Draft Plan and, to be included in the Final Plan, the Wildlife Agencies must concur. The Final Plan will also have to be approved by the Board.

The County appreciates your interest in the evaluation of the Project application and the formulation of the Draft Plan. You have been included on PDS's notification list to receive a notice of the availability of public review of the Draft EIR for the Project. We look forward to receiving additional comments from the Golden Door on the Draft EIR when it is released. If you have any questions about the Project, please contact the Project Manager, Ashley Smith at (858) 495-5375 or [Ashley.Smith2@sdcounty.ca.gov](mailto:Ashley.Smith2@sdcounty.ca.gov) or Planning Manager, Mark Slovick at (858) 495-5172 or [Mark.Slovick@sdcounty.ca.gov](mailto:Mark.Slovick@sdcounty.ca.gov).

Sincerely,



MARK WARDLAW, Director  
Planning & Development Services

cc: County Board of Supervisors  
Helen Robbins-Meyer, Chief Administrative Officer  
Sarah Aghassi, Deputy Chief Administrative Officer  
William Witt, County Counsel  
Victor Avina, Policy Advisor, District 1  
Adam Wilson, Policy Advisor, District 2  
Jason Paguio, Policy Advisor, District 3

Christopher W. Garrett

June 5, 2017

Page 5

Adrian Granda, Policy Advisor, District 4  
Melanie Wilson, Policy Advisor, District 5  
Michael Fris, Assistant Regional Director, USFWS  
Mendel Stewart, Field Supervisor, USFWS  
Karen A. Goebel, Assistant Field Supervisor, USFWS  
Ed Pert, South Coast Regional Manager, CDFW  
Gail K. Sevrens, Environmental Program Manager, CDFW  
Andrew Yancey, Latham & Watkins  
Dan Silver, Endangered Habitats League  
Denise Price, Clay Co.  
Doug Hageman, Newland  
George Courser, Sierra Club San Diego  
Kathy Van Ness, Golden Door  
Laura Hunter, Wildlife and Habitat Conservation Coalition  
Mark Dillon, Gatzke Dillon & Balance  
Paul Robinson, Hecht Solberg Robinson Goldberg & Bagley  
Stephanie Saathoff, Clay Co.  
Bonsall Community Sponsor Group  
Hidden Meadows Community Sponsor Group  
Twin Oaks Valley Community Sponsor Group

# Attachment B

## **Preliminary Comments on the Conservation Strategy Methodology by FWS for discussion at 4-13-17 meeting w/County**

Document needs a summary of conservation policies and regulations (if there are any) and how those apply to assumptions regarding conservation analysis (e.g. wetlands, vernal pools, narrow endemics) – do any of these policies override potential impacts regardless of whether an occurrence is in or out of the PAMA

B.1.1 pp B-5: Private development impacts within the Permit Area should not be compared to impacts in the Plan Area, by definition the permit area is the area where all impacts will occur.

It is not clear from footnote on table B-1 and text on page B-6 whether or not the agriculture clearing is inclusive to the impacts for single-family homes/private development or is additive.

Pp B-6, exemptions up to 4500 ac of ag impacts with no mitigation; text states 2000 inside PAMA and 4500 outside PAMA which totals 8500 ac?

Covered Sp Analysis pp B-7: impacts to species est. for future discretionary private development and hardline projects...does not include County projects? Need to clarify/consistent use of the term discretionary private development projects vs single family homes

What is “sustainable species occurrences: replacing itself overtime? We need to be assessing core populations not just individual occurrences

B.1.3 (pp B-8) Not clear what the conservation objectives are based on ...a the proportion of natural vegetation, species habitat and occurrences...?

Species Observation (pp B-9): what are the timeframes of the observation data.

Species Occurrence (pp B-9): the use of the 0.25mi linear distance may not be appropriate for all species or all observations.

Pp B-10 description of the areas outside the Permit Area....verify that these areas were excluded from the analysis..(Gregory canyon to be put back in)

Pp B-12 how is County’s mitigation (for County projects, single family homes and agricultural) accounted for in estimating contribution to Preserve Assembly (will this be acquisition of new lands or use of existing County baseline lands?)

Table B-2 and B-3: May need to consider changing mitigation ratios, recommend that css mitigate in kind.

Vegetation Analysis (Based on review of overall methodology and then the specific analysis for Scrub)

Vegetation Community Conservation - Table B-4

- What is last row “various natural vegetation communities” include
- What about Agriculture – is there a targeted amount that needs to be conserved?

- Not clear how Avoidance Ordinance acreage was calculated – is this the steep slopes that will be avoided? Foot note refers to appendix B which is this document
- What is the difference between columns 6 “estimated acquisition...” and 7 “estimated additional conserved private land” which refers to a footnote that says these would be from “purchase of conservation easements”
- Estimated acquisition by public agencies is 20,860 – of this 10,708 are identified as mitigation for single family residence and 4,500 for agricultural expansion – Will the mitigation for County projects also be included in this column? If you do not account for county project mitigation, there still is only 5,652 identified to meet “nccp” standards or to be purchased by Wildlife Agencies

Please explain the basis for assuming that 10% will be avoided outside PAMA – It seems that the assumption of what will be avoided due to steep slopes would be the same regardless of whether it is in or out of PAMA

For each vegetation community –

- What does the acreage of the first table under important planning unit represent? If it is the PAMA/Preserve – why does it not always match the summary of the Veg 1B table – see santa margarita scrub 4,816 versus 5016 (the rest match for scrub – did not check other veg types) – Also, since planning units are limited to the PAMA/Preserve, it is awkward to track impacts versus conservation within planning units – It may make more sense to define planning units more broadly so that we can then evaluate impacts in a given area versus conservation.
- Can you expand the Veg 1B tables to include impacts by unit, similar to the conservation? Also, can you add a column that shows the total acreage to be conserved (i.e. Baseline+some percentage of PAMA+hardline)– location matters since not all units are important for specific species

#### Table B-5 Single family residence

- Need some assessment of where single family impacts will occur
- Estimated conservation for each vegetation type is not a required conservation objective, but the impacts were estimated by vegetation type? Need to get clarification
- Does the impact assessment (9,811) include lands that can subdivide and then invoke the exemption?
- County is committing to purchase 10,708 acres of habitat to mitigate for these impacts – is it in kind? How will it be tracked relative to the impacts – rough step? And where will it occur – same planning unit?
- Section 3.3.1 New Single family residential exemptions states that the allowances maybe exceeded for fire protection and reference to the fire MOU – this is an incorrect assumption – the fire MOU only addresses existing structures as of the date of the MOU (1997) – it does not cover new development.

#### Agriculture

- Need some assessment of where impacts are likely to occur

- Footnote 1 on table B-1 implies that County is committing to mitigate at a 1:1 ratio – will it be in kind? Within same unit? How will it be tracked?

Table B-6 and B-7: how were avoidance assumptions determined and how relates to the % avoided patch sizes; explain basis of assumptions..

Pp B-21. If avoidance of scrub habitat primarily occurs on steep slopes this strategy may be problematic for species analysis (eg if species does not prefer steep slopes such as the CAGN)

Table B-Veg1B: Are Tribal Lands in Fee excluded from the Planning Units?

Table B-Veg1E

- Footnote 2 states that it is assumed that 50% of small patches and 70% of med and large patches will be avoided within the PAMA – what is this based on, how will it be implemented – the reference to section 3.4.1 of the HCP does not provide any additional information
- If there is only 14,466 acres of scrub habitat within the PAMA as shown in the first column, how can the conservation objective in table B-Veg 1G be 17,500?

Table B-Veg1F

- If Table IE estimates that 6,059 acres of the PAMA have development potential – how does the County assure that only 1,842 acres will be impacted within the PAMA?

Table B-Veg1G

- Please clarify what the basis is for the total conservation objective – does this represent the goal that was put into the SITES model? 2010 analysis (table 16) had a goal of conserving 80% within PAMA which equaled 62% conservation in Plan Area for scrub
- Please explain footnote 1 – 8% of 8,407 does not equal 735 – also, what is the basis for assuming 8% and how is this different then the acquisition column?

Species Analysis – (did not evaluate goals, objectives, management or monitoring that is included in HCP – all of this is relevant to overall conservation analysis)

Assumption that there will be no impacts to baseline preserve species occurrence seems flawed in that there are covered activities that can occur there

Sustainable occurrences — “can replace itself over time within a particular geographic location within the Plan Area” - definition is too general, how do you define location, over what period of time – who decides

Core areas and core species populations should be identified as part of the conservation objectives and included in the analysis of impacts and conservation

Need some assessment of where single family and agricultural impacts will occur – if the only known occurrences will be impacted by these activities, offsetting measures may not be feasible

Table B-9 – vegetation communities too broad for some of the species

Dun skipper – delete grassland and make consistent with text in species section

San Diego button-celery – delete scrub, chaparral, grassland, meadow and seep

Spreading navarretia – delete scrub, chaparral, grassland, meadow and seep

Spadefoot – not sure any one veg community is appropriate – needs ponded water

SKR – should be grassland

Spineflower – soil is more relevant than veg community

Thornmint – soil is more relevant than veg community

Species Predictive Models – Not great for most species on covered species list – may work for more of the watch species list – probably ok for vp species, riparian species, horned lizard

For SKR, Gnatcatcher, ARTO, and spineflower need to use more refined models (some may have already been developed by others ie gnatcatcher model).

If the model is no good, then just explain why and then don't include in the text - Harbison's dun skipper, Hermes Copper, Western spadefoot toad,

golden eagle – may work for identifying foraging habitat, but nest sites and territories need to be addressed, more recent data should be available from USGS.

Table B-10 – for vernal pools, there are specific soils that support them in plan area (e.g. Placentia) – does parent material and texture capture this specificity?

Species Specific Tables (broad comments, not species specific)

- Can the dates of the occurrences be added to the “C” tables
- G tables – is assumption that all mitigation is just based on vegetation or for some species does occupancy need to be demonstrated?
- Can impact and conservation to be broken down by unit
- H tables – how will the acquisition track with impacts? Will specific vegetation or predicted habitat be targeted?
- Is there a summary table for each species – combine tables G and H in some fashion so reader can assess overall impacts and conservation

Issues to be clarified/resolved in order to do analysis

Permit area (take occurs) and Plan area (covered activities and conservation): do we need to differentiate for the purposes of this plan because impacts on conservation lands (within the Plan

Area) from management activities would not be covered if they are not within the Permit area.  
When using the term outside PAMA does this mean the Permit Area or Plan Area?

Does the conservation from the hardline projects functionally contribute to the Preserve?

Need an inventory and consensus on baseline preserve lands contribution to the Preserve (extent of recreation, fragmentation, other potentially conflicting uses; BLM MOU still valid; management and monitoring consistent with the Plan)

How to ensure distribution of conservation within Planning Units: vegetation target range; species core areas/occurrences.

# Attachment C

-----Original Message-----

From: Oberbauer, Tom [mailto:Tom.Oberbauer@aecom.com]

Sent: Thursday, August 17, 2017 11:10 AM

To: Benham, Crystal <Crystal.Benham@sdcounty.ca.gov>; Eichar, Peter <Peter.Eichar@sdcounty.ca.gov>

Subject: FW: Species for North County Plan

From: Elias, Alexandra [mailto:Alexandra.Elias@sdcounty.ca.gov]

Sent: Monday, December 19, 2016 9:52 AM

To: Oberbauer, Tom

Subject: RE: Species for North County Plan

Tom, you're also doing the "project review" of the proposed Newland hardline for consistency with the Planning Agreement/NC Plan?

Thanks for all you're doing (the week before Christmas!!)

Alex

From: Oberbauer, Tom [mailto:Tom.Oberbauer@aecom.com]

Sent: Monday, December 19, 2016 9:47 AM

To: [keoni.calantas@icfi.com](mailto:keoni.calantas@icfi.com) <<mailto:keoni.calantas@icfi.com>>

Cc: Harris, Susan; Elias, Alexandra

Subject: Species for North County Plan

Hello Keoni:

Susan Harris is out sick. She has asked me to ask you to send me the species accounts as soon as you finish with them. If there are some that you don't think you will have time to work on, you can send those to me as well. I will have time to work on them today through Wednesday.

Thanks

Tom Oberbauer

Senior Scientist

[Tom.oberbauer@aecom.com](mailto:Tom.oberbauer@aecom.com) <<mailto:Tom.oberbauer@aecom.com>>

AECOM

401 West A Street, Suite 1200, San Diego, California 92101

619 610 7660

[www.aecom.com](http://www.aecom.com) <<http://www.aecom.com>>

# Attachment D

**From:** [Oberbauer, Tom](#)  
**To:** [Benham, Crystal](#); [Eichar, Peter](#)  
**Subject:** FW: review of "hardline" project (attorney client confidential)  
**Date:** Thursday, August 17, 2017 11:10:58 AM

---

-----Original Message-----

From: Slovic, Mark [<mailto:Mark.Slovick@sdcounty.ca.gov>]  
Sent: Monday, December 19, 2016 5:10 PM  
To: Oberbauer, Tom  
Cc: Claudia Anzures; Smith, Ashley; Elias, Alexandra  
Subject: Re: review of 'hardline" project (attorney client confidential)

Thanks Tom. Yes let's plan on discussing at 9:30 tomorrow. If you're available in person that would be great, but we can also call you if that's easier just let us know. We will meeting with our Director in our Drake conference room if you plan to attend in person.

Thanks again,

Mark Slovic, Planning Manager  
County of San Diego | Planning & Development Services T. 858.495.5172<tel:858.495.5172>

Sent from my iPhone

[REDACTED]

From: Slovick, Mark [<mailto:Mark.Slovick@sdcounty.ca.gov>]  
Sent: Monday, December 19, 2016 12:56 PM  
To: Claudia Anzures; Smith, Ashley; Oberbauer, Tom  
Cc: Elias, Alexandra  
Subject: RE: review of "hardline" project (attorney client confidential)

Hi Tom and Claudia,

Sorry for not getting back to you sooner, but are you available tomorrow to discuss with our Director at around 9:30 or 10 am?

Thanks,

Mark Slovick, Planning Manager  
County of San Diego | Planning & Development Services T. 858.495.5172

From: Claudia Anzures [<mailto:claudia.anzures@gmail.com>]  
Sent: Thursday, December 15, 2016 1:22 PM  
To: Smith, Ashley  
Cc: Oberbauer, Tom; Slovick, Mark; Elias, Alexandra

Subject: Re: review of 'hardline" project (attorney client confidential)

I could meet on Tuesday morning.  
I am out of town on Wednesday and Thursday next week.

Claudia Anzures

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CONFIDENTIAL ATTORNEY-CLIENT COMMUNICATION

On Thu, Dec 15, 2016 at 1:11 PM, Smith, Ashley  
<Ashley.Smith2@sdcounty.ca.gov<<mailto:Ashley.Smith2@sdcounty.ca.gov>>> wrote:  
Hi Tom and Claudia,

I've been asked to set up a meeting for early next week to go over any feedback that Tom may have following his review. What is your availability Tuesday morning? If that doesn't work, what about Wednesday or Thursday?

Thanks,

Ashley

Ashley Smith, Land Use/ Environmental Planner COUNTY OF SAN DIEGO | Planning & Development Services  
T. 858.495.5375<tel:(858)%20495-5375>

From: Oberbauer, Tom [<mailto:Tom.Oberbauer@aecom.com><<mailto:Tom.Oberbauer@aecom.com>>]  
Sent: Wednesday, December 14, 2016 4:04 PM  
To: Claudia Anzures  
Cc: Smith, Ashley; Slovick, Mark; Elias, Alexandra  
Subject: RE: review of 'hardline" project (attorney client confidential)

Hello Claudia:

I am going to think about it a bit more and provide more feedback on Monday if that is OK for the timeline.

Thanks

Tom Oberbauer

[Redacted signature block]

[Redacted line]

[Redacted line]

[REDACTED]

From: Oberbauer, Tom [<mailto:Tom.Oberbauer@aecom.com>]  
Sent: Wednesday, December 07, 2016 4:25 PM  
To: Elias, Alexandra  
Cc: Smith, Ashley; Slovick, Mark  
Subject: RE: review of "hardline" project

That would work. By mail or delivery to my office? Since the office is not far from the County building, maybe you could have it brought to the receptionist by somebody who has to go to a meeting in the County building.

Thanks

Tom Oberbauer

From: Elias, Alexandra [<mailto:Alexandra.Elias@sdcounty.ca.gov>]  
Sent: Wednesday, December 07, 2016 4:20 PM

To: Oberbauer, Tom  
Cc: Smith, Ashley; Slovick, Mark  
Subject: RE: review of "hardline" project

Great, thanks. Right now we are planning to put it on a flash drive and get it down to you. Does that work?

From: Oberbauer, Tom [<mailto:Tom.Oberbauer@aecom.com>]  
Sent: Wednesday, December 07, 2016 4:17 PM  
To: Elias, Alexandra  
Subject: RE: review of "hardline" project

Hello Alex:

I can look at it on Monday.

Thanks

Tom Oberbauer  
From: Elias, Alexandra [<mailto:Alexandra.Elias@sdcounty.ca.gov>]  
Sent: Wednesday, December 07, 2016 2:14 PM  
To: Oberbauer, Tom  
Cc: Claudia Anzures (claudia.anzures@gmail.com<<mailto:claudia.anzures@gmail.com>>); Slovick, Mark  
Subject: review of "hardline" project

Tom:

We need to have a biologist that knows the NC plan look at a proposed hardline for a project to ensure that making findings can be made prior to including it in the Plan.

I believe we have the draft HLP findings and other bio info ready for review (Mark Slovick will confirm and send asap), but I wanted to make sure you could block out some time for this.

Thank you so much in advance.  
Alex

# Attachment E

# **COUNTY OF SAN DIEGO**

## **CEQA CONSULTANTS LIST FOR PRIVATELY INITIATED PROJECTS**

### **KEY FOR SUBJECT AREA ABBREVIATIONS**

|           |                                     |
|-----------|-------------------------------------|
| <b>AG</b> | <b>AGRICULTURAL RESOURCES</b>       |
| <b>AQ</b> | <b>AIR QUALITY</b>                  |
| <b>AR</b> | <b>ARCHAEOLOGICAL RESOURCES</b>     |
| <b>BI</b> | <b>BIOLOGICAL RESOURCES</b>         |
| <b>EP</b> | <b>EIR PREPARER</b>                 |
| <b>FP</b> | <b>FIRE PROTECTION PLANNING</b>     |
| <b>GW</b> | <b>GROUNDWATER</b>                  |
| <b>HS</b> | <b>HISTORIC RESOURCES</b>           |
| <b>MN</b> | <b>MINERAL RESOURCES</b>            |
| <b>NO</b> | <b>NOISE</b>                        |
| <b>RP</b> | <b>REVEGETATION PLANNING</b>        |
| <b>TT</b> | <b>TRANSPORTATION &amp; TRAFFIC</b> |
| <b>VA</b> | <b>VISUAL ANALYSIS</b>              |

Pursuant to the County CEQA Guidelines, Planning & Development Services (PDS) selects lists of individuals (not firms) that are approved to prepare CEQA documents for the County for privately initiated projects through a Request for Qualifications (RFQ) and selection process. Consultant lists are reestablished periodically. Applicants are responsible for selecting and direct contracting with specific consultants from the County's list to prepare CEQA documents for private projects. Prior to the first submittal of a CEQA document prepared by a listed consultant for a private project, the applicant, consultant, consultant's firm (if applicable) and County shall execute a Memorandum of Understanding (MOU) or similar agreement that addresses payment, communications, confidentiality of information, and report preparation and handling. Consultants that prepare CEQA documents for County initiated projects will continue to be selected through the standard County procurement processes.

## **CEQA CONSULTANTS LIST - AGRICULTURAL RESOURCES**

| <b>Last Name</b> | <b>First Name</b> | <b>Firm</b>                        | <b>Address</b>                     | <b>City</b> | <b>ST</b> | <b>ZIP</b> | <b>Phone</b> | <b>Email</b>                                                                         |
|------------------|-------------------|------------------------------------|------------------------------------|-------------|-----------|------------|--------------|--------------------------------------------------------------------------------------|
| Biddulph         | Bobbette          | ESA                                | 9191 Towne Centre Drive, Suite 340 | San Diego   | CA        | 92122      | 858-638-0900 | <a href="mailto:bbiddulph@esassoc.com">bbiddulph@esassoc.com</a>                     |
| Chagala          | James             | Chagala & Associates               | 10324 Meadow Glen Way East         | Escondido   | CA        | 92026      | 760-751-2691 | <a href="mailto:jchagala@hotmail.com">jchagala@hotmail.com</a>                       |
| Domeier          | Jennifer          | RECON Environmental, Inc.          | 1927 Fifth Avenue                  | San Diego   | CA        | 92101      | 619-308-9333 | <a href="mailto:jdomeier@reconenvironmental.com">jdomeier@reconenvironmental.com</a> |
| Greco            | F. James          | T&B Planning Consultants, Inc.     | 8885 Rios San Diego, Suite 227     | San Diego   | CA        | 92108      | 619-325-0290 | <a href="mailto:jgreco@tbplanning.com">jgreco@tbplanning.com</a>                     |
| Marcin           | Dennis            | Helix Environmental Planning, Inc. | 8100 La Mesa Boulevard, Suite 150  | La Mesa     | CA        | 91941      | 619-462-1515 | <a href="mailto:dennism@helixepi.com">dennism@helixepi.com</a>                       |
| Shamlou          | Shawn             | Dudek & Associates                 | 605 Third Street                   | Encinitas   | CA        | 92024      | 760-479-4228 | <a href="mailto:sshamlou@dudek.com">sshamlou@dudek.com</a>                           |
| Unverzagt        | Lance             | RECON Environmental, Inc.          | 1927 Fifth Avenue                  | San Diego   | CA        | 92101      | 619-308-9333 | <a href="mailto:lanceu@recon-us.com">lanceu@recon-us.com</a>                         |

**Established March 9, 2007**

**Supplemented December 22, 2014**

## CEQA CONSULTANTS LIST - AIR QUALITY

| Last Name    | First Name | Firm                                      | Address                                 | City        | ST | ZIP        | Phone        | Email                                                                                              |
|--------------|------------|-------------------------------------------|-----------------------------------------|-------------|----|------------|--------------|----------------------------------------------------------------------------------------------------|
| Alberson     | Michael    | Geosphere Consultants, Inc.               | 1150 Hamilton Drive                     | Escondido   | CA | 92029      | 760-294-5000 | <a href="mailto:malberson@wavesenv.com">malberson@wavesenv.com</a>                                 |
| Boparai      | Poonam     | Ascent Environmental, Inc.                | 455 Capitol Mall, Suite 300             | Sacramento  | CA | 958144     | 858-354-4151 | <a href="mailto:Poonam.Boparai@ascentenvironmental.com">Poonam.Boparai@ascentenvironmental.com</a> |
| Brugger      | Ron        | LSA Associates, Inc.                      | 20 Executive Park, Suite 200            | Irvine      | CA | 92614      | 949-553-0666 | <a href="mailto:ron.brugger@lsa-assoc.com">ron.brugger@lsa-assoc.com</a>                           |
| Bull         | Charles    | RECON Environmental                       | 1927 Fifth Avenue, Suite 200            | San Diego   | CA | 92101      | 619-308-9333 | <a href="mailto:cbull@recon-us.com">cbull@recon-us.com</a>                                         |
| Byrne        | Dana       | PAN Environmental                         | 11551 Corte Playa Las Brisas, Suite 110 | San Diego   | CA | 92124      | 858-560-6585 | <a href="mailto:dbyrne@panenvironmental.com">dbyrne@panenvironmental.com</a>                       |
| Cohen        | Scott      |                                           | 5920 Friars Road, Suite 103             | San Diego   | CA | 92108      | 619-894-8670 | <a href="mailto:scohen@sespeconsulting.com">scohen@sespeconsulting.com</a>                         |
| Deckman      | David      | Dudek & Associates                        | 11641 Blocker Drive, Suite 240          | Auburn      | CA | 95603      | 530-885-8232 | <a href="mailto:ddeckman@dudek.com">ddeckman@dudek.com</a>                                         |
| Dramko       | Joanne     | Helix Environmental Planning, Inc.        | 7578 El Cajon Boulevard, Suite 200      | La Mesa     | CA | 91942      | 619-462-1515 | <a href="mailto:JoanneD@helixepi.com">JoanneD@helixepi.com</a>                                     |
| Gottfredson  | David      | RECON Environmental                       | 1927 Fifth Avenue, Suite 200            | San Diego   | CA | 92101-2358 | 619-308-9333 | <a href="mailto:dgottfredson@recon-us.com">dgottfredson@recon-us.com</a>                           |
| Hendrix      | Michael    | Chambers Group, Inc.                      | 17671 Cowan Avenue, Suite 100           | Irvine      | CA | 92614      | 949-261-5414 |                                                                                                    |
| Kurtz        | James      | Bon Terra Psomas                          | 2 Executive Circle, Suite 175           | Irvine      | CA | 92614      | 714-444-9199 | <a href="mailto:jkurtz@bonterraconsulting.com">jkurtz@bonterraconsulting.com</a>                   |
| Louden       | Jeremy     | LDN Consulting                            | 446 Crestcourt Lane                     | Fallbrook   | CA | 92028      | 760-473-1253 | <a href="mailto:jlouden@ldnconsulting.net">jlouden@ldnconsulting.net</a>                           |
| Maddux       | Bill       | RECON Environmental                       | 1927 Fifth Avenue                       | San Diego   | CA | 92101      | 619-308-9333 | <a href="mailto:wmaddux@reconenvironmental.com">wmaddux@reconenvironmental.com</a>                 |
| O'Bannon     | Joe        | OB-1 Air Analyses                         | 9909 Huennekens Street, Suite 206       | San Diego   | CA | 92121      | 760-691-6486 | <a href="mailto:joe@ob1air.com">joe@ob1air.com</a>                                                 |
| Qureshi      | Haseeb     | Urban Crossroads                          | 41 Corporate Park, Suite 300            | Irvine      | CA | 92606      | 949-660-1994 | <a href="mailto:hqureshi@urbanxroads.com">hqureshi@urbanxroads.com</a>                             |
| Rous         | Heidi      | PCR Services Corporation                  | 80 South Lake Avenue, Suite 570         | Pasadena    | CA | 91101      | 626-204-6170 | <a href="mailto:h.rous@pcrnet.com">h.rous@pcrnet.com</a>                                           |
| Silverman    | Sam        | Terry A. Hayes Associates, LLC            | 8522 National Boulevard, Suite 102      | Culver City | CA | 90232      | 310-839-4200 | <a href="mailto:ssilverman@webtaha.com">ssilverman@webtaha.com</a>                                 |
| Slavick      | Michael    | Helix Environmental Planning, Inc.        | 7578 El Cajon Boulevard, Suite 200      | La Mesa     | CA | 91941      | 619-462-1515 | <a href="mailto:msslavick@helixepi.com">msslavick@helixepi.com</a>                                 |
| Tavares      | Rick       | Investigative Science & Engineering, Inc. | 1134 D Street, PO BOX 488               | Ramona      | CA | 92065      | 760-787-0016 | <a href="mailto:rtavares@ise.us">rtavares@ise.us</a>                                               |
| Thompson     | Valerie    | Scientific Resource Associated            | 927 Wilbur Avenue                       | San Diego   | CA | 92109      | 858-488-2987 | <a href="mailto:vltsra@earthlink.net">vltsra@earthlink.net</a>                                     |
| Vander Pluym | Duane      | Rincon Consultants, Inc.                  | 790 East Santa Clara Street             | Ventura     | CA | 93001      | 805-641-1000 | <a href="mailto:duane@rinconconsultants.com">duane@rinconconsultants.com</a>                       |
| Vermillion   | Nicole     | PlaceWorks                                | 3 MacArthur Place, Suite 1100           | Santa Ana   | CA | 92707      | 714-966-9220 | <a href="mailto:nvermillion@placeworks.com">nvermillion@placeworks.com</a>                         |

**Established March 9, 2007**

**Supplemented July 26, 2013**

## CEQA CONSULTANTS LIST - ARCHAEOLOGICAL RESOURCES

| Last Name     | First Name | Firm                                 | Address                              | City           | ST | ZIP   | Phone               | Email                                                                                                                                 |
|---------------|------------|--------------------------------------|--------------------------------------|----------------|----|-------|---------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| Apple         | Rebecca    | EDAW, Inc.                           | 1420 Kettner Boulevard, Suite 620    | San Diego      | CA | 92101 | 619-233-1454        | <a href="mailto:rebecca.apple@edaw.com">rebecca.apple@edaw.com</a>                                                                    |
| Becker        | Mark       | ASM Affiliates, Inc.                 | 2034 Corte Del Nogal                 | Carlsbad       | CA | 92011 | 760-804-5757        | <a href="mailto:mbecker@asmaffiliates.com">mbecker@asmaffiliates.com</a>                                                              |
| Brodie        | Natalie    | LSA Associates, Inc.                 | 703 Palomar Airport Road, Suite 260  | Carlsbad       | CA | 92011 | 760-931-5471        | <a href="mailto:natalie.brodie@lsa-assoc.com">natalie.brodie@lsa-assoc.com</a>                                                        |
| Buyse         | Johnna     | Brian F. Smith and Associates        | 14010 Poway Road, Suite A            | Poway          | CA | 92064 | 858-679-8218        | <a href="mailto:Johnna@bfsa-ca.com">Johnna@bfsa-ca.com</a>                                                                            |
| Cardenas      | Sean       | Helix Environmental                  | 7578 El Cajon Boulevard, Suite 200   | La Mesa        | CA | 91941 | 619-462-1515        | <a href="mailto:seanc@helixepi.com">seanc@helixepi.com</a>                                                                            |
| Carrico       | Richard    | Recuerdos                            | 10321 Del Rio road                   | Spring Valley  | CA | 91977 | 760-518-1471        | <a href="mailto:rbrujo@sbcglobal.net">rbrujo@sbcglobal.net</a>                                                                        |
| Case          | Robert     | Jones & Stokes Associates            | 9909 B Business Park Avenue          | San Diego      | CA | 92131 | 858-578-8964        | <a href="mailto:rcase@jsanet.com">rcase@jsanet.com</a>                                                                                |
| Collett       | Russell    |                                      | 502 Glen Oaks Drive South            | Alpine         | CA | 91901 | 619-794-7877        |                                                                                                                                       |
| Cook          | John       | ASM Affiliates, Inc.                 | 2034 Corte Del Nogal                 | Carlsbad       | CA | 92011 | 760-804-5757        | <a href="mailto:jrcook@asmaffiliates.com">jrcook@asmaffiliates.com</a>                                                                |
| Cooley        | Theodore   | ICF Jones & Stokes                   | 9775 Businesspark Avenue Suite 200   | San Diego      | CA | 92131 | 858-578-8964        | <a href="mailto:tcooley@jsanet.com">tcooley@jsanet.com</a>                                                                            |
| Davidson      | Elizabeth  | LSA Associates, Inc.                 | 703 Palomar Airport Road, Suite 260  | Carlsbad       | CA | 92011 | 760-931-5471        | <a href="mailto:liz.davidson@lsa-assoc.com">liz.davidson@lsa-assoc.com</a>                                                            |
| De Barros     | Philip     | Professional Archaeological Services | 13730 Via Cima Bella                 | San Diego      | CA | 92129 | 760-807-9489        | <a href="mailto:atavikodjo@hotmail.com">atavikodjo@hotmail.com</a>                                                                    |
| Dice          | Michael    | Michael Brandman Associates, Inc.    | 621 E. Carnegie Drive, Suite 100     | San Bernardino | CA | 92408 | 909-884-2255        | <a href="mailto:mdice@brandman.com">mdice@brandman.com</a>                                                                            |
| Dolan         | Christy    | EDAW, Inc.                           | 1420 Kettner Boulevard, Suite 620    | San Diego      | CA | 92101 | 619-233-1454        | <a href="mailto:christy.dolan@edaw.com">christy.dolan@edaw.com</a>                                                                    |
| Eckhardt      | William    | ASM Affiliates, Inc.                 | 2034 Corte Del Nogal                 | Carlsbad       | CA | 92011 | 760-804-5757        | <a href="mailto:wteckhardt@asmaffiliates.com">wteckhardt@asmaffiliates.com</a>                                                        |
| Farrell       | Jenna      | Tetra Tech, Inc.                     | 2969 Prospect Park Drive, Suite 100  | Rancho Cordova | CA | 95670 | 916-853-4575        | <a href="mailto:jenna.farrell@tetrattech.com">jenna.farrell@tetrattech.com</a>                                                        |
| Fink          | Gary       | Greystone, an Arcadis Company        | 9474 Kearney Villa Road, Suite 301   | San Diego      | CA | 92126 | 858-530-8772        | <a href="mailto:gfink@arcadis-us.com">gfink@arcadis-us.com</a>                                                                        |
| Gallegos      | Dennis     | Statistical Research Inc.            | PO BOX 82404                         | San Diego      | CA | 92138 | 760-845-9364        | <a href="mailto:dgallegos@sricrm.com">dgallegos@sricrm.com</a>                                                                        |
| Garcia-Herbst | Arleen     | Spindrift Archaeological Consulting  | 2449 Ardath Road                     | La Jolla       | CA | 92037 | 858-333-7202        | <a href="mailto:arleen@spindriftarchaeology.com">arleen@spindriftarchaeology.com</a>                                                  |
| Gardner       | Jill       | Jill K. Gardner & Associates, Inc.   | 1199 Pacific Highway, Suite 703      | San Diego      | CA | 92101 | 619-876-1486        | <a href="mailto:jill.k.gardner@gmail.com">jill.k.gardner@gmail.com</a>                                                                |
| Ghabhlain     | Sinead Ni  | ASM Affiliates, Inc.                 | 2034 Corte Del Nogal                 | Carlsbad       | CA | 92011 | 760-804-5757        | <a href="mailto:sinead@asmaffiliates.com">sinead@asmaffiliates.com</a>                                                                |
| Gilbert       | Shannon    |                                      | 55 Bryce Lane                        | Dillon         | MT | 59725 | 406-683-6755        | <a href="mailto:sgilbert@bresnan.net">sgilbert@bresnan.net</a>                                                                        |
| Glenn         | Brian      | BonTerra Consulting Inc.             | 151 Kalmus Drive, Suite E-200        | Costa Mesa     | CA | 92626 | 714-444-9199        |                                                                                                                                       |
| Gregory       | Carrie     | Statistical Research Inc.            | 4425 Juan Tabo Blvd. NE, Suite 112   | Albuquerque    | NM | 87111 | 505-323-8300        | <a href="mailto:cgregory@sricrm.com">cgregory@sricrm.com</a>                                                                          |
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| Price      | Harry      | Recon Environmental, Inc.           | 1927 Fifth Avenue                     | San Diego    | CA | 92101 | 619-308-9333 | <a href="mailto:hprice@recon-us.com">hprice@recon-us.com</a>                       |
| Pumphrey   | Michael    | ASM Affiliates, Inc.                | 2034 Corte Del Nogal                  | Carlsbad     | CA | 92011 | 626-793-7395 | <a href="mailto:mpumphrey@asmaffiliates.com">mpumphrey@asmaffiliates.com</a>       |
| Smith      | Brian      | Brian F. Smith and Associates       | 14678 Ibex Court                      | San Diego    | CA | 92129 | 858-484-0915 | <a href="mailto:bsmith@bfsa-ca.com">bsmith@bfsa-ca.com</a>                         |
| Tang       | Bai Tom    | CRM TECH                            | 1016 East Cooley Drive, Suites A/B    | Colton       | CA | 92324 | 909-824-6400 | <a href="mailto:ttang@crmtech.us">ttang@crmtech.us</a>                             |
| Underwood  | Jackson    | Recon Environmental, Inc.           | 1927 Fifth Avenue                     | San Diego    | CA | 92101 | 619-308-9333 | <a href="mailto:junderwood@recon-us.com">junderwood@recon-us.com</a>               |
| Van Wormer | Stephen    | Walter Enterprises                  | 238 Second Avenue                     | Chula Vista  | CA | 91910 | 619-426-5109 | <a href="mailto:svanwor@cox.net">svanwor@cox.net</a>                               |
| Wade       | Sue        | Heritage Resources                  | PO BOX 8                              | Ramona       | CA | 92065 | 760-789-8509 | <a href="mailto:swade@nethere.com">swade@nethere.com</a>                           |
| Wuellner   | Margarita  | PCR Services Cororation             | 200 Santa Monica Boulevard, Suite 500 | Santa Monica | CA | 90401 | 310-451-4488 | <a href="mailto:m.wuellner@pcrnet.com">m.wuellner@pcrnet.com</a>                   |

**Established September 8, 2006**

**Supplemented December 22, 2014**

## CEQA CONSULTANTS LIST - MINERAL RESOURCES

| Last Name | First Name | Firm                           | Address                              | City      | ST | ZIP   | Phone        | Email                                                                  |
|-----------|------------|--------------------------------|--------------------------------------|-----------|----|-------|--------------|------------------------------------------------------------------------|
| Coalson   | Warren     | EnviroMINE, Inc.               | 3511 Camino Del Rio South, Suite 403 | San Diego | CA | 92108 | 619-284-8515 | <a href="mailto:warren@enviromineinc.com">warren@enviromineinc.com</a> |
| Harding   | Jeramey    | T&B Planning Consultants, Inc. | 8885 Rio San Diego Drive, Suite 227  | San Diego | CA | 92108 | 619-325-0290 | <a href="mailto:jharding@tbplanning.com">jharding@tbplanning.com</a>   |
| Olson     | Brian      | Leighton & Associates, Inc.    | 3934 Murphy Canyon Road, Suite 205   | San Diego | CA | 92123 | 858-292-8030 | <a href="mailto:bolson@leightongroup.com">bolson@leightongroup.com</a> |
| Stewart   | Michael    | Leighton & Associates, Inc.    | 3934 Murphy Canyon Road, Suite 205   | San Diego | CA | 92123 | 858-292-8030 | <a href="mailto:mstewart@leightongeo.com">mstewart@leightongeo.com</a> |

**Established August 1, 2007**

# CEQA CONSULTANTS LIST - NOISE

| Last Name   | First Name | Firm                                        | Address                                  | City                | ST | ZIP        | Phone             | Email                                                                              |
|-------------|------------|---------------------------------------------|------------------------------------------|---------------------|----|------------|-------------------|------------------------------------------------------------------------------------|
| Brothers    | Jonathan   | Eilar Associates, Inc.                      | 210 South Juniper Street, Suite 100      | Escondido           | CA | 92025      | 760-738-5570      | <a href="mailto:jbrothers@eilarassociates.com">jbrothers@eilarassociates.com</a>   |
| Bull        | Charles    | RECON Environmental, Inc.                   | 1927 Fifth Avenue                        | San Diego           | CA | 92101      | 619-308-9333      | <a href="mailto:cbull@recon-us.com">cbull@recon-us.com</a>                         |
| Burrill     | Michael    | LFR Inc.                                    | 1150 Hamilton Lane                       | Escondido           | CA | 92029      | 760-294-2746      | <a href="mailto:michael.burrill@lfr.com">michael.burrill@lfr.com</a>               |
| Chung       | Tony       | LSA Associates, Inc.                        | 20 Executive Park, Suite 200             | Irvine              | CA | 92614      | 949-553-0666      | <a href="mailto:tony.chung@lsa-assoc.com">tony.chung@lsa-assoc.com</a>             |
| Cohen       | Scott      | Sespe Consulting, Inc.                      | 5920 Friars Road, Suite 103              | San Diego           | CA | 92108      | 619-894-8670      | <a href="mailto:scohen@sespeconsulting.com">scohen@sespeconsulting.com</a>         |
| Dickerson   | Mike       | MD Acoustics                                | 1107 Rambling Road                       | Simi Valley         | CA | 93065      | 805-404-5917      | <a href="mailto:md@mdacoustics.com">md@mdacoustics.com</a>                         |
| Fiedler     | Steven     | dbf Associates, Inc.                        | 401 B Street, Suite 600                  | San Diego           | CA | 92101      | 760-889-8635      | <a href="mailto:sfiedler@dbf-associates.com">sfiedler@dbf-associates.com</a>       |
| Fowler      | Kevin      | LFR Inc.                                    | 3150 Bristol Street, Suite 250           | Costa Mesa          | CA | 92626      | 760-331-3880      | <a href="mailto:kevin.fowler@lfr.com">kevin.fowler@lfr.com</a>                     |
| Fuller      | Jeffrey    | dbf Associates, Inc.                        | 401 B Street, Suite 600                  | San Diego           | CA | 92101      | 619-847-7877      | <a href="mailto:jfuller@dbf-associates.com">jfuller@dbf-associates.com</a>         |
| Gharabegian | Areg       | Parsons                                     | 100 West Walnut Street                   | Pasadena            | CA | 91124      | 626-440-6047      | <a href="mailto:areg.gharabegian@parsons.com">areg.gharabegian@parsons.com</a>     |
| Gottfredson | David      | RECON Environmental, Inc.                   | 1927 Fifth Avenue                        | San Diego           | CA | 92101      | 619-308-9333      | <a href="mailto:dgottfredson@recon-us.com">dgottfredson@recon-us.com</a>           |
| Greene      | Michael G. | Dudek & Associates, Inc.                    | 31878 Camino Capistrano, Suite 200       | San Juan Capistrano | CA | 92675      | 949-373-8317      | <a href="mailto:mgreene@dudek.com">mgreene@dudek.com</a>                           |
| Hool        | Amy        | Eilar Associates, Inc.                      | 321 Willowspring Drive North             | Encinitas           | CA | 92024      | 760-738-5570      | <a href="mailto:ahool@eilarassociates.com">ahool@eilarassociates.com</a>           |
| Johnson     | Cheryl     | RECON Environmental                         | 1927 Fifth Avenue                        | San Diego           | CA | 92101      | 619-308-9333      | <a href="mailto:cjohnson@recon-us.com">cjohnson@recon-us.com</a>                   |
| Komula      | Mike       | Dudek & Associates, Inc.                    | 605 Third Street                         | Encinitas           | CA | 92024      | 760-479-4855      | <a href="mailto:mkomula@dudek.com">mkomula@dudek.com</a>                           |
| Kurtz       | James      | BonTerra Consulting                         | 151 Kalmus Drive, Suite E200             | Costa Mesa          | CA | 9262       | 714-444-9199      | <a href="mailto:jkurtz@bonterraconsulting.com">jkurtz@bonterraconsulting.com</a>   |
| Louden      | Jeremy     | LDN Consulting                              | 446 Crestcourt Lane                      | Fallbrook           | CA | 92028      | 760-473-1253      | <a href="mailto:jlouden@ldnconsulting.net">jlouden@ldnconsulting.net</a>           |
| Maddux      | William    | RECON Environmental, Inc.                   | 1927 Fifth Avenue                        | San Diego           | CA | 92101      | 619-308-9333      | <a href="mailto:wmaddux@reconenvironmental.com">wmaddux@reconenvironmental.com</a> |
| Medlin      | Kathy      | Medlin & Associates, Inc.                   | PO BOX 130941                            | Carlsbad            | CA | 92013-0941 | 760-930-6515      | <a href="mailto:medlin-acoustics@znet.com">medlin-acoustics@znet.com</a>           |
| Nugent      | Ramon      | Acentech                                    | 1429 East Thousand Oaks Blvd., Suite 200 | Thousand Oaks       | CA | 91362      | 805-379-3449      | <a href="mailto:rnugent@acentech.com">rnugent@acentech.com</a>                     |
| Overweg     | Cornelis   | Southern California Edison                  | 1218 S, Fifthe Avenue                    | Monrovia            | CA | 91016      | 626-462-2560      | <a href="mailto:cornelis.overweg@sce.com">cornelis.overweg@sce.com</a>             |
| Smith       | Justin D.  | Eilar Associates, Inc.                      | 539 Encinitas Boulevard, Suite 206       | Encinitas           | CA | 92024      | 760-753-1865      | <a href="mailto:jsmith@eilarassociates.com">jsmith@eilarassociates.com</a>         |
| Storm       | Mark       | URS Corporation Americas                    | 4225 Executive Square, Suite 1600        | La Jolla            | CA | 92037      | 858-812-9292      | <a href="mailto:mark.storm@urs.com">mark.storm@urs.com</a>                         |
| Stromberg   | Roma       | Roma Environmental                          | 32246 Cour Pomerol                       | Temecula            | CA | 92591      | 951-544-3170      | <a href="mailto:romastromberg@hotmail.com">romastromberg@hotmail.com</a>           |
| Tavares     | Rick       | Investigative Science and Engineering, Inc. | 1134 D Street, PO BOX 488                | Ramona              | CA | 92065      | 760-787-0016      | <a href="mailto:rtavares@ise.us">rtavares@ise.us</a>                               |
| Terry       | Charles C. | HELIX Environmental Planning, Inc.          | 7578 El Cajon Boulevard                  | La Mesa             | CA | 91941      | 619-462-1515 x376 | <a href="mailto:charlest@helixepi.com">charlest@helixepi.com</a>                   |
| Yazdanniyaz | Amir       | PCR Services Corporation                    | 233 Wilshire Boulevard, Suite 130        | Santa Monica        | CA | 90401      | 310-451-4488      | <a href="mailto:a.yazdanniyaz@pcrnet.com">a.yazdanniyaz@pcrnet.com</a>             |
| Toland      | Sharon     | Atkins                                      | 3570 Carmel Mountain Road, Suite 300     | San Diego           | CA | 92030      | 858-514-1030      | <a href="mailto:sharon.toland@atkinglobal.com">sharon.toland@atkinglobal.com</a>   |
| Tonkovich   | Greg       | Vista Environmental                         | 1021 Didrickson Way                      | Laguna Beach        | CA | 92651      | 949-510-5355      | <a href="mailto:greg@vistalb.com">greg@vistalb.com</a>                             |

**Established March 9, 2007**

**Supplemented May 5, 2016**

## CEQA CONSULTANTS LIST - REVEGETATION PLANNING

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| Burkhart  | Brad       | ECORP Consulting, Inc.                    | 4709 Biona Drive                    | San Diego  | CA | 92116 | 619-282-4040 | <a href="mailto:bburkhart@ecorpconsulting.com">bburkhart@ecorpconsulting.com</a> |
| Cass      | Tim        |                                           | 3573 Niblick Drive                  | La Mesa    | CA | 91941 | 619-733-9843 | <a href="mailto:cassbiological@aol.com">cassbiological@aol.com</a>               |
| Cherry    | Thomas     | Cherry Engineering                        | 12721 Poway Road                    | Poway      | CA | 92064 | 858-679-3410 | <a href="mailto:tcherry@cherryeng.com">tcherry@cherryeng.com</a>                 |
| Dodero    | Mark       | RECON                                     | 1927 Fifth Avenue                   | San Diego  | CA | 92101 | 619-308-9333 | <a href="mailto:mdodero@recon-us.com">mdodero@recon-us.com</a>                   |
| Everett   | William    | Everett and Associates                    | PO BOX 1085                         | La Jolla   | CA | 92038 | 858-456-2990 | <a href="mailto:everett@esrc.org">everett@esrc.org</a>                           |
| Hobbs     | Robert     | RECON Environmental, Inc.                 | 1927 Fifth Avenue                   | San Diego  | CA | 92101 | 619-308-9333 | <a href="mailto:rhobbs@reconenvironmental.com">rhobbs@reconenvironmental.com</a> |
| Ince      | Kyle       | Merkel & Associates, Inc.                 | 5434 Ruffin Road                    | San Diego  | CA | 92123 | 858-560-5465 | <a href="mailto:Kince@merkelinc.com">Kince@merkelinc.com</a>                     |
| Kellogg   | Elizabeth  | Tierra Data, Inc.                         | 10110 West Lilac Road               | Escondido  | CA | 92026 | 760-749-2247 | <a href="mailto:liz@tierradata.com">liz@tierradata.com</a>                       |
| Klutz     | Korey      | Klutz Biological Consulting               | 1824 Windriver Street               | San Marcos | CA | 92078 | 858-578-8964 | <a href="mailto:korey@klutzbio.net">korey@klutzbio.net</a>                       |
| MacAller  | Robert     | RECON                                     | 1927 Fifth Avenue                   | San Diego  | CA | 92101 | 619-308-9333 | <a href="mailto:rmacaller@recon-us.com">rmacaller@recon-us.com</a>               |
| Magdych   | Bill       | URS Corporation                           | 1615 Murray Canyon Road, Suite 1000 | San Diego  | CA | 92108 | 619-294-9400 | <a href="mailto:bill_magdych@urscorp.com">bill_magdych@urscorp.com</a>           |
| Mason     | Greg       | Alden Environmental, Inc.                 | 3612 Felton Street                  | San Diego  | CA | 92104 | 619-284-3815 | <a href="mailto:gmason@aldenenv.com">gmason@aldenenv.com</a>                     |
| McMillan  | Scott      | EDAW, Inc.                                | 1420 Kettner Boulevard, Suite 500   | San Diego  | CA | 92101 | 619-233-1454 | <a href="mailto:scott.mcmillan@edaw.com">scott.mcmillan@edaw.com</a>             |
| Minchin   | John       | Dudek                                     | 605 Third Street                    | Encinitas  | CA | 92024 | 760-479-4279 | <a href="mailto:jminchin@dudek.com">jminchin@dudek.com</a>                       |
| Mock      | Patrick    | URS Corporation                           | 4225 Executive Square, Suite 1600   | La Jolla   | CA | 92037 | 858-812-9292 | <a href="mailto:patrick.mock@urs.com">patrick.mock@urs.com</a>                   |
| Prine     | James      | EDAW, Inc.                                | 1420 Kettner Boulevard, Suite 500   | San Diego  | CA | 92101 | 619-233-1454 | <a href="mailto:james.prine@edaw.com">james.prine@edaw.com</a>                   |
| Robertson | Elyssa     | REC Consultants                           | 2442 Second Avenue                  | San Diego  | CA | 92101 | 619-232-9200 | <a href="mailto:Elyssa@recenv.com">Elyssa@recenv.com</a>                         |
| Schaefer  | Christina  | Environmental Science Associates          | 9191 Towne Center Drive, Suite 340  | San Diego  | CA | 92122 | 858-768-7896 | <a href="mailto:cschaefer@esassoc.com">cschaefer@esassoc.com</a>                 |
| Scheidt   | Vincent    | Vincent N. Scheidt, Biological Consultant | 3170 Occidental Street              | San Diego  | CA | 92122 | 858-457-3873 | <a href="mailto:vince@san.rr.com">vince@san.rr.com</a>                           |
| Sward     | Larry      | Helix Environmental Planning, Inc.        | 7578 El Cajon Boulevard, Suite 200  | La Mesa    | CA | 91942 | 619-462-1515 | <a href="mailto:larrys@helixepi.com">larrys@helixepi.com</a>                     |
| Sweesy    | Michael    | Dudek                                     | 605 Third Street                    | Encinitas  | CA | 92024 | 760-479-4253 | <a href="mailto:msweesy@dudek.com">msweesy@dudek.com</a>                         |
| Tomsovic  | Peter      | RECON                                     | 1927 Fifth Avenue                   | San Diego  | CA | 92101 | 619-308-9333 | <a href="mailto:ptomsovic@recon-us.com">ptomsovic@recon-us.com</a>               |
| Trnka     | Sally      | Helix Environmental Planning, Inc.        | 7578 El Cajon Boulevard, Suite 200  | La Mesa    | CA | 91942 | 619-462-1515 | <a href="mailto:sallyt@helixepi.com">sallyt@helixepi.com</a>                     |
| Trotta    | Mike       | LSA Associates, Inc.                      | 703 Palomar Airport Road, Unit 260  | Carlsbad   | CA | 92011 | 760-931-5471 | <a href="mailto:Mike.Trotta@LSA-Assoc.com">Mike.Trotta@LSA-Assoc.com</a>         |
| Tucker    | Mark       | Burns & McDonnell                         | 4225 Executive Square, Suite 500    | La Jolla   | CA | 92037 | 858-320-2947 | <a href="mailto:matucker@burnsmcd.com">matucker@burnsmcd.com</a>                 |
| Walsh     | Paul       | Dudek                                     | 605 Third Street                    | Encinitas  | CA | 92024 | 760-479-4265 | <a href="mailto:pwalsh@dudek.com">pwalsh@dudek.com</a>                           |

**Established August 1, 2007**

**Supplemented July 26, 2013**

## CEQA CONSULTANTS LIST - TRANSPORTATION TRAFFIC

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|-------------|------------|-------------------------------------|------------------------------------------|------------|----|-------|--------------|--------------------------------------------------------------------------------------|
| Abboud      | Nicholas   | Wilson & Company, Inc.              | 701 B Street, Suite 1220                 | San Diego  | CA | 92040 | 619-330-5213 | <a href="mailto:NNAbboud@WilsonCo.com">NNAbboud@WilsonCo.com</a>                     |
| Boarman     | John       | Linscott, Law and Greenspan         | 4542 Ruffner Street, Suite 100           | San Diego  | CA | 92111 | 858-300-8800 | <a href="mailto:Boarman@llgengineers.com">Boarman@llgengineers.com</a>               |
| Chen        | Monique    | Chen Ryan Associates                | PO BOX 1062                              | La Jolla   | CA | 92038 | 619-318-4664 | <a href="mailto:mchen@chenryanmobility.com">mchen@chenryanmobility.com</a>           |
| Cook        | Stephen    | Chen Ryan                           | 239 Laurel Street, Suite 203             | San Diego  | CA | 92101 | 619-784-1113 | <a href="mailto:scook@chenryanmobility.com">scook@chenryanmobility.com</a>           |
| Crafts      | Rick       | RCE Traffic Engineering             | 9255 Dillon Drive                        | La Mesa    | CA | 91941 | 619-589-9151 | <a href="mailto:rickcrafts@cox.net">rickcrafts@cox.net</a>                           |
| Darnell     | Bill       | Darnell & Associates, Inc.          | 1446 Front Street, Suite 300             | San Diego  | CA | 92101 | 619-233-9373 | <a href="mailto:bdarnell@darnell-assoc.com">bdarnell@darnell-assoc.com</a>           |
| De La Garza | Joe        | Iteris, Inc.                        | 2712 Collier Avenue                      | San Diego  | CA | 92116 | 619-507-0987 | <a href="mailto:jdlg@iteris.com">jdlg@iteris.com</a>                                 |
| Deshmukh    | Pritam     | LSA Associates                      | 20 Executive Park, Suite 200             | Irvine     | CA | 92614 | 949-553-0666 | <a href="mailto:Pritam.deshmukh@lsa-assoc.com">Pritam.deshmukh@lsa-assoc.com</a>     |
| Espelet     | Leonardo   | Kimley-Horn and Associates, Inc.    | 401 B Street, Suite 600                  | San Diego  | CA | 92101 | 619-744-0136 | <a href="mailto:Leo.espelet@kimley-horn.com">Leo.espelet@kimley-horn.com</a>         |
| Haskell     | Vicki      | Darnell & Associates, Inc.          | 1446 Front Street, Suite 300             | San Diego  | CA | 92101 | 619-233-9373 | <a href="mailto:vhaskell@darnell-assoc.com">vhaskell@darnell-assoc.com</a>           |
| Jugar       | Mark       | Rick Engineering Company            | 5620 Friars Road                         | San Diego  | CA | 92110 | 619-291-0707 | <a href="mailto:mjugar@rickengineering.com">mjugar@rickengineering.com</a>           |
| Keating     | John       | Linscott, Law and Greenspan         | 4542 Ruffner Street, Suite 100           | San Diego  | CA | 92111 | 858-300-8800 | <a href="mailto:Keating@llgengineers.com">Keating@llgengineers.com</a>               |
| Lauber      | Martin     | The Perfect Solution                | 1100 Anza Avenue                         | Vista      | CA | 92084 | 760-908-9233 | <a href="mailto:info@thepperfectsolution.us">info@thepperfectsolution.us</a>         |
| Mizuta      | Marc       | STC Traffic, Inc.                   | 2356 Moore Street, Suite 102             | San Diego  | CA | 92110 | 619-255-6538 | <a href="mailto:marc.mizuta@stctrffic.com">marc.mizuta@stctrffic.com</a>             |
| Musial      | Walter     | Linscott, Law and Greenspan         | 4542 Ruffner Street, Suite 100           | San Diego  | CA | 92111 | 858-300-8800 | <a href="mailto:musial@llgengineers.com">musial@llgengineers.com</a>                 |
| Rasas       | Justin     | LOS Engineering, Inc.               | 11622 El Camino Real, Suite 100          | San Diego  | CA | 92130 | 619-890-1253 | <a href="mailto:Justin@LOSEngineering.com">Justin@LOSEngineering.com</a>             |
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| Sato        | Scott      | Trames Solutions Inc.               | 100 East San Marcos Boulevard, Suite 400 | San Marcos | CA | 92069 | 760-291-1400 | <a href="mailto:scott@tramesolutions.com">scott@tramesolutions.com</a>               |
| Schlaefli   | Andrew     | Urban Systems Associates, Inc.      | 8451 Miralani Drive, Suite A             | San Diego  | CA | 92126 | 858-560-4911 | <a href="mailto:usai@urbansystems.net">usai@urbansystems.net</a>                     |
| Sorenson    | David      | Kimley-Horn and Associates, Inc.    | 517 Fourth Avenue, Suite 301             | San Diego  | CA | 92101 | 619-744-0105 | <a href="mailto:dave.sorenson@kimley-horn.com">dave.sorenson@kimley-horn.com</a>     |
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| Torma       | J. Arnold  | Katz, Okitsu & Associates           | 5095 Murphy Canyon Road, Suite 330       | San Diego  | CA | 92123 | 619-683-2933 | <a href="mailto:koasd@koacorporation.com">koasd@koacorporation.com</a>               |
| Wilson      | Dawn       | STC Traffic, Inc.                   | 2794 Loker Avenue West, Suite 102        | Carlsbad   | CA | 92010 | 760-585-4494 | <a href="mailto:dawn.wilson@stctrffic.com">dawn.wilson@stctrffic.com</a>             |
| Yellapu     | Kalyan     | Linscott, Law & Greenspan Engineers | 4542 Ruffner Street, Suite 100           | San Diego  | CA | 92111 | 858-300-8800 | <a href="mailto:Yellapu@llgengineers.com">Yellapu@llgengineers.com</a>               |

**Established September 8, 2006**

**Supplemented July 26, 2013**

## CEQA CONSULTANTS LIST - VISUAL ANALYSIS

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| Belzman   | Tim        | Helix Environmental Planning, Inc.                 | 7578 El Cajon Boulevard, Suite 200        | La Mesa         | CA | 91942 | 619-462-1515 | <a href="mailto:timb@helixepi.com">timb@helixepi.com</a>                         |
| Capper    | Lisa       | Helix Environmental Planning, Inc.                 | 7578 El Cajon Boulevard, Suite 200        | La Mesa         | CA | 91942 | 619-462-1515 | <a href="mailto:lisac@helixepi.com">lisac@helixepi.com</a>                       |
| Chagala   | James      | James Chagala & Associates                         | 10324 Meadow Glen Way East                | Escondido       | CA | 92026 | 760-751-2691 | <a href="mailto:'jchagala@hotmail.com'">'jchagala@hotmail.com'</a>               |
| Cherry    | Thomas     | ICF Jones & Stokes                                 | 9775 Businesspark Avenue, Suite 200       | San Diego       | CA | 92131 | 858-578-8964 | <a href="mailto:tcherry@jsanet.com">tcherry@jsanet.com</a>                       |
| Dildine   | Thomas     | Ecology and Environment, Inc.                      | 720 Third Avenue, Suite 1700              | Seattle         | CA | 98104 | 206-624-9537 |                                                                                  |
| Dilno     | Jerelyn    | TRS Consultants                                    | 438 Camino Del Rio South, Unit 223        | San Diego       | CA | 92108 | 619-299-2525 | <a href="mailto:jeri@trs-sandiego.com">jeri@trs-sandiego.com</a>                 |
| Dramko    | Joanne     | Helix Environmental Planning, Inc.                 | 7578 El Cajon Boulevard, Suite 200        | La Mesa         | CA | 91942 | 619-462-1515 | <a href="mailto:JoanneD@helixepi.com">JoanneD@helixepi.com</a>                   |
| Gevanthor | Adam       | Development Design Services & Graphic Access, Inc. | 2583 Via Merano                           | Del Mar         | CA | 92104 | 858-793-5450 | <a href="mailto:adampublic@graphicaccess.com">adampublic@graphicaccess.com</a>   |
| Harding   | Jerrica    | T&B Planning, Inc.                                 | 1419 University Avenue, Suite C           | San Diego       | CA | 92103 | 619-501-6041 | <a href="mailto:jharding@tbplanning.com">jharding@tbplanning.com</a>             |
| Hoffman   | Amy        | HELIX Environmental Planning, Inc.                 | 7578 El Cajon Boulevard, Suite 200        | La Mesa         | CA | 91942 | 619-462-1515 | <a href="mailto:amyh@helixepi.com">amyh@helixepi.com</a>                         |
| Jewell    | Alex       | Kimley-Horn and Associates, Inc.                   | 11919 Foundation Place, Suite 200         | Gold River      | CA | 95670 | 916-859-3625 | <a href="mailto:alex.jewell@kimley-horn.com">alex.jewell@kimley-horn.com</a>     |
| Leiba     | Angela     | URS Corporation of Americas (Urs Corp.)            | 4225 Executive Square, Suite 1600         | La Jolla        | CA | 92037 | 858-812-8252 | <a href="mailto:angela.leiba@urs.com">angela.leiba@urs.com</a>                   |
| Lewis     | Brad       | Helix Environmental Planning, Inc.                 | 7578 El Cajon Boulevard, Suite 200        | San Diego       | CA | 91942 | 619-462-1515 | <a href="mailto:bradl@helixepi.com">bradl@helixepi.com</a>                       |
| Marotz    | Nicole     | RBF Consulting                                     | 9755 Clairemont Mesa Boulevard, Suite 100 | San Diego       | CA | 92124 | 858-614-5090 | <a href="mailto:nmarotz@rbf.com">nmarotz@rbf.com</a>                             |
| Molentin  | Scott      | Estrada Land Planning, Inc.                        | 755 Broadway Circle, Suite 300            | San Diego       | CA | 92101 | 619-236-0143 | <a href="mailto:smolentin@estradalandplan.com">smolentin@estradalandplan.com</a> |
| Preciado  | David      | Estrada Land Planning, Inc.                        | 755 Broadway Circle, Suite 300            | San Diego       | CA | 92101 | 619-236-0143 | <a href="mailto:Dpreciado@EstradaLandPlan.com">Dpreciado@EstradaLandPlan.com</a> |
| Saunders  | Joshua     | Dudek                                              | 605 Third Street                          | Encinitas       | CA | 92024 | 760-479-4283 | <a href="mailto:jsaunders@dudek.com">jsaunders@dudek.com</a>                     |
| Shapouri  | Ali        | Shapouri & Associates                              | PO BOX 676221                             | Rancho Santa Fe | CA | 92067 | 858-756-8340 | <a href="mailto:ali@shapouri.com">ali@shapouri.com</a>                           |
| Singleton | Michael    | KTU+A                                              | 3916 Normal Street                        | San Diego       | CA | 92103 | 619-294-4477 | <a href="mailto:mike@ktua.com">mike@ktua.com</a>                                 |
| Sweezy    | Michael    | Dudek                                              | 605 Third Street                          | Encinitas       | CA | 92024 | 760-479-4253 | <a href="mailto:msweezy@dudek.com">msweezy@dudek.com</a>                         |

**Established August 1, 2007**

**Supplemented May 5, 2016**

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April 17, 2018

**VIA HAND DELIVERY**

San Diego County Board of Supervisors  
County Board of Supervisors  
1600 Pacific Highway, Room 402  
San Diego, CA 92101  
Attn: Clerk of the Board of Operations

Re: Housing Affordability within San Diego County; Agenda Item 5

Dear Supervisors Cox, Jacob, Gaspar, Roberts, and Horn:

As you know, we represent the Golden Door Properties LLC (the “Golden Door”), which owns and operates an award-winning spa and resort that opened in 1958, along with sustainable agricultural operations. Adjacent to the Golden Door, the Newland Real Estate Group, LLC (“Newland”) has proposed a revised Merriam Mountains project, known as the “Sierra” project (the “Newland Sierra Project” or “Project”) on property located near Deer Springs Road. Newland’s proposal includes 2,135 residential units but fails to include a necessary affordable housing component.

We understand the Board is considering requesting the Chief Administrative Officer to investigate options to promote construction of homes in the unincorporated region and to close the housing gap. The Golden Door has employees of all income levels who need access to more affordable housing within North County. However, the proposed Newland Sierra Project is not located on a site that the County has identified for new housing construction in the North County metro area (see, e.g., Smart Growth Opportunity Areas, Figure H-2, General Plan Housing Element), it does not provide any affordable housing, and its market analyses are outdated and are inaccurate. Newland Sierra defines “affordable” as “assuming 4.0 percent interest rate, 10 percent down payment and a 35 percent of household income for housing.” However, interest rates today are higher (4.625%) and rising, and federal standards define “affordable” as costing “no more than 30% of the monthly household income for rent *and* utilities.”<sup>1</sup> And Newland

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<sup>1</sup> See Enclosure 1; see also U.S. Dept. of Housing and Urban Development, *Affordable Housing*, [https://www.hud.gov/program\\_offices/comm\\_planning/affordablehousing/](https://www.hud.gov/program_offices/comm_planning/affordablehousing/) (last visited Apr. 17, 2018); San Diego Housing Federation, *Frequently Asked Questions*, <https://www.housingsandiego.org/find-housing-faq> (last visited Apr. 17, 2018).

Sierra has refused to commit to legally commit to providing affordable housing, incorrectly claiming on its website that the County has no such requirements.<sup>2</sup>

Accordingly, if the County were to approve the Newland Sierra Project, it would violate the County's General Plan because the Project lacks the required affordable housing which is expressly specified as necessary in the County's General Plan. (See General Plan Policy H-1.9; see also Government Code § 65300.5, *California Native Plant Society v. City of Rancho Cordova* (2009) 172 Cal.App.4th 603, 635-636 [project must comply with specific and mandatory general plan policies].)

***Existing County Policies Require an Affordable Housing Component for General Plan Amendment Projects.*** The County's General Plan already contains a policy requiring that **“developers [ ] provide an affordable housing component when requesting a General Plan amendment for large-scale residential project[s] when this is legally permissible.”** (General Plan, Policy H-1.9)(emphasis supplied). Current California law does make a mandatory “affordable housing component” legally permissible. Thus, the Board of Supervisors has the existing legal authority under California law to require an affordable housing component in every project that requires a General Plan amendment, as specified in Policy H-1.0. Thus, the Chief Administrative Officer and County Counsel, and the Board of Supervisors, have a mandatory duty under the County's adopted General Plan to require affordable housing conditions that are “legally permissible” under California law in order to implement the County's existing affordable housing policy embodied in Policy H-1.0

As it stands now, the County Board of Supervisors is required to impose a condition requiring an affordable housing component for projects seeking a General Plan amendment. The pending Newland Sierra project does not contain such an affordable housing component, and therefore is inconsistent with the existing General Plan. The courts have explained what “legally permissible” means within the context of affordable housing:

[I]t is well established that ***price controls are a constitutionally permissible form of regulation with regard to real property*** as well as to other types of property or services. . . . Accordingly, just as it would be permissible for a municipality to attempt to increase the amount of affordable housing in the community and to promote economically diverse developments by ***requiring all new residential developments to include a specified percentage of studio, one-bedroom, or small-square-footage units, there is no reason why a municipality may not alternatively attempt to achieve those same objectives by requiring new developments to set aside a percentage of its proposed units for sale at a price that is affordable to moderate- or low-income households.***

---

<sup>2</sup> See Enclosure 2; see also Newland Sierra *FAQ, Types of Housing*, <https://www.newlandsierra.com/faq/> (last visited Apr. 17, 2018).

(*California Building Industry Assn. v. City of San Jose* (2015) 61 Cal.4th 435 [emphasis added] (“CBIA”).) Therefore, the County may impose price control requirements on proposed new developments or require new residential developments to include a specified percentage of affordable units. The pending Newland Sierra project does not include either, despite the County’s General Plan policy requiring “legally permissible” action to ensure that General Plan amendment projects include an affordable housing component.

***The County May Immediately Impose an Affordable Housing Requirement on Newland Sierra.*** Implementing a requirement for a percentage of affordable homes within a new development is something the County can immediately implement and is required to implement under the express provisions of the General Plan. The General Plan policy is already in place that imposes a requirement on the pending Newland Sierra Project. Here, there is a clear nexus between the imposition of affordable housing requirements on development and the effects on the region. (See e.g. *San Remo Hotel L.P. v. City and County of San Francisco* (2002) 27 Cal.4th 643 [government may impose permitting condition without running afoul of the Takings Clause if it demonstrates an essential nexus and reasonable relationship between the permitting condition and a deleterious public impact of the development].)

In any event, the California Supreme Court has ruled that no “nexus” requirement applies to a condition requiring an affordable housing component for a residential development project. (*CBIA, supra*, 61 Cal.4th at 474-75, 479 [rough proportionality/nexus requirements do not apply to restrict developer’s use of property].) The Supreme Court relied upon *Ehrlich v. City of Culver City* (1996) 12 Cal.4th 854 to reach this conclusion. (*Id.* at 475-76.) *Ehrlich* involved the imposition of conditions on a case-by-case basis, rather than through a broader inclusionary housing ordinance, enabling a greater amount of discretion for the deployment of the city’s police power. (*Ehrlich, supra*, 12 Cal.4th at 869.) As such, the County may rely on its existing General Plan and implement appropriate inclusionary zoning requirements as a project condition on Newland Sierra prior to project approval. (*CBIA*, 61 Cal.4th at 477 [“Moreover, as we have explained above, the validity of the ordinance’s requirement that at least 15 percent of a development’s for-sale units be affordable to moderate- or low-income households does not depend on an assessment of the impact that the development itself will have on the municipality’s affordable housing situation.”].)

Though the law on this issue is firmly established, i.e., the County certainly does have the authority today to impose an affordable housing condition on the Newland Sierra project, if County Counsel somehow disagrees with this legal conclusion and believes that further steps are needed to make an affordable housing component “legally permissible,” then County Counsel should be directed to prepare any appropriate documents needed to implement this mandatory portion of the adopted General Plan, and any processing of the current General Plan amendment project of Newland Sierra project, should be suspended until the County adopts an ordinance to implement its own General Plan requirements. The County could simply impose the same requirement for affordable housing as upheld by the California Supreme Court in the City of San Jose case, using the wording of any ordinance or conditions adopted by the City of San Jose. Along with any other General Plan change or zoning ordinance amendment that is included in the Newland project approvals, County staff and the County Counsel can simply include project

conditions and/or an ordinance adopting affording housing requirements approved in the San Jose case, at the same time as the Board considers any other project approvals.

We ask that the County Chief Administrative Officer and County Counsel be directed to immediately propose project conditions or any other legal documents required to implement General Policy H-1.9 for the Newland project, and no further processing of the Newland project should occur until these actions are taken to implement General Plan Policy H-1.9. If County Counsel concludes that General Plan Policy H-1.9 is unenforceable, and the County lacks the legal authority to impose conditions requiring affordable housing components under the terms of that Policy, the Board should request County Counsel to describe the reasons for this conclusion.

Failure to pay attention the mandatory requirements of General Plan Policy H-1.9 will only result in needless delays and disruptions in any decisions the Board may make with respect to new developments covered by this Policy, such as Newland.

We thank you for your time and attention to our comments, and ask that they be incorporated both into the administrative record for the Newland Sierra Project and this Agenda Item 5. Please do not hesitate to contact me should you have any questions.

Best regards,

*Christopher Garrett*

Christopher W. Garrett  
of LATHAM & WATKINS LLP

cc: Kathy Van Ness, Golden Door  
Darin Neufeld, County Planning and Development Services  
Mark Slovick, County Planning and Development Services  
Ashley Smith, County Planning and Development Services  
Stephanie Saathoff, Clay Co.  
Denise Price, Clay Co.  
Taiga Takahashi, Latham & Watkins

**ENCLOSURE 1**



Personal Home Mortgage Loans **Today's Mortgage Rates and Refinance Rates**

## Today's Mortgage Rates and Refinance Rates

Print

Be sure to use APR, which includes all fees and costs, to compare rates across lenders. Rates below include zero discount points. Use our [Product Comparison Tool](#) for rates customized to your specific home financing need.

| Purchase Rates                                                  | Refinance Rates                 |
|-----------------------------------------------------------------|---------------------------------|
| <b>Product</b>                                                  | <b>Interest Rate</b> <b>APR</b> |
| <b>Conforming</b> and <b>Government Loans</b>                   |                                 |
| <b>30-Year Fixed Rate</b>                                       | 4.625%      4.684%              |
| <b>30-Year Fixed-Rate VA</b>                                    | 4.375%      4.684%              |
| <b>20-Year Fixed Rate</b>                                       | 4.375%      4.470%              |
| <b>15-Year Fixed Rate</b>                                       | 4.125%      4.264%              |
| <b>7/1 ARM</b>                                                  | 4.375%      4.755%              |
| <b>5/1 ARM</b>                                                  | 4.250%      4.791%              |
| <b>Jumbo Loans</b> — Amounts that exceed conforming loan limits |                                 |
| <b>30-Year Fixed-Rate Jumbo</b>                                 | 4.500%      4.521%              |
| <b>15-Year Fixed-Rate Jumbo</b>                                 | 4.250%      4.287%              |
| <b>7/1 ARM Jumbo</b>                                            | 4.000%      4.538%              |
| <b>10/1 ARM Jumbo</b>                                           | 4.250%      4.537%              |

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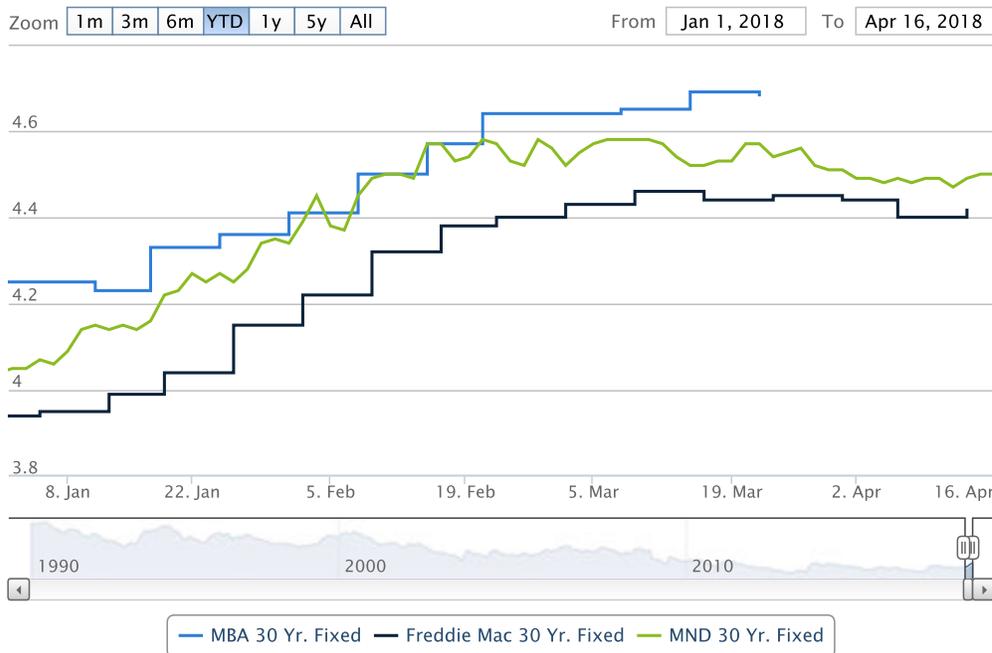
### Average 30 Year Fixed Mortgage Rates

| Report Date                               | Current Interest Rate | Change | Prior Year | YOY Change |
|-------------------------------------------|-----------------------|--------|------------|------------|
| <b>MND's 30 Year Fixed (daily survey)</b> |                       |        |            |            |
| Apr 16 2018                               | 4.50% : (--)          | +0.00  | 4.04%      | 0.46       |
| Apr 13 2018                               | 4.50% : (--)          | +0.01  | 4.05%      | 0.45       |
| Apr 12 2018                               | 4.49% : (--)          | +0.02  | 4.08%      | 0.41       |
| Apr 11 2018                               | 4.47% : (--)          | -0.02  | 4.18%      | 0.29       |
| Apr 10 2018                               | 4.49% : (--)          | +0.00  | 4.17%      | 0.32       |
| Apr 09 2018                               | 4.49% : (--)          | +0.01  | 4.17%      | 0.32       |
| Apr 06 2018                               | 4.48% : (--)          | -0.01  | 4.15%      | 0.33       |
| Apr 05 2018                               | 4.49% : (--)          | +0.01  | 4.14%      | 0.35       |
| <b>MBA 30 Year Fixed (weekly)</b>         |                       |        |            |            |
| Mar 18 2018                               | 4.68% : (0.46)        | -0.01  | 4.36%      | 0.32       |
| Mar 11 2018                               | 4.69% : (0.45)        | 0.04   | 4.30%      | 0.39       |
| Mar 04 2018                               | 4.65% : (0.58)        | 0.01   | 4.36%      | 0.29       |
| <b>Freddie Mac 30 Year Fixed (weekly)</b> |                       |        |            |            |
| Apr 08 2018                               | 4.42% : (0.40)        | 0.02   | 4.14%      | 0.28       |
| Apr 01 2018                               | 4.40% : (0.50)        | -0.04  | 4.14%      | 0.26       |
| Mar 25 2018                               | 4.44% : (0.50)        | -0.01  | 4.30%      | 0.14       |

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### Average 30 Year Fixed Mortgage Rates

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**SOURCE:**

Mortgage News Daily  
Mortgage Bankers Association  
Freddie Mac

**About this Data**



HUD.GOV

U.S. Department of Housing and Urban Development  
Secretary Ben Carson

## Affordable Housing

### Who Needs Affordable Housing?

Families who pay more than 30 percent of their income for housing are considered cost burdened and may have difficulty affording necessities such as food, clothing, transportation and medical care. An estimated 12 million renter and homeowner households now pay more than 50 percent of their annual incomes for housing. A family with one full-time worker earning the minimum wage cannot afford the local fair-market rent for a two-bedroom apartment anywhere in the United States.

### Where Can Individuals Find Assistance?

Individuals looking for assistance can:

- Find rental, homebuyer, and homeowner assistance
- Find resources for homeless persons, including, youth, veterans, and the chronically homeless
- Find help for victims of foreclosure and Hurricane Sandy and for persons living with HIV/AIDS

### What is HUD Doing to Support Affordable Housing?

Within the Office of Community Planning and Development, the Office of Affordable Housing Programs (OAH) administers the following grant programs designed to increase the stock of housing affordable to low-income households.

The HOME Investments Partnerships Program (HOME) provides grants to States and local governments to fund a wide range of activities including 1) building, buying, and/or rehabilitating housing for rent or homeownership or 2) providing direct rental assistance to low-income families. It is the largest Federal block grant program for State and local governments designed exclusively to create affordable housing for low-income households.

The National Housing Trust Fund (HTF) supports the acquisition, new construction, or reconstruction of rental units for extremely low-income families or families with incomes below the poverty line, whichever is greater.

HUD's Office of Housing and Office of Public and Indian Housing also administer programs to increase the amount of affordable housing available for low-income households across the nation.

### What Information Does HUD Provide?

The HUD Exchange provides a hub for HOME Program information, tools and templates, research, evaluations, best practices, guides, training manuals, and more including:

- HOME Laws and regulations
- Policy guidance (Policy Memos, HOME *FACTS*, HOMEfires)
- HOME Frequently Asked Questions (FAQs)
- HOME Dashboard Reports and other HOME Reports

Related tools and resources can be accessed through HOME Topics.

The HUD Exchange also provides:

**Email Updates** – To receive CPD communications about program policy, upcoming trainings, resources, reporting deadlines, technical assistance, and more, sign up on the HUD Exchange Mailing List.

**Training Opportunities** – For information on upcoming events, self-paced online training, and recorded webinars, go to Training and Events.

**Grantee Information** – To view amounts awarded to organizations under HUD programs over the past several years, go to CPD Allocations and Awards. To learn more about the agencies and organizations that have received funding, visit About Grantees.

**Assistance with Reporting System Questions** – If you have a question related to eCon Planning Suite or IDIS, please submit your question and get a response through Ask A Question.

**In-depth Advising** – To learn about extended communication or long-term assistance available to CPD grantees, visit Technical Assistance.

If you are an organization with a policy question related to HOME, or National Housing Trust Fund (HTF) please contact your local HUD Field Office for assistance.

### How Can My Organization Receive Funds?

Participating jurisdictions receive HOME grants through a formula to fund housing programs which meet local needs and priorities. To find out about how to apply for HOME assistance in your community, contact an agency nearest to your community.

**ENCLOSURE 2**

# NEWLAND SIERRA (/)

Stay Updated

San Diego's First Carbon Neutral Community

Benefits of a Specific Plan Compared to the Current General Plan

Minimizing Traffic Impacts

Reducing Vehicle Miles from the Community

Managing the Threats of Wildfires

Promoting Water Conservation

Types of Housing

Q: What types of housing will be built?

A: A mixture of for-sale homes is proposed. No apartments or rental homes are proposed. The homes will be a variety of single-family detached homes, attached townhomes, cluster homes, age-targeted, and larger lot single-family homes.

Share your thoughts with us by clicking [here \(/contact\)](#)

---

Q: Will there be any rental units?

A: No rental apartment buildings are proposed for the community.

Share your thoughts with us by clicking [here \(/contact\)](#)

---

Q: Are there any "affordable housing" requirements for the community?

A: The County of San Diego does not require subsidized or otherwise "income-restricted" housing to be provided in a project. However, we do plan to have a variety of housing types available, including some at price points that are attainable for middle-income families.

Share your thoughts with us by clicking [here \(/contact\)](#)

Community Character

Parks

Trails and Open Space

Wildlife

Vineyards

Commercial Area

Schools

Grading

Miscellaneous

## CONTACT US (/CONTACT)



(<http://www.newlandcommunities.com/>)



(<http://nashcommunities.com/>)

### Equal Housing Opportunity

†The project description is part of the Specific Plan and draft EIR for the project. The specific details of the project description are subject to refinement as it moves through the approval process.

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EQUAL HOUSING OPPORTUNITY

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| Frankfurt    | San Diego        |
| Hamburg      | San Francisco    |
| Hong Kong    | Seoul            |
| Houston      | Shanghai         |
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| Madrid       | Tokyo            |
| Milan        | Washington, D.C. |

April 17, 2018

VIA EMAIL & US MAIL

Ashley Smith  
Planning and Development Services  
County of San Diego  
5510 Overland Avenue, Suite 310  
San Diego, Ca 92123

Re: Revised Independent Analysis of Zoning Regulations, Constraints and Development Potential of Newland Owned Commercial Parcels Report prepared by Delane Engineering

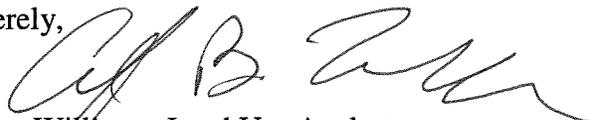
Dear Ms. Smith

Please find enclosed a revised report by Delane Engineering regarding the "Independent Analysis of Zoning Regulations, Constraints and Development Potential of Newland Owned Commercial Parcels." Our office previously submitted the report with our comment letter on the Draft Environmental Impact Report for the Newland Sierra Project. The previously submitted report incorrectly showed that Newland Sierra owned land currently occupied by the AM/PM gas station at Mesa Rock Road. This has been corrected, and the exhibits to the report have also been revised to reflect this change.

The revision, however, does not change the conclusion of the report which finds that due to regulatory and environmental constraints on the site a maximum of 618,000 square feet of office professional uses, and 77,000 square feet of general commercial uses could be built on the portions of the Newland Sierra Project site currently designated for office commercial and general commercial, for a total of 695,000 square feet. Therefore, the report finds that the site would not accommodate the 2 million square feet of commercial retail space including "big box" retail, claimed by Newland Sierra and repeated often by Newland Sierra in media reports and at community meetings.

If you have any questions, please do not hesitate to contact me.

Sincerely,



Clifton Williams, Land Use Analyst  
LATHAM & WATKINS LLP

Enclosure



## TECHNICAL MEMORANDUM

|         |                                                                                                                               |
|---------|-------------------------------------------------------------------------------------------------------------------------------|
| DATE    | August 4, 2017<br>Rev. March 29, 2018 (revised developable area removing parcels not owned by Newland)                        |
| TO      | Andrew Yancey – Latham and Watkins, LLP                                                                                       |
| FOR     | Kathy Van Ness – COO/GM Golden Door Resort                                                                                    |
| FROM    | John Prince, PE, PMP – DELANE Engineering, Inc.                                                                               |
| SUBJECT | <b>Independent Analysis of Zoning Regulations, Constraints, and Development Potential of Newland Owned Commercial Parcels</b> |

According to the June 2017 Draft Environmental Impact Report (DEIR) prepared for the Newland Sierra Development, the entire project area is currently zoned for 99 dwelling units and 58.2 acres of commercial office space (53.6 acres of C30, Office Professional, and 4.6 acres of C36, General Commercial). The Newland project proposes amending the General Plan and zoning to allow for the project's proposed 2,135 dwelling units and 81,000 square feet (SF) of commercial retail (C-5). See **Figure 1** for a land use breakdown from the Project Description section of the Newland DEIR.

The Newland DEIR claims that the 58.2 acres of currently zoned commercial property yields 2,008,116 SF of potential development under the Existing General Plan and that the proposed zoning changes result in similar or fewer overall land use and traffic impacts. The Newland DEIR also concludes that 2,008,116 SF of commercial development is feasible on the project site, and marketing material distributed by Newland at public meetings suggests the commercial parcels could include “big box” retail stores.

The Newland DEIR does not provide any detail on how the parcels would support over 2 million SF of development and does not own all the parcels. Per the County Zoning ordinance, development on the parcels is limited to two-stories and 35-ft in total height, with setbacks up to 60-ft. In addition, much of the property lies on “steep slopes”. Per the County Resource Protection Ordinance (RPO), steep slopes are defined as those natural slopes exceeding 25% in slope gradient and are a protected resource. Over 30% of the area of the commercial parcels qualifies as steep slopes per the RPO. As shown in **Figure 2**, the percent of steep slope area in several of the parcels exceeds 10% of the parcel area and requires an open space easement on the area of steep slopes (the yellow and red colored areas of Figure 2). Proposed development is not allowed to encroach more than 10% into an open space easement. In addition to steep slopes as a protected resource, the entire site consists of significant sloping that increases development costs and reduces development potential.

As shown in **Figure 3**, deducting for area of steep slopes and parking (at County ordinance rate of 4 stalls per thousand SF) yields a total developable building area available of 309,000 SF for C30 Office Professional and 38,500 SF for C36 General Commercial for a total of 347,500 SF. At 2 story height

restriction, the total building square footage feasible is 618,000 SF for C30 Office Professional and 77,000 SF of C36 General Commercial, for a total building square footage of 695,000 SF<sup>1</sup>. Note that there are additional potential constraints not taken into account that may further reduce feasible building square footage, including slope grading and earthwork, views, cost, economic viability, and other environmental factors.

The C30 zone does not allow “big box” retail stores. Section 2300 of the County Zoning Ordinance states that the intent of the C30 zone is as follows: “The C30 Use Regulations are intended to create and enhance areas where administrative, office and professional services are the principal and dominant use. It is also intended that uses involving high volumes of vehicular traffic be excluded from the C30 Use Regulations. Typically, the C30 Use Regulations would be applied near residential areas, have a scale and appearance compatible with and complementary to the adjacent residential use, and have pedestrian as well as vehicular access.”

The C36 General Commercial Zone does allow General Retail Sales which would include “big box” retail. However, as noted approximately 77,000 SF of retail would be allowed, which is smaller than the typical Costco (144,500 SF), Home Depot (105,000 SF), or Wal-Mart supercenter store (182,000 SF).<sup>2</sup> The 4.6 acres zoned C36 is bisected by Mesa Rock Road, further diminishing the ability for the property to develop in a single block, as would be required for any type of large format retail. Small convenience store retail, akin to the existing AM/PM minimart is more likely.

The Newland DEIR claims that the trip generation and distribution of the proposed residential development would be similar to and offset by the current commercial property. However, while the commercial parcels are limited to the far southeast corner of the entire project site, the Newland Sierra project as proposed sprawls out far across the hillsides northwest of the commercial parcels. Proposed project trip distribution is then spread out through three project access roads (Mesa Rock Road, Sarver Lane, and Twin Oaks Valley Road) causing further travel to and from the freeway and increased traffic on Deer Springs Road. However, when current land use is compared to proposed land use, it is apparent that trip distribution for the commercial parcels (if fully developed to current general plan) would result in differing trip distribution, with all traffic required to access the parcels from Mesa Rock Road. This is not addressed in the Newland project documents.

Finally, any development of only the commercial properties would not result in the environmental impacts and earth moving, blasting, noise, and other construction related impacts of the proposed Newland development across its nearly 2,000 acre site.

---

<sup>1</sup> The high level conceptual footprint designs provided in this memorandum are for the purpose of approximating the buildable area on the Newland Sierra project site under the existing General Plan and are not to be construed as a development proposal or design-level engineering.

<sup>2</sup> [http://investor.costco.com/phoenix.zhtml?c=83830&p=irol-homeprofile\\_pf](http://investor.costco.com/phoenix.zhtml?c=83830&p=irol-homeprofile_pf); <https://corporate.homedepot.com/about>; <http://stock.walmart.com/investors/investor-resources/faqs/default.aspx>;

**Figure 1 – Existing Land Use (per Newland DEIR)**

**Commercial and Residential Yield Analysis (Existing Land Use Regulations)**

| Land Use             | Acres              | Allowable Density per General Plan | Number of Units/Square Feet                        |
|----------------------|--------------------|------------------------------------|----------------------------------------------------|
| SR-10 (0%–25% slope) | 19.6               | 1 dwelling unit/10 acres           | 5*                                                 |
| SR-10 (25%+)         | 0.0                | 1 dwelling unit/20 acres           | 0                                                  |
| RL-20                | 1,907.8            | 1 dwelling unit/20 acres           | 94                                                 |
| C-1                  | 4.6                | 0.70 floor area ratio              | 140,263 square feet                                |
| C-2                  | 53.6               | 0.80 floor area ratio              | 1,867,853 square feet                              |
| <b>Total</b>         | <b>1,985 acres</b> | <b>-</b>                           | <b>99 dwelling units and 2,008,116 square feet</b> |

Source: Appendix C

\* One dwelling unit per parcel per existing legal lot

SR-10 = Semi-Rural 10; RL-20 = Rural Land; C-1 = General Commercial; C-2 = Office Professional

FIGURE 2 - STEEP SLOPES

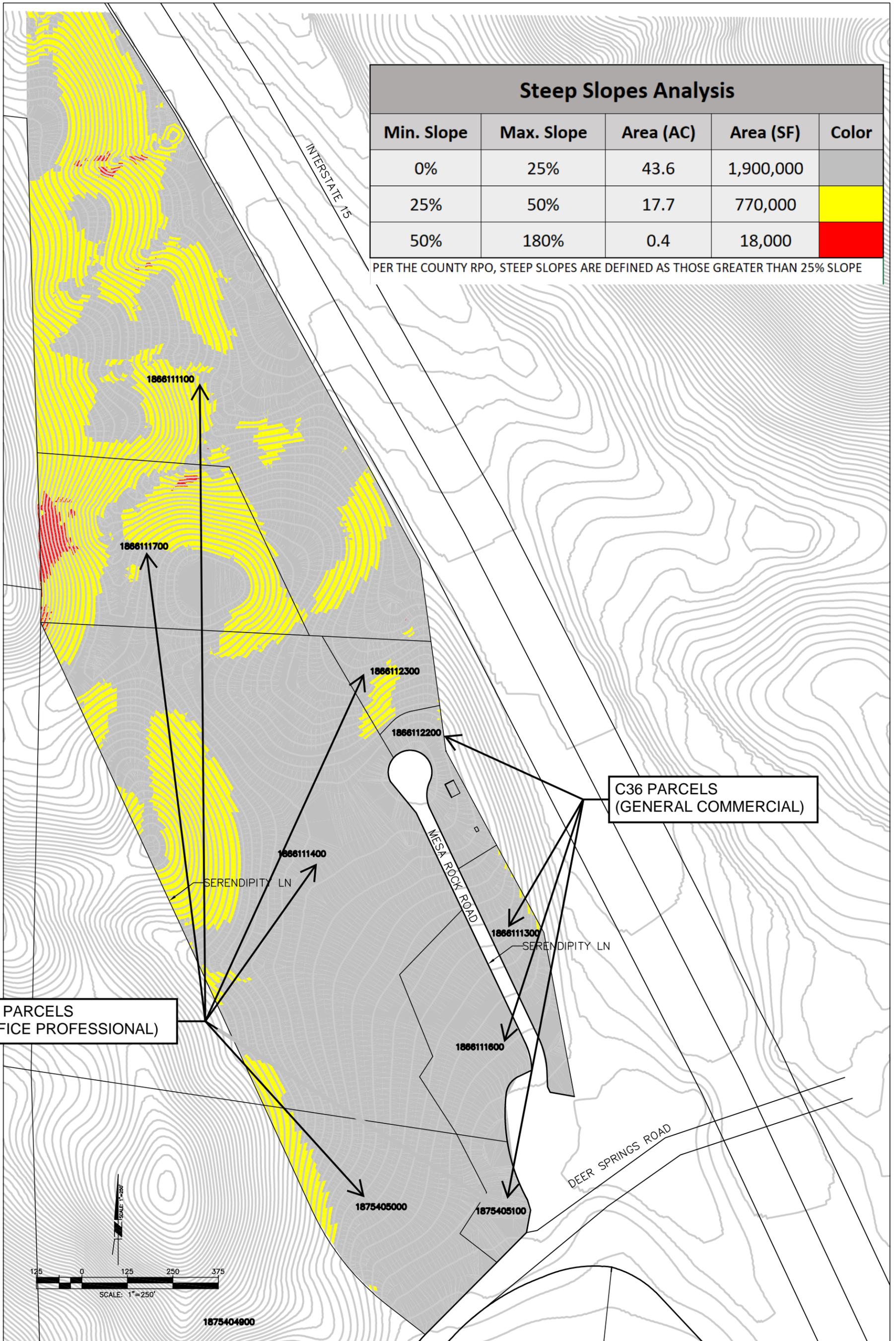
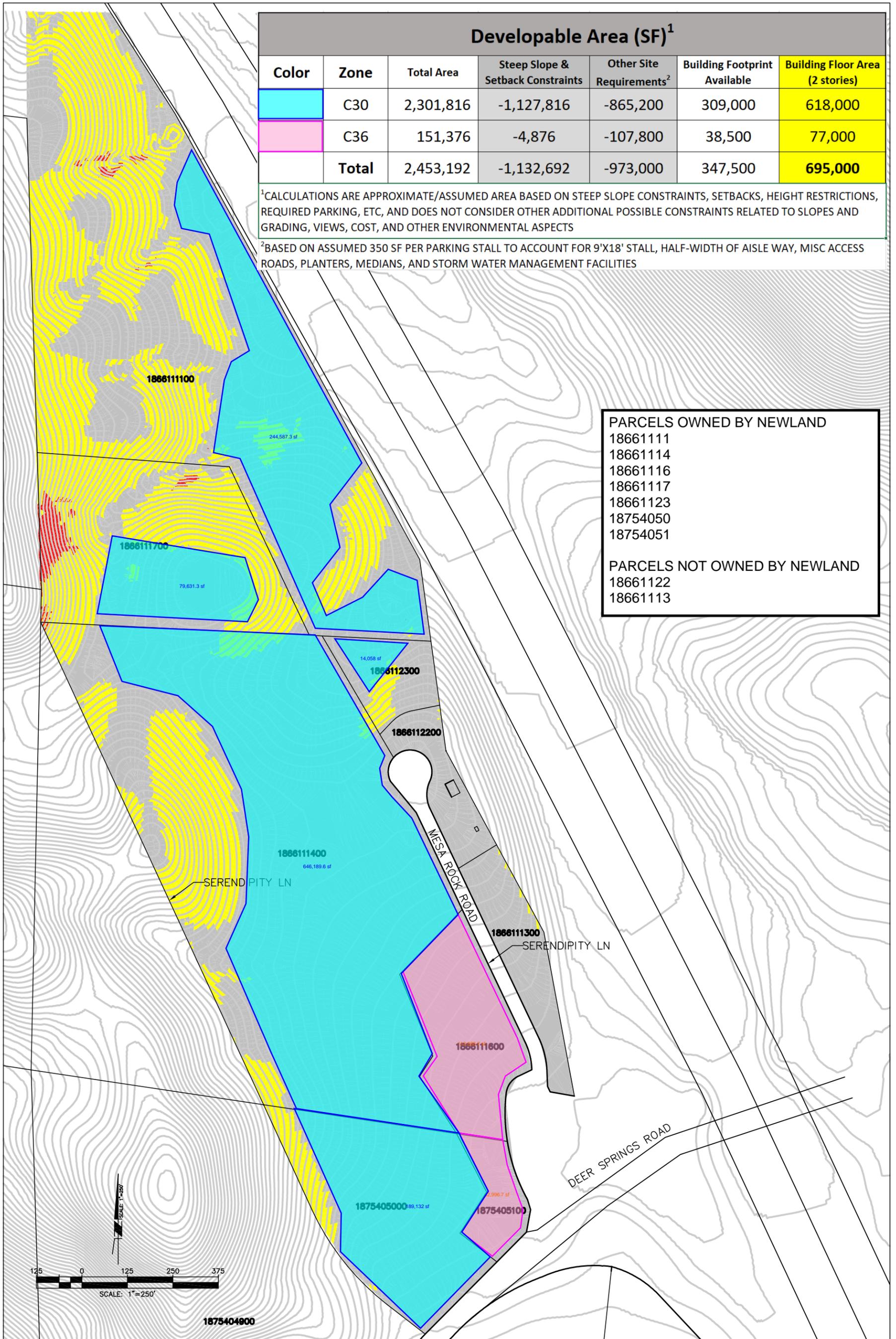


FIGURE 3 - DEVELOPABLE AREA



**LL-16**

12670 High Bluff Drive  
San Diego, California 92130  
Tel: +1.858.523.5400 Fax: +1.858.523.5450  
www.lw.com

# LATHAM & WATKINS<sup>LLP</sup>

## FIRM / AFFILIATE OFFICES

|              |                  |
|--------------|------------------|
| Beijing      | Moscow           |
| Boston       | Munich           |
| Brussels     | New York         |
| Century City | Orange County    |
| Chicago      | Paris            |
| Dubai        | Riyadh           |
| Düsseldorf   | Rome             |
| Frankfurt    | San Diego        |
| Hamburg      | San Francisco    |
| Hong Kong    | Seoul            |
| Houston      | Shanghai         |
| London       | Silicon Valley   |
| Los Angeles  | Singapore        |
| Madrid       | Tokyo            |
| Milan        | Washington, D.C. |

April 25, 2018

## VIA EMAIL

Ashley Smith  
Planning and Development Services  
County of San Diego  
5510 Overland Avenue, Suite 310  
San Diego, CA 92123

**Re: Request for Recirculation of Draft Environmental Impact Report for the Newland Sierra Project Due to Misleading and Inaccurate Claims**

Dear Ms. Smith:

I am writing on behalf of my client, Golden Door Properties, LLC (“Golden Door”) to request that the County of San Diego withdraw the existing the Draft Environmental Impact Report (“EIR”), SCH No. 2015021036, and revise and recirculate it, pursuant to the California Code of Regulations, Title 14, section 15088.5(a)(4). Section 15088.5(a)(4) requires an EIR to be recirculated when it is “so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded.”

That is the case here, because the project applicant, along with its primary environmental consultant (Dudek), have consistently and inaccurately set forth to the public a fundamentally inaccurate and misleading project comparison that includes “two million square feet of office space and big box retail” (See Enclosure 1: April 13, 2018 mailing by project applicant to County residents; see also Draft EIR at p. 1-34 [Project Description Chapter, asserting that “existing General Plan land use designations would allow approximately 99 residential dwelling units and 2,008,116 square feet of commercial space.”) This oft-repeated statement by the project proponent and Dudek is false, and relying upon this assertion in the draft EIR leaves the County extremely vulnerable to liability under the California Environmental Quality and the Code of Civil Procedure section 1021.5.

Dudek’s analysis is fundamentally flawed under Section 15088.5 for the following reasons.

*First*, under the California Environmental Quality Act (“CEQA”), an agency must use a reasonable measure of the environment’s state absent the project to decide whether a given project’s environmental effects are likely to be significant—typically referred to as the “baseline.” The baseline consists of “the physical environmental conditions in the vicinity of the project, as they exist at the time . . . environmental analysis is commenced . . .” (California

Code of Regulations, title 14, section 15125, subd. (a) [commencing with section 15000, the “CEQA Guidelines”].)

Dudek and Newland’s repetition of the project’s comparison to “two million square feet of office space and big box retail” is a clear violation of CEQA Guidelines section 15125—it is clear that “two million square feet of office space and big box retail” is a completely imaginary description of “the physical environmental conditions in the vicinity of the project, as they exist at the time . . . environmental analysis is commenced . . . .”

*Second*, the case law is clear—indeed the California Supreme Court has explained—that **“An approach using hypothetical allowable conditions as the baseline results in ‘illusory’ comparisons that ‘can only mislead the public as to the reality of the impacts and subvert full consideration of the actual environmental impacts,’ a result at direct odds with CEQA’s intent.”** (*Communities for a Better Environment v. South Coast Air Quality Mgmt. Dist.* (2010) 48 Cal. 4th 310, 322 [emphasis added]; see also *San Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal. App. 4th 645, 658 [“the baseline environmental setting must be premised on realized physical conditions on the ground, as opposed to merely hypothetical conditions allowable under existing plans”].)

As in *Communities for a Better Environment* and *San Joaquin Raptor Rescue Center*, Dudek and Newland’s repetition of the project’s comparison to “two million square feet of office space and big box retail” is directly at odds with CEQA’s intent. There is no entitled right to “two million square feet of office space and big box retail” in this area. There is no historical precedent for “two million square feet of office space and big box retail” in this area. There are no pending applications for “two million square feet of office space and big box retail” in this area. There is no market demand for “two million square feet of office space and big box retail” in this area. (Enclosure 2: Cushman & Wakefield Demand Study, dated July 31, 2017 [“[T]here does not appear to be significant demand for office space in the subject’s designated site area. . . . [T]here is little to no current demand for retail development at the subject’s site.”].) When considering site-specific constraints and other County requirements, it is not physically possible to locate “two million square feet of office space and big box retail” in this area. (Enclosure 3: Delane Engineering, Independent Analysis of Zoning Regulations, Constraints, and Development Potential of Newland Owned Commercial Parcels.) Finally, the “two million square feet of office space and big box retail” claim is contradicted by the SANDAG Series 12, 2050 Growth Forecast, which projected fewer than 500,000 square feet of commercial uses in this area, not 2,000,000 square feet, *using inputs validated by the County of San Diego*. (Enclosure 4: Professional Land Use Analysis of SANDAG Growth Forecast Data on Newland Sierra Project Site Commercial Area.) Accordingly, there is no reasonable justification for using “two million square feet of office space and big box retail” as the environmental baseline for comparison for the project, nor is it appropriate to incorporate into the “No Project” or “Existing General Plan” alternatives.

Yet this erroneous and misleading baseline infects not only the applicant’s communications to the public on this project, but also the analysis in the draft EIR. For example, Chapter 2.14 uses “projected” water demand based on full build-out of General Plan conditions. (DEIR at p. 2.14-67 [Table 2.14-1].) Using this purely hypothetical baseline, Dudek asserts that

the project will result in a “35 percent reduction in water use compared with the 2011 General Plan water demand.” (*Id.* at p. 2.14-45.) Notably, Dudek fails to provide a comparison of the project’s water use based on existing conditions, which does not include “two million square feet of office space and big box retail.” Newland makes similar claims regarding other significant, adverse environmental impacts, stating that the addition of a population the size of the City of Del Mar in this currently largely undeveloped area will somehow result in “less peak hour traffic.” (Enclosure 1.) (E.g., *Woodward Park Homeowners Assn., Inc. v. City of Fresno* (2007) 150 Cal.App.4th 683, 691 [“the environmental impact report usually measured the project's impacts by comparing it to a massive hypothetical office park, instead of comparing it to the vacant land that actually exists at the project site. This hypothetical office park was a legally incorrect baseline, which resulted in a misleading report of the project's impacts.”].)

*Third*, the “two million square feet of office space and big box retail” claim is not supported by any substantial evidence. CEQA Guidelines section 15384 explains that “substantial evidence” may not include “Argument, speculation, unsubstantiated opinion or narrative, [or] evidence which is clearly erroneous or inaccurate.” Dudek and Newland’s assertion that the Project site could support “two million square feet of office space and big box retail,” either as a matter of the market or physical feasibility, constitutes “Argument, speculation, unsubstantiated opinion or narrative, [or] evidence which is clearly erroneous or inaccurate.” The spurious claim of “two million square feet of office space and big box retail” comes from an overly simplistic and fundamentally misleading calculation of the total acreage zoned for General Commercial and Office-Professional multiplied by the maximum floor-area ratio for the site.<sup>1</sup> But common sense dictates that the maximum hypothetical development intensity, which does not account for other restrictions from site topography, height limits, setbacks, market demand, etc., does not mean that development to the maximum hypothetical intensity is physically possible, much less “reasonably foreseeable.” As the evidence shows, “two million square feet of office space and big box retail” is neither physically possible nor economically foreseeable. (See Enclosures 2 and 3.)

*Fourth*, the purported “two million square feet of office space and big box retail” claim is not even consistently applied in the Draft EIR, as if even Dudek’s sub-consultants do not really believe it. For example, the Draft EIR traffic study concedes that “two million square feet of office space and big box retail” on the project site is unlikely, by assessing traffic trips for the “general plan” condition corresponding to far fewer than “two million square feet of office space and big box retail” (about 850,000 to 942,000 square feet). (See Enclosure 5: STC Traffic, Inc. Newland Sierra Office Trip Generation Assessment.)

It is this type of clear and inherent contradiction in the Draft EIR analysis that renders it “so fundamentally and basically inadequate and conclusory in nature that meaningful public review and comment were precluded” such that the current Draft EIR must be withdrawn, revised to correct the severe deficiencies identified here, and recirculated for a new public review, comment, and response period. For the County to proceed in reliance upon this clearly

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<sup>1</sup> 53.6 acres Office-Professional \* 43,560 s.f. per acre \* maximum FAR of 0.8, plus 4.6 acres of General-Commercial \* 43,560 s.f. per acre \* maximum FAR of 0.7.

LATHAM & WATKINS<sup>LLP</sup>

faulty analysis will leave the County exposed to high risk of legal vulnerability under CEQA and other applicable laws. County staff should insist that Dudek and the applicant revise its analysis to comply with legal requirements.

If you have any questions, please do not hesitate to contact me.

Very truly yours,



Taiga Takahashi  
of LATHAM & WATKINS LLP

Enclosures

- 1: Newland Sierra Public Mailer, April 13, 2018
- 2: Cushman & Wakefield, Demand Study, Proposed Newland Sierra Town Center (July 2017)
- 3: Delane Engineering, Independent Analysis of Zoning Regulations, Constraints, and Development Potential of Newland Owned Commercial Parcels
- 4: Technical Memorandum, SANDAG Growth Forecast Data on Newland Sierra Project Site Commercial Area
- 5: STC Traffic, Inc. Newland Sierra Office Trip Generation Assessment.

cc: Mark Wardlaw, County Planning and Development Services  
Mark Slovick, County Planning and Development Services  
William W. Witt, Esq., Office of County Counsel  
Claudia Silva, Esq., Office of County Counsel  
Brian Grover, Dudek  
Stephanie Saathoff, Clay Co.  
Denise Price, Clay Co.  
Christopher W. Garrett, Esq., Latham & Watkins LLP  
Andrew Yancey, Esq., Latham & Watkins LLP  
Kathy Van Ness, Golden Door

**ENCLOSURE 1**

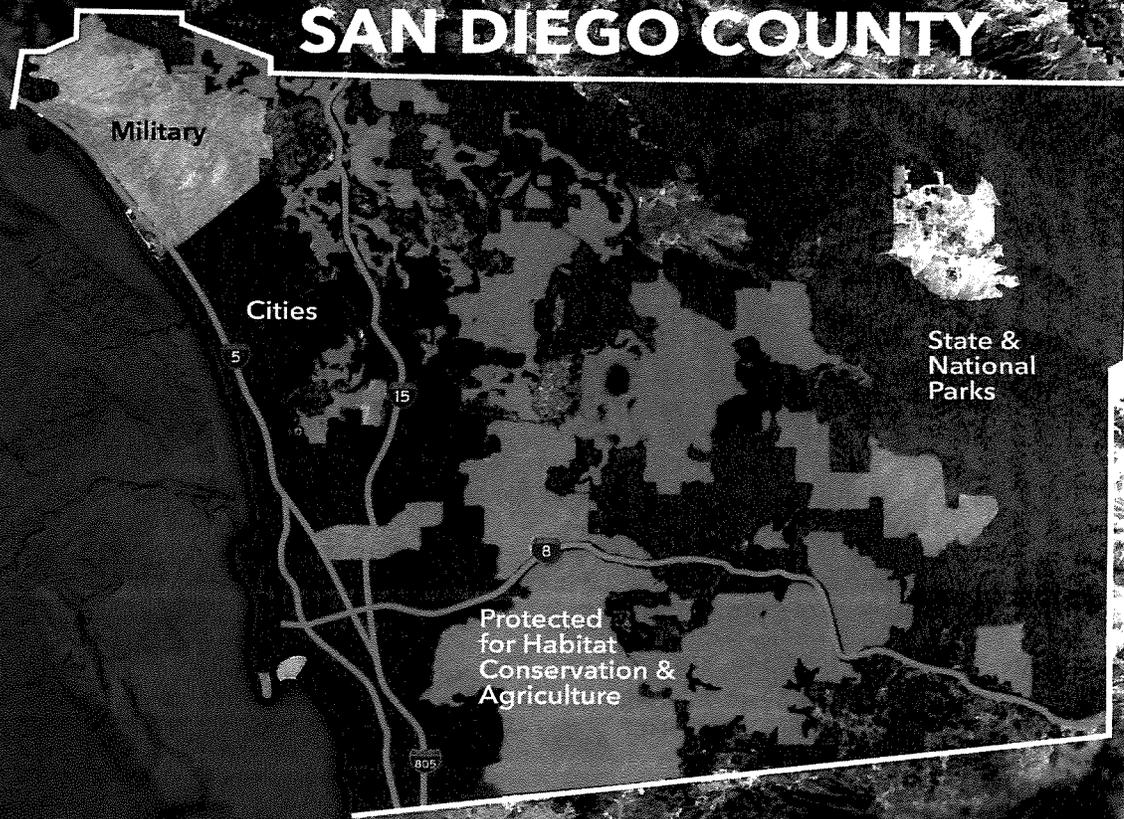
# HOMES FOR NORTH COUNTY

Land designated for development in North County should be used for homes and open space for the next generation, not two million square feet of office space and big box retail.

## NEWLAND SIERRA



# SAN DIEGO COUNTY



94.6% of County land is off limits to development, yet our site has been planned for development.

-  Protected for Habitat Conservation & Agriculture
-  State & National Parks

# A BETTER CHOICE

With 94.6 percent of unincorporated County land set aside and protected, how we plan and develop the remaining 5.4 percent is important to the future of every resident of San Diego County.

Currently, on a site one mile from Escondido and San Marcos, the County General Plan calls for two million square feet of office space, big box retail and parking (equal in size to the Westfield North County Mall), along with 99 large estates spread out on big lots.

In contrast, Newland Sierra provides what is most needed in the community, homes and open space. Our plan leaves 61 percent of the property as public open space, along with 36 acres of parks and 19 miles of trails. There will be about one home per acre, located in seven smaller neighborhoods nestled between ridges, within the valleys.

This results in less peak hour traffic, 52 percent less water use, planned additional conservation areas and added fire protection. It will also be San Diego County's first carbon-neutral community.

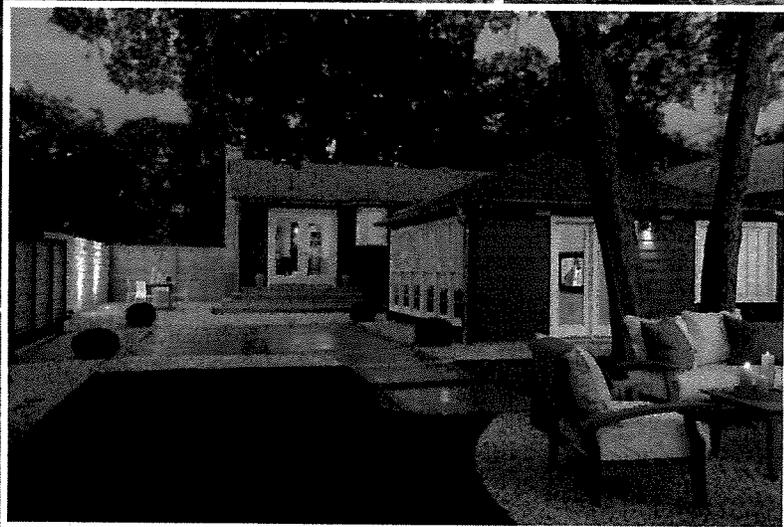


*This information is provided based on current development concepts and is subject to governmental review and approvals. Actual development of the property may vary from the materials presented herein and are therefore, subject to change without notice.*

# A PLAN THAT FITS NORTH COUNTY'S CHARACTER

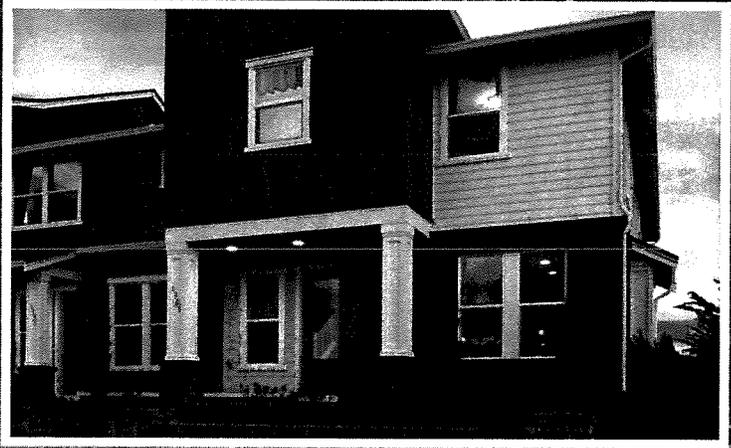
## 61% OPEN SPACE

36 acres of public parks and 19 miles of trails will promote both active and passive outdoor recreation.

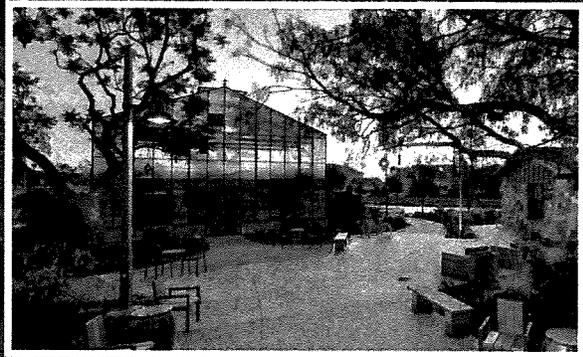


Ridgelines and **SIGHTLINES WILL BE PROTECTED** by siting neighborhoods in the valleys, respecting the natural contours of the land.

Neigh  
nestle  
prote



**SEVEN DISTINCT NEIGHBORHOODS** with a broad range of designs and price points, including single-family start-up homes and age-qualified senior housing, are nestled into valley floors.



A small, **MIXED-USE TOWN CENTER** is included with convenient neighborhood shopping and amenities, and a new K-8 school site.

Neighborhoods nestled into valleys, protecting views.

Deer Springs Road

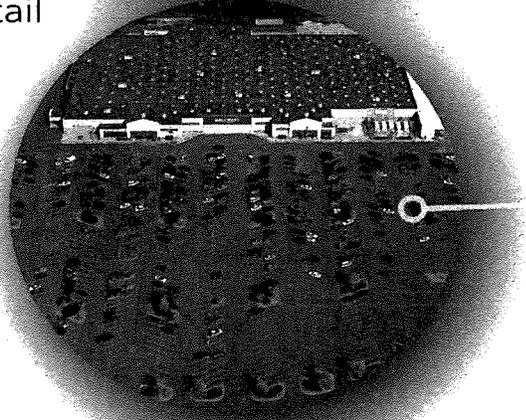
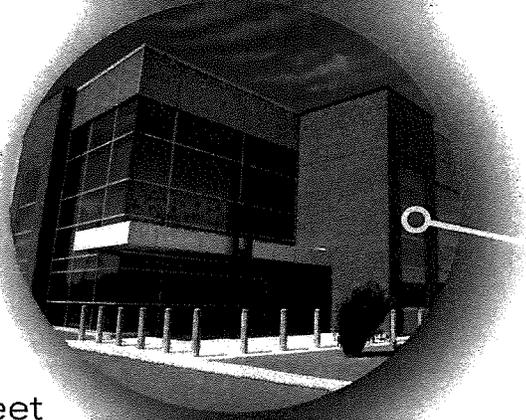
15

# THE CURRENT GENERAL PLAN IS NOT WHAT NORTH COUNTY NEEDS

99 estate  
homes on  
large lots



2 million square feet  
of office & retail



# CURRENT GENERAL PLAN

Today, the San Diego County General Plan calls for massive development of retail and office along the freeway, plus 99 estate homes on large lots.

This results in more peak hour traffic, more water use and no public parks or open space.

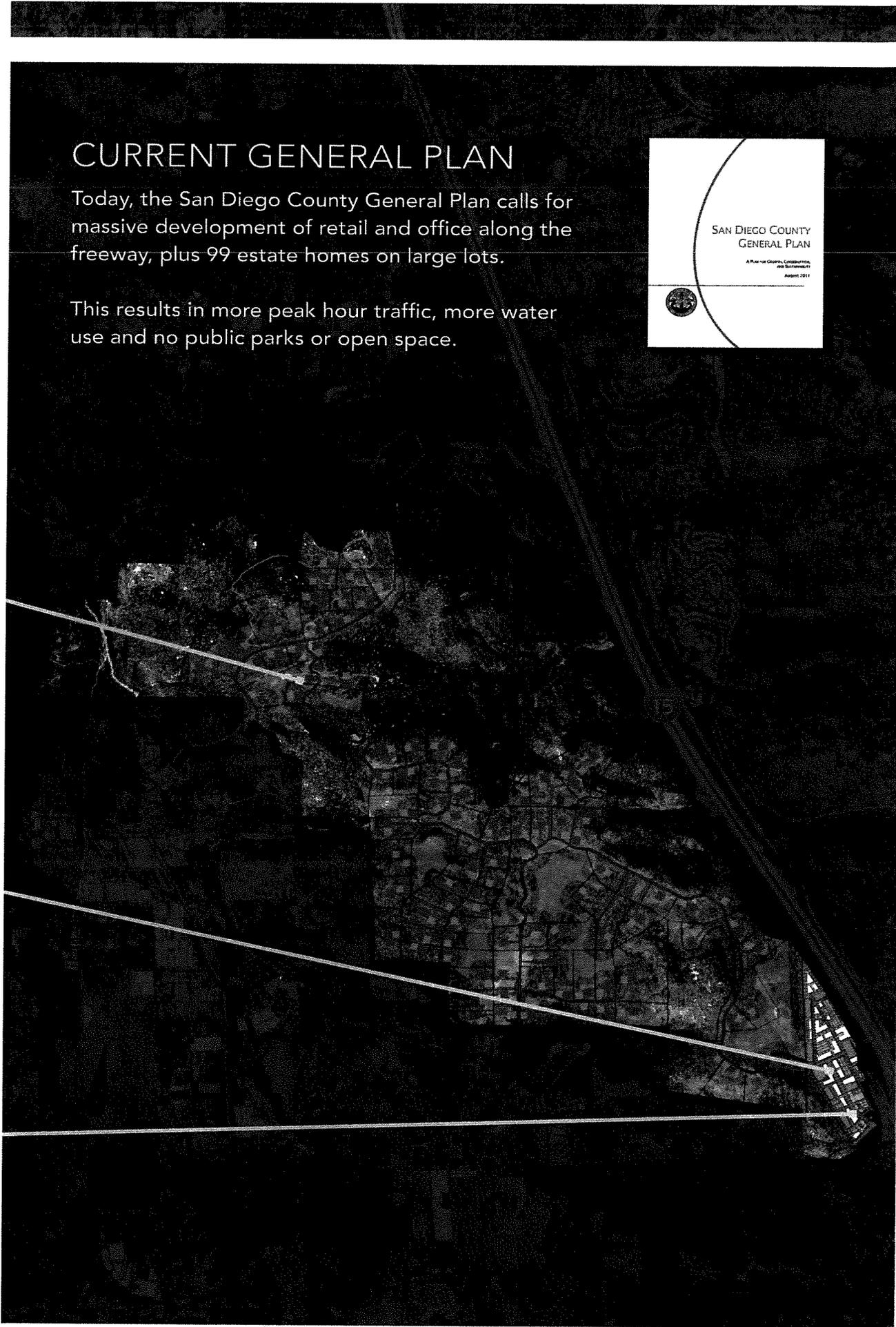
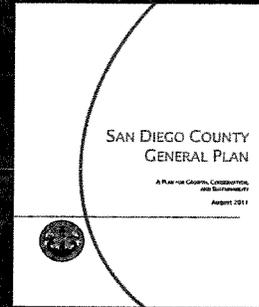


PHOTO: COURTESY OF THE SAN DIEGO COUNTY PLANNING AND DEVELOPMENT DEPARTMENT. DESIGN: JEFFREY M. HARRIS. ART: JEFFREY M. HARRIS. PHOTO: COURTESY OF THE SAN DIEGO COUNTY PLANNING AND DEVELOPMENT DEPARTMENT. DESIGN: JEFFREY M. HARRIS. ART: JEFFREY M. HARRIS.

**17,700**  
North County  
Coastal

**35,000**  
Other  
Counties

**129,000**  
North  
County  
Jobs

**9,200**  
North  
City

**4,100**  
Central

**2,600**  
South  
County



# HOMES WHERE THEY ARE NEEDED

Inland North County enjoys 129,000 jobs according to SANDAG, but 74,000 of those are filled by inbound commuters. Commuting is not sustainable for families, and it is not good for traffic, nor the environment. There is no better place to locate new housing than Newland Sierra.

**6,030**  
East County

**54,370**

LIVE & WORK  
IN THE AREA

SANDAG's 2016  
report states 74,000  
people commute to  
inland North County  
every day.

**SANDAG**

**74,630**

DAILY COMMUTERS

# DEDICATED PUBLIC OPEN SPACE

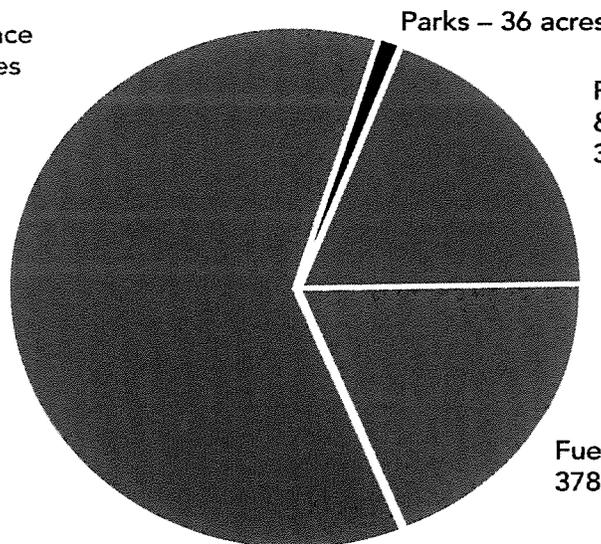
Of the Newland Sierra property's 1,986 acres, 1,209 will be preserved as permanent public open space.

Of the remaining 777 acres, nearly half (378 acres) will remain open space devoted to carefully maintained brush management areas, along with 36 acres of parks and 19 miles of trails.

Our design preserves the property's natural character and dramatic topography, while providing the opportunity for an incredible amount of open space that would be preserved forever.

**61%**

Open Space  
1,209 acres



Parks – 36 acres

Residential Neighborhoods  
& Town Center  
362.4 acres

Fuel Management Areas  
378.1 acres

NEWLAND SIERRA  
LAND USE



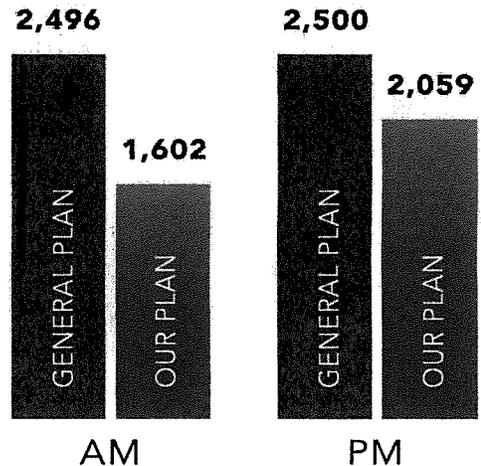
# LESS PEAK HOUR TRAFFIC AND WATER USE



## TRAFFIC

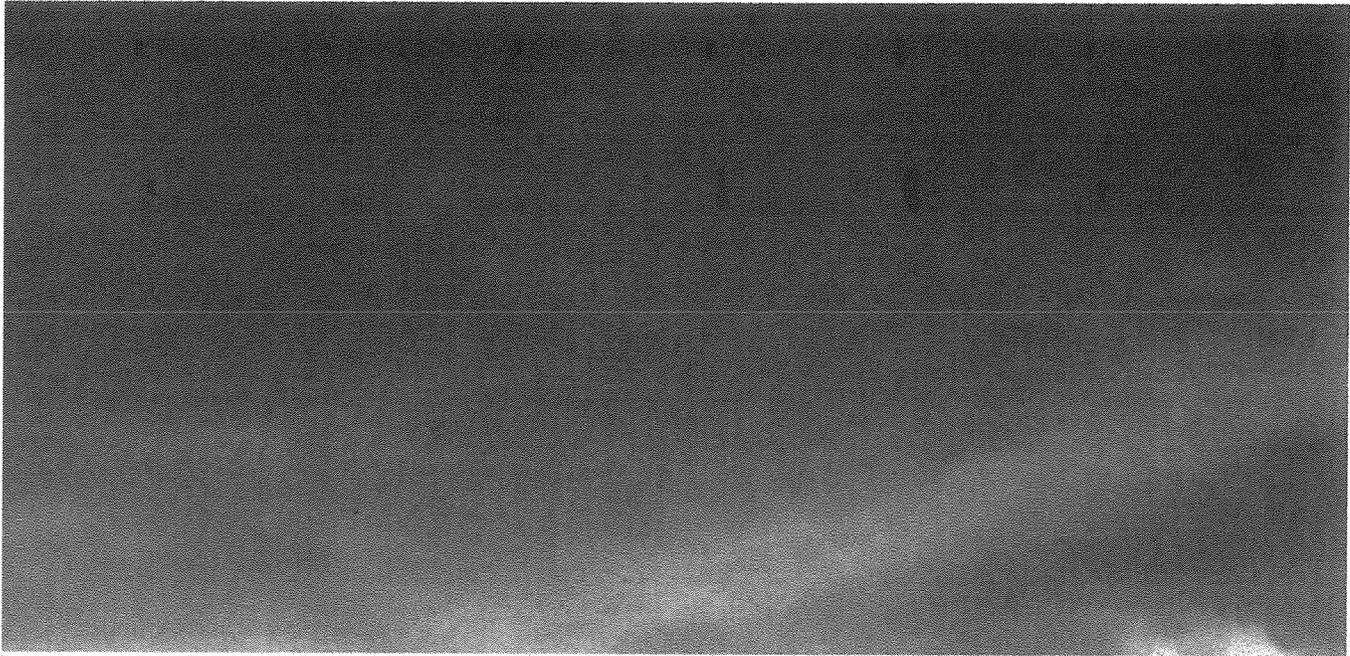
To alleviate existing problems and accommodate new houses, Deer Springs Road will be widened to four lanes from I-15 into the City of San Marcos. The I-15 interchange will also be improved.

Twin Oaks Valley Road will be widened to four lanes from Deer Springs Road to beyond Buena Creek Road to address current congestion problems.



Peak hour traffic will be reduced by nearly 1,000 trips in the mornings and 500 trips in the evenings compared to the General Plan.





## WATER

Newland Sierra reduces the property's water needs by 51% as compared to the uses in the current General Plan.

Our neighborhoods are designed to be a model for smart water use. Each home is required to have drought tolerant landscaping, while rainfall and runoff will be captured and directed into bioswales for landscaping and to recharge the aquifer.

1,825



870



ACRE-FEET OF  
PROJECTED  
WATER USE

*\*GSI Water  
Conservation Report*



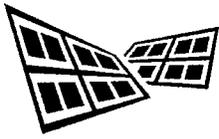


With thoughtful planning and abundant opportunities for outdoor recreation, Newland Sierra supports both a sustainable environment and a sustainable lifestyle.



# A COMMITMENT TO SUSTAINABILITY

Newland Sierra will be the most environmentally sustainable master-planned community in San Diego.



## **SOLAR PANELS**

All homes will feature solar panels to offset residential electricity consumption, and community buildings and street lights will also be solar-powered.



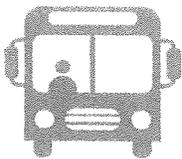
## **VEHICLE CHARGERS**

To encourage electric vehicle use, each home will be equipped with an electric vehicle charger, helping to reduce energy needs and emissions.



## **ELECTRIC BICYCLES**

Electric bike stations will be placed throughout the neighborhoods to provide residents with alternative transportation within the community.



## **SHUTTLES ON & OFF SITE**

A shuttle system will connect residents internally to the community parks and amenities, and externally to the public transportation network.

*Newland Sierra will result in no net increase in greenhouse gas emissions. We will be the first 100 percent carbon-neutral plan in San Diego.*



# JOIN US

Let us know you support our plans and we'll be  
in touch with ways you can help bring homes to  
North County for the next generation.

[www.newlandsierra.com](http://www.newlandsierra.com)  
[linda@newlandsierra.com](mailto:linda@newlandsierra.com)  
(760) 571-9204

**NEWLAND  
SIERRA**

# SIERRA

April 13, 2018

[REDACTED]  
Encinitas, CA 92024 [REDACTED]

Dear [REDACTED]

Just like any local will tell you, North County San Diego is a special place to live, with just the right balance of urban convenience, small-town feel and beautiful natural surroundings. As a planner and a builder, I don't hesitate to say that this community is unique, in all the right ways.

Yet it's no secret that the area finds itself in a tricky spot. Many large local employers and a burgeoning regional economy are stacked against the same challenge facing the whole county and state – not enough homes for working families, with prices steadily moving further and further out of reach.

In this context, there's a choice to be made – embrace an opportunity to help solve the problem, or keep moving toward a future where young families and workers are priced out of the area, forcing many to commute hours to and from work every day.

Our team at Newland Sierra believes we have the better choice for North County.

Included along with this letter is a fact booklet describing our approach and plan for the property just north of San Marcos, which provides new, affordable homes for North County's next generation while leaving more than 60 percent of the land as permanent public open space.

The San Diego County General Plan has specifically set this land aside for new development. It currently calls for two million square feet of office space, parking structures and big box retail, along with 99 estate-style homes spread out on big lots. That plan simply does not fit the community, and it does not address the county's housing needs.

Our vision is different, and better suited to the situation today. We're proposing a General Plan Amendment that provides a range of home types, and leaves more than 1,200 acres of the property as public open space, along with 36 acres of parks, and 19 miles of trails. New commercial development is designed to cater to the neighborhoods, with amenities like a grocery store, restaurants and a dry cleaner, as opposed to more big box retail or large office buildings.

Newland Sierra will add a new stock of homes that are right-priced for the area, allowing new families to stay and grow here in North County, and for empty nesters to find the right fit for their changing lives. And as a result of years of detailed study and thoughtful planning, our plan produces less traffic, reduces water needs, and improves fire protection compared to the current General Plan.

The enclosed booklet also describes how the plan has been designed to preserve the site's natural character and dramatic topography, with buildings nestled between ridges and within valleys, almost entirely out of view. We are also proud to share that Newland Sierra will be a carbon-neutral development, with all emissions from the project managed through sustainable planning features or investment in carbon credits.

This property will be developed. The question is how. Our plan will provide a range of new homes to meet the needs of North County's next generation, while opening more than 60 percent of the property as new public open space. The existing General Plan fills much of this space with luxury estates we don't need, along with massive office and big box retail development that doesn't fit.

I hope you agree Newland Sierra is the better plan for North County. Please take a moment and review the fact booklet. Then let us know what you think by completing and returning the enclosed postage-paid card. You can also send an email to [linda@newlandsierra.com](mailto:linda@newlandsierra.com) or give us a call at (760) 571-9204.

We hope to hear from you, and thanks.

Sincerely,

A handwritten signature in black ink that reads "Rita Brandin". The signature is written in a cursive style with a large, sweeping initial "R".

Rita Brandin

Senior Vice President and Development Director

**ENCLOSURE 2**



## DEMAND STUDY

Proposed Newland Sierra Town Center  
Deer Springs Road & I-15  
Unincorporated Area of North San Diego County,  
San Diego County, CA 92069

## IN A CONSULTING ASSIGNMENT

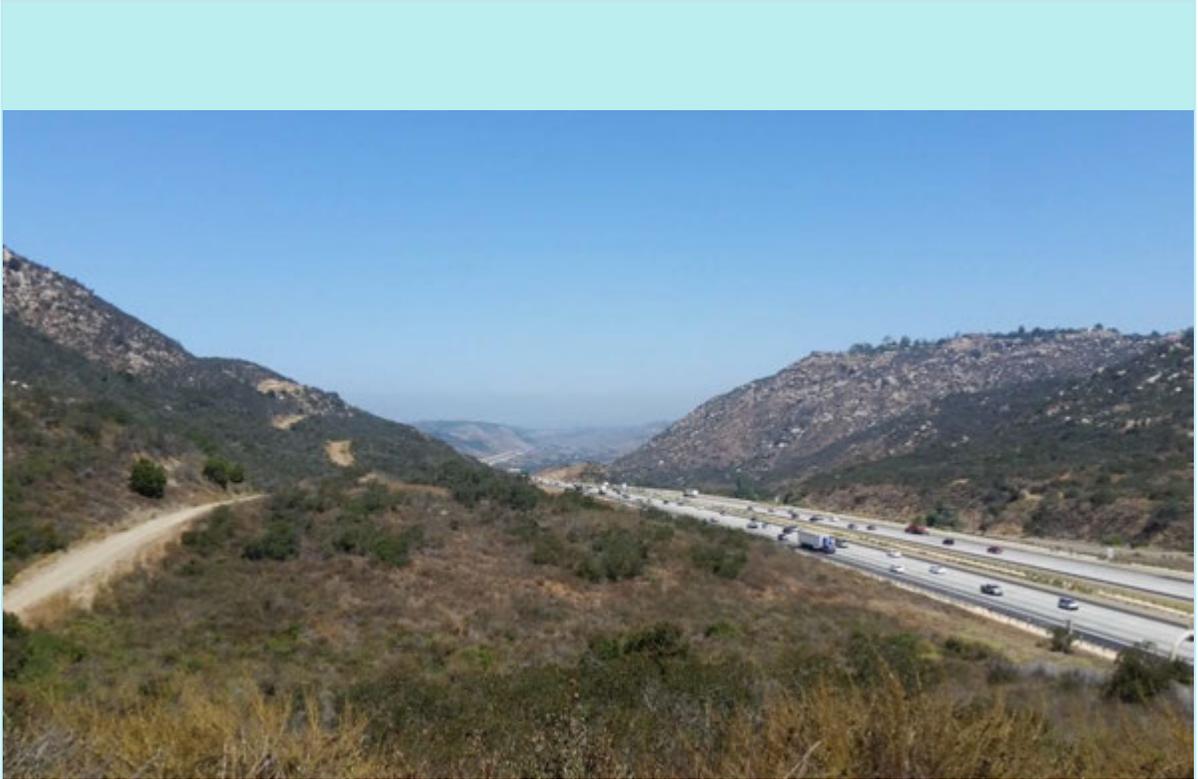
As of July 31, 2017

### Prepared For:

Golden Door Properties, LLC  
777 Deer Springs Road  
Unincorporated Area of North San Diego County, CA  
92069

### Prepared By:

Cushman & Wakefield Western, Inc.  
Valuation & Advisory  
4747 Executive Drive, 9th Floor  
San Diego, CA 92121  
Cushman & Wakefield File ID: 17-38503-900283



**Town Center**

**Deer Springs Road & I-15**

**Unincorporated Area of North San Diego County,  
San Diego County, CA 92069**

August 08, 2017

Ms. Kathy Van Ness  
**Golden Door Properties, LLC**  
777 Deer Springs Road  
Unincorporated Area of North San Diego County, CA 92069

Re: A Demand Study for the Newland Sierra Town Center,  
located at the northwest corner of Deer Springs Road & I-15  
Unincorporated Area of North San Diego County, San Diego County, CA 92069

Cushman & Wakefield File ID: 17-38503-900283

Dear Ms. Van Ness:

In fulfillment of our agreement as outlined in the Letter of Engagement dated July 25, 2017, we are pleased to transmit our findings in the form of a demand study of the above referenced property.

The subject property consists of 2,535,192 square feet of land located in San Diego County, CA 92069. The subject property is located on the northwest corner of Deer Springs Road and Freeway I-15, in the City of Unincorporated Area of North San Diego County, County of San Diego. The site is unimproved hillside with steep terrain, sloping downward from West to East toward Freeway I-15.

This letter is invalid as an opinion of demand if detached from the report, which contains the text, exhibits, and Addenda.

Respectfully submitted,

**CUSHMAN & WAKEFIELD WESTERN, INC.**



---

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858.334.4013 Office Direct

## Summary of Salient Facts and Conclusions

|                                    |                                                                                                                                                                                                                    |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Client:                            | Golden Door Properties, LLC.                                                                                                                                                                                       |
| Intended Use:                      | This report is intended to provide an opinion of the existing market demand for office and commercial development of the subject property (Town Center) at the site of the Newland Sierra project.                 |
| Intended User:                     | This report was prepared for inclusion into a comment package to the County of San Diego regarding the proposed Newland Sierra development project and is not intended for any other users.                        |
| Identification of Real Estate:     | Town Center site at the site of the proposed Newland Sierra project.<br>Located at the northwest corner of Deer Springs Road & I-15.<br>Unincorporated Area of North San Diego County, San Diego County, CA 92069. |
| Highest & Best Use (As if Vacant): | A commercial and residential use built to a density supportable by market demand.                                                                                                                                  |
| Highest & Best Use (As Improved)   | The site is unimproved hillside with steep terrain, sloping downward from West to East toward Freeway I-15                                                                                                         |
| Current Ownership:                 | Newland Sierra LLC                                                                                                                                                                                                 |
| Date of Inspection:                | July 31, 2017                                                                                                                                                                                                      |
| Date of Report:                    | August 08, 2017                                                                                                                                                                                                    |

## Summary of Critical Observations

### SUMMARY OF CRITICAL OBSERVATIONS

The strengths and weaknesses analysis applies both specifically (attributes internal or specific to the subject) and generally (external or economic considerations that influence the subject).

#### Strengths

- The subject is located adjoining Freeway I-15 which is the singular access from San Diego County to Riverside County.

#### Weaknesses

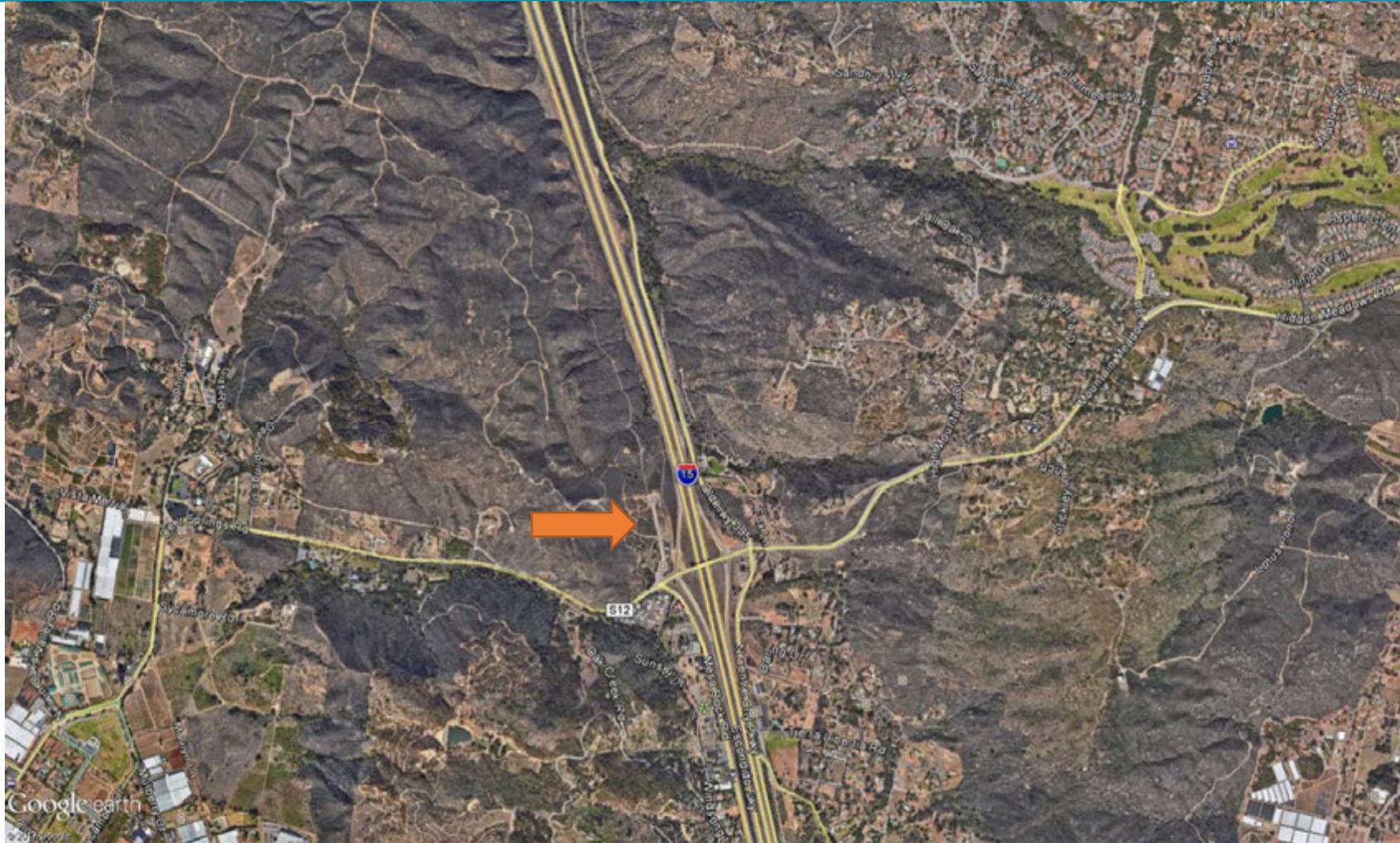
- The subject's site is steep and will be difficult to develop. At present, there is insufficient homes to support any significant commercial development on the site.

#### Conclusions

Based on the preceding strengths and weaknesses, the subject property's specific zoned use does not appear to be a feasible development at this time.

# Property Photographs

AERIAL PHOTOGRAPH



**NORTHEAST CORNER OF DEER SPRINGS RD. & I-15**



**SUBJECT – LOOKING WEST FROM MESA ROCK ROAD**



**SUBJECT – LOOKING NORTH FROM MESA ROCK RD.**



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# Scope of Work

## Overview

Scope of work is the type and extent of research and analyses involved in an assignment. To determine the appropriate scope of work for the assignment, we considered the intended use of the appraisal, the needs of the user, the relevant characteristics of the subject property, and other pertinent factors. Our concluded scope of work is summarized below, and in some instances, additional scope details are included in the appropriate sections of the report:

## Research

- We inspected the property and its environs. Physical information on the subject was obtained from the property owner's representative, public records, and/or third-party sources.
- Regional economic and demographic trends, as well as the specifics of the subject's local area were investigated. Data on the local and regional property market (supply and demand trends, rent levels, etc.) was also obtained. This process was based on interviews with regional and/or local market participants, primary research, available published data, and other various resources.
- Other relevant data was collected, verified, and analyzed. Property data was obtained from various sources (public records, third-party data-reporting services, etc.) It is, however, sometimes necessary to rely on other sources deemed reliable, such as data reporting services.

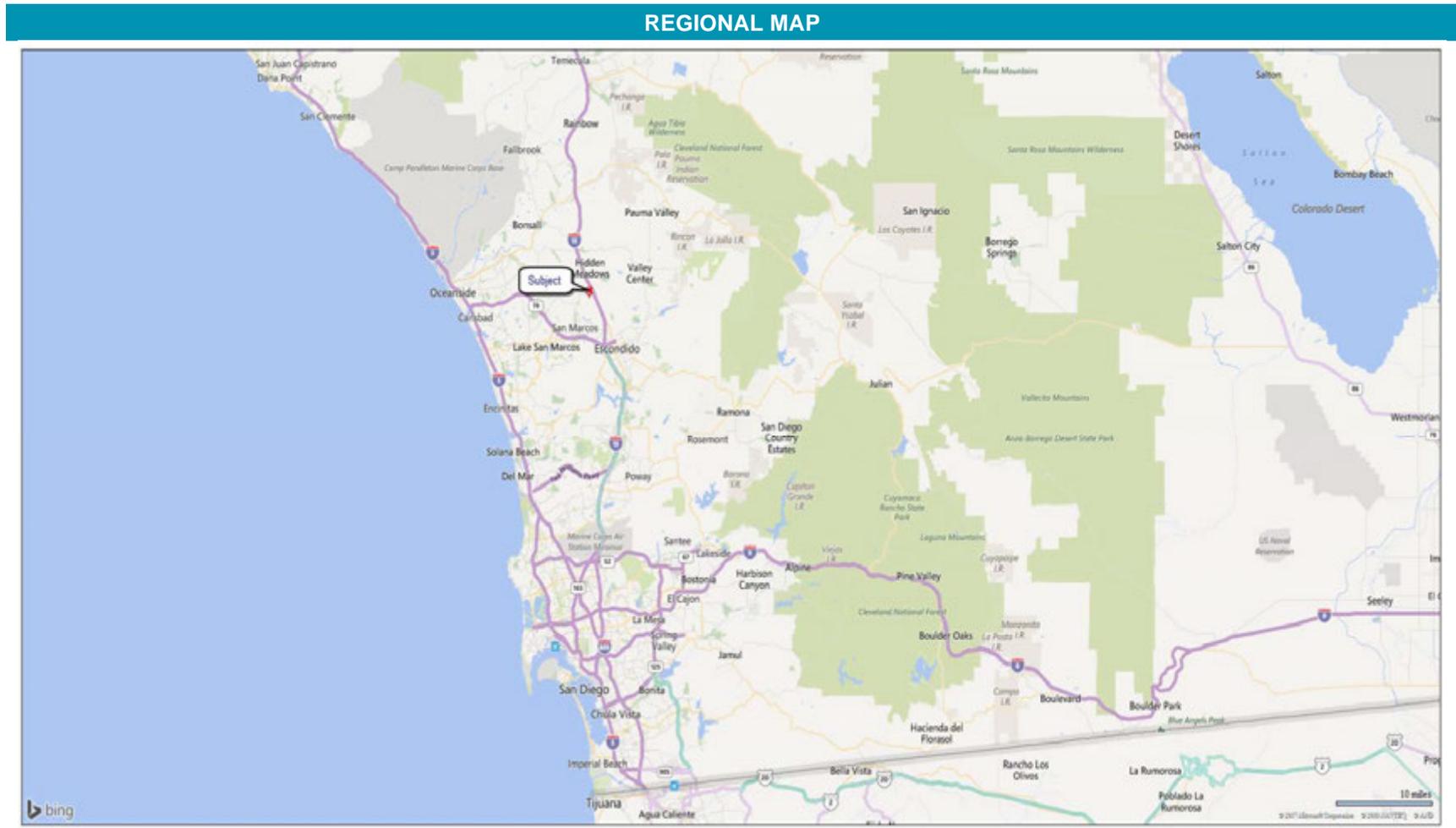
## Analysis

- Based upon the subject property characteristics, prevailing market dynamics, and other information, we developed an opinion of the market's demand for commercial use on the subject property.
- We analyzed the data gathered using generally accepted methodology to arrive at a probable demand.

This report is intended to comply with the reporting requirements outlined under USPAP for consulting assignment. Cushman & Wakefield Western, Inc. has an internal Quality Control Oversight Program. This Program mandates a "second read" of all appraisals. Assignments prepared and signed solely by designated members (MAIs) are read by another MAI who is not participating in the assignment. Assignments prepared, in whole or in part, by non-designated appraisers require MAI participation, Quality Control Oversight, and signature.

For this assignment, Quality Control Oversight was provided by Trevor Chapman, MAI.

# Regional Analysis



## Regional Analysis

### Market Definition

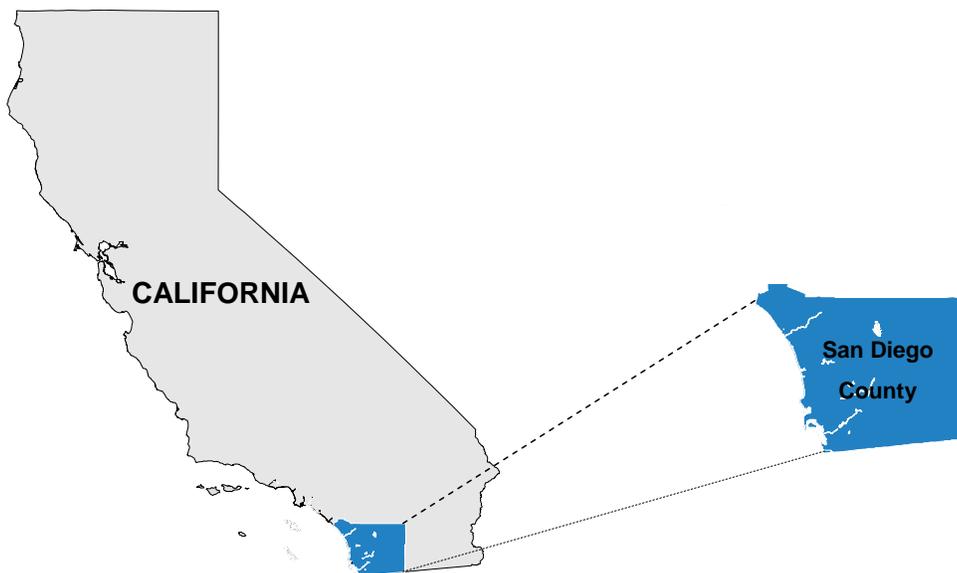
San Diego County is the second largest county by population in the state of California, with approximately 3.3 million residents, according to Experian Marketing Solutions' 2016 estimates. To the north, the county is bordered by Orange and Riverside County, and Imperial County to the east. San Diego is located north of Mexico, sharing a border with Tijuana. As a coastal community, the region is home to miles of beaches and mild-semi-arid climate, making it a desirable residential and commercial location. One of the strongest technology hubs in Southern California, the region also home to one of the largest concentrations of military defense services in the world, with military facilities hosting the United States Navy, Coast Guard and Marine Corps. Over the past three years as recovery has taken its course, construction and consumer spending has picked alongside substantial employment and income growth.

Further considerations are as follows:

- According to Experian Market Solutions' 2016 estimates, San Diego County is the fifth most populous county in the United States. Roughly half of the region's total population resides in the City of San Diego.
- The City of San Diego is the region's economic hub and home to well over half of the jobs and nearly three-quarters of the region's largest employers including Qualcomm, Sony Electronics, Inc., and Sempra Energy.

The San Diego-Carlsbad Metropolitan Statistical Area (MSA) is encapsulated within San Diego County, and is located at the southwestern-most corner of the continental United States. Below is a map of the region:

### SAN DIEGO-CARLSBAD, CA METROPOLITAN STATISTICAL AREA (MSA)



Source: Cushman & Wakefield Valuation & Advisory

## Current Trends

San Diego County's expanding economy is driven by the region's diverse industry base and above-average employment opportunities. According to the State of California Employment Development Department, nonfarm employment in the region gained 18,200 jobs over the twelve month period ending in April 2017. San Diego County reported an unemployment rate of 3.8 percent as of April 2017, 1.0 percent below the state rate of 4.8 percent and 60 basis points below the national rate of 4.4 percent reported during the same month. The region's economy continues to expand with the professional & business services, high-tech, biotech and government sectors propelling regional employment growth. Unemployed workers continue to be absorbed as mid-wage jobs are increasing, however at a slower rate than exhibited over previous year. Recent layoffs by some of the region's major employers, including Qualcomm, have hindered growth in recent years, however displaced workers have made their way into the professional & business services sector, which is expected to be the primary driving force behind improving labor markets and income growth in the near term. Despite high business and real estate costs in the region, San Diego County is expected to exhibit positive economic trends in the near-term.

Further points for consideration include:

- After experiencing a slowdown in recent years, San Diego's biotechnology and nanotechnology clusters have again began to flourish. Biotech firms in the region are successfully raising early as well as growth stage capital, while others are either planning significant IPOs or are being acquired by larger-scale biotech and pharmaceutical companies. The San Diego-based pharmaceutical firm Tocagen filed the largest IPO the region has seen in the past three years of \$98.0 million in April 2017, while Forge Therapeutics has raised \$15.0 million in Series A financing, among a number of other regional firms. Growth in these leading industries will contribute to the expanding professional service payrolls through the near term.
- San Diego's specialization in military intelligence has enabled further expansion of the region's defense sector. Over first quarter 2017, numerous defense firms including General Atomics, Northrop Grumman, General Dynamics, QED Systems, Boeing and BAE Systems have received contracts amounting to over \$1.0 billion for items ranging from military IT to electromagnetic aircraft launch systems, support systems and unmanned aerial vehicles. Additionally in March 2017, the region was awarded \$1.6 million in federal grants from the Department of Defense's Office of Economic Adjustment to support the region's leading defense contractors. Despite some expected volatility and upside risks, San Diego's defense sector is positioned to grow through the near term.
- Demolition work began on Manchester Financial Group's \$1.3 billion redevelopment of the Navy Broadway Complex in downtown San Diego, home the U.S. Navy's southwest regional headquarters. Plans for the mixed-use Manchester Pacific Gateway call for eventually replacing the entire campus with a new 17-story Navy office building, a 1,100-room convention center hotel, a 260-room boutique hotel, nearly 300,000 square feet of retail space. The development is expected to be completed over the next three years, creating more than 2,400 construction jobs and nearly 3,000 permanent jobs in the region.
- San Diego International Airport (SAN) officials have approved moving forward with plans to build a new \$229.5 million federal inspection services facility in Terminal 2 of the airport. Slated for completion in June 2018, an accelerated construction schedule was implemented to support anticipated growth at the airport, which currently handles more than 300,000 international passengers annually. According to airport officials, international air travel in 2018 is anticipated to contribute \$432.0 million in annual economic impact to the region.

- The U.S. Navy presented six construction firms with contracts collectively amounting to \$500.0 million over the next five years during first quarter 2017. The construction deals call on the firms for the design and development of the Naval Special Warfare Command Coastal Campus at Naval Base Coronado, one of the region's major employers. Three of the construction companies are local San Diego firms, including Harper Construction Co., RQ Construction LLC and Soltek Pacific Construction Co. The development, among many others in San Diego County, will contribute to employment growth in the region's construction sector in the near term, projected at 1.6 percent growth through 2021.
- According to the California Association of Realtors, home prices in San Diego County have exceeded values reported during the region's peak in 2007. As of March 2017, median closing prices for existing, single-family homes rose 3.8 percent year-over-year, to \$571,000. Additionally, single-family home sales increased 42.3 percent over the previous month and 8.2 percent over the previous year. Experts have suggested that the lack of inventory, low mortgage rates, and an imbalance between home construction and demand have helped increase housing prices.

## Demographic Trends

### Demographic Profile

San Diego's median age of 35.0 years is 3.0 years lower than the national median age of 38.0 years. The region outperforms the nation in terms of affluence and educational attainment with an average annual income of \$93,540 and 34.7 percent of its population holding Bachelor's degrees or higher. In comparison, only 29.0 percent of the nation's population holds a Bachelor's or advanced degree. San Diego's relative economic strengths can be attributed to the region's strong high-tech, biotech and professional services sectors, which provide high-wage positions and often require advanced degrees. Age and educational attainment contribute to the raised income levels in San Diego and relatively strong professional & business services sector, attracting high net worth individuals that should further elevate the region's demographics.

Further considerations regarding San Diego County's demographic trends are as follows:

- According to Experian Marketing Solutions, San Diego's median annual household income is currently \$64,907, 19.1 percent higher than the national average of \$54,505.
- San Diego County outperforms the U.S. in terms of households earning annual incomes of greater than \$100,000, with 30.3 percent of the region's households versus 23.0 percent of the nation.
- San Diego's demographics have fueled growth in industries that require advanced education. These sectors include biotechnology, business and professional service sectors. The chart below provides a demographic comparison between San Diego and the United States:

| Demographic Characteristics<br>San Diego MSA vs. United States<br>2016 Estimates |                  |                  |
|----------------------------------------------------------------------------------|------------------|------------------|
| Characteristic                                                                   | San Diego<br>MSA | United<br>States |
| Median Age (years)                                                               | 35.0             | 38.0             |
| Average Annual Household Income                                                  | \$93,540         | \$78,425         |
| Median Annual Household Income                                                   | \$64,907         | \$54,505         |
| <i>Households by Annual Income Level:</i>                                        |                  |                  |
| <\$25,000                                                                        | 18.6%            | 23.0%            |
| \$25,000 to \$49,999                                                             | 20.9%            | 23.4%            |
| \$50,000 to \$74,999                                                             | 16.7%            | 18.3%            |
| \$75,000 to \$99,999                                                             | 13.4%            | 12.4%            |
| \$100,000 plus                                                                   | 30.3%            | 23.0%            |
| <i>Education Breakdown:</i>                                                      |                  |                  |
| < High School                                                                    | 14.4%            | 13.9%            |
| High School Graduate                                                             | 19.1%            | 28.1%            |
| College < Bachelor Degree                                                        | 31.8%            | 29.0%            |
| Bachelor Degree                                                                  | 21.6%            | 18.2%            |
| Advanced Degree                                                                  | 13.1%            | 10.9%            |

Source: © 2016 Experian Marketing Solutions, Inc. •All rights reserved•  
Cushman & Wakefield Valuation & Advisory

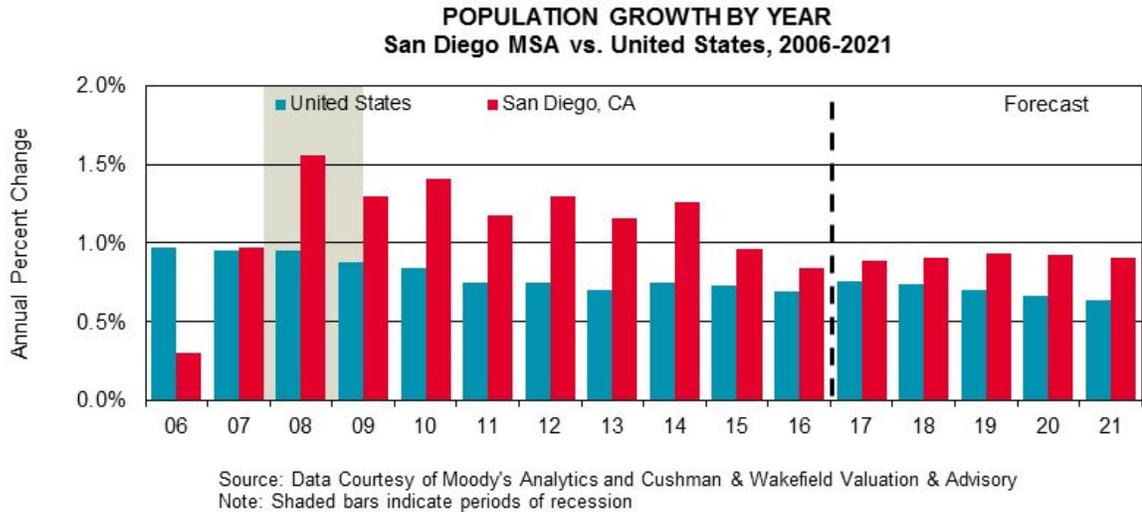
## Population

According to Experian Marketing Solutions' 2016 estimates, the San Diego-Carlsbad MSA is home to a population of 3.3 million individuals. Over the past decade, San Diego's annual population growth of 1.2 percent followed national population growth trends closely. Since 2006, the region's population expansion has fluctuated between 1.0 and 1.5 percent, with further growth hindered by the high cost of living, business costs, and rising home values. Population growth in the San Diego area has historically outpaced that of the national average, as the favorable climate conditions and diverse economy make Southern California a primary location for individuals, families, and businesses. Despite the high cost of living (26.0 percent higher than the national average according to Moody's Analytics), the region has a young, well-educated employment base. San Diego's population is primarily concentrated along the 20-mile Pacific Coast. The greatest population densities, not surprisingly, are located in proximity to the region's few major freeways—Interstate 5 (I-5), Interstate 805 (I-805), Interstate 8 (I-8), and Interstate 15 (I-15).

The following highlights the key statistics for population growth for San Diego County:

- With a current population of 3.3 million individuals, San Diego grew at an average annual rate of 1.2 percent between 2006 and 2016. Over the corresponding period, the national population fell short of the region's growth by 40 basis points, reporting growth of 0.8 percent.
- Through 2021, San Diego's population is forecast to grow at an average rate of 0.9 percent. In comparison the population of the United States' is expected to grow at an average annual rate of 0.7 percent. Population growth may however be hindered as the San Diego housing market continues to appreciate. As housing prices and the overall cost of living continue to increase, lower-income residents will likely seek opportunities in more affordable markets.

The following graph compares historical and projected population growth between San Diego and the United States:



The following table compares historical and forecasted population growth trends for the San Diego-Carlsbad MSA and the United States between 2006 and 2021:

| Annualized Population Growth<br>San Diego-Carlsbad Metropolitan Statistical Area<br>2006-2021 |                |                |                |                |                             |                             |
|-----------------------------------------------------------------------------------------------|----------------|----------------|----------------|----------------|-----------------------------|-----------------------------|
| Population (000's)                                                                            | Historical     |                | Forecast       |                | Compound Annual Growth Rate | Compound Annual Growth Rate |
|                                                                                               | 2006           | 2016           | 2017           | 2021           | 06-16                       | 17-21                       |
| United States                                                                                 | 298,379.9      | 323,127.5      | 325,555.7      | 334,625.1      | 0.8%                        | 0.7%                        |
| <b>San Diego-Carlsbad, CA</b>                                                                 | <b>2,947.3</b> | <b>3,317.7</b> | <b>3,347.1</b> | <b>3,471.2</b> | <b>1.2%</b>                 | <b>0.9%</b>                 |

Source: Data Courtesy of Moody's Analytics, Cushman & Wakefield Valuation & Advisory

### Households

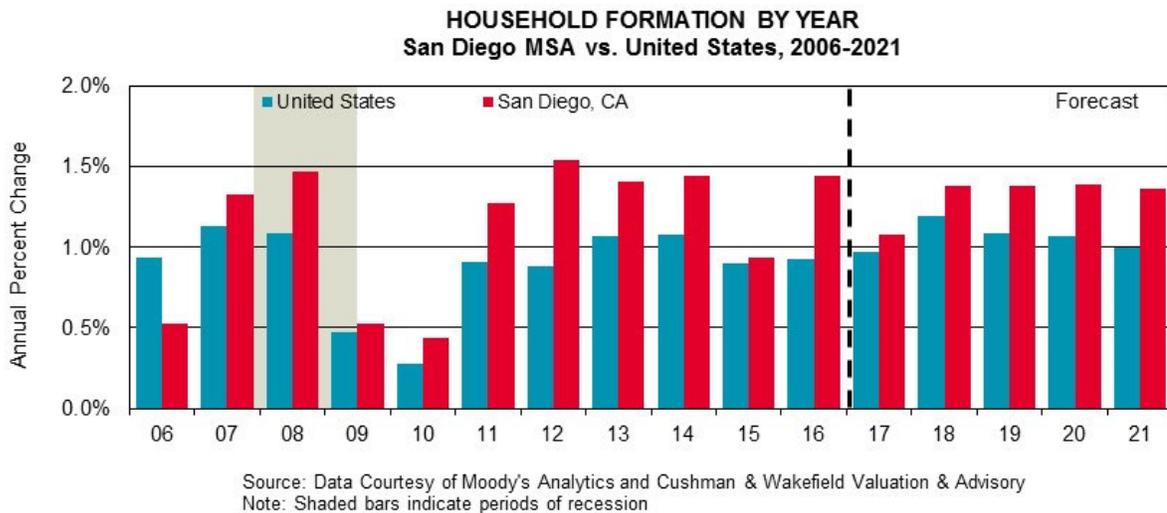
Between 2006 and 2016, household formation trends in San Diego outpaced the national growth by 30 basis points annually. Household formation trends in San Diego appear to mirror overall population gains, which is also similar to the performance for the nation. Over the past decade, household formation and population growth both averaged 1.2 percent annually, as the housing market recovered, income levels increased steadily, and the millennial generation entered the first-time home buyers' market. In March 2017, the California Association of Realtors reported an increase single-family home sales of nearly 8.2 percent over the previous year. Additionally single family permits in the region have increased in 2016 over the previous year, and are projected to continue increasing into the near term. The rise in home sales has been supported by the rise in income levels, which have kept pace with national rates, and the reaccelerating of high-tech and biotech, and professional services performance in the region. Through 2021, San Diego's household formation is projected to increase to an average annual rate of 1.4 percent, outperforming the nation's projected average.

Further considerations regarding San Diego County's household formation are:

- Annual household growth between 2006 and 2016 averaged 1.2 percent in San Diego County, 30 basis points higher than the nation's ten-year average growth rate of 0.9 percent.

- The projected five-year average household growth rate for San Diego County is forecasted at 1.4 percent, 30 basis points higher than the expected national average household growth rate of 1.1 percent.
- Household formation growth is limited by the available land for development and fluctuating single-family permits in the region. The tightness of the market has caused higher housing prices, and the high cost of living is likely to impede future population growth, ultimately pushing low to middle class residents out of the area.

The following graph compares historical and projected household formation between San Diego County and the United States:



## Economic Trends

### Gross Metro Product

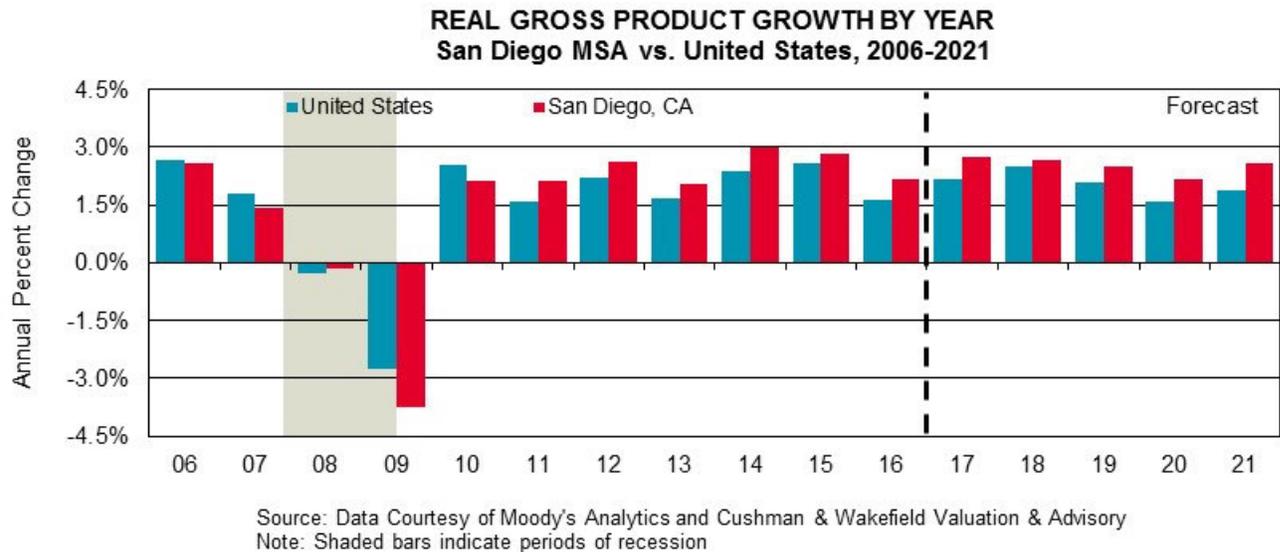
Between 2006 and 2016, San Diego's Gross Metro Product (GMP) grew by 1.4 percent annually, exceeding the nation's Gross Domestic Product (GDP) annual growth rate of 1.3 percent over the same period. A large share of the region's GMP output is produced by high-value industries including the high-tech, biotechnology and defense sectors. Historically, San Diego's Gross Metro Product growth trends have closely followed that of the nation. The most recent economic recession left a significant impact on the region and caused San Diego's GMP growth to decrease to lows of negative 4.2 percent in 2009, 1.4 percentage points lower than the national average during this period. Recovering from the last recession, San Diego has since surpassed the GMP growth trend of the nation over 2016. As the region continues to expand, San Diego's GMP growth is forecasted to exceed that of the nation through 2021, and reach peak growth of 2.7 percent in 2018.

Some notable considerations include:

- Between 2006 and 2016, the region averaged a 1.4 percent annual growth in GMP, 10 basis points higher than the average annual growth of 1.3 percent exhibited by the U.S. over the same time period.
- Over the next five years, San Diego's average annual GMP growth rate is projected to further accelerate to 2.5 percent annually, 50 basis points above the 2.0 percent projected rate of the nation over the same period. As indicated by its relative growth in GMP, the San Diego area is poised for a sustainable, long-term rate of growth.

- Growth in the San Diego region will be driven by expanding its professional and business services and technology sectors, as well as the strengthening of the construction sector. Increased consumer confidence coupled with income growth in the market have contributed to the expansion of the San Diego MSA’s economy over the past decade, a trend that is expected to continue in the near term.

The following graph compares historical and projected real gross product growth between San Diego County and the United States:



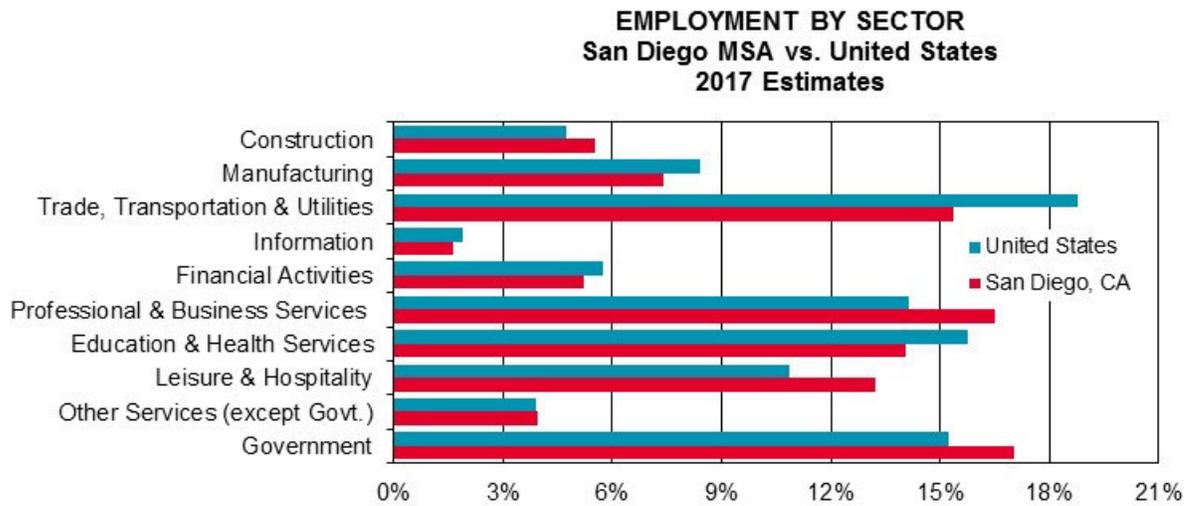
### Employment Distribution

San Diego’s industry sector composition includes economic diversity comparable to that of the nation. The region’s industry mix is heavily weighted in the government, professional & business services, and trade, transportation & utilities sectors. Industries of the professional & business services sector, including biotech, defense, information technology and software engineering, have contributed significantly in terms of employment in the region over the past decade. Continued defense contracts will support employment and income stability in the region, while technology production and the bioscience sector in the area promote growth and fare well in the global economy. According to forecasts by Moody’s Analytics, San Diego’s main employment sectors are expected to remain healthy and contribute to employment growth in the near term.

Additional considerations regarding employment distribution in San Diego County are as follows:

- San Diego is most heavily weighted in the government and profession & business services sectors, holding employment shares of 17.0 percent and 16.5 percent, respectively. These leading sectors are more heavily weighted in the region’s employment distribution than the nation, holding shares 1.7 percent and 2.4 percent greater than the nation, respectively.
- San Diego is relatively underweighted in the trade, transportation & utilities and education & health services sectors, compared to the nation, despite these sectors holding significant employment shares in the region (15.4 percent and 14.1 percent, respectively). However, the education & health services sector is expected to see some of the most significant growth in the region of 1.8 percent through the near term.

The chart below compares employment by industry sector between San Diego County and the United States:



Source: Data Courtesy of Moody's Analytics and Cushman & Wakefield Valuation & Advisory

## Major Employers

San Diego's list of major employers reflects the region's relative strengths in its leading sectors including government, education and healthcare and high-tech sectors. The government sector accounts for the largest share of total nonfarm employment, as half of the region's major employers are military units. Despite being underweighted in comparison to the nation, nearly half of the largest employers in San Diego fall in the education and health services sector. The San Diego MSA is home to two Fortune 500 corporations, Qualcomm Inc. and Sempra Energy, ranked 110<sup>th</sup> and 279<sup>th</sup> respectively on the national list as of year-end 2016. Over the previous year, Qualcomm has moved up in the ranks from 123<sup>rd</sup> place, while Sempra Energy fell nine spots from the previous year's list. Despite layoffs in recent years, Qualcomm employs approximately 13,500 professionals, while Sempra Energy has approximately 5,000 employees in the San Diego region. Two other San Diego based companies, CareFusion Corp. and PriceSmart made Fortune's larger compilation of top 1,000 companies.

Additional considerations regarding San Diego County's major employers include:

- The government sector, specifically the military, has a great influence on the employment climate in San Diego. San Diego County's largest employer, the Marine Corps Base Camp Pendleton, continues to take on more employees and anchors to the local economy. Currently, there are more than 100,000 individuals employed by the United States Navy in the region.
- Despite the education & health services sector being underweighted in San Diego compared to the nation, the region's second largest employer, the University of California, San Diego, falls in the sector. The university currently employs 29,287 individuals. Although the top ten employers in the region, a number of educational institutes additionally contribute to employment numbers in the sector, including San Diego State University with 5,064 employees and the San Diego Community College District with 4,733 employees.
- As for the private sector employers in San Diego, Sharp Health is the region's largest private employer with 16,896 employees while Scripps Health is a close second with 14,644 employees.

The table below lists the top employers in terms of total employees in the San Diego County MSA:

| Largest Employers<br>San Diego-Carlsbad, CA  |                     |                  |
|----------------------------------------------|---------------------|------------------|
| Company                                      | No. of<br>Employees | Business<br>Type |
| Marine Corps Base Camp Pendleton             | 43,331              | Military         |
| University of California, San Diego          | 29,287              | Education        |
| Naval Base Coronado (incl. North Island NAS) | 23,985              | Military         |
| Naval Base San Diego                         | 22,092              | Military         |
| Sharp Health                                 | 16,896              | Healthcare       |
| Scripps Health                               | 14,644              | Healthcare       |
| Qualcomm Inc.                                | 13,500              | Technology       |
| Naval Base Point Loma                        | 12,464              | Military         |
| Marine Corps Air Station Miramar             | 10,152              | Military         |
| Kaiser Permanente                            | 7,535               | Healthcare       |

Source: San Diego Business Journal Book of Lists 2016, Guide to Military Installations and Cushman & Wakefield Valuation & Advisory

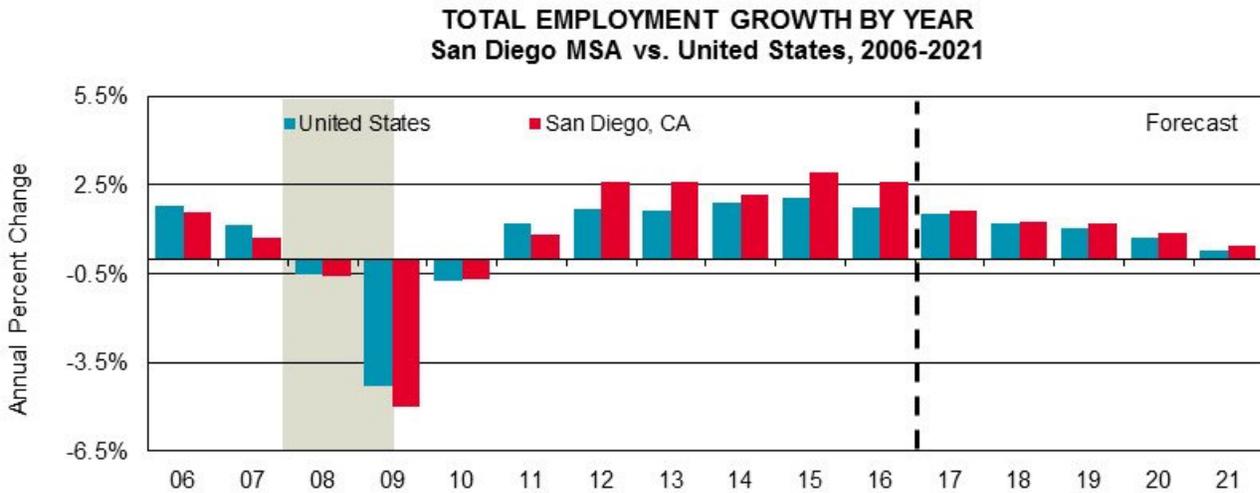
## Employment Growth

Between 2006 and 2016, San Diego's total nonfarm employment averaged 0.8 percent growth annually, as significant losses were reported during the period of the last recession. The San Diego MSA has historically outperformed the nation with consistent year-over-year employment growth, however the impact of the last recession caused the region to trail national employment growth averages. Leading into and through the recession, San Diego's employment growth consistently fell short, reporting a record low growth rate of negative 5.0 percent in 2009. Coming out of the recent recession, San Diego has recorded a positive employment growth trend, with the region outperform the nation once again as of 2012. This performance trend alongside above-average income growth is expected to continue through 2021, as the region's high-tech sector fuels job growth and acts as a catalyst for the professional services job sector.

Employment sector trends are as follows:

- From 2006 to 2016, San Diego's annual employment growth average of 0.8 percent exceeded the nation's annual growth rate of 0.6 percent by 20 basis points during the same period.
- Extending the forecasted period through 2021, San Diego is expected to report average employment growth of 0.9 percent annually, 10 basis points higher than the national projected average annual growth rate of 0.8 percent over the same period. Growth will be supported by gains in the education & health services (1.8 percent), professional & business services (1.4 percent) and leisure & hospitality (1.4 percent) sectors.
- Professional & business services payroll expansion is projected to outpace overall employment growth in the region through 2021, with average annual growth of 1.4 percent. Highly-skilled professional sectors will be the driving force behind the region's improving labor market and above-average income growth.
- Biotechnology will propel the economy, although the outlook is more uncertain than in previously years. San Diego's biotechnology firms will continue to be an area of strength in the region, raising capital with ease for further growth. While the outlook is positive, risks are weighted to the downside.

The following graph compares historical and projected total employment growth between San Diego County and the United States:



Source: Data Courtesy of Moody's Analytics and Cushman & Wakefield Valuation & Advisory  
Note: Shaded bars indicate periods of recession

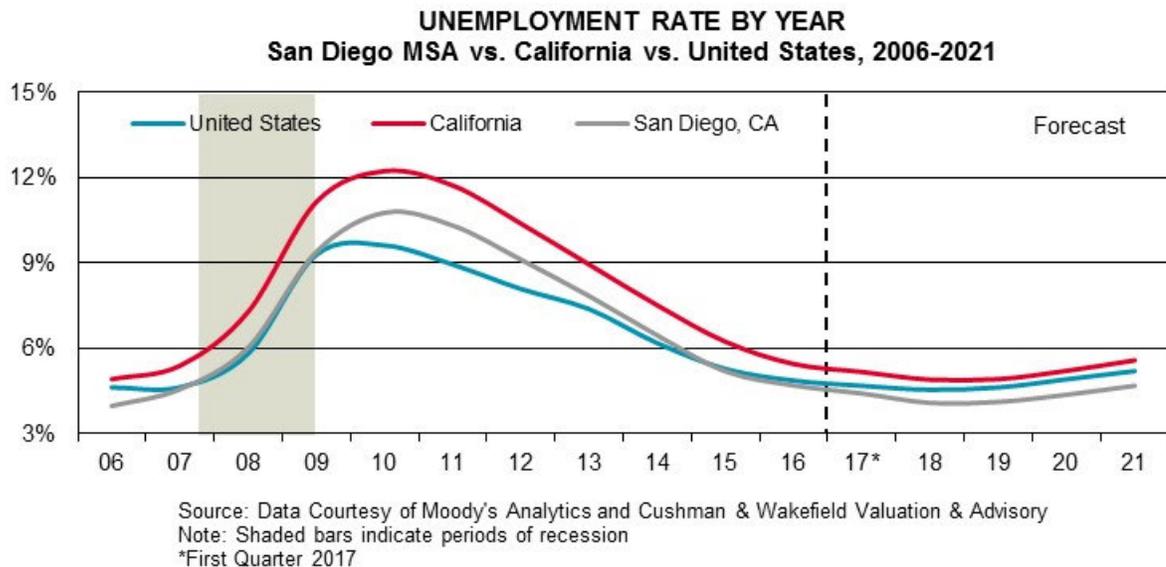
## Unemployment

According to the Bureau of Labor Statistics' April 2017 data, the San Diego-Carlsbad MSA's unemployment rate is currently at 3.8 percent, 80 basis points below the rate reported during the same month of the previous year. The region's unemployment rate trended well below the state of California's average, reported at 4.8 percent, as well as the national rate of 4.4 percent as of April 2017. Through the near term, San Diego's unemployment rate is expected to maintain a similar rate, while remaining below state and national rates. San Diego's economy is projected to strengthen in the coming quarters, generating additional jobs that will continue to reduce the region's unemployment rate.

Notable points concerning the region's unemployment rate are as follows:

- Over the past decade between 2006 and 2016, San Diego County averaged an unemployment rate of 7.1 percent, 30 basis points higher than the national average of 6.8 percent for the same time period. The outlook for the next five years will be more favorable than the national projections.
- Unemployment in the region peaked during 2010 to 10.8 percent and declined steadily in subsequent years as economy recovery following the recession ran its course. Although improvements are expected in the near term, the local unemployment rate will remain slightly above the pre-recessionary record low of 4.0 percent recorded in 2006.
- Looking forward, Moody's Analytics forecasts that increased hiring will have significant positive impact on the unemployment rate in San Diego County. Through 2021, the unemployment rate is expected to remain below the 5.0 percent range, averaging at about 4.3 percent, while the national average is expected to be 4.8 percent during the same period.

The following graph compares historical and projected unemployment rate between San Diego County and United States:



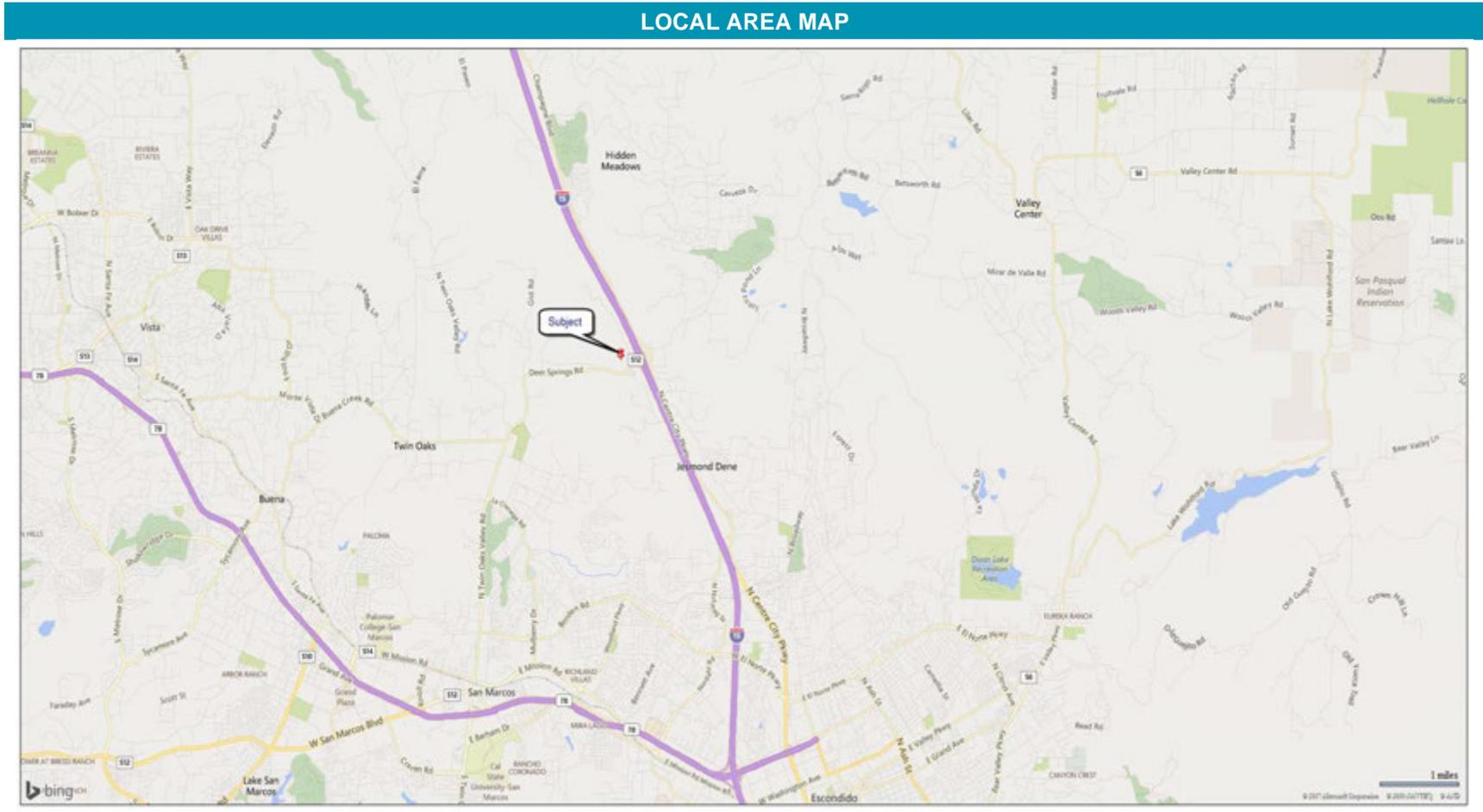
## Conclusion

San Diego County's demographics and high-wage employment growth have supported economic expansion following the last recession. Despite slowing pace in recent years, the region continues to outperform the nation, with a similar trend expected in the near term. The region's diversified employment base will continue to compare favorably with the United States, although job growth will slow to the nation as the economy reaches full employment. The majority of employment growth will be driven by the high-skill professional and business services sector, with the high-tech and defense sectors continuing to support the region's economic growth. The high business and housing cost may dampen the region's growth, but forecasts are optimistic that the region's strong demographics and highly educated population will be able to mitigate these high costs. The layoffs at Qualcomm have had an impact on the region's performance, but in the long term, will continue to be a major factor in the area's growth. San Diego County is expected to continue as an above-average performer moving forward, keeping pace with the state and exceeding national growth in the near term.

Further considerations are as follows:

- San Diego's rising professional & business services sector is largely based on high-tech, pharmaceutical, military technology and software industries. Growth of jobs requiring high-skill and education levels will be the driving force behind the region's improving labor market and above-average income growth in the near term.
- The relative strength of the defense sector and specialization in military intelligence will contribute to the region's expansion modestly. After experiencing setbacks in recent year, the industry is positioned to experience growth despite upside risks.
- San Diego's desirable coastal location and high quality of life will continue to attract a younger, well-educated, and relatively affluent population to the area. The county's diversified economy makes the region an attractive choice for businesses as well.

# Local Area Analysis



## Neighborhood Analysis

### Location

The community of Twin Oaks is located approximately 2½ miles north of the city of Escondido, west of Interstate 15 (I-15), west of the unincorporated Valley Center area, and south of Old Castle Road. Downtown San Diego is located 35± miles to the south and the closest beaches are located 15± miles to the southwest within the city of Carlsbad. The southern-most city of Riverside County, Temecula, is located 15± miles to the north along I-15. The community encompasses approximately 8 square miles of unincorporated territory in San Diego County characterized by mountainous terrain, rolling hills, some gently sloping valley floors, and rock outcroppings. The community is nestled amongst the rolling terrain of a mountaintop, several hundred feet above the I-15 corridor. No major watercourses cross the area.

### Access / Transportation

The community is primarily accessed via the Mountain Meadow Road/Deer Springs Road exit off I-15. Mountain Meadow Road is a 4-lane secondary road which travels up the mountain to a network of 2-lane minor roads that provide access to the homes of the community. I-15 travels north and south, just east of the community, providing northern access to areas of San Diego and Riverside Counties. To the south, I-15 provides access to the cities of Escondido, San Marcos, and San Diego. State Highway 78 (SH-78) is located in the city of Escondido and provides access to the cities of San Marcos, Vista, Carlsbad, and Oceanside to the west. McClellan Palomar Airport, located 13± miles to the southwest in the city of Carlsbad, provides the nearest certified public carrier service.

### Demographics

According to Experian Marketing Solutions Inc., the community (3-mile radius) consisted of 18,473 residents in 2016. The median household income increased from \$73,539 in 2000 to \$105,073 in 2016. Empty nesters and retirees have primarily resided in the community from the 1970s and 1980s, when most of the development occurred. However, some developments have attracted families as well.

### Employment

According to [www.city-data.com](http://www.city-data.com), industries providing employment to the area include education, health, and social services, professional, scientific, management, administrative, waste management, and retail. Employees commute to the nearby cities of Escondido, San Marcos, Vista, or throughout San Diego County as I-15 and SH-78 provide good access to major employment centers. A number of locally owned businesses support some of the community's needs.

### Amenities / Services

The Lawrence Welk Resort is located just north of the community along I-15 and also includes a golf course. The nearest medical center is located in Escondido. Fallbrook Community Airpark is located 12± miles to the northwest. Palomar College and University of California State University-San Marcos are located within 7± miles to the south in the city of San Marcos.

### Land use

The majority of homes were custom built during the 1970s and 1980s on larger lots. More recently, home prices have been in the \$600,000 to \$800,000 range, with some homes above \$1,000,000.

### Conclusions

The community of Twin Oaks is located in northern San Diego County just north of the city of Escondido. Downtown San Diego is located 35± miles to the south and the closest beaches are located 15± miles to the southwest within the

city of Oceanside. The community encompasses approximately 8 square miles of unincorporated territory in San Diego County characterized by mountainous terrain, rolling hills, some gently sloping valley floors, and rock outcroppings. The community has good access to I-15 but is more distant from community services and employment. However, as Twin Oaks has attracted many retirees and empty nesters, employment is not as critical as amenities and lifestyle.

| <b>DEMOGRAPHIC SUMMARY</b>      |                            |                            |                            |                                 |                                |                                |  |
|---------------------------------|----------------------------|----------------------------|----------------------------|---------------------------------|--------------------------------|--------------------------------|--|
|                                 | <b>1.0-mile<br/>Radius</b> | <b>3.0-mile<br/>Radius</b> | <b>5.0-mile<br/>Radius</b> | <b>San Diego-Carls<br/>CBSA</b> | <b>County of<br/>San Diego</b> | <b>State of<br/>California</b> |  |
| <b>POPULATION STATISTICS</b>    |                            |                            |                            |                                 |                                |                                |  |
| 2000                            | 420                        | 14,565                     | 92,955                     | 2,811,573                       | 2,811,573                      | 33,859,695                     |  |
| 2016                            | 555                        | 18,473                     | 117,598                    | 3,324,463                       | 3,324,463                      | 39,320,109                     |  |
| 2021                            | 594                        | 19,475                     | 123,657                    | 3,453,445                       | 3,453,445                      | 40,894,935                     |  |
| <b>Compound Annual Change</b>   |                            |                            |                            |                                 |                                |                                |  |
| 2000 - 2016                     | 1.76%                      | 1.50%                      | 1.48%                      | 1.05%                           | 1.05%                          | 0.94%                          |  |
| 2016 - 2021                     | 1.37%                      | 1.06%                      | 1.01%                      | 0.76%                           | 0.76%                          | 0.79%                          |  |
| <b>HOUSEHOLD STATISTICS</b>     |                            |                            |                            |                                 |                                |                                |  |
| 2000                            | 178                        | 5,788                      | 31,503                     | 994,042                         | 994,042                        | 11,498,173                     |  |
| 2016                            | 215                        | 6,891                      | 38,538                     | 1,162,742                       | 1,162,742                      | 13,319,273                     |  |
| 2021                            | 231                        | 7,262                      | 40,678                     | 1,211,692                       | 1,211,692                      | 13,886,580                     |  |
| <b>Compound Annual Change</b>   |                            |                            |                            |                                 |                                |                                |  |
| 2000 - 2016                     | 1.19%                      | 1.10%                      | 1.27%                      | 0.98%                           | 0.98%                          | 0.92%                          |  |
| 2016 - 2021                     | 1.45%                      | 1.05%                      | 1.09%                      | 0.83%                           | 0.83%                          | 0.84%                          |  |
| <b>AVERAGE HOUSEHOLD INCOME</b> |                            |                            |                            |                                 |                                |                                |  |
| 2000                            | \$81,071                   | \$73,539                   | \$60,512                   | \$63,255                        | \$63,255                       | \$65,671                       |  |
| 2016                            | \$117,205                  | \$105,073                  | \$85,232                   | \$93,540                        | \$93,540                       | \$92,715                       |  |
| 2021                            | \$135,520                  | \$121,940                  | \$99,301                   | \$109,040                       | \$109,040                      | \$108,428                      |  |
| <b>Compound Annual Change</b>   |                            |                            |                            |                                 |                                |                                |  |
| 2000 - 2016                     | 2.33%                      | 2.26%                      | 2.16%                      | 2.48%                           | 2.48%                          | 2.18%                          |  |
| 2016 - 2021                     | 2.95%                      | 3.02%                      | 3.10%                      | 3.11%                           | 3.11%                          | 3.18%                          |  |
| <b>OCCUPANCY</b>                |                            |                            |                            |                                 |                                |                                |  |
| Owner Occupied                  | 86.51%                     | 82.56%                     | 60.58%                     | 52.73%                          | 52.73%                         | 54.15%                         |  |
| Renter Occupied                 | 13.49%                     | 17.44%                     | 39.42%                     | 47.27%                          | 47.27%                         | 45.85%                         |  |

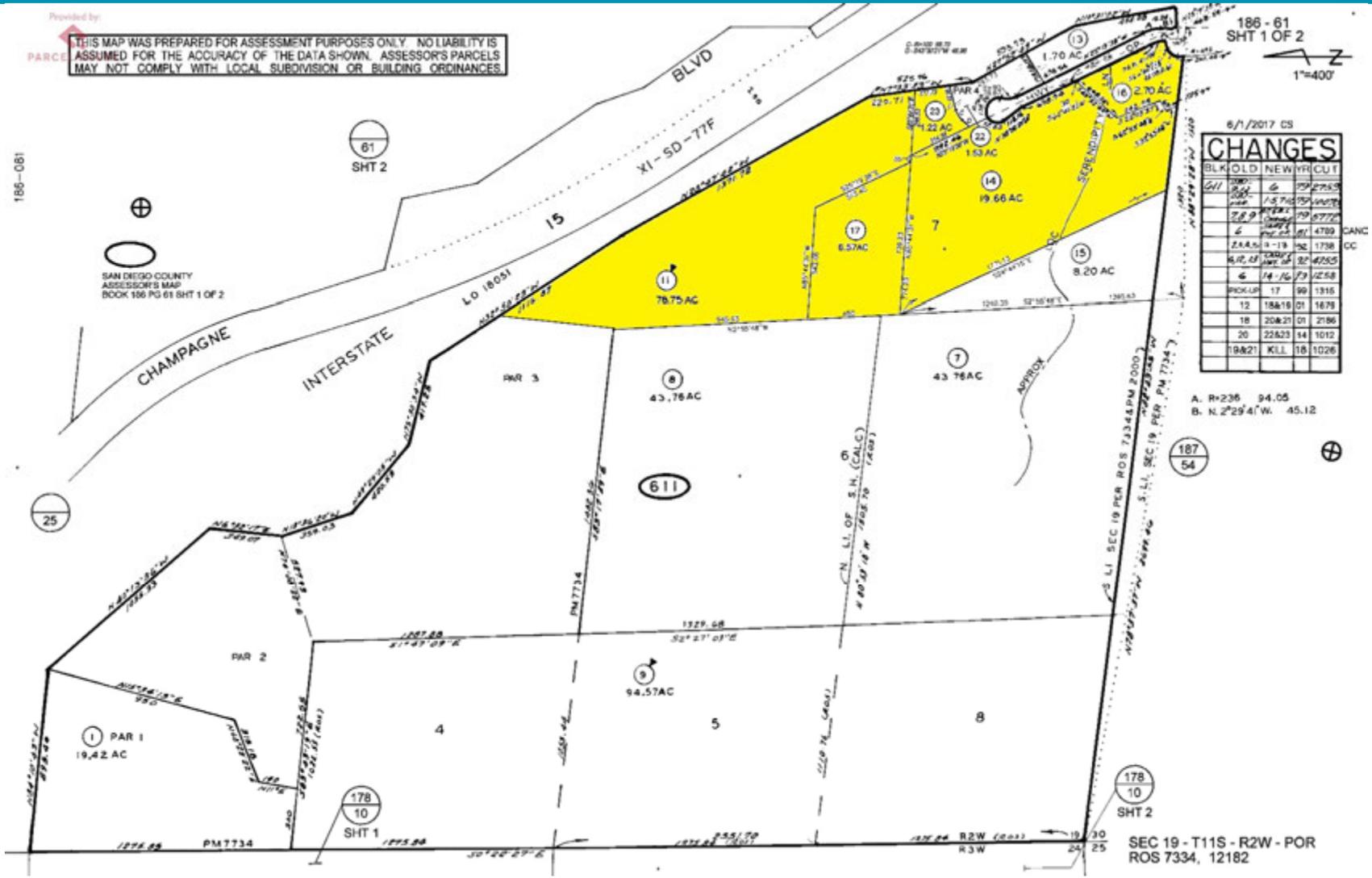
SOURCE: © 2016 Experian Marketing Solutions, Inc. •All rights reserved

## Property Analysis

### Site Description

|                             |                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Shape:                      | Irregularly shaped                                                                                                                                                                                                                                                                                                                                                                                            |
| Topography:                 | Hilly                                                                                                                                                                                                                                                                                                                                                                                                         |
| Primary Land Area:          | 58.200 acres / 2,535,192 square feet (A portion of the total 1,985 acre master-planned community)                                                                                                                                                                                                                                                                                                             |
| Frontage/Access/Visibility: | <p>The subject property has frontage on the following streets: Mesa Rock Road and Deer Springs Road.</p> <p>Access is considered good for the subject's current condition.</p> <p>Visibility is good.</p>                                                                                                                                                                                                     |
| Site Improvements:          | The site is unimproved hillside with steep terrain, sloping downward from West to East toward Freeway I-15                                                                                                                                                                                                                                                                                                    |
| Land Use Restrictions:      | We were not given a title report to review. We do not know of any easements, encroachments, or restrictions that would adversely affect the site's use. However, we recommend a title search to determine whether any adverse conditions exist.                                                                                                                                                               |
| Flood Zone Description:     | <p>The subject property is located in flood zone X (Areas determined to be outside the 500 year flood plain) as indicated by FEMA Map 06073C0752H, dated May 16, 2012.</p> <p>The flood zone determination and other related data are provided by a third party vendor deemed to be reliable. If further details are required, additional research is required that is beyond the scope of this analysis.</p> |
| Seismic Hazard:             | Though Southern California generally has earthquake faults and associated hazard areas, the subject is not known to be within a designated earthquake fault hazard zone.                                                                                                                                                                                                                                      |
| Overall Site Utility:       | The subject site irregular in shape, but is functional for its current use.                                                                                                                                                                                                                                                                                                                                   |
| Location Rating:            | Good                                                                                                                                                                                                                                                                                                                                                                                                          |

**SURVEY OR TAX MAP**

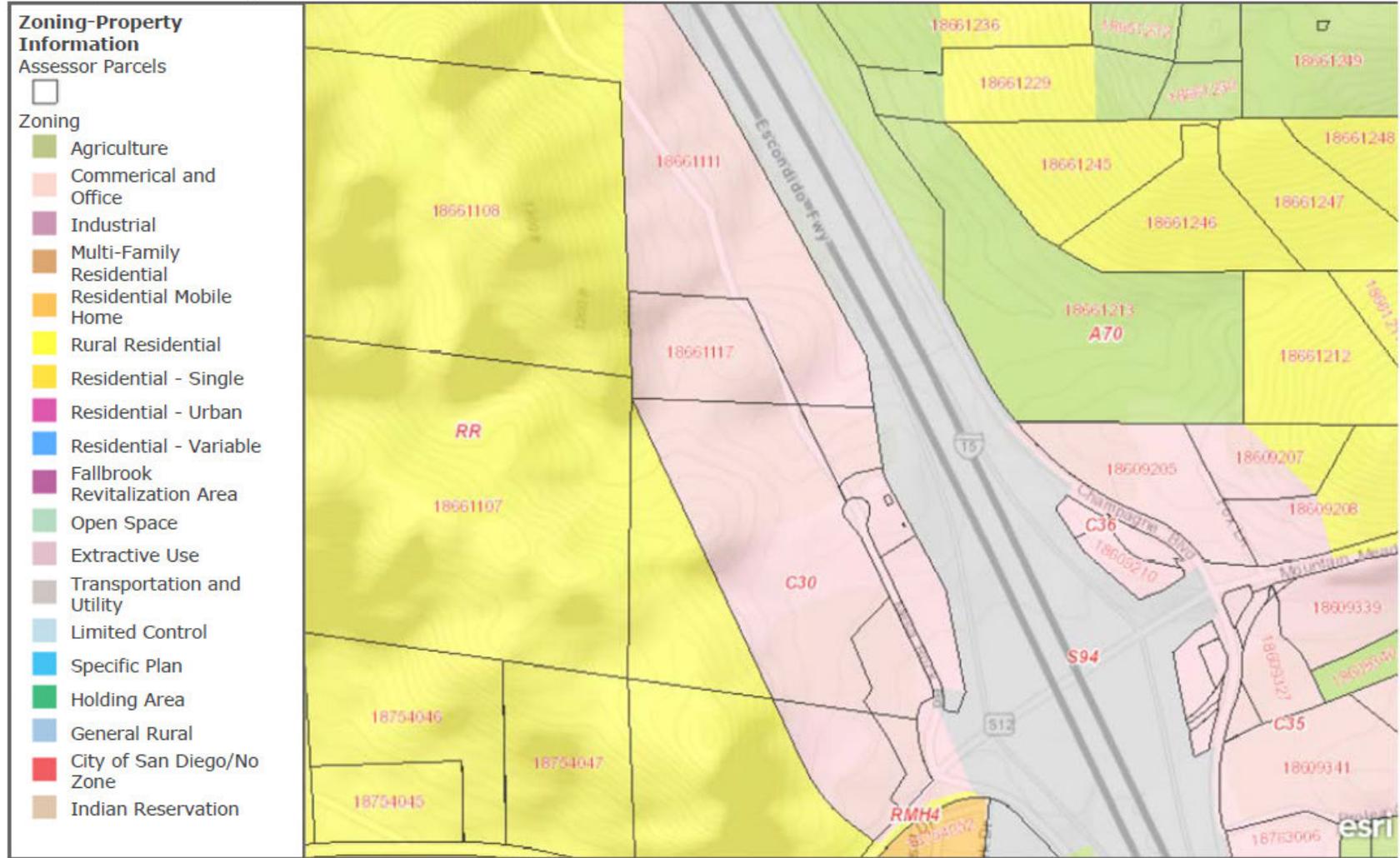


Note: The subject is a portion of the above parcel 11



EXISTING ZONING MAP

County of San Diego - PDS - Zoning & Property Information - Simplified



## Zoning

### LAND USE DESIGNATIONS

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Zoning: Existing: C30 (Office-Professional) and C35 (General Commercial / Limited Residential)  
Proposed: C34 (General Commercial / Residential Use)

---

Discussion: Nonresidential building intensity is expressed as a maximum floor-area ratio (FAR). A floor- area ratio (FAR) is the ratio of the gross building square footage on a lot to the **net square footage** of the lot or parcel.

Under the current zoning of C30, the maximum FAR (Floor Area Ratio) is .80 of the site area for Village areas and .45 for semi-rural areas. Based on the estimated site area at 53.6 acres, at a maximum, this translates to a total building area from 1,050,667 to 2,008,116 square feet. However, this does not mean that all of the allowed building area could be physically or economically constructed, as the net square footage of the site is unknown.

Under the current zoning of C34, the maximum FAR is .70 of the site area for Village areas and .45 FAR for semi-rural areas. The estimated site area is 4.6 acres. At a maximum, this translates to a total building area from 90,169 to 140,263 square feet. Again, as the net site area is unknown, this does not mean that all of the allowed building area could be physically or economically constructed.

According to the County of San Diego's General Plan, the maximum FAR is provided based on regional categories to guide intensity of development. This denotes the upper range for each component, but there is no expectation that this would be achieved when each component is applied in the same area.

As well, the maximum density for lands designated as Semi-Rural is also based on the slope of the site.

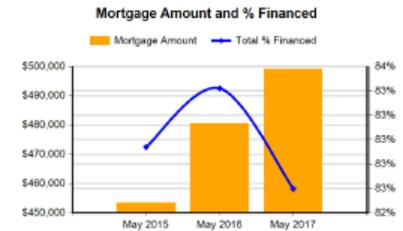
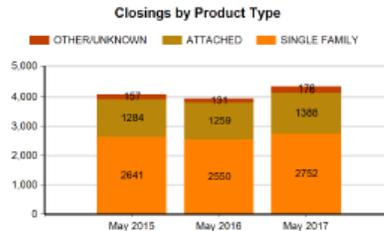
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# Market Demand Analysis –



## Market Activity Dashboard

Report Date: 8/1/2017, Month: May 2017  
San Diego-Carlsbad-San Marcos, CA



|                             | Total Number of Closings |             |              |             |              |             | Average Closing Price |                  |                  | Average Living Sq Ft |                |                 | Average \$/Sq. Ft. |                |                 | Average Mortgage Amount |                  |                  |  |
|-----------------------------|--------------------------|-------------|--------------|-------------|--------------|-------------|-----------------------|------------------|------------------|----------------------|----------------|-----------------|--------------------|----------------|-----------------|-------------------------|------------------|------------------|--|
|                             | Count                    | %           | Count        | %           | Count        | %           | Current Period        | One Year Prior   | Two Years Prior  | Current Period       | One Year Prior | Two Years Prior | Current Period     | One Year Prior | Two Years Prior | Current Period          | One Year Prior   | Two Years Prior  |  |
| <b>By Product Type</b>      |                          |             |              |             |              |             |                       |                  |                  |                      |                |                 |                    |                |                 |                         |                  |                  |  |
| ATTACHED                    | 1,386                    | 32%         | 1,259        | 32%         | 1,284        | 31%         | \$487,847             | \$459,428        | \$428,278        | 1,216sf              | 1,225sf        | 1,242sf         | \$407              | \$369          | \$341           | \$372,489               | \$359,844        | \$341,135        |  |
| OTHER/UNKNOWN               | 176                      | 4%          | 131          | 3%          | 157          | 4%          | \$401,607             | \$288,977        | \$331,723        | 1,567sf              | 1,556sf        | 1,477sf         | \$352              | \$232          | \$194           | \$407,292               | \$282,057        | \$234,671        |  |
| SINGLE FAMILY               | 2,752                    | 64%         | 2,550        | 65%         | 2,641        | 65%         | \$746,699             | \$706,656        | \$669,013        | 2,045sf              | 2,056sf        | 2,050sf         | \$374              | \$349          | \$325           | \$559,068               | \$540,101        | \$509,134        |  |
| <b>Total</b>                | <b>4,316</b>             | <b>100%</b> | <b>3,940</b> | <b>100%</b> | <b>4,082</b> | <b>100%</b> | <b>\$649,153</b>      | <b>\$612,352</b> | <b>\$579,625</b> | <b>1,768sf</b>       | <b>1,782sf</b> | <b>1,789sf</b>  | <b>\$384</b>       | <b>\$354</b>   | <b>\$328</b>    | <b>\$499,163</b>        | <b>\$480,466</b> | <b>\$453,519</b> |  |
| <b>By Sale Type</b>         |                          |             |              |             |              |             |                       |                  |                  |                      |                |                 |                    |                |                 |                         |                  |                  |  |
| FORECLOSURE                 | 49                       | 1%          | 135          | 3%          | 160          | 4%          |                       |                  |                  | 1,915sf              | 1,559sf        | 1,545sf         |                    |                |                 | NA                      | NA               | NA               |  |
| REGULAR RESALE              | 3,944                    | 91%         | 3,470        | 88%         | 3,541        | 87%         | \$648,148             | \$610,165        | \$580,307        | 1,761sf              | 1,773sf        | 1,779sf         | \$386              | \$357          | \$331           | \$495,356               | \$478,350        | \$448,540        |  |
| REO SALE                    | 130                      | 3%          | 180          | 5%          | 216          | 5%          | \$540,010             | \$485,886        | \$460,075        | 1,535sf              | 1,720sf        | 1,659sf         | \$357              | \$311          | \$290           | \$507,052               | \$424,635        | \$428,727        |  |
| NEW SALE                    | 193                      | 4%          | 155          | 4%          | 165          | 4%          | \$739,229             | \$799,992        | \$714,979        | 2,565sf              | 2,584sf        | 2,916sf         | \$339              | \$349          | \$312           | \$567,943               | \$577,808        | \$576,334        |  |
| <b>Closing Price Curves</b> |                          |             |              |             |              |             |                       |                  |                  |                      |                |                 |                    |                |                 |                         |                  |                  |  |
| ATTACHED                    | Price Line               | \$413,112   |              | \$663,773   |              | \$800,707   |                       | \$1,386,500      |                  | \$1,189,273          |                | NA              |                    | \$1,883,333    |                 | NA                      |                  | \$1,386,250      |  |
|                             | \$/Sq. Ft.               | \$409.74    |              | \$397.23    |              | \$367.05    |                       | \$511.55         |                  | \$363.73             |                | NA              |                    | \$424.33       |                 | NA                      |                  | \$206.00         |  |
| SINGLE FAMILY               | Price Line               | \$496,128   |              | \$619,991   |              | \$713,036   |                       | \$884,550        |                  | \$1,155,492          |                | \$1,223,693     |                    | \$1,540,082    |                 | \$1,831,250             |                  | \$2,882,990      |  |
|                             | \$/Sq. Ft.               | \$435.23    |              | \$354.34    |              | \$319.53    |                       | \$323.47         |                  | \$359.57             |                | \$330.64        |                    | \$361.98       |                 | \$385.46                |                  | \$437.73         |  |

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## Residential

As can be seen in the chart above, home sales and pricing have increased over the past two years, with attached product indicating a 31 percent increase. During the same time period, average home size decreased slightly from 1,789 to 1,768 square feet, resulting in an increase in price points from \$328 to \$384 per square foot, a 17 percent increase. As well, foreclosure activity has also been declining over the same time period.

Numerous articles in the San Diego Union and elsewhere describe the lack of affordable housing in the San Diego County. Many subdivisions and master-planned communities have been proposed to address this concern, but have some difficulty in obtaining approvals. The subject's previous efforts to obtain entitlements under the master-planned community known as Merriam Mountains was rejected by the County Board of Supervisors back in 2010. A recent proposal under new ownership, envisions less density (2,135 homes instead of 2,600 homes) and is currently in the entitlement process with the County of San Diego.

## Office Market Analysis

The following is a summary of the office market in the outlying North San Diego County area (which includes the subject's area), as of the 2<sup>nd</sup> quarter 2017, according to CoStar Analytics.

### Overview

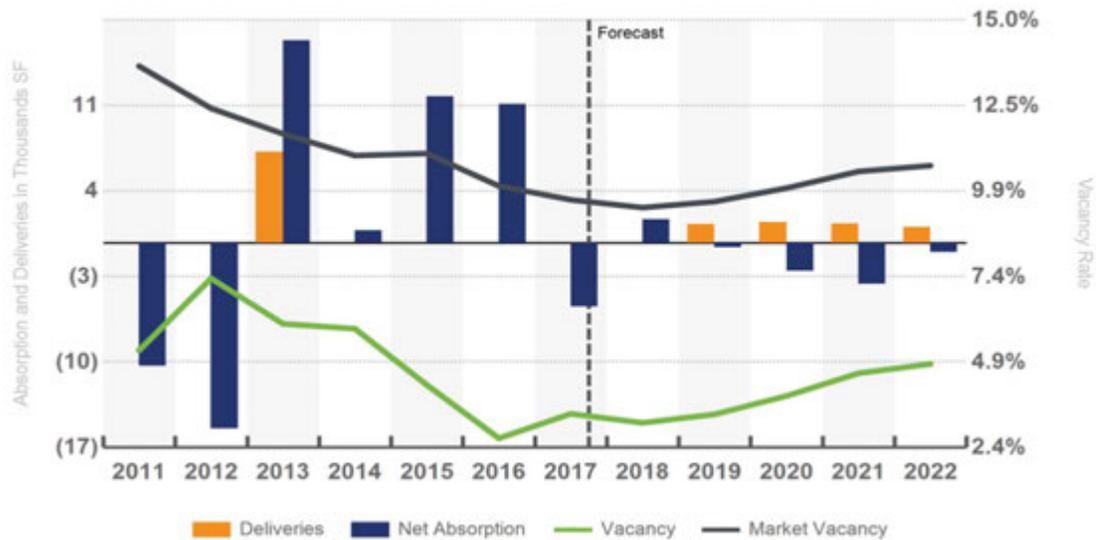
| Outlying SD County N Office   |                             |              |                    |
|-------------------------------|-----------------------------|--------------|--------------------|
| 12 Mo. Deliveries in SF (000) | 12 Mo. Net Absorption (000) | Vacancy Rate | 12 Mo. Rent Growth |
| <b>0</b>                      | <b>-7</b>                   | <b>3.8%</b>  | <b>4.1%</b>        |

#### KEY INDICATORS

| Current Quarter  | RBA (000)  | Vacancy Rate | Gross Asking Rent | Availability Rate | Net Absorption (000) | Net Deliveries (000) | Under Const. (000) |
|------------------|------------|--------------|-------------------|-------------------|----------------------|----------------------|--------------------|
| 4 & 5 Star       | --         | N/A          | N/A               | N/A               | --                   | --                   | 0                  |
| 3 Star           | 120        | 1.7%         | \$26.44           | 5.2%              | (2)                  | --                   | 0                  |
| 1 & 2 Star       | 614        | 4.2%         | \$18.34           | 5.9%              | 0                    | --                   | 0                  |
| <b>SUBMARKET</b> | <b>735</b> | <b>3.8%</b>  | <b>\$19.64</b>    | <b>5.8%</b>       | <b>(2)</b>           | <b>--</b>            | <b>0</b>           |

| Annual Trends        | 12 Month Change | Hist. Avg. | Fcst. Avg. | Peak  | When    | Trough | When    |
|----------------------|-----------------|------------|------------|-------|---------|--------|---------|
| Vacancy              | 0.9%            | 3.5%       | 3.8%       | 7.8%  | 2013 Q2 | 0.6%   | 2006 Q4 |
| Net Absorption (000) | (7)             | 2          | (1)        | 35    | 2010 Q1 | (45)   | 2008 Q3 |
| Net Deliveries (000) | 0               | 3          | 1          | 25    | 2003 Q2 | 0      | 2012 Q4 |
| Rent Growth          | 4.1%            | 2.4%       | 2.7%       | 15.1% | 2001 Q1 | -10.4% | 2009 Q3 |
| Sales (\$ millions)  | \$5             | \$3        | N/A        | \$16  | 2017 Q2 | \$0    | 2012 Q3 |

#### NET ABSORPTION, NET DELIVERIES AND VACANCY RATE



## Overview

### Outlying SD County N Office

#### SUBMARKET SUPPLY AND DEMAND HISTORY AND FORECAST

| Year | Inventory |              |          | Net Absorption |          |                    |
|------|-----------|--------------|----------|----------------|----------|--------------------|
|      | SF (000)  | Growth (000) | % Growth | SF (000)       | % Growth | Construction Ratio |
| 2022 | 741       | 1            | 0.2%     | (1)            | -0.1%    | --                 |
| 2021 | 740       | 2            | 0.2%     | (3)            | -0.5%    | --                 |
| 2020 | 738       | 2            | 0.2%     | (2)            | -0.3%    | --                 |
| 2019 | 736       | 2            | 0.2%     | 0              | 0.0%     | --                 |
| 2018 | 735       | 0            | 0.0%     | 2              | 0.3%     | 0.0                |
| 2017 | 735       | 0            | 0.0%     | (5)            | -0.7%    | --                 |
| 2016 | 735       | 0            | 0.0%     | 12             | 1.6%     | 0.0                |
| 2015 | 735       | 0            | 0.0%     | 12             | 1.8%     | 0.0                |
| 2014 | 735       | 0            | 0.0%     | 1              | 0.2%     | 0.0                |
| 2013 | 735       | 8            | 1.0%     | 17             | 2.5%     | 0.5                |
| 2012 | 727       | 0            | 0.0%     | (15)           | -2.2%    | --                 |
| 2011 | 727       | 0            | 0.0%     | (10)           | -1.5%    | --                 |
| 2010 | 727       | 0            | 0.0%     | 15             | 2.2%     | 0.0                |
| 2009 | 727       | 15           | 2.2%     | 23             | 3.4%     | 0.7                |
| 2008 | 712       | 2            | 0.3%     | (43)           | -6.1%    | --                 |
| 2007 | 709       | 0            | 0.0%     | 0              | 0.0%     | --                 |
| 2006 | 709       | 0            | 0.0%     | 15             | 2.1%     | 0.0                |
| 2005 | 709       | 0            | 0.0%     | (3)            | -0.5%    | --                 |

As can be seen from the charts, vacancies have been increasing with nothing under construction and a negative in net absorption. The expected trend through 2022 is for little to no growth in the office market. The conclusion is that there is little to no demand for office space in the subject's location.

Existing office and other employment centers are located along the Highway 78 corridor and in the City of Escondido. It appears that the existing development adequately serves the region.

## Retail Market Analysis

The following is a summary of the retail market in the outlying North San Diego County area (which includes the subject's area), as of the 2<sup>nd</sup> quarter 2017, according to CoStar Analytics.

### Overview

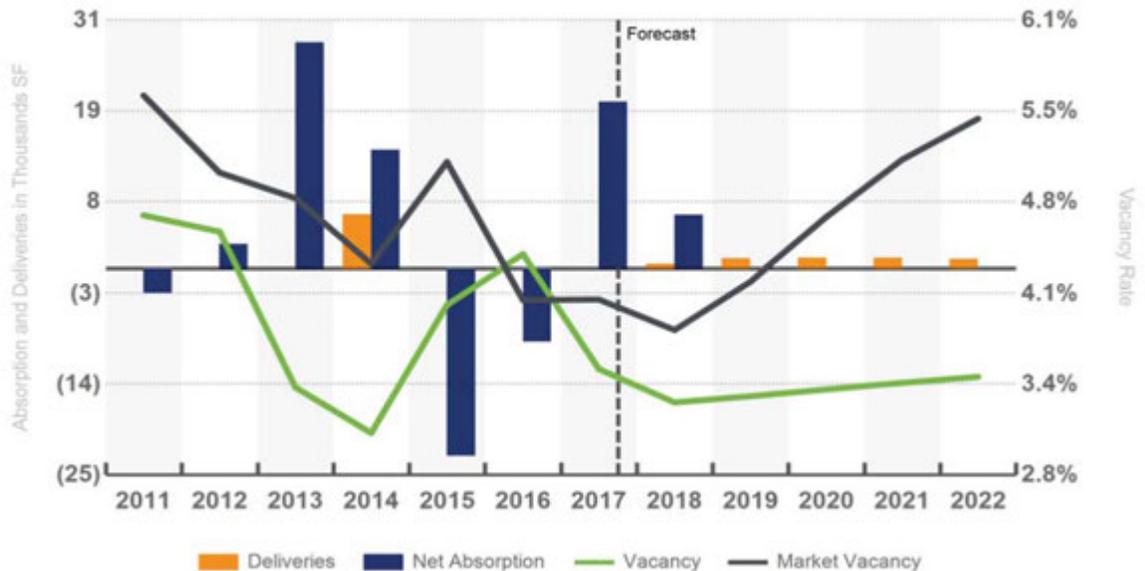
| Outlying SD County N Retail   |                             |              |                    |
|-------------------------------|-----------------------------|--------------|--------------------|
| 12 Mo. Deliveries in SF (000) | 12 Mo. Net Absorption (000) | Vacancy Rate | 12 Mo. Rent Growth |
| <b>0</b>                      | <b>-4</b>                   | <b>4.0%</b>  | <b>2.1%</b>        |

#### KEY INDICATORS

| Current Quarter     | RBA (000)    | Vacancy Rate | Asking Rent    | Availability Rate | Net Absorption (000) | Net Deliveries (000) | Under Const. (000) |
|---------------------|--------------|--------------|----------------|-------------------|----------------------|----------------------|--------------------|
| Mall                | 146          | 7.5%         | \$21.70        | 7.5%              | 0                    | --                   | 0                  |
| Power Center        | --           | N/A          | N/A            | N/A               | --                   | --                   | 0                  |
| Neighborhood Center | 550          | 4.7%         | \$19.95        | 11.8%             | (2)                  | --                   | 0                  |
| <b>SUBMARKET</b>    | <b>2,445</b> | <b>4.0%</b>  | <b>\$19.47</b> | <b>5.8%</b>       | <b>(8)</b>           | <b>--</b>            | <b>0</b>           |

| Annual Trends        | 12 Month Change | Hist. Avg. | Fcst. Avg. | Peak | When    | Trough | When    |
|----------------------|-----------------|------------|------------|------|---------|--------|---------|
| Vacancy              | 0.2%            | 2.2%       | 3.4%       | 5.4% | 2011 Q2 | 0.0%   | 2000 Q3 |
| Net Absorption (000) | (4)             | (5)        | 2          | 32   | 2013 Q3 | (81)   | 2009 Q4 |
| Net Deliveries (000) | 0               | 1          | 1          | 7    | 2014 Q4 | 0      | 2009 Q1 |
| Rent Growth          | 2.1%            | 0.9%       | 0.3%       | 5.4% | 2007 Q1 | -5.8%  | 2010 Q1 |
| Sales (\$ millions)  | \$3             | \$11       | N/A        | \$36 | 2007 Q1 | \$1    | 2009 Q2 |

#### NET ABSORPTION, NET DELIVERIES AND VACANCY RATE



## Overview

### Outlying SD County N Retail

#### SUBMARKET SUPPLY AND DEMAND HISTORY AND FORECAST

| Year | Inventory |              |          | Net Absorption |          |                    |
|------|-----------|--------------|----------|----------------|----------|--------------------|
|      | SF (000)  | Growth (000) | % Growth | SF (000)       | % Growth | Construction Ratio |
| 2022 | 2,446     | 1            | 0.0%     | 0              | 0.0%     | --                 |
| 2021 | 2,445     | 1            | 0.0%     | 0              | 0.0%     | --                 |
| 2020 | 2,444     | 1            | 0.1%     | 0              | 0.0%     | --                 |
| 2019 | 2,442     | 1            | 0.0%     | 0              | 0.0%     | --                 |
| 2018 | 2,441     | 1            | 0.0%     | 7              | 0.3%     | 0.1                |
| 2017 | 2,441     | 0            | 0.0%     | 21             | 0.9%     | 0.0                |
| 2016 | 2,441     | 0            | 0.0%     | (9)            | -0.4%    | --                 |
| 2015 | 2,441     | 0            | 0.0%     | (23)           | -1.0%    | --                 |
| 2014 | 2,441     | 7            | 0.3%     | 15             | 0.6%     | 0.5                |
| 2013 | 2,434     | 0            | 0.0%     | 28             | 1.2%     | 0.0                |
| 2012 | 2,434     | 0            | 0.0%     | 3              | 0.1%     | 0.0                |
| 2011 | 2,434     | 0            | 0.0%     | (3)            | -0.1%    | --                 |
| 2010 | 2,434     | 0            | 0.0%     | (2)            | -0.1%    | --                 |
| 2009 | 2,434     | 0            | 0.0%     | (81)           | -3.4%    | --                 |
| 2008 | 2,434     | 0            | 0.0%     | 23             | 1.0%     | 0.0                |
| 2007 | 2,434     | 0            | 0.0%     | (4)            | -0.2%    | --                 |
| 2006 | 2,434     | 0            | 0.0%     | (46)           | -1.9%    | --                 |
| 2005 | 2,434     | 4            | 0.1%     | 4              | 0.1%     | 1.0                |

Though slightly better than the office market with a lower (and stabilizing) vacancy, there is no retail construction and a slight negative absorption expected through 2022.

Existing retail as well as community and regional centers are located along the Highway 78 corridor and in the City of Escondido. It appears that the existing development adequately serves the region.

## CONCLUSIONS DEMAND (CURRENT)

### Residential

Those factors typically gauged to determine demand for housing would indicate that demand in this submarket should improve in the future. As discussed, growth rates are expected to continue in San Diego County and the North County Inland MSA area in the long-term. It is anticipated that as remaining residential land inventory decreases in San Diego County, those projects available closer to employment centers should capture a larger market share of effective demand for housing. Though product continues to be absorbed and builders incentives have declined, pricing increases may plateau as interest rates are expected to increase.

In summary, overall long-term demand factors for San Diego County and the subject's submarket are positive. In the near-term, the upward pricing trends appear to be slowing and future interest rate increases may have an effect on absorption.

### Office

Currently, office use is mostly located in the Escondido, San Marcos and Vista areas along the Route 78 corridor. Office workers in these areas generally commute from areas outside the trade area. There is no current construction of office and a net negative (2,000 sf) absorption as of the 2<sup>nd</sup> quarter 2017. Thus, there does not appear to be significant demand for office space in the subject's designated site area.

## Retail

As stated in the Retail Market discussion, there is little to no current demand for retail development at the subject's site.

## Assumptions and Limiting Conditions

"Report" means the appraisal or consulting report and conclusions stated therein, to which these Assumptions and Limiting Conditions are annexed.

"Property" means the subject of the Report.

"Cushman & Wakefield" means Cushman & Wakefield, Inc. or its subsidiary that issued the Report.

"Appraiser(s)" means the employee(s) of Cushman & Wakefield who prepared and signed the Report.

The Report has been made subject to the following assumptions and limiting conditions:

- No opinion is intended to be expressed and no responsibility is assumed for the legal description or for any matters that are legal in nature or require legal expertise or specialized knowledge beyond that of a real estate appraiser. Title to the Property is assumed to be good and marketable and the Property is assumed to be free and clear of all liens unless otherwise stated. No survey of the Property was undertaken.
- The information contained in the Report or upon which the Report is based has been gathered from sources the Appraiser assumes to be reliable and accurate. The owner of the Property may have provided some of such information. Neither the Appraiser nor Cushman & Wakefield shall be responsible for the accuracy or completeness of such information, including the correctness of estimates, opinions, dimensions, sketches, exhibits and factual matters. Any authorized user of the Report is obligated to bring to the attention of Cushman & Wakefield any inaccuracies or errors that it believes are contained in the Report.
- The opinions are only as of the date stated in the Report. Changes since that date in external and market factors or in the Property itself can significantly affect the conclusions in the Report.
- The Report is to be used in whole and not in part. No part of the Report shall be used in conjunction with any other analyses. Publication of the Report or any portion thereof without the prior written consent of Cushman & Wakefield is prohibited. Reference to the Appraisal Institute or to the MAI designation is prohibited. Except as may be otherwise stated in the letter of engagement, the Report may not be used by any person(s) other than the party(ies) to whom it is addressed or for purposes other than that for which it was prepared. No part of the Report shall be conveyed to the public through advertising, or used in any sales, promotion, offering or SEC material without Cushman & Wakefield's prior written consent. Any authorized user(s) of this Report who provides a copy to, or permits reliance thereon by, any person or entity not authorized by Cushman & Wakefield in writing to use or rely thereon, hereby agrees to indemnify and hold Cushman & Wakefield, its affiliates and their respective shareholders, directors, officers and employees, harmless from and against all damages, expenses, claims and costs, including attorneys' fees, incurred in investigating and defending any claim arising from or in any way connected to the use of, or reliance upon, the Report by any such unauthorized person(s) or entity(ies).
- Except as may be otherwise stated in the letter of engagement, the Appraiser shall not be required to give testimony in any court or administrative proceeding relating to the Property or the Appraisal.
- The Report assumes (a) responsible ownership and competent management of the Property; (b) there are no hidden or unapparent conditions of the Property, subsoil or structures that render the Property more or less valuable (no responsibility is assumed for such conditions or for arranging for engineering studies that may be required to discover them); (c) full compliance with all applicable federal, state and local zoning and environmental regulations and laws, unless noncompliance is stated, defined and considered in the Report; and (d) all required licenses, certificates of occupancy and other governmental consents have been or can be obtained and renewed for any use on which the value opinion contained in the Report is based.
- The physical condition of the improvements considered by the Report is based on visual inspection by the Appraiser or other person identified in the Report. Cushman & Wakefield assumes no responsibility for the soundness of structural components or for the condition of mechanical equipment, plumbing or electrical components.
- Unless otherwise stated in the Report, the existence of potentially hazardous or toxic materials that may have been used in the construction or maintenance of the improvements or may be located at or about the Property was not considered in arriving at the opinion of value. These materials (such as formaldehyde foam insulation, asbestos insulation and other potentially hazardous materials) may adversely affect the value of the Property. The Appraisers are not qualified to detect such substances. Cushman & Wakefield recommends that an environmental expert be employed to determine the impact of these matters on the opinion of value.
-

- In the event of a claim against Cushman & Wakefield or its affiliates or their respective officers or employees or the Appraisers in connection with or in any way relating to this Report or this engagement, the maximum damages recoverable shall be the amount of the monies actually collected by Cushman & Wakefield or its affiliates for this Report and under no circumstances shall any claim for consequential damages be made.
- • If the Report is referred to or included in any offering material or prospectus, the Report shall be deemed referred to or included for informational purposes only and Cushman & Wakefield, its employees and the Appraiser have no liability to such recipients. Cushman & Wakefield disclaims any and all liability to any party other than the party that retained Cushman & Wakefield to prepare the Report.
- Any estimate of actual cash value, if included within the agreed upon scope of work and presented within this Report, is based upon an agreed upon procedure with the client as identified by the client within their definition. C&W makes no warranties regarding the accuracy or relevance of this estimate.
- Unless otherwise noted, we were not given a soil report to review. However, we assume that the soil's load-bearing capacity is sufficient to support existing and/or proposed structure(s). We did not observe any evidence to the contrary during our physical inspection of the property. Drainage appears to be adequate.
- Unless otherwise noted, we were not given a title report to review. We do not know of any easements, encroachments, or restrictions that would adversely affect the site's use. However, we recommend a title search to determine whether any adverse conditions exist.
- Unless otherwise noted, we were not given a wetlands survey to review. If subsequent engineering data reveal the presence of regulated wetlands, it could materially affect property value. We recommend a wetlands survey by a professional engineer with expertise in this field.
- Unless otherwise noted, we observed no evidence of toxic or hazardous substances during our inspection of the site. However, we are not trained to perform technical environmental inspections and recommend the hiring of a professional engineer with expertise in this field.
- By use of this Report each party that uses this Report agrees to be bound by all of the Assumptions and Limiting Conditions, Hypothetical Conditions and Extraordinary Assumptions stated herein.

# Addenda Contents

Addendum A: Qualifications of the Appraiser

# Addendum A: Qualifications of the Appraiser



### **Peter M. Savage, MAI, SRA**

Director

Valuation & Advisory

Practice Group Member | Residential Development

Cushman & Wakefield Western, Inc.

### **Professional Expertise**

Mr. Savage joined Cushman & Wakefield Western, Inc. Valuation & Advisory in 2006 and has specialized in residential development including appraising subdivisions, mixed-use properties and master planned communities. Mr. Savage began his career in real estate lending with California Federal Savings in 1974. After reaching management level in 1979, he joined Cuffaro Appraisal Services as a residential appraiser. Mr. Savage obtained the SRA and SRPA designations, becoming partner under the name of Cuffaro, Savage & Associates. In 1990 Mr. Savage opened Savage & Associates which became Certified Appraisals. He obtained the MAI designation in 1997 while operating Certified Appraisal.

Mr. Savage specializes in residential development properties including subdivisions and master planned communities. In addition, appraisal and consulting assignments include vacant land, office buildings, industrial buildings, business/industrial parks, shopping centers, industrial complexes, commercial properties, apartment buildings and mixed-use properties.

Appraisal assignments have been performed in San Diego County, San Luis Obispo County, Ventura County, Los Angeles, Riverside County and Imperial County, as well as in the states of Arizona and Idaho.

### **Memberships, Licenses, Professional Affiliations and Education**

- Designated Member, Appraisal Institute (MAI #11293). As of the current date, Peter M. Savage, MAI has completed the requirements of the continuing education program of the Appraisal Institute.
- Certified General Real Estate Appraiser in the following state:
  - California – AG004946
- Senior Real Property Appraiser, Appraisal Institute (SRPA)
- Designated Senior Residential Appraiser of the Appraisal Institute (SRA)
- Bachelor of Science degree in Real Estate, San Diego State University, 1976
- Mr. Savage has served on the board of directors for the San Diego chapter of the Appraisal Institute as well as chairing the education committee.

CALIFORNIA



**ENCLOSURE 3**

# LATHAM & WATKINS<sup>LLP</sup>

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| Milan        | Washington, D.C. |

April 17, 2018

VIA EMAIL & US MAIL

Ashley Smith  
Planning and Development Services  
County of San Diego  
5510 Overland Avenue, Suite 310  
San Diego, Ca 92123

Re: Revised Independent Analysis of Zoning Regulations, Constraints and Development Potential of Newland Owned Commercial Parcels Report prepared by Delane Engineering

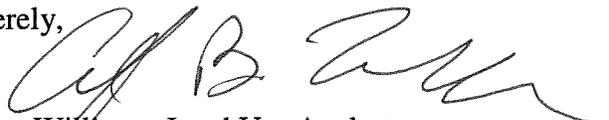
Dear Ms. Smith

Please find enclosed a revised report by Delane Engineering regarding the "Independent Analysis of Zoning Regulations, Constraints and Development Potential of Newland Owned Commercial Parcels." Our office previously submitted the report with our comment letter on the Draft Environmental Impact Report for the Newland Sierra Project. The previously submitted report incorrectly showed that Newland Sierra owned land currently occupied by the AM/PM gas station at Mesa Rock Road. This has been corrected, and the exhibits to the report have also been revised to reflect this change.

The revision, however, does not change the conclusion of the report which finds that due to regulatory and environmental constraints on the site a maximum of 618,000 square feet of office professional uses, and 77,000 square feet of general commercial uses could be built on the portions of the Newland Sierra Project site currently designated for office commercial and general commercial, for a total of 695,000 square feet. Therefore, the report finds that the site would not accommodate the 2 million square feet of commercial retail space including "big box" retail, claimed by Newland Sierra and repeated often by Newland Sierra in media reports and at community meetings.

If you have any questions, please do not hesitate to contact me.

Sincerely,



Clifton Williams, Land Use Analyst  
LATHAM & WATKINS LLP

Enclosure



## TECHNICAL MEMORANDUM

|         |                                                                                                                               |
|---------|-------------------------------------------------------------------------------------------------------------------------------|
| DATE    | August 4, 2017<br>Rev. March 29, 2018 (revised developable area removing parcels not owned by Newland)                        |
| TO      | Andrew Yancey – Latham and Watkins, LLP                                                                                       |
| FOR     | Kathy Van Ness – COO/GM Golden Door Resort                                                                                    |
| FROM    | John Prince, PE, PMP – DELANE Engineering, Inc.                                                                               |
| SUBJECT | <b>Independent Analysis of Zoning Regulations, Constraints, and Development Potential of Newland Owned Commercial Parcels</b> |

According to the June 2017 Draft Environmental Impact Report (DEIR) prepared for the Newland Sierra Development, the entire project area is currently zoned for 99 dwelling units and 58.2 acres of commercial office space (53.6 acres of C30, Office Professional, and 4.6 acres of C36, General Commercial). The Newland project proposes amending the General Plan and zoning to allow for the project's proposed 2,135 dwelling units and 81,000 square feet (SF) of commercial retail (C-5). See **Figure 1** for a land use breakdown from the Project Description section of the Newland DEIR.

The Newland DEIR claims that the 58.2 acres of currently zoned commercial property yields 2,008,116 SF of potential development under the Existing General Plan and that the proposed zoning changes result in similar or fewer overall land use and traffic impacts. The Newland DEIR also concludes that 2,008,116 SF of commercial development is feasible on the project site, and marketing material distributed by Newland at public meetings suggests the commercial parcels could include “big box” retail stores.

The Newland DEIR does not provide any detail on how the parcels would support over 2 million SF of development and does not own all the parcels. Per the County Zoning ordinance, development on the parcels is limited to two-stories and 35-ft in total height, with setbacks up to 60-ft. In addition, much of the property lies on “steep slopes”. Per the County Resource Protection Ordinance (RPO), steep slopes are defined as those natural slopes exceeding 25% in slope gradient and are a protected resource. Over 30% of the area of the commercial parcels qualifies as steep slopes per the RPO. As shown in **Figure 2**, the percent of steep slope area in several of the parcels exceeds 10% of the parcel area and requires an open space easement on the area of steep slopes (the yellow and red colored areas of Figure 2). Proposed development is not allowed to encroach more than 10% into an open space easement. In addition to steep slopes as a protected resource, the entire site consists of significant sloping that increases development costs and reduces development potential.

As shown in **Figure 3**, deducting for area of steep slopes and parking (at County ordinance rate of 4 stalls per thousand SF) yields a total developable building area available of 309,000 SF for C30 Office Professional and 38,500 SF for C36 General Commercial for a total of 347,500 SF. At 2 story height

restriction, the total building square footage feasible is 618,000 SF for C30 Office Professional and 77,000 SF of C36 General Commercial, for a total building square footage of 695,000 SF<sup>1</sup>. Note that there are additional potential constraints not taken into account that may further reduce feasible building square footage, including slope grading and earthwork, views, cost, economic viability, and other environmental factors.

The C30 zone does not allow “big box” retail stores. Section 2300 of the County Zoning Ordinance states that the intent of the C30 zone is as follows: “The C30 Use Regulations are intended to create and enhance areas where administrative, office and professional services are the principal and dominant use. It is also intended that uses involving high volumes of vehicular traffic be excluded from the C30 Use Regulations. Typically, the C30 Use Regulations would be applied near residential areas, have a scale and appearance compatible with and complementary to the adjacent residential use, and have pedestrian as well as vehicular access.”

The C36 General Commercial Zone does allow General Retail Sales which would include “big box” retail. However, as noted approximately 77,000 SF of retail would be allowed, which is smaller than the typical Costco (144,500 SF), Home Depot (105,000 SF), or Wal-Mart supercenter store (182,000 SF).<sup>2</sup> The 4.6 acres zoned C36 is bisected by Mesa Rock Road, further diminishing the ability for the property to develop in a single block, as would be required for any type of large format retail. Small convenience store retail, akin to the existing AM/PM minimart is more likely.

The Newland DEIR claims that the trip generation and distribution of the proposed residential development would be similar to and offset by the current commercial property. However, while the commercial parcels are limited to the far southeast corner of the entire project site, the Newland Sierra project as proposed sprawls out far across the hillsides northwest of the commercial parcels. Proposed project trip distribution is then spread out through three project access roads (Mesa Rock Road, Sarver Lane, and Twin Oaks Valley Road) causing further travel to and from the freeway and increased traffic on Deer Springs Road. However, when current land use is compared to proposed land use, it is apparent that trip distribution for the commercial parcels (if fully developed to current general plan) would result in differing trip distribution, with all traffic required to access the parcels from Mesa Rock Road. This is not addressed in the Newland project documents.

Finally, any development of only the commercial properties would not result in the environmental impacts and earth moving, blasting, noise, and other construction related impacts of the proposed Newland development across its nearly 2,000 acre site.

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<sup>1</sup> The high level conceptual footprint designs provided in this memorandum are for the purpose of approximating the buildable area on the Newland Sierra project site under the existing General Plan and are not to be construed as a development proposal or design-level engineering.

<sup>2</sup> [http://investor.costco.com/phoenix.zhtml?c=83830&p=irol-homeprofile\\_pf](http://investor.costco.com/phoenix.zhtml?c=83830&p=irol-homeprofile_pf); <https://corporate.homedepot.com/about>; <http://stock.walmart.com/investors/investor-resources/faqs/default.aspx>;

**Figure 1 – Existing Land Use (per Newland DEIR)**

**Commercial and Residential Yield Analysis (Existing Land Use Regulations)**

| Land Use             | Acres              | Allowable Density per General Plan | Number of Units/Square Feet                        |
|----------------------|--------------------|------------------------------------|----------------------------------------------------|
| SR-10 (0%–25% slope) | 19.6               | 1 dwelling unit/10 acres           | 5*                                                 |
| SR-10 (25%+)         | 0.0                | 1 dwelling unit/20 acres           | 0                                                  |
| RL-20                | 1,907.8            | 1 dwelling unit/20 acres           | 94                                                 |
| C-1                  | 4.6                | 0.70 floor area ratio              | 140,263 square feet                                |
| C-2                  | 53.6               | 0.80 floor area ratio              | 1,867,853 square feet                              |
| <b>Total</b>         | <b>1,985 acres</b> | <b>-</b>                           | <b>99 dwelling units and 2,008,116 square feet</b> |

Source: Appendix C

\* One dwelling unit per parcel per existing legal lot

SR-10 = Semi-Rural 10; RL-20 = Rural Land; C-1 = General Commercial; C-2 = Office Professional

FIGURE 2 - STEEP SLOPES

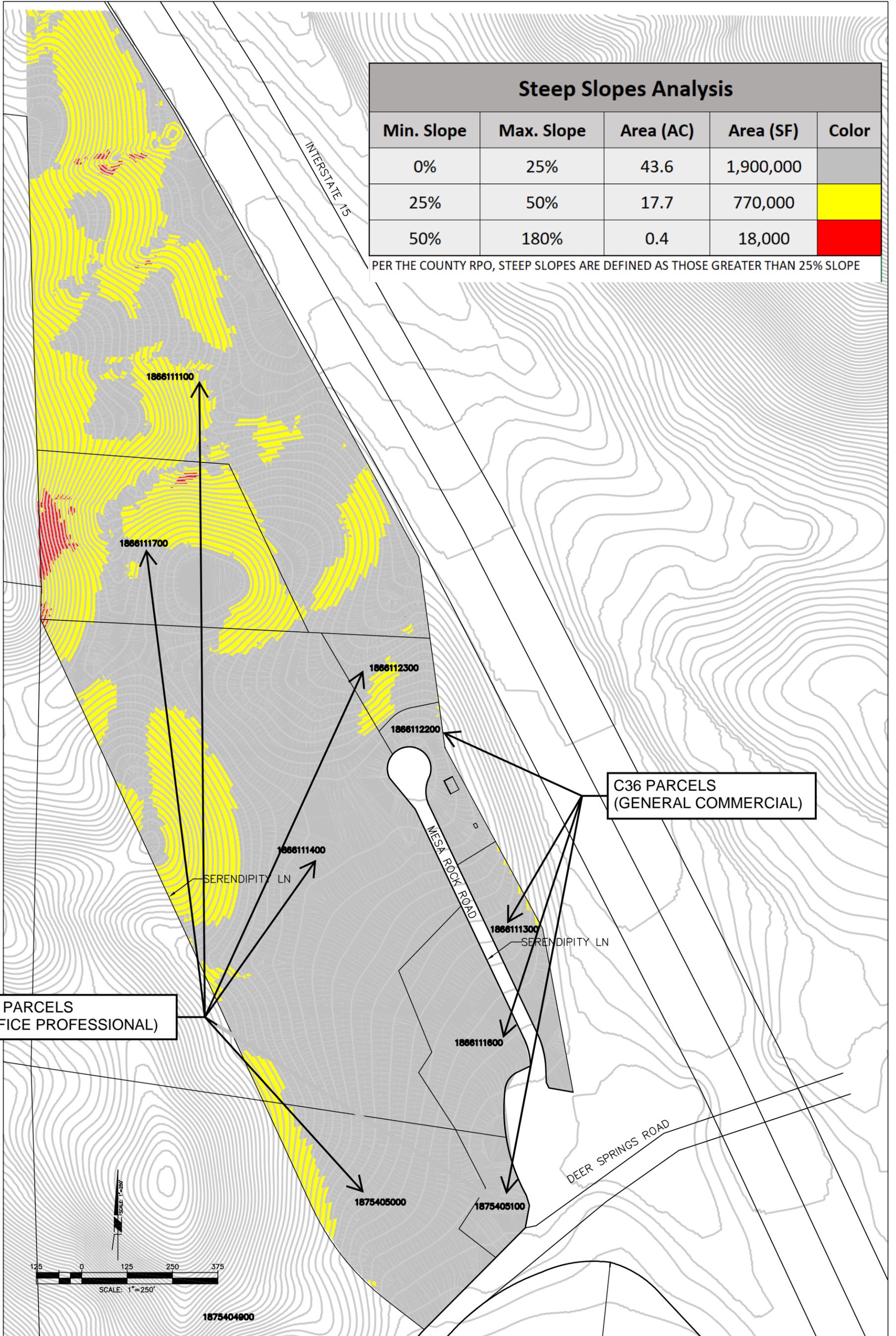
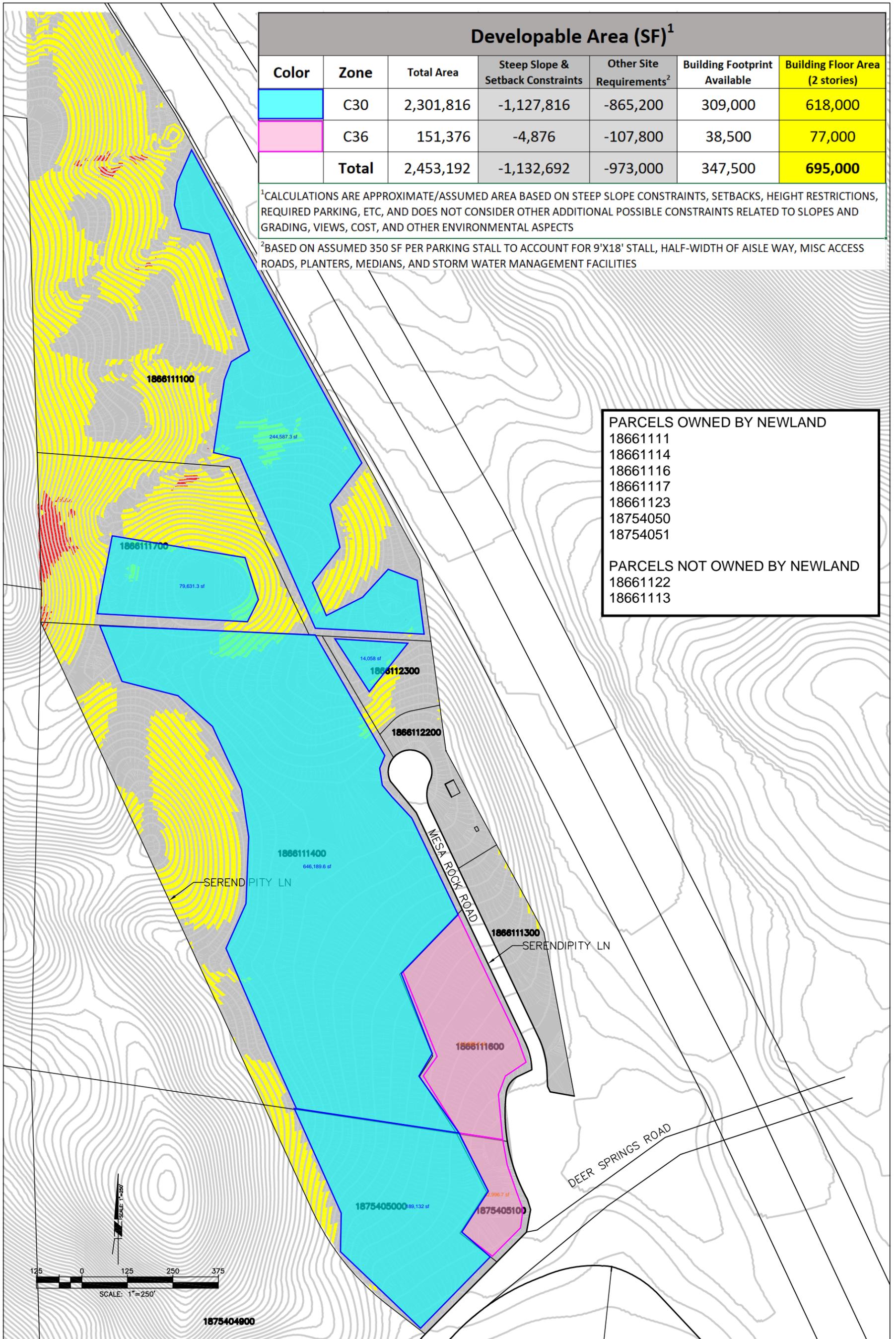


FIGURE 3 - DEVELOPABLE AREA



**ENCLOSURE 4**

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|              |                  |
|--------------|------------------|
| Beijing      | Moscow           |
| Boston       | Munich           |
| Brussels     | New York         |
| Century City | Orange County    |
| Chicago      | Paris            |
| Dubai        | Riyadh           |
| Düsseldorf   | Rome             |
| Frankfurt    | San Diego        |
| Hamburg      | San Francisco    |
| Hong Kong    | Seoul            |
| Houston      | Shanghai         |
| London       | Silicon Valley   |
| Los Angeles  | Singapore        |
| Madrid       | Tokyo            |
| Milan        | Washington, D.C. |

**TECHNICAL MEMORANDUM**

April 17, 2018

**From:** Clifton Williams, Land Use Analyst  
**Subject:** SANDAG Growth Forecast Data on Newland Sierra Project Site Commercial Area

The following technical land use memorandum reviews and evaluates information from the San Diego Association of Governments (“SANDAG”) on the land use assumptions made in the SANDAG Series 12, 2050 Growth Forecast, for the area zoned C36 Office Commercial and C30 General Commercial on the Newland Sierra Project site.

Newland Sierra, LLC (“Newland” or the “Project Applicant”) claims in its draft environmental impact report (“EIR”), marketing brochures, and web site, that “2 million square feet of office space and big box retail” could currently be built within the commercially zoned areas of the Newland Sierra Project site. SANDAG’s Series 12 model contradicts this claim. This especially important, because the model assumptions were provided to SANDAG by the County of San Diego, and the results of the model runs were validated by the County of San Diego.

**I. BACKGROUND**

SANDAG is the regional planning agency in San Diego County and is responsible for regional planning of transportation infrastructure throughout the County. SANDAG is made up of the governments of 18 city jurisdictions and the County of San Diego. SANDAG is the regional clearinghouse for demographic and land use data, and it use this date to create detailed growth projections for the County of San Diego, which informs regional resource allocations for transportation, housing, and other local, state and federal funds.

SANDAG produces demographic growth models to aid in the allocation of resources throughout the San Diego region. According to the SANDAG web site,<sup>1</sup> “The SANDAG forecasts are used by policymakers and the general public, as well as by public and private agencies throughout the region. For example, SANDAG uses the forecasts to develop the

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<sup>1</sup> SANDAG, *About SANDAG*, <http://sandag.org/index.asp?fuseaction=about.home>.

Regional Transportation Plan (RTP), the Regional Comprehensive Plan (RCP), and the Air Quality Conformity Plan. Local jurisdictions use the forecasts for general plan updates and capital facilities planning, including environmental impact reports (EIR), as well as for local transportation planning. Other agencies, such as the San Diego County Water Authority and the San Diego Regional Energy Office, use aspects of the SANDAG forecasts to develop plans for providing these essential services.”

According to Section 3.1 (page 33) of the 2050 Regional Growth Forecast Process and Model Documentation (relevant excerpts provided in Exhibit A):

Determining the amount and location of housing unit and employment capacity in the region is a key to allocating the long-range regional forecast to jurisdictions, communities, and neighborhoods. These capacities represent key policy inputs to the forecasting process, reflecting current land use plans and policies, as well as the implementation of smart growth development strategies throughout the region.

## **II. SERIES 12 MODEL**

The Series 12 model is the model that currently contains all of the land use inputs provided by the regional jurisdictions and was used to generate the 2050 Regional Growth Forecast. The Series 12 model was created concurrently with the approval of the County General Plan Update in 2011 and includes all of the land use assumptions provided by the County of San Diego that reflect the land uses in the General Plan Update.

SANDAG uses land use inputs provided by jurisdictions around the County to develop a model that shows where growth will occur and how traffic patterns will emerge throughout the region. According to Section 3.1 (page 33) of the 2050 Regional Growth Forecast Process and Model Documentation:

For the 2050 Regional Growth Forecast, SANDAG staff worked directly with local jurisdictions to understand how local land use plans and policies might change and evolve in the next forty years. Through this process the 2050 Regional Growth Forecast is based primarily on local land use plans, many of which have been updated in the past four years, and also includes draft plan updates and more robust redevelopment assumptions within existing plans under the assumption that more existing lands may be redevelopable given the longer time horizon of the forecast (forty years, for this forecast, as compared with twenty five years in other forecasts).

Therefore, the assumptions in the growth forecast reflect the agency’s determination of the land uses that will occupy a given site.

### **III. MODEL DEVELOPMENT**

#### **A. How the County is Broken into Units**

According to Section 3.2 (page 34) (Exhibit A) of the 2050 Regional Growth Forecast Process and Model Documentation, “SANDAG uses a multilevel geographic reference system. The foundation of the system is the Master Geographic Reference Area (MGRA). The approximately 21630 MGRAs are the result of overlaying several layers of geographic boundaries: census tracts, community planning areas, city boundaries, spheres of influence, and zip codes. Census tracts also are split using other criteria (e.g. ridgelines) to develop traffic analysis zones for use in the transportation models. Housing unit and employment capacity is determined for each MGRA.”

#### **B. Jurisdictional Input**

According to Section 3.2 (page 34) of the 2050 Regional Growth Forecast Process and Model Documentation:

Before the capacities can be calculated, a great deal of land use inputs must be gathered and corroborated. SANDAG relies heavily on the involvement of the local jurisdiction staffs for this task. First, a set of maps is prepared for local review. ...

The local jurisdictions reviewed a full set of maps in 2008 in preparation for the 2050 Forecast released in 2010. Each of the maps depicted a different aspect of land use: (1) planned land uses (i.e. the general or community plan), (2) existing land uses, (3) areas that are fully or partially constrained from development for policy or environmental reasons, and (4) areas that have the potential to redevelop (change use) or infill (intensify the existing use). The local planners reviewed each map for completeness and accuracy, noting any corrections directly on the maps. In addition, they provided SANDAG with information about any “site specific” projects. These are development projects that are currently under construction or have final approval and financing. As the maps were returned, SANDAG staff made the necessary edits to the various GIS databases. This process was an iterative process, involving more than a year’s worth of effort on the part of SANDAG and local staff, to update land use and cross-check it against local records.

The inputs for the unincorporated areas were handled differently. At the time of the forecast, the County was engaged in a major update to its general plan. The County had created an interim land use layer that was being considered for adoption by the Board of Supervisors. This land use layer, known as the Referral Map draft of the County’s General Plan Update, along with relevant constraint overlays, were modeled for the 2050 Forecast.

The Referral Map ultimately became the adopted County General Plan.

The Model Documentation goes on to state at pages 34 and 35:

Once the databases are updated, the process of determining housing and employment capacity begins. ... In the next step, the CAPACITY program computes the housing unit and/or employment capacity for each development type code within each parcel. ... Employment densities are based on observed regional parameters and are specific to more than 50 different employment land uses.

**C. Accuracy Validation and Jurisdictional Sign Off**

According to Section 3.2 (page 36) of the 2050 Regional Growth Forecast Process and Model Documentation:

Once a capacity database is created, it is subjected to a series of computerized checks for consistency and accuracy. If inconsistencies or inaccuracies are discovered, the source of these are determined and corrected and the capacity database is recalculated. This process is iterated until an acceptable capacity database is created.

The data are aggregated for jurisdictions and community plan areas. Tables illustrating existing housing units and employment and housing and employment capacities are constructed and sent to each jurisdiction for their review and comment. If a jurisdiction determines that the capacities generated by the capacity program are inconsistent with their current plans and policies, the inconsistencies are noted and corrected and the capacity database is recomputed and subjected to the computerized checks. The new capacities then are forwarded to the jurisdictions for their review. This process is repeated until there is consensus among the jurisdictions that the capacity database is a reasonable representation of their current plans and policies or likely land use alternatives based on draft plans nearing completion.

**IV. NEWLAND SIERRA SANDAG SERIES 12 MODEL LAND USE ASSUMPTIONS**

**A. SANDAG Information**

Information on land use assumptions used in the Series 12, 2050 Growth Forecast for the Newland Sierra Project site was obtained by Clifton Williams, Land Use Analyst for Latham & Watkins LLP, from Rachel Cortes, Ph.D, Associate Regional Models Analyst with SANDAG.

**B. Newland Sierra Project Site MGRAs**

The MGRAs included in the Newland Sierra Site are shown on the map provided by Rachel Cortes and attached as Exhibit B. The area of the Project site currently zoned C36 Office Professional and C30 General Commercial adjacent to and north of Mesa Rock Road are wholly within MGRA 16980 and 16974.

**C. MGRA Site Assumptions**

Rachel Cortes at SANDAG provided an Excel Spreadsheet (Exhibit C) which includes the employment capacity and housing capacity in each MGRA on the Project site. It is important to note that the SANDAG Regional Growth Forecast does not forecast buildout square footage for commercially designated property. Instead, the Model determines Employment Capacity within each MGRA if commercial land uses are indicated.

- The Employment Capacity for MGRA 16980 is 1,117 employees,
- The Employment Capacity for MGRA 16974 is 246 employees.
- Therefore, the total forecasted employees for these sites is 1,363 employees.

**V. TRANSLATING EMPLOYMENT CAPACITY INTO BUILDING SQUARE FOOTAGE.**

**A. Methodology**

To determine the building square footage projected in a particular MGRA, Employment Capacity can be multiplied by a common ratio of square feet per employee. The City of San Diego used this methodology in the Final Environmental Impact Report for the City of San Diego's 2007 General Plan Update ("General Plan EIR") (relevant excerpts provided in Exhibit D). The methodology is detailed in section 3.18 of the General Plan EIR at page 3.18-3, which states:

It is important to note that the SANDAG 2030 Regional Growth Forecast does not forecast building square footage. The City based the 2004 and 2030 building square feet estimates on the SANDAG (Series 11) 2030 Regional Growth Forecast for Civilian Employment. For the purposes of this Program EIR, the City derived the building square footage estimates from the forecast by using typical square feet per employee by land use designation (retail, office, and industrial) ratios.

**B. Employment to Commercial Square Footage Conversion**

The City of San Diego used the following table at page 3.18-5 of the General Plan EIR, to convert the employees to building square footage for various commercial land use types:

| <b>Generalized Land Use Type</b> | <b>Description</b>      | <b>Square Foot per Employee</b> |
|----------------------------------|-------------------------|---------------------------------|
| Visitor Commercial               | Hotel/Motel (Lo-Rise)   | 1400                            |
| Visitor Commercial               | Hotel/Motel (Hi-Rise)   | 1000                            |
| Visitor Commercial               | Resort                  | 1000                            |
| Industrial                       | Heavy Industry          | 550                             |
| Industrial                       | Industrial Parks        | 400                             |
| Industrial                       | Light Industry-General  | 400                             |
| Industrial                       | Warehousing and Public  | 800                             |
| Retail Commercial                | Wholesale Trade         | 500                             |
| Retail Commercial                | Regional Shopping       | 450                             |
| Retail Commercial                | Community Shopping      | 400                             |
| Retail Commercial                | Neighborhood Shopping   | 350                             |
| Retail Commercial                | Specialty Commercial    | 300                             |
| Retail Commercial                | Automobile Dealerships  | 300                             |
| Retail Commercial                | Store-Front             | 300                             |
| Retail Commercial                | Other Retail Trade      | 300                             |
| Office Commercial                | Office (High-Rise)      | 300                             |
| Office Commercial                | Office (Lo-Rise)        | 300                             |
| Office Commercial                | Government Office/Civic | 300                             |

The table shows that Office Commercial uses convert at a rate of 300 square feet per employee. A Hughes Marino study (Exhibit E) states that, “today’s office worker averages 175 square feet of space – down from 225 square feet in 2010, and 275 square feet in 2007.” Therefore, the ratio of square feet per employee is likely less today.

### **C. Commercial Square Footage on Newland Sierra Project Site**

According to the Project Description in the Draft EIR for the Newland Sierra Project at page 1-29, the existing community plan land use designations for commercial area on the Project site include 4.6 acres of General Commercial and 53.6 acres of Office Professional. Therefore, the total number of commercial acres on the site is 58.2 acres. It should be noted that the acreage described in the Newland Sierra DEIR are the commercial acres owned by Newland Sierra and are part of the Project site. However, MGRA 16980 and 16974 also include the existing AM/PM mini-mart and gasoline station which are not part of the Newland Sierra Project site. It is impossible to further parse the employment capacity within the MGRA, so the total commercial square footage for Newland Sierra must be reduced by the square footage of the AM/PM mini-mart site.

The City of San Diego table above includes 450 square feet per employee for Regional Shopping and 300 square feet per employee for Office Commercial uses. Property designated Office Professional comprises 92% of the commercial area on the Project site and is therefore the dominant land use type within the MGRAs. If a factor of 350 square feet per employee were used to determine the commercial square footage planned on the property, it would appear to take into account the difference between Regional Shopping and Office Commercial uses and provide a conservative estimate of the building square footage.

## VI. CONCLUSION

Based on the 1,363 employees estimated in the Series 12, 2050 Growth Forecast for the Newland Sierra Project site, and a conversion rate of 350 square feet per employee, the maximum amount of commercial square footage projected by the SANDAG 2050 Growth Forecast for the Project site is 477,050 square feet.

**350 square feet per employee (x) 1,363 employees = 477,050 square feet**

As noted above, the land use assumptions for the site were provided by the County of San Diego to SANDAG, and the conclusions of the model runs were verified with the County of San Diego before they were included in the 2050 Growth Forecast. Therefore, the demographic profile of the site in not only the determination of SANDAG, but it is also the determination of the County of San Diego.

The Newland Sierra's public pronouncements that the project site supports a building capacity of "2,008,116 square feet of commercial space" or "two million square feet of office space and big box retail" are inconsistent with the projections in the SANDAG 2050 Growth Model, which were verified and validated by the County of San Diego.

# CLIFTON WILLIAMS

As a Land Use Analyst, Clif Williams works on complex governmental entitlement and regulatory matters and with governmental entities throughout the western United States.

## Profile / Expertise

- Land use and entitlement for all forms of real estate development
- California Environmental Quality Act (CEQA)
- Regulatory diligence prior to purchase or sale
- Government affairs and strategic planning and communications with government entities

## Experience

Prior to joining Latham, Mr. Williams served as Chief of Staff to the San Diego City Council President, and served as the Committee Consultant to the San Diego City Council's Land Use and Housing Committee and the Natural Resources Committee.

Mr. Williams has participated in the entitlement of energy generation and infrastructure projects, commercial office parks, shopping malls, large housing tracts, and mixed-use, transit oriented developments throughout California and the western United States. Mr. Williams has also completed property diligence for the acquisition of billion dollar real estate portfolios, and for lenders on large commercial projects.

Mr. Williams' experience includes:

- Entitlement and regulatory matters for the permitting of a 15-story, class A office building in San Diego, California
- Land use and regulatory diligence on a US\$1 billion real estate acquisition portfolio with property throughout California
- Property diligence throughout San Diego County, California to find a location for a new peaker power plant
- Research and development of "highest and best use" and value maximization for property owner condemned for a regional freeway
- Entitlement for the redevelopment of a sand and gravel quarry into a transit-oriented mixed use development with 1800 residential units and 160,000 square feet of commercial retail and office space
- Consultation on land use initiatives and referenda
- Entitlement and agency interaction at all levels including City, Coastal Commission, Regional Water Quality Control Board and State Lands Commission, for the largest desalination facility in the western United States.
- US\$1 billion expansion of a regional shopping mall to add 750,000 square feet of retail space and 200 residential units in the City of San Diego.
- Entitlements and regulatory affairs for the development of a 200-MW wind farm in the unincorporated San Diego County, California



Land Use Analyst, San Diego

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## Recognition Highlights

Board Member, San Diego County Taxpayers Association

# **EXHIBIT A**

## CHAPTER 3: LAND USE PLANS AND POLICIES

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### 3.1 ROLE OF PLANS AND POLICIES IN THE FORECAST

Determining the amount and location of housing unit and employment capacity in the region is a key to allocating the long-range regional forecast to jurisdictions, communities, and neighborhoods. These capacities represent key policy inputs to the forecasting process, reflecting current land use plans and policies, as well as the implementation of smart growth development strategies throughout the region. Land use data collected from the local jurisdictions provides policy inputs to both the Urban Development Model (UDM) and the Interregional Commute Model (IRCM).

The four previous forecasts dealt with the land use plan update issue in different ways. The Series 8 Forecast, released in 1995, simply assumed slight residential density increases across the board in all jurisdictions. That approach was criticized as being arbitrary, and not addressing the nexus between land use and transportation.

The 2020 Forecast, released in 1999, was the first SANDAG attempt to model future smart growth development patterns. Residential and employment capacity was added throughout the urban areas of the region in the form of transit-oriented development within walking distance of approximately 150 current and future transit stops, called transit focus areas (TFA). In areas where several TFAs were clustered, however, the resulting land use patterns sometimes were too far removed from current plans, causing concern for some jurisdictions.

The 2030 Cities/County Forecast was developed as a component of the Regional Comprehensive Plan (RCP). This forecast was based on current plans and policies of the incorporated jurisdictions and the draft General Plan update for unincorporated areas.

Like the 2030 Cities/County Forecast, no smart growth areas other than those contained in the current plans and policies of the jurisdictions were included in the land use assumptions for the 2030 Regional Growth Forecast Update.

For the 2050 Regional Growth Forecast, SANDAG staff worked directly with local jurisdictions to understand how local land use plans and policies might change and evolve in the next forty years. Through this process the 2050 Regional Growth Forecast is based primarily on local land use plans, many of which have been updated in the past four years, and also includes draft plan updates and more robust redevelopment assumptions within existing plans under the assumption that more existing lands may be re-developable given the longer time horizon of the forecast (forty years, for this forecast, as compared with twenty five years in other forecasts).

## 3.2 HOUSING AND EMPLOYMENT CAPACITY

SANDAG uses a multilevel geographic reference system. The foundation of the system is the Master Geographic Reference Area (MGRA). The approximately 21630 MGRAs are the result of overlaying several layers of geographic boundaries: census tracts, community planning areas, city boundaries, spheres of influence, and zip codes. Census tracts also are split using other criteria (e.g. ridgelines) to develop traffic analysis zones for use in the transportation models. Housing unit and employment capacity is determined for each MGRA.

Before the capacities can be calculated, a great deal of land use inputs must be gathered and corroborated. SANDAG relies heavily on the involvement of the local jurisdiction staffs for this task. First, a set of maps is prepared for local review. For the City of San Diego there is a map set for each community planning area. The 17 other cities receive maps depicting activity within their general plan boundaries.

The local jurisdictions reviewed a full set of maps in 2008 in preparation for the 2050 Forecast released in 2010. Each of the maps depicted a different aspect of land use: (1) planned land uses (i.e. the general or community plan), (2) existing land uses, (3) areas that are fully or partially constrained from development for policy or environmental reasons, and (4) areas that have the potential to redevelop (change use) or infill (intensify the existing use). The local planners reviewed each map for completeness and accuracy, noting any corrections directly on the maps. In addition, they provided SANDAG with information about any "site specific" projects. These are development projects that are currently under construction or have final approval and financing. As the maps were returned, SANDAG staff made the necessary edits to the various GIS databases. This process was an iterative process, involving more than a year's worth of effort on the part of SANDAG and local staff, to update land use and cross-check it against local records.

The inputs for the unincorporated areas were handled differently. At the time of the forecast, the County was engaged in a major update to its general plan. The County had created an interim land use layer that was being considered for adoption by the Board of Supervisors. This land use layer, known as the Referral Map draft of the County's General Plan Update, along with relevant constraint overlays, were modeled for the 2050 Forecast.

Once the databases are updated, the process of determining housing and employment capacity begins. The program GPALL evaluates current land use, planned land use, the existence of constraints, redevelopment potential, and other characteristics to determine the appropriate development type code. The development type code is used in the Urban Development Model (UDM) to determine where activity can occur during the forecast period. Sixteen types of land are identified through the program (listed in Table 5). For forecasting purposes, redevelopment is defined as a change of use, and infill means an intensification of the same use. Agricultural Redevelopment is a special case. In many parts of the region, land in existing agricultural use is actually planned for some other use, and may eventually develop with that other use. Therefore, unless the underlying general or community plan category is Agriculture, or there is a constraint to development, land in agricultural use is considered to be developable for nonagricultural uses.

**Table 5  
Development Type Codes**

| Code | Description                                |
|------|--------------------------------------------|
| 1    | Developed                                  |
| 2    | Constrained or Unusable                    |
| 3    | Vacant Developable                         |
| 4    | Employment Infill                          |
| 5    | Single Family Infill                       |
| 6    | Multifamily Infill                         |
| 7    | Residential to Employment Redevelopment    |
| 8    | Single Family to Multifamily Redevelopment |
| 9    | Mobile Home to Residential Redevelopment   |
| 10   | Agricultural Redevelopment                 |
| 11   | Employment to Residential Redevelopment    |
| 12   | Employment to Employment Redevelopment     |
| 13   | Residential to Road Way or Freeway         |
| 14   | Employment to Road Way or Freeway          |
| 15   | Employment or Residential to Mixed Use     |
| 16   | Vacant to Mixed Use                        |

In the next step, the CAPACITY program computes the housing unit and/or employment capacity for each development type code within each parcel. By definition, areas assigned a development type code of 1 or 2 have no remaining capacity. Also by definition, areas that are vacant or agricultural and developable (codes 3 and 10) always have remaining capacity, which is calculated as:

$$\text{Remaining Capacity} = \text{Acres} \times \text{Density}$$

Housing unit densities are prescribed by the general or community plan. Most plans use density ranges, such as 4 to 8 units per acre (du/acre), and the local planners identify where within each range development usually occurs. On vacant land, the midpoint (50 percent) of the range is typical, which in this case means the land planned for 4-8 du/acre would develop at 6 units per acre. On redevelopment or infill land, 75 percent of the range is common. Therefore, a 4 to 8 du/acre range would yield either 7 units per acre. Employment densities are based on observed regional parameters and are specific to more than 50 different employment land uses.

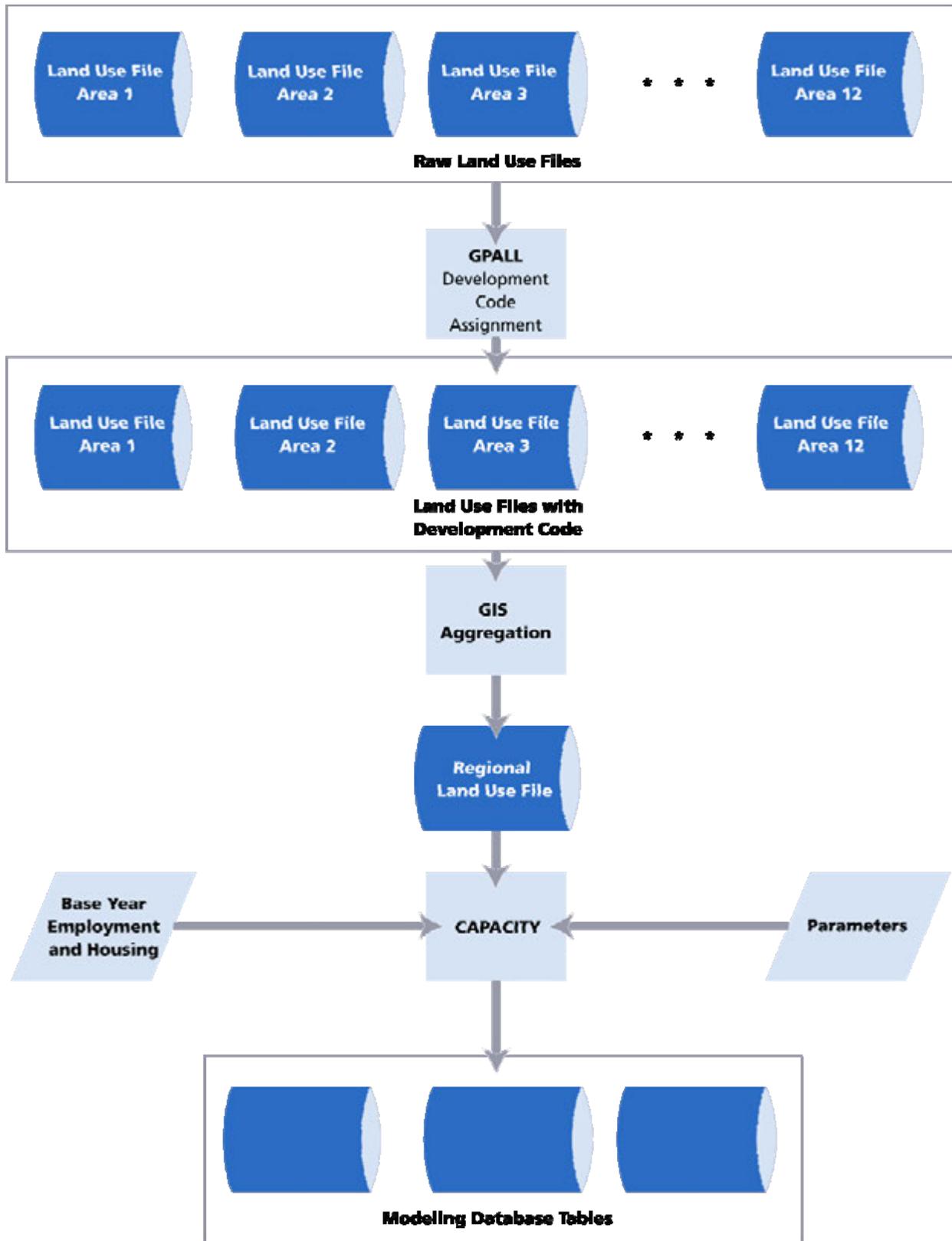
Remaining capacity for nonagricultural redevelopment areas (codes 7, 8, 9, 11, 12, 15) also is calculated using the above formula. In these cases, however, existing activity is removed first. For example, in areas that have the potential to redevelop from existing single family use to multifamily use (code 8), single family units are removed before the multifamily units are added. The removal of existing activity means that areas can have negative capacity. For example, in areas identified with the potential for residential to employment redevelopment (code 7), the existing housing would be replaced with nonresidential activity, and the housing unit capacity would be a negative number equal to the number of existing units in the year 2008. Potential infill areas (codes 4, 5, 6) add units or employment to the already existing activity up to, but not exceeding, the prescribed density. There is no loss of activity in infill areas.

Program output comprises database tables that are used in the allocation modules of UDM. The derivation of capacity is illustrated in Figure 9.

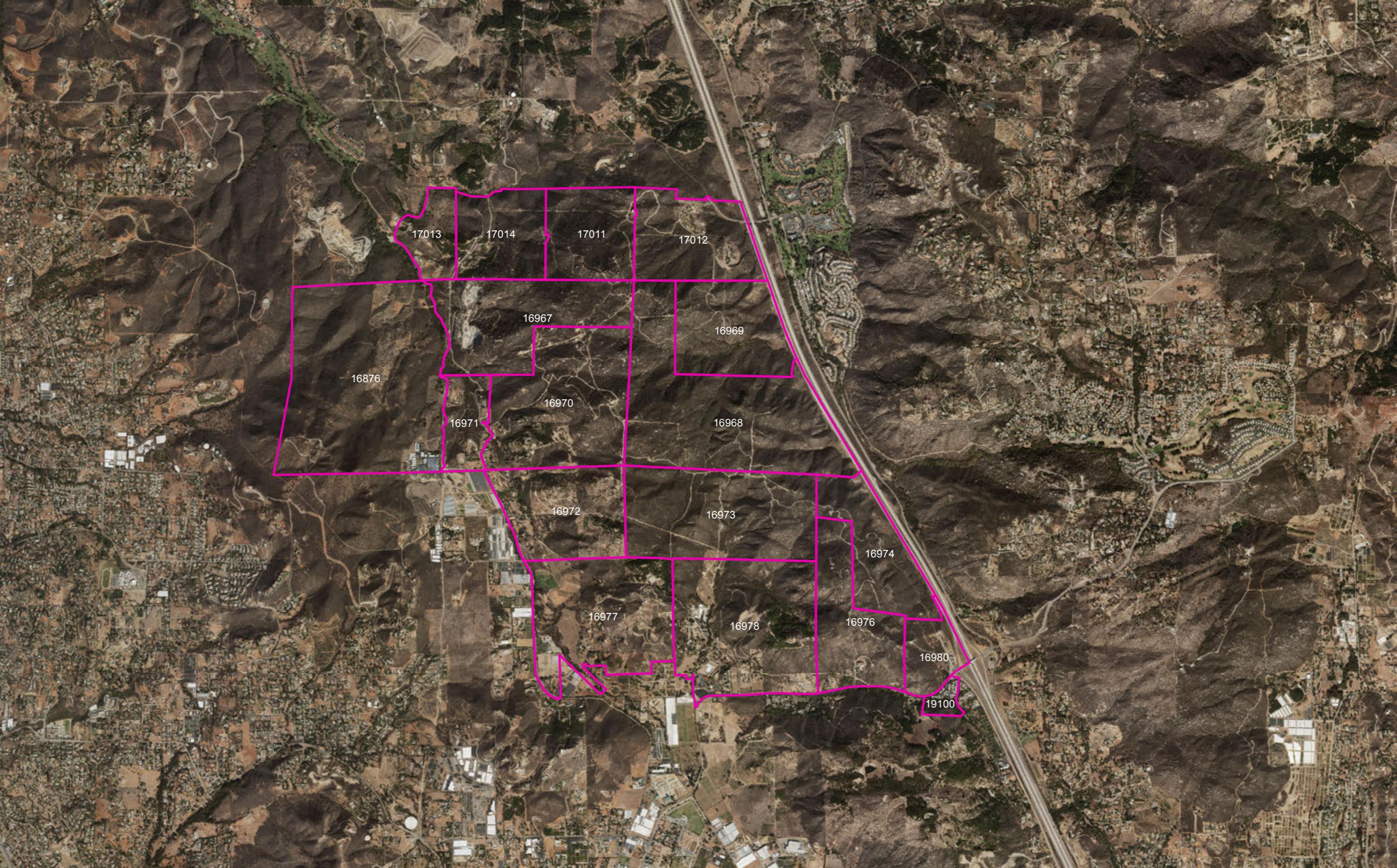
Once a capacity database is created, it is subjected to a series of computerized checks for consistency and accuracy. If inconsistencies or inaccuracies are discovered, the source of these are determined and corrected and the capacity database is recalculated. This process is iterated until an acceptable capacity database is created.

The data are aggregated for jurisdictions and community plan areas. Tables illustrating existing housing units and employment and housing and employment capacities are constructed and sent to each jurisdiction for their review and comment. If a jurisdiction determines that the capacities generated by the capacity program are inconsistent with their current plans and policies, the inconsistencies are noted and corrected and the capacity database is recomputed and subjected to the computerized checks. The new capacities then are forwarded to the jurisdictions for their review. This process is repeated until there is consensus among the jurisdictions that the capacity database is a reasonable representation of their current plans and policies or likely land use alternatives based on draft plans nearing completion.

Figure 9  
Capacity Derivation



# **EXHIBIT B**



17013

17014

17011

17012

16876

16967

16969

16970

16971

16968

16972

16973

16974

16977

16978

16976

16980

19100

# **EXHIBIT C**

## EX C - Emp and hu capacity sr13.xlsx

| mgra  | emp_civ | cap_emp_c | housing_st | cap_housing_stock |
|-------|---------|-----------|------------|-------------------|
| 16876 | 0       | 0         | 1          | 21                |
| 16967 | 0       | 1         | 0          | 12                |
| 16968 | 0       | 0         | 0          | 23                |
| 16969 | 0       | 0         | 0          | 9                 |
| 16970 | 1       | 0         | 8          | 12                |
| 16971 | 22      | 0         | 7          | 0                 |
| 16972 | 10      | 0         | 18         | 1                 |
| 16973 | 0       | 0         | 0          | 16                |
| 16974 | 0       | 246       | 0          | 7                 |
| 16976 | 8       | 0         | 2          | 8                 |
| 16977 | 8       | 0         | 26         | 0                 |
| 16978 | 37      | 0         | 29         | 9                 |
| 16980 | 16      | 1101      | 0          | 1                 |
| 17012 | 1       | 0         | 6          | 7                 |
| 17013 | 0       | 0         | 6          | 0                 |
| 17014 | 1       | 3         | 0          | 3                 |
| 19100 | 0       | 0         | 32         | 0                 |

# **EXHIBIT D**

As part of the SANDAG forecast process, the City provides land use inputs to SANDAG addressing the feasibility of development to existing conditions and constraints that may limit future development. By 2030, SANDAG forecasts that approximately 107,400 additional multifamily units could be built within the City, which is a 54 percent increase in multifamily units from 2004 consistent with adopted community plan land use designations. Overall, when including the additional single-family units, SANDAG forecasts a 24 percent increase in the total number of units by 2030.

It is important to note that the SANDAG 2030 Regional Growth Forecast does not forecast building square footage. The City based the 2004 and 2030 building square feet estimates on the SANDAG (Series 11) 2030 Regional Growth Forecast for Civilian Employment. For the purposes of this Program EIR, the City derived the building square footage estimates from the forecast by using typical square feet per employee by land use designation (retail, office, and industrial) ratios. The City used building square footage estimates for 2030, so that it could be compared relationship to the theoretical build out scenario as part of the environmental analysis. Since uses with lower employment densities, such as industrial, typically have more square footage per employee than uses with higher employment densities, such as office, it is difficult to use gross estimate of total square footage as an indicator of employment growth.

The SANDAG 2030 forecast uses an econometric forecast for regional employment population growth for the San Diego region based on national and statewide forecasts that incorporate demographic and economic factors. SANDAG uses employees per acre by land use types rather than building square footage in the forecast process. Between 2004 and 2030, SANDAG forecasts that the civilian employment will increase by 24 percent in the City.

SANDAG forecasts that the percentage increase for both new housing units and civilian jobs are at 24 percent for the City. The forecast indicates that jobs to housing ratio (civilian employment per housing unit) increases less than one percent from 1.60 in 2004 to 1.61 by 2030. During this same period, that employment density in the City increases by 10 percent from 24.8 to 27.4 civilian employments per developed employment acre.

### **Comparison between the Theoretical Build Out and the SANDAG 2030 Forecast Scenarios**

Although the theoretical build-out scenario does not have a time horizon associated with it, there could be substantially more development than forecasted under the Year 2030 scenario. When comparing the two scenarios, there could be 24 percent more total housing units (which would be predominantly multifamily) and 298 percent more non-residential building square feet. The theoretical build-out scenario assumes for residential development that existing land uses, located on plan designated multifamily land, would redevelop or infill at the maximum point of their adopted community plan residential density range. For non-residential (commercial and industrial uses), the analysis assumes that all existing land uses, located on plan designated non-residential land, would redevelop or infill at the maximum allowed zoning ordinance FAR.

**Table 3.18-2  
Comparison between the Theoretical Build Out Scenario and  
the SANDAG 2030 Forecast Scenario for Total Non-Residential Square Feet**

| SANDAG 2030 Forecast (Estimates) |              |                                 |         | Theoretical Build Out |                                 |         |                           |         |
|----------------------------------|--------------|---------------------------------|---------|-----------------------|---------------------------------|---------|---------------------------|---------|
| Base Year                        | Horizon Year | Change from Existing Conditions |         | Theoretical           | Change from Existing Conditions |         | Change from 2030 Forecast |         |
| 2004                             | 2030         | Numeric                         | Percent | Build Out             | Numeric                         | Percent | Numeric                   | Percent |
| 203,833,250                      | 275,702,300  | 71,869,050                      | 35%     | 1,097,680,700         | 893,847,450                     | 439%    | 821,978,400               | 298%    |

## Notes:

- 1) The theoretical build-out scenario was prepared solely for the purposes of the General Plan Environmental Impact Report only and should not be used for any other long range planning purposes.
- 2) Build -out scenario refers to the theoretical maximum build out of all lands within the planning area in accordance with assigned land use designations.
- 3) The SANDAG 2030 Regional Growth Forecast does not forecast building square footage. The 2004 and 2030 building square feet estimates are based on the SANDAG (Series 11) 2030 Regional Growth Forecast for Civilian Employment. The building estimates were derived from the forecast by using typical square feet per employee by land use designation (retail, office, and industrial) ratios as in the table below.

| Generalized Land Use Type | Description             | Square Foot per Employee |
|---------------------------|-------------------------|--------------------------|
| Visitor Commercial        | Hotel/Motel (Lo-Rise)   | 1400                     |
| Visitor Commercial        | Hotel/Motel (Hi-Rise)   | 1000                     |
| Visitor Commercial        | Resort                  | 1000                     |
| Industrial                | Heavy Industry          | 550                      |
| Industrial                | Industrial Parks        | 400                      |
| Industrial                | Light Industry-General  | 400                      |
| Industrial                | Warehousing and Public  | 800                      |
| Retail Commercial         | Wholesale Trade         | 500                      |
| Retail Commercial         | Regional Shopping       | 450                      |
| Retail Commercial         | Community Shopping      | 400                      |
| Retail Commercial         | Neighborhood Shopping   | 350                      |
| Retail Commercial         | Specialty Commercial    | 300                      |
| Retail Commercial         | Automobile Dealerships  | 300                      |
| Retail Commercial         | Store-Front             | 300                      |
| Retail Commercial         | Other Retail Trade      | 300                      |
| Office Commercial         | Office (High-Rise)      | 300                      |
| Office Commercial         | Office (Lo-Rise)        | 300                      |
| Office Commercial         | Government Office/Civic | 300                      |

## Notes:

- 1) The theoretical build-out scenario for square feet assumes the full utilization of the allowable zoning ordinance floor area ratio (FAR) for land that is designated for retail, office, and industrial uses, except for downtown. The theoretical build-out scenario includes the build out building square footage that is reported in the 2006 adopted Downtown Community Plan.
- 2) Although theoretically possible based only on the allowable maximum floor area ratio, there could be constraints in place that would limit or reduce the feasibility of additional square footage at the maximum floor area ratio, such as physical constraints, regulatory constraints, or market conditions.
- 3) The (Series 11) 2030 Region Growth Forecast allocated additional multifamily units to multifamily designated land considered more feasible for future development.
- 4) The (Series 11) 2030 Region Growth Forecast was approved by the SANDAG Board for planning purposes in September 2006. The 2030 Forecast uses the Year 2004 as a base year and 2030 as the forecast horizon year.

# **EXHIBIT E**

a

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# Size Matters

Jason Hughes | January 5, 2016 | Hatch



t f l e

Why small spaces need big perks to keep employees happy.

By Jason Hughes

The tech industry has done amazing things for humanity and its contributions

are ubiquitous in virtually everything we do. It comes as no surprise that the tech industry also forced the old-school commercial office space world to re-evaluate its boring, vanilla, box-like past. With the help of creative architects and planners, office space is striking a balance between work and life.

For the first half of the 20th century, office space consisted of wooden desks grouped in rows, sometimes hundreds of them. In the '60s, Herman Miller created the office cubicle, which has since been demonized as one step removed from living under a freeway overpass. The idea was to provide at least a minimal sense of privacy for individuals. And while that was transformative, we've now come full-circle with many companies returning to completely open workstations and virtually zero privacy. Unlike the old days, however, the new office model boasts a generous amount of community space peppered with areas for individual seclusion.

Most of us remember the days of studying at library carrels in a 2' x 3' desk with partitions to minimize distractions. Including room for a chair that "area" consisted of about 15 square feet of space. Working in a minimal space for short bursts is tolerable. And studying for midterms in a library carrel in order to avoid your noisy roommate is different than working a full-time job. But is cramming bodies into less space the right long-term move?

Today's office worker averages 175 square feet of space – down from 225 square feet in 2010, and 275 square feet in 2007. Now, at 78% of the size from the pre-2010 era (64% of pre-2007), are companies benefiting? Are their employees?

Yes – and no. Everyone has read about Google's amazing cafeterias, massage rooms, and park-like environments, but many company decision-makers look at Google's offices and focus only on the high-density employee benching areas. They want to implement that, but not the perks. These companies are reverting to the pre-'60s era of cramming bodies into space. In the short run, companies with this mindset find themselves "real estate

efficient,” but see employee engagement and culture plummet over time. This ultimately results in decreased retention and poor recruiting, and can be the beginning of a long, downward corporate spiral.

Google and other leading tech companies have invested millions of dollars hiring psychology experts to understand how good office space design and efficiencies can be exploited to create positive economic returns. Piggybacking on their learning has its benefits, but only if you emulate all aspects – not just the fiscally friendly ones!

While tech companies have lessened the stigma of minimizing space per employee, many others who seek to emulate them forget how overwhelmingly generous they are with their perks. Google’s philosophy is to “create the happiest, most productive workplace in the world.” Most planning experts are pushing for a substantial increase in amenity space – often devoting upwards of 15% of the entire space to cafeterias, game rooms, etc. This is in addition to ample collaboration and meeting space.

So what’s next? What else will the Googles of the world teach the rest of us about office space? Many progressive companies are now fine-tuning the “engagement” aspect of their space. That includes having space employees truly look forward to being in, where they can share ideas while also having the privacy they need at times. How fortunate would society be if employees everywhere felt like “going to the office” was a wonderful privilege rather than a necessary evil?

We can all learn from the tech leaders who have charted the best ways before us. Less is not more when it comes to office space. Those who sacrifice overall space efficiencies in the name of economics will suffer long-term mediocrity as a result.

*This article first appeared in [Hatch](#), a publication of San Diego Magazine.*

*Jason Hughes is chairman, CEO, and owner of Hughes Marino, an award-winning commercial real estate company with offices in San Diego, Orange County, Los Angeles, San Francisco, Silicon Valley and Seattle. A pioneer in the field of tenant representation, Jason has exclusively represented tenants and buyers for more than 25 years. He writes about topics in commercial real estate from a tenant's perspective on his blog, [Downtown Dirt](#). Contact Jason at 1-844-NO-CONFLICT or [jason@hughesmarino.com](mailto:jason@hughesmarino.com) to learn more.*

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Author  
**Jason Hughes**

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**ENCLOSURE 5**

April 24, 2018



**Latham & Watkins, LLP**

Attention: Andrew Yancey

12670 High Bluff Drive

San Diego, CA 92130

**Subject: Newland Sierra Office Trip Generation Assessment**

Dear Andrew:

STC Traffic, Inc. was asked to review the trip generation associated with the County General Plan land use. The table below, extracted from the Newland Sierra Traffic Impact Analysis report (LLG, May 2017), indicates that the General Plan land uses are forecast to generate 20,969 trips per day. The General Plan includes 4.94 acres of General Commercial, 53.64 acres of Office Professional and 99 estate residential dwelling units.

**TABLE 11-1  
COMPARISON OF TRIP GENERATION - GENERAL PLAN LAND USES VERSUS PROPOSED PROJECT**

| Land Use                                                                   | Quantity           | Rate <sup>a</sup> | Daily Trip Ends (ADT) | AM Peak Hour |              | PM Peak Hour |              |
|----------------------------------------------------------------------------|--------------------|-------------------|-----------------------|--------------|--------------|--------------|--------------|
|                                                                            |                    |                   |                       | % of ADT     | Vol          | % of ADT     | Vol          |
| <b>A. Existing General Plan Land Uses</b>                                  |                    |                   |                       |              |              |              |              |
| <b>Non-Residential</b>                                                     |                    |                   |                       |              |              |              |              |
| General Commercial                                                         | 4.64 Acres         | 1,200 /Acre       | 5,568                 | 4%           | 223          | 10%          | 557          |
| Office Professional                                                        | 53.64 Acres        | 300 /Acre         | 16,092                | 14%          | 2,253        | 13%          | 2,092        |
| <b>Gross Non-Residential</b>                                               |                    |                   | <b>21,660</b>         |              | <b>2,476</b> |              | <b>2,649</b> |
| <b>Non-Residential Internal Capture &amp; Pass-By</b>                      |                    |                   |                       |              |              |              |              |
| Retail Internal Trips (5%) <sup>b</sup>                                    |                    |                   | (278)                 |              | (11)         |              | (28)         |
| Passby Reduction <sup>c</sup> (25% Daily and AM and 40% PM of Retail only) |                    |                   | (1,323)               |              | (53)         |              | (212)        |
| <b>Net Non-Residential</b>                                                 |                    |                   | <b>20,059</b>         |              | <b>2,412</b> |              | <b>2,409</b> |
| <b>Residential</b>                                                         |                    |                   |                       |              |              |              |              |
| Residential (Estate)                                                       | 99 DU <sup>d</sup> | 12 /DU            | 1,188                 | 8%           | 95           | 10%          | 119          |
| <b>Gross Residential</b>                                                   |                    |                   | <b>1,188</b>          |              | <b>95</b>    |              | <b>119</b>   |
| Residential Internal Capture <sup>e</sup>                                  |                    |                   | (278)                 |              | (11)         |              | (28)         |
| <b>Net Residential</b>                                                     |                    |                   | <b>910</b>            |              | <b>84</b>    |              | <b>91</b>    |
| <b>Gross Project</b>                                                       |                    |                   | <b>22,848</b>         |              | <b>2,571</b> |              | <b>2,768</b> |
| <b>Net Existing General Plan</b>                                           |                    |                   | <b>20,969</b>         |              | <b>2,496</b> |              | <b>2,500</b> |
| <b>B. Proposed Project <sup>f</sup></b>                                    |                    |                   |                       |              |              |              |              |
| <b>Net Increase(+)/ Decrease (-)</b>                                       |                    |                   | <b>1,240</b>          |              | <b>-895</b>  |              | <b>-441</b>  |

STC was asked to determine the total square footage associated with the trip generation calculated for the project site. Since the trip generation is based on acreage, the total trips were divided by the square footage trip generation rate for the same uses to determine the total square footage associated with the forecast trips.

| Land Use                    | General Plan Forecast Trips (acres) | Trip Generation Rate (trips/ksf) | Estimated Square Footage based on Trips |
|-----------------------------|-------------------------------------|----------------------------------|-----------------------------------------|
| General Commercial          | 5,568 vpd                           | 120/ksf                          | 46,500 sf                               |
| Professional Office         | 16,092 vpd                          | 20/ksf                           | 804,600 sf                              |
| <b>TOTAL SQUARE FOOTAGE</b> |                                     |                                  | <b>851,100 SF</b>                       |

SANDAG Trip Generation Rates were used to forecast the volumes in both the LLG study and in the table above. However, the SANDAG Trip Generation Rate for Standard Commercial Office Building is 100,000 square feet or less. Over 100,000 sf the Office Park rate should be considered. An office park generates trips at a rate of 200 trips per acre when compared to the standard commercial office rate of 300 trips per acre. By applying the 200 trips per acre, the Professional Office trip generation is reduced to 10,728 trips per day.

Using the adjusted trip generation rate for the Office Park Use, the table below was generated to forecast the total square footage on the site.

| Land Use                    | General Plan Forecast Trips (acres) | Trip Generation Rate (trips/ksf) | Estimated Square Footage based on Trips |
|-----------------------------|-------------------------------------|----------------------------------|-----------------------------------------|
| General Commercial          | 5,568 vpd                           | 120/ksf                          | 46,500 sf                               |
| Office Park                 | 10,728 vpd                          | 12/ksf                           | 894,000 sf                              |
| <b>TOTAL SQUARE FOOTAGE</b> |                                     |                                  | <b>940,500 SF</b>                       |

In either scenario (Professional Office or Office Park), the total square footage falls well below 1 million square feet. If the project were to develop at either 1 million or 2 million square feet, the trip generation for the site would be much higher than what was reflected in the TIA:

**Estimated Trips @ The Office Park Rate (200/acre or 12/ksf)**

1000 ksf @ 12 / ksf = 12,000  
 2000 ksf @ 12 / ksf = 24,000

**Estimated Trips @ The Standard Office Rate (300/acre or 20/ksf)**

1000 ksf @ 20 / ksf = 20,000  
 2000 ksf @ 20 / ksf = 40,000

Information circulated by Newland Sierra and included on their project webpage (<https://www.newlandsierra.com>) Frequently Asked Questions tab states that:

*“The County’s General Plan currently contains Land Use Designations for this property that would provide for 99 residential units, and over 2 million square feet of commercial and retail zoning (roughly the same size as two campuses for Cal State San Marcos).”*

The analysis provided in this letter demonstrates that the traffic associated with General Plan analysis provided in the Newland Sierra TIA (LLG, May 2017) does not support the 2 million square feet statement. The trips evaluated for the General Plan are estimated to reflect less than 1 million square feet of combined retail and office. A 2 million square foot project would generate twice the traffic and require twice the overall acreage (based on the trip generation rates only) than what was evaluated in the TIA.

**CLOSURE**

This analysis demonstrates that the 2 million square feet of retail claim included in the project website and information distributed by the project is inconsistent with the traffic analysis conducted for the project TIA.

If you have any questions about the information provided here, please call me at (760) 560-6605.

Sincerely,  
**STC Traffic, Inc.**

A handwritten signature in black ink, appearing to read "Dawn L. Wilson", with a long horizontal flourish extending to the right.

Dawn L. Wilson, PE TE  
Principal / Project Manager

**LL-17**

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May 8, 2018

Jennifer Seeger  
Assistant Deputy Director  
California Dept. of Housing and Community Development  
Division of Housing Development  
2020 W. El Camino Avenue, Suite 500  
Sacramento, California 95833

Re: San Diego County Housing Element

Dear Ms. Seeger:

We represent Golden Door Properties LLC (the “Golden Door”), which owns and operates an award-winning spa and resort that opened in 1958, along with sustainable agricultural operations. Adjacent to the Golden Door, the Newland Sierra, LLC (“Newland”) has proposed a revised Merriam Mountains project, known as the “Sierra” project (the “Newland Sierra Project” or “Project”) on property located near Deer Springs Road. Newland’s proposal includes 2,135 residential units but fails to include a necessary affordable housing component. Further, the County of San Diego is failing to implement the Housing Element which the County adopted in August of 2011, updated in April of 2017, and which your Department approved in the letter attached hereto as **Attachment A**. In particular, the County is failing to comply with General Plan Policy H-1.9 regarding the provision of affordable housing. This policy states that:

**Affordable Housing through General Plan Amendments.**  
Require developers to provide an affordable housing component when requesting a General Plan amendment for a large-scale residential project when this is legally permissible.

Unfortunately, the County staff is failing to propose conditions that will require an affordable component in the Newland Sierra Project, and Newland contends that it is not required to provide any affordable housing. The Newland Sierra Project requires a General Plan amendment that the County has been processing since May 7, 2015. The County has the legal authority to impose conditions requiring an affordable housing component as set forth in General Plan Policy H-1.9, but as of yet, neither County staff nor the County Counsel have proposed those conditions for this project.

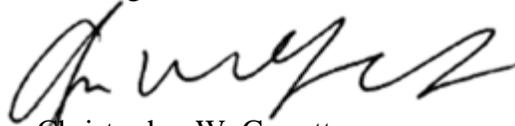
The Golden Door is opposed to any project on the Newland property that requires an amendment to the General Plan land use element or an exemption from the County’s Resource Protection Ordinance. Nonetheless, if the County intends to amend its General Plan and convert

this rural land, and completely exempt the project from the County's Resource Protection Ordinance, the County must nonetheless comply with Policy H-1.9.

We ask that your office take steps to investigate and remedy the County's failure to implement this key portion of its General Plan. The County's failure to comply with this mandatory policy can only delay or disrupt the County's overall planning for new housing in the County and its ability to provide affordable housing.

We have raised these issues with the Board of Supervisors and County staff at the Board's meeting of April 18, 2018, as set forth in the attached letter (**Attachment B**). However, the Board has so far decided to take no action on this matter. We therefore look to the Department for assistance in this matter.

Best regards,



Christopher W. Garrett  
of LATHAM & WATKINS LLP

cc: Kathy Van Ness, Golden Door  
Darin Neufeld, County Planning and Development Services  
Mark Slovick, County Planning and Development Services  
Ashley Smith, County Planning and Development Services  
Stephanie Saathoff, Clay Co.  
Denise Price, Clay Co.  
Taiga Takahashi, Latham & Watkins

# **ATTACHMENT A**

**DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
DIVISION OF HOUSING POLICY DEVELOPMENT**

2020 W. El Camino Avenue, Suite 500  
Sacramento, CA 95833  
(916) 263-2911 / FAX (916) 263-7453  
www.hcd.ca.gov



June 15, 2017

Ms. Helen N. Robbins-Meyer, Chief Administrative Officer  
County of San Diego  
1600 Pacific Highway, Room 209  
San Diego, CA 92101

Dear Ms. Robbins-Meyer:

**RE: County of San Diego's 5<sup>th</sup> Cycle (2013-2021) Four-Year Update, Adopted Housing Element**

Thank you for submitting San Diego County's housing element adopted March 15, 2017 and initially received for review on May 1, 2017 with a corrected version received for review on May 22, 2017. Pursuant to Government Code (GC) Section 65585(h), the Department is reporting the results of its review.

The Department is pleased to find the adopted housing element in full compliance with State housing element law (Article 10.6 of the Government Code). The adopted element was found to be substantially the same as the revised draft element the Department's October 26, 2016 review determined met statutory requirements.

Pursuant to GC Section 65588(e)(2)(B) a local government in the SANDAG region that did not adopt a fourth planning period housing element by January 1, 2009 shall revise its housing element every four years, unless the local government met both of the following conditions: 1) adopted the fourth revision no later than March 31, 2010; and 2) completes any rezoning identified in the fourth revision by June 30, 2010. The County did not meet the requirements of GC 65588(e)(2)(B); therefore, it is subject to the four-year revision requirement until the County has adopted at least two consecutive revisions by the applicable due dates. Adoption of this housing element meets the requirements of the first four-year update. Provided the County adopts a housing element pursuant to the requirements of GC 65585 on or before the due date for 6<sup>th</sup> cycle housing elements, it will meet the second four-year update requirement and return to an eight-year update schedule.

Please note the County now meets specific requirements for State funding programs designed to reward local governments for compliance with State housing element law. Please see the Department's website for specific information about State funding programs at <http://www.hcd.ca.gov/grants-funding/active-funding/index.shtml>.

For your information, on January 6, 2016, HCD released a Notice of Funding Availability (NOFA) for the Mobilehome Park Rehabilitation and Resident Ownership Program (MPRRP). This program replaces the former Mobilehome Park Resident Ownership Program (MPROP) and allows expanded uses of funds. The purposes of this new

program are to loan funds to facilitate converting mobilehome park ownership to park residents or a qualified nonprofit corporation, and assist with repairs or accessibility upgrades meeting specified criteria. This program supports housing element goals such as encouraging a variety of housing types, preserving affordable housing, and assisting mobilehome owners, particularly those with lower-incomes. Applications are accepted over the counter beginning March 2, 2016 through June 30, 2017. Further information is available on the Department's website at: <http://www.hcd.ca.gov/grants-funding/active-funding/mprprop.shtml> .

The Department appreciates the assistance and cooperation Mr. Noah Alvey, Planning Manager, and Mr. Timothy Vertino, Lan Use/Environmental Planner, provided throughout the course of the housing element review. The Department wishes the San Diego County success in implementing its housing element and looks forward to following its progress through the General Plan annual progress reports pursuant to GC Section 65400. If the Department can provide assistance in implementing the housing element, please contact Robin Huntley, of our staff, at (916) 263-7422.

Sincerely,



Jennifer Seeger  
Assistant Deputy Director

# **ATTACHMENT B**

12670 High Bluff Drive  
San Diego, California 92130  
Tel: +1.858.523.5400 Fax: +1.858.523.5450  
www.lw.com

**LATHAM & WATKINS**LLF

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April 17, 2018

**VIA HAND DELIVERY**

San Diego County Board of Supervisors  
County Board of Supervisors  
1600 Pacific Highway, Room 402  
San Diego, CA 92101  
Attn: Clerk of the Board of Operations

Re: Housing Affordability within San Diego County; Agenda Item 5

Dear Supervisors Cox, Jacob, Gaspar, Roberts, and Horn:

As you know, we represent the Golden Door Properties LLC (the “Golden Door”), which owns and operates an award-winning spa and resort that opened in 1958, along with sustainable agricultural operations. Adjacent to the Golden Door, the Newland Real Estate Group, LLC (“Newland”) has proposed a revised Merriam Mountains project, known as the “Sierra” project (the “Newland Sierra Project” or “Project”) on property located near Deer Springs Road. Newland’s proposal includes 2,135 residential units but fails to include a necessary affordable housing component.

We understand the Board is considering requesting the Chief Administrative Officer to investigate options to promote construction of homes in the unincorporated region and to close the housing gap. The Golden Door has employees of all income levels who need access to more affordable housing within North County. However, the proposed Newland Sierra Project is not located on a site that the County has identified for new housing construction in the North County metro area (see, e.g., Smart Growth Opportunity Areas, Figure H-2, General Plan Housing Element), it does not provide any affordable housing, and its market analyses are outdated and are inaccurate. Newland Sierra defines “affordable” as “assuming 4.0 percent interest rate, 10 percent down payment and a 35 percent of household income for housing.” However, interest rates today are higher (4.625%) and rising, and federal standards define “affordable” as costing “no more than 30% of the monthly household income for rent *and* utilities.”<sup>1</sup> And Newland

---

<sup>1</sup> See Enclosure 1; see also U.S. Dept. of Housing and Urban Development, *Affordable Housing*, [https://www.hud.gov/program\\_offices/comm\\_planning/affordablehousing/](https://www.hud.gov/program_offices/comm_planning/affordablehousing/) (last visited Apr. 17, 2018); San Diego Housing Federation, *Frequently Asked Questions*, <https://www.housingsandiego.org/find-housing-faq> (last visited Apr. 17, 2018).

Sierra has refused to commit to legally commit to providing affordable housing, incorrectly claiming on its website that the County has no such requirements.<sup>2</sup>

Accordingly, if the County were to approve the Newland Sierra Project, it would violate the County's General Plan because the Project lacks the required affordable housing which is expressly specified as necessary in the County's General Plan. (See General Plan Policy H-1.9; see also Government Code § 65300.5, *California Native Plant Society v. City of Rancho Cordova* (2009) 172 Cal.App.4th 603, 635-636 [project must comply with specific and mandatory general plan policies].)

***Existing County Policies Require an Affordable Housing Component for General Plan Amendment Projects.*** The County's General Plan already contains a policy requiring that **“developers [ ] provide an affordable housing component when requesting a General Plan amendment for large-scale residential project[s] when this is legally permissible.”** (General Plan, Policy H-1.9)(emphasis supplied). Current California law does make a mandatory “affordable housing component” legally permissible. Thus, the Board of Supervisors has the existing legal authority under California law to require an affordable housing component in every project that requires a General Plan amendment, as specified in Policy H-1.0. Thus, the Chief Administrative Officer and County Counsel, and the Board of Supervisors, have a mandatory duty under the County's adopted General Plan to require affordable housing conditions that are “legally permissible” under California law in order to implement the County's existing affordable housing policy embodied in Policy H-1.0

As it stands now, the County Board of Supervisors is required to impose a condition requiring an affordable housing component for projects seeking a General Plan amendment. The pending Newland Sierra project does not contain such an affordable housing component, and therefore is inconsistent with the existing General Plan. The courts have explained what “legally permissible” means within the context of affordable housing:

[I]t is well established that ***price controls are a constitutionally permissible form of regulation with regard to real property*** as well as to other types of property or services. . . . Accordingly, just as it would be permissible for a municipality to attempt to increase the amount of affordable housing in the community and to promote economically diverse developments by ***requiring all new residential developments to include a specified percentage of studio, one-bedroom, or small-square-footage units, there is no reason why a municipality may not alternatively attempt to achieve those same objectives by requiring new developments to set aside a percentage of its proposed units for sale at a price that is affordable to moderate- or low-income households.***

---

<sup>2</sup> See Enclosure 2; see also Newland Sierra *FAQ, Types of Housing*, <https://www.newlandsierra.com/faq/> (last visited Apr. 17, 2018).

(*California Building Industry Assn. v. City of San Jose* (2015) 61 Cal.4th 435 [emphasis added] (“*CBIA*”).) Therefore, the County may impose price control requirements on proposed new developments or require new residential developments to include a specified percentage of affordable units. The pending Newland Sierra project does not include either, despite the County’s General Plan policy requiring “legally permissible” action to ensure that General Plan amendment projects include an affordable housing component.

***The County May Immediately Impose an Affordable Housing Requirement on Newland Sierra.*** Implementing a requirement for a percentage of affordable homes within a new development is something the County can immediately implement and is required to implement under the express provisions of the General Plan. The General Plan policy is already in place that imposes a requirement on the pending Newland Sierra Project. Here, there is a clear nexus between the imposition of affordable housing requirements on development and the effects on the region. (See e.g. *San Remo Hotel L.P. v. City and County of San Francisco* (2002) 27 Cal.4th 643 [government may impose permitting condition without running afoul of the Takings Clause if it demonstrates an essential nexus and reasonable relationship between the permitting condition and a deleterious public impact of the development].)

In any event, the California Supreme Court has ruled that no “nexus” requirement applies to a condition requiring an affordable housing component for a residential development project. (*CBIA, supra*, 61 Cal.4th at 474-75, 479 [rough proportionality/nexus requirements do not apply to restrict developer’s use of property].) The Supreme Court relied upon *Ehrlich v. City of Culver City* (1996) 12 Cal.4th 854 to reach this conclusion. (*Id.* at 475-76.) *Ehrlich* involved the imposition of conditions on a case-by-case basis, rather than through a broader inclusionary housing ordinance, enabling a greater amount of discretion for the deployment of the city’s police power. (*Ehrlich, supra*, 12 Cal.4th at 869.) As such, the County may rely on its existing General Plan and implement appropriate inclusionary zoning requirements as a project condition on Newland Sierra prior to project approval. (*CBIA*, 61 Cal.4th at 477 [“Moreover, as we have explained above, the validity of the ordinance’s requirement that at least 15 percent of a development’s for-sale units be affordable to moderate- or low-income households does not depend on an assessment of the impact that the development itself will have on the municipality’s affordable housing situation.”].)

Though the law on this issue is firmly established, i.e., the County certainly does have the authority today to impose an affordable housing condition on the Newland Sierra project, if County Counsel somehow disagrees with this legal conclusion and believes that further steps are needed to make an affordable housing component “legally permissible,” then County Counsel should be directed to prepare any appropriate documents needed to implement this mandatory portion of the adopted General Plan, and any processing of the current General Plan amendment project of Newland Sierra project, should be suspended until the County adopts an ordinance to implement its own General Plan requirements. The County could simply impose the same requirement for affordable housing as upheld by the California Supreme Court in the City of San Jose case, using the wording of any ordinance or conditions adopted by the City of San Jose. Along with any other General Plan change or zoning ordinance amendment that is included in the Newland project approvals, County staff and the County Counsel can simply include project

conditions and/or an ordinance adopting affording housing requirements approved in the San Jose case, at the same time as the Board considers any other project approvals.

We ask that the County Chief Administrative Officer and County Counsel be directed to immediately propose project conditions or any other legal documents required to implement General Policy H-1.9 for the Newland project, and no further processing of the Newland project should occur until these actions are taken to implement General Plan Policy H-1.9. If County Counsel concludes that General Plan Policy H-1.9 is unenforceable, and the County lacks the legal authority to impose conditions requiring affordable housing components under the terms of that Policy, the Board should request County Counsel to describe the reasons for this conclusion.

Failure to pay attention the mandatory requirements of General Plan Policy H-1.9 will only result in needless delays and disruptions in any decisions the Board may make with respect to new developments covered by this Policy, such as Newland.

We thank you for your time and attention to our comments, and ask that they be incorporated both into the administrative record for the Newland Sierra Project and this Agenda Item 5. Please do not hesitate to contact me should you have any questions.

Best regards,

*Christopher Garrett*

Christopher W. Garrett  
of LATHAM & WATKINS LLP

cc: Kathy Van Ness, Golden Door  
Darin Neufeld, County Planning and Development Services  
Mark Slovick, County Planning and Development Services  
Ashley Smith, County Planning and Development Services  
Stephanie Saathoff, Clay Co.  
Denise Price, Clay Co.  
Taiga Takahashi, Latham & Watkins

**ENCLOSURE 1**



Personal Home Mortgage Loans **Today's Mortgage Rates and Refinance Rates**

## Today's Mortgage Rates and Refinance Rates

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Be sure to use APR, which includes all fees and costs, to compare rates across lenders. Rates below include zero discount points. Use our [Product Comparison Tool](#) for rates customized to your specific home financing need.

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|-----------------------------------------------------------------|---------------------------------|
| <b>Product</b>                                                  | <b>Interest Rate</b> <b>APR</b> |
| <b>Conforming</b> and <b>Government Loans</b>                   |                                 |
| <b>30-Year Fixed Rate</b>                                       | 4.625%      4.684%              |
| <b>30-Year Fixed-Rate VA</b>                                    | 4.375%      4.684%              |
| <b>20-Year Fixed Rate</b>                                       | 4.375%      4.470%              |
| <b>15-Year Fixed Rate</b>                                       | 4.125%      4.264%              |
| <b>7/1 ARM</b>                                                  | 4.375%      4.755%              |
| <b>5/1 ARM</b>                                                  | 4.250%      4.791%              |
| <b>Jumbo Loans</b> — Amounts that exceed conforming loan limits |                                 |
| <b>30-Year Fixed-Rate Jumbo</b>                                 | 4.500%      4.521%              |
| <b>15-Year Fixed-Rate Jumbo</b>                                 | 4.250%      4.287%              |
| <b>7/1 ARM Jumbo</b>                                            | 4.000%      4.538%              |
| <b>10/1 ARM Jumbo</b>                                           | 4.250%      4.537%              |

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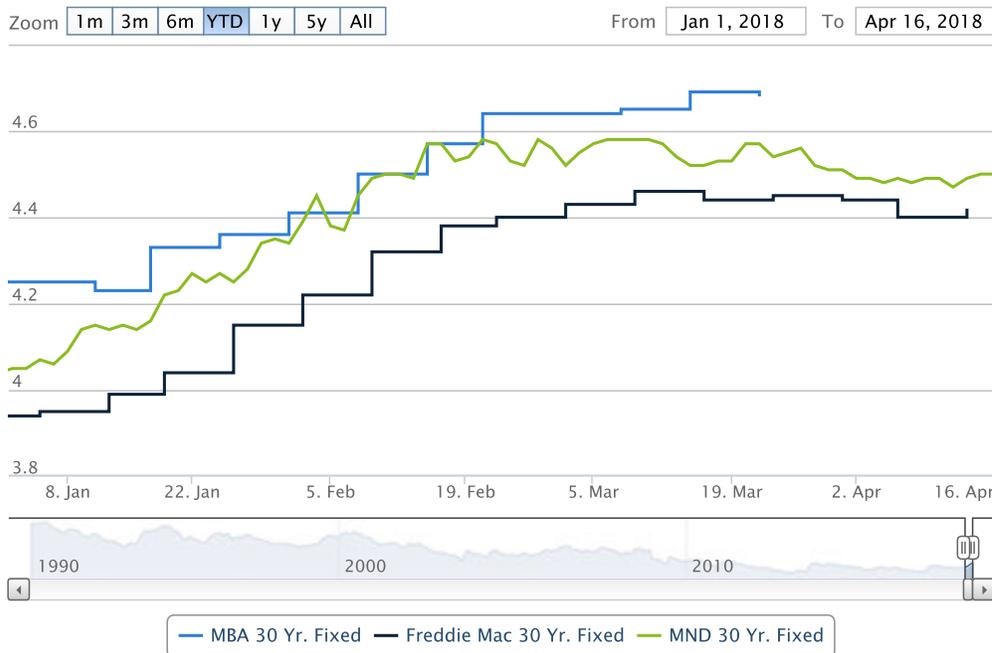
### Average 30 Year Fixed Mortgage Rates

| Report Date                               | Current Interest Rate | Change | Prior Year | YOY Change |
|-------------------------------------------|-----------------------|--------|------------|------------|
| <b>MND's 30 Year Fixed (daily survey)</b> |                       |        |            |            |
| Apr 16 2018                               | 4.50% : (--)          | +0.00  | 4.04%      | 0.46       |
| Apr 13 2018                               | 4.50% : (--)          | +0.01  | 4.05%      | 0.45       |
| Apr 12 2018                               | 4.49% : (--)          | +0.02  | 4.08%      | 0.41       |
| Apr 11 2018                               | 4.47% : (--)          | -0.02  | 4.18%      | 0.29       |
| Apr 10 2018                               | 4.49% : (--)          | +0.00  | 4.17%      | 0.32       |
| Apr 09 2018                               | 4.49% : (--)          | +0.01  | 4.17%      | 0.32       |
| Apr 06 2018                               | 4.48% : (--)          | -0.01  | 4.15%      | 0.33       |
| Apr 05 2018                               | 4.49% : (--)          | +0.01  | 4.14%      | 0.35       |
| <b>MBA 30 Year Fixed (weekly)</b>         |                       |        |            |            |
| Mar 18 2018                               | 4.68% : (0.46)        | -0.01  | 4.36%      | 0.32       |
| Mar 11 2018                               | 4.69% : (0.45)        | 0.04   | 4.30%      | 0.39       |
| Mar 04 2018                               | 4.65% : (0.58)        | 0.01   | 4.36%      | 0.29       |
| <b>Freddie Mac 30 Year Fixed (weekly)</b> |                       |        |            |            |
| Apr 08 2018                               | 4.42% : (0.40)        | 0.02   | 4.14%      | 0.28       |
| Apr 01 2018                               | 4.40% : (0.50)        | -0.04  | 4.14%      | 0.26       |
| Mar 25 2018                               | 4.44% : (0.50)        | -0.01  | 4.30%      | 0.14       |

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### Average 30 Year Fixed Mortgage Rates

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**SOURCE:**

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## Affordable Housing

### Who Needs Affordable Housing?

Families who pay more than 30 percent of their income for housing are considered cost burdened and may have difficulty affording necessities such as food, clothing, transportation and medical care. An estimated 12 million renter and homeowner households now pay more than 50 percent of their annual incomes for housing. A family with one full-time worker earning the minimum wage cannot afford the local fair-market rent for a two-bedroom apartment anywhere in the United States.

### Where Can Individuals Find Assistance?

Individuals looking for assistance can:

- Find rental, homebuyer, and homeowner assistance
- Find resources for homeless persons, including, youth, veterans, and the chronically homeless
- Find help for victims of foreclosure and Hurricane Sandy and for persons living with HIV/AIDS

### What is HUD Doing to Support Affordable Housing?

Within the Office of Community Planning and Development, the Office of Affordable Housing Programs (OAH) administers the following grant programs designed to increase the stock of housing affordable to low-income households.

The HOME Investments Partnerships Program (HOME) provides grants to States and local governments to fund a wide range of activities including 1) building, buying, and/or rehabilitating housing for rent or homeownership or 2) providing direct rental assistance to low-income families. It is the largest Federal block grant program for State and local governments designed exclusively to create affordable housing for low-income households.

The National Housing Trust Fund (HTF) supports the acquisition, new construction, or reconstruction of rental units for extremely low-income families or families with incomes below the poverty line, whichever is greater.

HUD's Office of Housing and Office of Public and Indian Housing also administer programs to increase the amount of affordable housing available for low-income households across the nation.

### What Information Does HUD Provide?

The HUD Exchange provides a hub for HOME Program information, tools and templates, research, evaluations, best practices, guides, training manuals, and more including:

- HOME Laws and regulations
- Policy guidance (Policy Memos, HOME *FACTS*, HOMEfires)
- HOME Frequently Asked Questions (FAQs)
- HOME Dashboard Reports and other HOME Reports

Related tools and resources can be accessed through HOME Topics.

The HUD Exchange also provides:

- Email Updates** – To receive CPD communications about program policy, upcoming trainings, resources, reporting deadlines, technical assistance, and more, sign up on the HUD Exchange Mailing List.
- Training Opportunities** – For information on upcoming events, self-paced online training, and recorded webinars, go to Training and Events.
- Grantee Information** – To view amounts awarded to organizations under HUD programs over the past several years, go to CPD Allocations and Awards. To learn more about the agencies and organizations that have received funding, visit About Grantees.
- Assistance with Reporting System Questions** – If you have a question related to eCon Planning Suite or IDIS, please submit your question and get a response through Ask A Question.
- In-depth Advising** – To learn about extended communication or long-term assistance available to CPD grantees, visit Technical Assistance.

If you are an organization with a policy question related to HOME, or National Housing Trust Fund (HTF) please contact your local HUD Field Office for assistance.

### How Can My Organization Receive Funds?

Participating jurisdictions receive HOME grants through a formula to fund housing programs which meet local needs and priorities. To find out about how to apply for HOME assistance in your community, contact an agency nearest to your community.

**ENCLOSURE 2**

# NEWLAND SIERRA (/)

Stay Updated

San Diego's First Carbon Neutral Community

Benefits of a Specific Plan Compared to the Current General Plan

Minimizing Traffic Impacts

Reducing Vehicle Miles from the Community

Managing the Threats of Wildfires

Promoting Water Conservation

Types of Housing

Q: What types of housing will be built?

A: A mixture of for-sale homes is proposed. No apartments or rental homes are proposed. The homes will be a variety of single-family detached homes, attached townhomes, cluster homes, age-targeted, and larger lot single-family homes.

Share your thoughts with us by clicking [here \(/contact\)](#)

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Q: Will there be any rental units?

A: No rental apartment buildings are proposed for the community.

Share your thoughts with us by clicking [here \(/contact\)](#)

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Q: Are there any "affordable housing" requirements for the community?

A: The County of San Diego does not require subsidized or otherwise "income-restricted" housing to be provided in a project. However, we do plan to have a variety of housing types available, including some at price points that are attainable for middle-income families.

Share your thoughts with us by clicking [here \(/contact\)](#)

Community Character

Parks

Trails and Open Space

Wildlife

Vineyards

Commercial Area

Schools

Grading

Miscellaneous

## CONTACT US (/CONTACT)



(<http://www.newlandcommunities.com/>)



(<http://nashcommunities.com/>)

### Equal Housing Opportunity

†The project description is part of the Specific Plan and draft EIR for the project. The specific details of the project description are subject to refinement as it moves through the approval process.

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EQUAL HOUSING OPPORTUNITY

[Privacy Policy \(/privacy-policy/\)](#) | [Terms of Use \(/terms-of-use/\)](#)

**LL-18**

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# LATHAM & WATKINS LLP

May 10, 2018

## VIA EMAIL

William Witt, Esq., Sr. Deputy County Counsel  
Office of County Counsel  
County of San Diego  
County Administration Center  
1600 Pacific Highway, Room 355  
San Diego, CA 92101  
Email: [william.witt@sdcounty.ca.gov](mailto:william.witt@sdcounty.ca.gov)

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**Re: Enforcement of Affordable Housing Requirements for  
Newland Sierra Project**

Dear Mr. Witt:

We understand that you may be handling legal matters regarding the County staff's processing of the developer's application for the Newland project. We write to ask you to ensure that the staff include a required "affordable housing component" that enforces County General Plan Housing Element Policy H-1.9 in their recommendations on the project, which the developer appears to have violated in its proposed project. We already have raised this issue before with the County in our April 17th letter to the Board of Supervisors (enclosed hereto as Attachment B to **Enclosure 1**), but we are writing to you directly to provide you with relevant legal authority and suggestions about how the staff could address the issue.

As you know we prefer to raise our client's concerns as early as possible in the process, rather than waiting for the public hearings. It is possible that our concerns are unnecessary, since it is possible that the County staff will include a required "affordable housing component" that enforces County General Plan Housing Element Policy H-1.9 in their recommendations on the project. Furthermore, we expect that our comments may be met with the response that the County must adopt an "ordinance" before imposing a Housing Element Policy H-1.9 affordable housing condition. This is not correct, but we believe that raising the issue directly with you now in this letter gives County Counsel sufficient time to draft any affordable housing ordinance, which could be included along with any ordinance that may be drafted by your office to exempt Newland from the Resource Protection Overlay Ordinance.

In particular, we wanted to alert you to a decision of the Superior Court of the County of Monterey in *Carmel Valley Association v. County of Monterey*, No. 17CV000131 (Apr. 24, 2018).

In *CVA v. Monterey*, the court held that the county's 7+ year delay in adopting revisions to its zoning ordinance to conform to the clear requirements of its general plan constituted an arbitrary and capricious abuse of discretion, based on the requirements of Government Code section 65860(c). (See pp. 15-17 of attached **Enclosure 2**.) Section 65860(c) states: "In the event that a zoning ordinance becomes inconsistent with a general plan by reason of amendment to the plan, or to any element of the plan, the zoning ordinance shall be amended within a reasonable time so that it is consistent with the general plan as amended."

As we have previously noted to the County (see Attachment B to **Enclosure 1**: April 17, 2018 Letter to County), General Plan Housing Element Policy H-1.9 is a clearly expressed, mandatory requirement that there be "an affordable housing component" provided as part of any "General Plan amendment for a large-scale residential project when this is legally permissible." The language of the General Plan Housing Element is sufficiently clear and mandatory such that no implementing ordinance is required in order for the policy to be enforced – in particular, with regards to the Newland Sierra project, which does not include any affordable housing component. Without such a component, the County cannot make the required findings of general plan consistency for the proposed Newland Specific Plan or the proposed Newland vesting tentative maps.

We note that Housing Element Policy H-1.9 has been part of the General Plan since at least the General Plan Update adopted in 2011. In 2012, the County stated that the policy would be implemented within "0-3 years."<sup>1</sup> So when initially adopted, it was intended that an implementing ordinance would be enacted by 2015. In 2013, the County changed this timeline to "2-7 years," delaying the implementing ordinance for this policy past 2015.<sup>2</sup> Notably, in 2017, the County disclosed that no additional resources were required to implement Housing Element Policy H-1.9.<sup>3</sup> This means that as of last year, either the County determined that it did not need an implementing ordinance to enforce the requirements of General Plan Housing Element Policy H-1.9, or that there was no reason for why an implementing ordinance should be further delayed. Thus, if an implementing ordinance were required, it seems likely that a court would find the County's now 7-year delay in conforming its zoning ordinance to the clear requirement of the

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<sup>1</sup> See County of San Diego, 2012 General Plan Progress Report, available at [https://www.sandiegocounty.gov/content/dam/sdc/pds/advance/2012\\_GP\\_Progress\\_Report.pdf](https://www.sandiegocounty.gov/content/dam/sdc/pds/advance/2012_GP_Progress_Report.pdf), at A-4.

<sup>2</sup> See County of San Diego, 2013 General Plan Progress Report, available at <https://www.sandiegocounty.gov/content/dam/sdc/pds/gpupdate/docs/GP-APRs/GP-APR2013.pdf>, at A-4

<sup>3</sup> See County of San Diego, 2017 General Plan Implementation Plan, available at [https://www.sandiegocounty.gov/content/dam/sdc/pds/gpupdate/docs/GP/Implementation%20Plan\\_v2017.pdf](https://www.sandiegocounty.gov/content/dam/sdc/pds/gpupdate/docs/GP/Implementation%20Plan_v2017.pdf).

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General Plan Housing Element Policy H-1.9 to be unreasonable and in violation of Government Code section 65860.

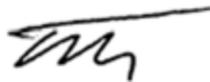
Accordingly, we again urge the County to enforce General Plan Housing Element Policy H-1.9 as we requested (both in writing and in person) several weeks ago at the April 17, 2018 meeting of the Board of Supervisors, through conditions attached to the Newland project. Further, if the County contends that it requires an implementing ordinance, even though that appears to contradict the statement in the 2017 Implementation Plan that no additional resources are required, then the County should start immediately in devising and adopting that ordinance.

This should not be difficult or complicated considering the clearly expressed requirement for affordable housing as part of General Plan amendment projects in Housing Element Policy H-1.9. (See, e.g., **Enclosure 3**: Excerpt from City of San Diego North City Future Urbanizing Area Framework Plan.)<sup>4</sup> The County should start immediately and pursue the matter with due diligence. The proposed ordinance could be heard by the Planning Commission this summer, either along with or before its consideration of the Newland project.

I also wanted to note that our concerns on this issue do not mean that our client approves of the Newland project if it contains a Housing Element Policy H-1.9 condition. This issue is important to our client the Golden Door because, if this and other projects are to be approved, many of the hospitality and agricultural workers on our client's property could benefit from the availability of affordable housing. The Golden Door draws many of its employees from the local community. My client believes the Newland project has been proposed for the wrong site, with the wrong design, but if it is going to be recommended for approval by County staff despite these objections, it should actually include an affordable housing component as required by the County General Plan. The fact that the Newland project does not contain any affordable housing as defined by the County's Housing Element underscores that the project – though it will add a new population the size of the City of Del Mar in a currently mostly undeveloped and uninhabited area – is not intended by Newland to provide any affordable housing to the community.

Please include this comment letter in the administrative record for the project. Thank you for your time and attention to this matter.

Very truly yours,



Taiga Takahashi  
of LATHAM & WATKINS LLP

cc: Mark Wardlaw, County of San Diego PDS

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<sup>4</sup> Available at [https://www.sandiego.gov/sites/default/files/legacy/planning/community/profiles/ncfua/pdf/nfcu\\_final\\_102314.pdf](https://www.sandiego.gov/sites/default/files/legacy/planning/community/profiles/ncfua/pdf/nfcu_final_102314.pdf).

LATHAM & WATKINS<sup>LLP</sup>

Darin Neufeld, County of San Diego PDS  
Ashley Smith, County of San Diego PDS  
Claudia Silva, Assistant County Counsel  
Stephanie Saathoff, Clay Co.  
Denise Price, Clay Co.  
Clif Williams, Latham & Watkins  
Christopher Garrett, Esq., Latham & Watkins  
Kathy Van Ness, Golden Door

**ENCLOSURE 1**

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May 8, 2018

Jennifer Seeger  
Assistant Deputy Director  
California Dept. of Housing and Community Development  
Division of Housing Development  
2020 W. El Camino Avenue, Suite 500  
Sacramento, California 95833

Re: San Diego County Housing Element

Dear Ms. Seeger:

We represent Golden Door Properties LLC (the “Golden Door”), which owns and operates an award-winning spa and resort that opened in 1958, along with sustainable agricultural operations. Adjacent to the Golden Door, the Newland Sierra, LLC (“Newland”) has proposed a revised Merriam Mountains project, known as the “Sierra” project (the “Newland Sierra Project” or “Project”) on property located near Deer Springs Road. Newland’s proposal includes 2,135 residential units but fails to include a necessary affordable housing component. Further, the County of San Diego is failing to implement the Housing Element which the County adopted in August of 2011, updated in April of 2017, and which your Department approved in the letter attached hereto as **Attachment A**. In particular, the County is failing to comply with General Plan Policy H-1.9 regarding the provision of affordable housing. This policy states that:

**Affordable Housing through General Plan Amendments.**  
Require developers to provide an affordable housing component when requesting a General Plan amendment for a large-scale residential project when this is legally permissible.

Unfortunately, the County staff is failing to propose conditions that will require an affordable component in the Newland Sierra Project, and Newland contends that it is not required to provide any affordable housing. The Newland Sierra Project requires a General Plan amendment that the County has been processing since May 7, 2015. The County has the legal authority to impose conditions requiring an affordable housing component as set forth in General Plan Policy H-1.9, but as of yet, neither County staff nor the County Counsel have proposed those conditions for this project.

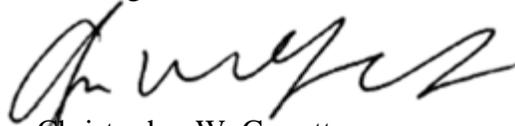
The Golden Door is opposed to any project on the Newland property that requires an amendment to the General Plan land use element or an exemption from the County’s Resource Protection Ordinance. Nonetheless, if the County intends to amend its General Plan and convert

this rural land, and completely exempt the project from the County's Resource Protection Ordinance, the County must nonetheless comply with Policy H-1.9.

We ask that your office take steps to investigate and remedy the County's failure to implement this key portion of its General Plan. The County's failure to comply with this mandatory policy can only delay or disrupt the County's overall planning for new housing in the County and its ability to provide affordable housing.

We have raised these issues with the Board of Supervisors and County staff at the Board's meeting of April 18, 2018, as set forth in the attached letter (**Attachment B**). However, the Board has so far decided to take no action on this matter. We therefore look to the Department for assistance in this matter.

Best regards,



Christopher W. Garrett  
of LATHAM & WATKINS LLP

cc: Kathy Van Ness, Golden Door  
Darin Neufeld, County Planning and Development Services  
Mark Slovick, County Planning and Development Services  
Ashley Smith, County Planning and Development Services  
Stephanie Saathoff, Clay Co.  
Denise Price, Clay Co.  
Taiga Takahashi, Latham & Watkins

# **ATTACHMENT A**

**DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT  
DIVISION OF HOUSING POLICY DEVELOPMENT**

2020 W. El Camino Avenue, Suite 500  
Sacramento, CA 95833  
(916) 263-2911 / FAX (916) 263-7453  
[www.hcd.ca.gov](http://www.hcd.ca.gov)



June 15, 2017

Ms. Helen N. Robbins-Meyer, Chief Administrative Officer  
County of San Diego  
1600 Pacific Highway, Room 209  
San Diego, CA 92101

Dear Ms. Robbins-Meyer:

**RE: County of San Diego's 5<sup>th</sup> Cycle (2013-2021) Four-Year Update, Adopted Housing Element**

Thank you for submitting San Diego County's housing element adopted March 15, 2017 and initially received for review on May 1, 2017 with a corrected version received for review on May 22, 2017. Pursuant to Government Code (GC) Section 65585(h), the Department is reporting the results of its review.

The Department is pleased to find the adopted housing element in full compliance with State housing element law (Article 10.6 of the Government Code). The adopted element was found to be substantially the same as the revised draft element the Department's October 26, 2016 review determined met statutory requirements.

Pursuant to GC Section 65588(e)(2)(B) a local government in the SANDAG region that did not adopt a fourth planning period housing element by January 1, 2009 shall revise its housing element every four years, unless the local government met both of the following conditions: 1) adopted the fourth revision no later than March 31, 2010; and 2) completes any rezoning identified in the fourth revision by June 30, 2010. The County did not meet the requirements of GC 65588(e)(2)(B); therefore, it is subject to the four-year revision requirement until the County has adopted at least two consecutive revisions by the applicable due dates. Adoption of this housing element meets the requirements of the first four-year update. Provided the County adopts a housing element pursuant to the requirements of GC 65585 on or before the due date for 6<sup>th</sup> cycle housing elements, it will meet the second four-year update requirement and return to an eight-year update schedule.

Please note the County now meets specific requirements for State funding programs designed to reward local governments for compliance with State housing element law. Please see the Department's website for specific information about State funding programs at <http://www.hcd.ca.gov/grants-funding/active-funding/index.shtml>.

For your information, on January 6, 2016, HCD released a Notice of Funding Availability (NOFA) for the Mobilehome Park Rehabilitation and Resident Ownership Program (MPRRP). This program replaces the former Mobilehome Park Resident Ownership Program (MPROP) and allows expanded uses of funds. The purposes of this new

program are to loan funds to facilitate converting mobilehome park ownership to park residents or a qualified nonprofit corporation, and assist with repairs or accessibility upgrades meeting specified criteria. This program supports housing element goals such as encouraging a variety of housing types, preserving affordable housing, and assisting mobilehome owners, particularly those with lower-incomes. Applications are accepted over the counter beginning March 2, 2016 through June 30, 2017. Further information is available on the Department's website at: <http://www.hcd.ca.gov/grants-funding/active-funding/mprprop.shtml> .

The Department appreciates the assistance and cooperation Mr. Noah Alvey, Planning Manager, and Mr. Timothy Vertino, Lan Use/Environmental Planner, provided throughout the course of the housing element review. The Department wishes the San Diego County success in implementing its housing element and looks forward to following its progress through the General Plan annual progress reports pursuant to GC Section 65400. If the Department can provide assistance in implementing the housing element, please contact Robin Huntley, of our staff, at (916) 263-7422.

Sincerely,



Jennifer Seeger  
Assistant Deputy Director

# **ATTACHMENT B**

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April 17, 2018

**VIA HAND DELIVERY**

San Diego County Board of Supervisors  
County Board of Supervisors  
1600 Pacific Highway, Room 402  
San Diego, CA 92101  
Attn: Clerk of the Board of Operations

Re: Housing Affordability within San Diego County; Agenda Item 5

Dear Supervisors Cox, Jacob, Gaspar, Roberts, and Horn:

As you know, we represent the Golden Door Properties LLC (the “Golden Door”), which owns and operates an award-winning spa and resort that opened in 1958, along with sustainable agricultural operations. Adjacent to the Golden Door, the Newland Real Estate Group, LLC (“Newland”) has proposed a revised Merriam Mountains project, known as the “Sierra” project (the “Newland Sierra Project” or “Project”) on property located near Deer Springs Road. Newland’s proposal includes 2,135 residential units but fails to include a necessary affordable housing component.

We understand the Board is considering requesting the Chief Administrative Officer to investigate options to promote construction of homes in the unincorporated region and to close the housing gap. The Golden Door has employees of all income levels who need access to more affordable housing within North County. However, the proposed Newland Sierra Project is not located on a site that the County has identified for new housing construction in the North County metro area (see, e.g., Smart Growth Opportunity Areas, Figure H-2, General Plan Housing Element), it does not provide any affordable housing, and its market analyses are outdated and are inaccurate. Newland Sierra defines “affordable” as “assuming 4.0 percent interest rate, 10 percent down payment and a 35 percent of household income for housing.” However, interest rates today are higher (4.625%) and rising, and federal standards define “affordable” as costing “no more than 30% of the monthly household income for rent *and* utilities.”<sup>1</sup> And Newland

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<sup>1</sup> See Enclosure 1; see also U.S. Dept. of Housing and Urban Development, *Affordable Housing*, [https://www.hud.gov/program\\_offices/comm\\_planning/affordablehousing/](https://www.hud.gov/program_offices/comm_planning/affordablehousing/) (last visited Apr. 17, 2018); San Diego Housing Federation, *Frequently Asked Questions*, <https://www.housingsandiego.org/find-housing-faq> (last visited Apr. 17, 2018).

Sierra has refused to commit to legally commit to providing affordable housing, incorrectly claiming on its website that the County has no such requirements.<sup>2</sup>

Accordingly, if the County were to approve the Newland Sierra Project, it would violate the County's General Plan because the Project lacks the required affordable housing which is expressly specified as necessary in the County's General Plan. (See General Plan Policy H-1.9; see also Government Code § 65300.5, *California Native Plant Society v. City of Rancho Cordova* (2009) 172 Cal.App.4th 603, 635-636 [project must comply with specific and mandatory general plan policies].)

***Existing County Policies Require an Affordable Housing Component for General Plan Amendment Projects.*** The County's General Plan already contains a policy requiring that **“developers [ ] provide an affordable housing component when requesting a General Plan amendment for large-scale residential project[s] when this is legally permissible.”** (General Plan, Policy H-1.9)(emphasis supplied). Current California law does make a mandatory “affordable housing component” legally permissible. Thus, the Board of Supervisors has the existing legal authority under California law to require an affordable housing component in every project that requires a General Plan amendment, as specified in Policy H-1.0. Thus, the Chief Administrative Officer and County Counsel, and the Board of Supervisors, have a mandatory duty under the County's adopted General Plan to require affordable housing conditions that are “legally permissible” under California law in order to implement the County's existing affordable housing policy embodied in Policy H-1.0

As it stands now, the County Board of Supervisors is required to impose a condition requiring an affordable housing component for projects seeking a General Plan amendment. The pending Newland Sierra project does not contain such an affordable housing component, and therefore is inconsistent with the existing General Plan. The courts have explained what “legally permissible” means within the context of affordable housing:

[I]t is well established that ***price controls are a constitutionally permissible form of regulation with regard to real property*** as well as to other types of property or services. . . . Accordingly, just as it would be permissible for a municipality to attempt to increase the amount of affordable housing in the community and to promote economically diverse developments by ***requiring all new residential developments to include a specified percentage of studio, one-bedroom, or small-square-footage units, there is no reason why a municipality may not alternatively attempt to achieve those same objectives by requiring new developments to set aside a percentage of its proposed units for sale at a price that is affordable to moderate- or low-income households.***

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<sup>2</sup> See Enclosure 2; see also Newland Sierra *FAQ*, *Types of Housing*, <https://www.newlandsierra.com/faq/> (last visited Apr. 17, 2018).

(*California Building Industry Assn. v. City of San Jose* (2015) 61 Cal.4th 435 [emphasis added] (“*CBIA*”).) Therefore, the County may impose price control requirements on proposed new developments or require new residential developments to include a specified percentage of affordable units. The pending Newland Sierra project does not include either, despite the County’s General Plan policy requiring “legally permissible” action to ensure that General Plan amendment projects include an affordable housing component.

***The County May Immediately Impose an Affordable Housing Requirement on Newland Sierra.*** Implementing a requirement for a percentage of affordable homes within a new development is something the County can immediately implement and is required to implement under the express provisions of the General Plan. The General Plan policy is already in place that imposes a requirement on the pending Newland Sierra Project. Here, there is a clear nexus between the imposition of affordable housing requirements on development and the effects on the region. (See e.g. *San Remo Hotel L.P. v. City and County of San Francisco* (2002) 27 Cal.4th 643 [government may impose permitting condition without running afoul of the Takings Clause if it demonstrates an essential nexus and reasonable relationship between the permitting condition and a deleterious public impact of the development].)

In any event, the California Supreme Court has ruled that no “nexus” requirement applies to a condition requiring an affordable housing component for a residential development project. (*CBIA, supra*, 61 Cal.4th at 474-75, 479 [rough proportionality/nexus requirements do not apply to restrict developer’s use of property].) The Supreme Court relied upon *Ehrlich v. City of Culver City* (1996) 12 Cal.4th 854 to reach this conclusion. (*Id.* at 475-76.) *Ehrlich* involved the imposition of conditions on a case-by-case basis, rather than through a broader inclusionary housing ordinance, enabling a greater amount of discretion for the deployment of the city’s police power. (*Ehrlich, supra*, 12 Cal.4th at 869.) As such, the County may rely on its existing General Plan and implement appropriate inclusionary zoning requirements as a project condition on Newland Sierra prior to project approval. (*CBIA*, 61 Cal.4th at 477 [“Moreover, as we have explained above, the validity of the ordinance’s requirement that at least 15 percent of a development’s for-sale units be affordable to moderate- or low-income households does not depend on an assessment of the impact that the development itself will have on the municipality’s affordable housing situation.”].)

Though the law on this issue is firmly established, i.e., the County certainly does have the authority today to impose an affordable housing condition on the Newland Sierra project, if County Counsel somehow disagrees with this legal conclusion and believes that further steps are needed to make an affordable housing component “legally permissible,” then County Counsel should be directed to prepare any appropriate documents needed to implement this mandatory portion of the adopted General Plan, and any processing of the current General Plan amendment project of Newland Sierra project, should be suspended until the County adopts an ordinance to implement its own General Plan requirements. The County could simply impose the same requirement for affordable housing as upheld by the California Supreme Court in the City of San Jose case, using the wording of any ordinance or conditions adopted by the City of San Jose. Along with any other General Plan change or zoning ordinance amendment that is included in the Newland project approvals, County staff and the County Counsel can simply include project

conditions and/or an ordinance adopting affording housing requirements approved in the San Jose case, at the same time as the Board considers any other project approvals.

We ask that the County Chief Administrative Officer and County Counsel be directed to immediately propose project conditions or any other legal documents required to implement General Policy H-1.9 for the Newland project, and no further processing of the Newland project should occur until these actions are taken to implement General Plan Policy H-1.9. If County Counsel concludes that General Plan Policy H-1.9 is unenforceable, and the County lacks the legal authority to impose conditions requiring affordable housing components under the terms of that Policy, the Board should request County Counsel to describe the reasons for this conclusion.

Failure to pay attention the mandatory requirements of General Plan Policy H-1.9 will only result in needless delays and disruptions in any decisions the Board may make with respect to new developments covered by this Policy, such as Newland.

We thank you for your time and attention to our comments, and ask that they be incorporated both into the administrative record for the Newland Sierra Project and this Agenda Item 5. Please do not hesitate to contact me should you have any questions.

Best regards,

*Christopher Garrett*

Christopher W. Garrett  
of LATHAM & WATKINS LLP

cc: Kathy Van Ness, Golden Door  
Darin Neufeld, County Planning and Development Services  
Mark Slovick, County Planning and Development Services  
Ashley Smith, County Planning and Development Services  
Stephanie Saathoff, Clay Co.  
Denise Price, Clay Co.  
Taiga Takahashi, Latham & Watkins

**ENCLOSURE 1**



Personal Home Mortgage Loans **Today's Mortgage Rates and Refinance Rates**

## Today's Mortgage Rates and Refinance Rates

Print

Be sure to use APR, which includes all fees and costs, to compare rates across lenders. Rates below include zero discount points. Use our [Product Comparison Tool](#) for rates customized to your specific home financing need.

| Purchase Rates                                                  | Refinance Rates                 |
|-----------------------------------------------------------------|---------------------------------|
| <b>Product</b>                                                  | <b>Interest Rate</b> <b>APR</b> |
| <b>Conforming</b> and <b>Government Loans</b>                   |                                 |
| <b>30-Year Fixed Rate</b>                                       | 4.625%      4.684%              |
| <b>30-Year Fixed-Rate VA</b>                                    | 4.375%      4.684%              |
| <b>20-Year Fixed Rate</b>                                       | 4.375%      4.470%              |
| <b>15-Year Fixed Rate</b>                                       | 4.125%      4.264%              |
| <b>7/1 ARM</b>                                                  | 4.375%      4.755%              |
| <b>5/1 ARM</b>                                                  | 4.250%      4.791%              |
| <b>Jumbo Loans</b> — Amounts that exceed conforming loan limits |                                 |
| <b>30-Year Fixed-Rate Jumbo</b>                                 | 4.500%      4.521%              |
| <b>15-Year Fixed-Rate Jumbo</b>                                 | 4.250%      4.287%              |
| <b>7/1 ARM Jumbo</b>                                            | 4.000%      4.538%              |
| <b>10/1 ARM Jumbo</b>                                           | 4.250%      4.537%              |

Rates, terms, and fees as of 4/17/2018 10:15 AM Eastern Daylight Time and subject to change without notice.

Select a product to view important disclosures, payments, assumptions, and APR information. Please note we offer additional home loan options not displayed here.



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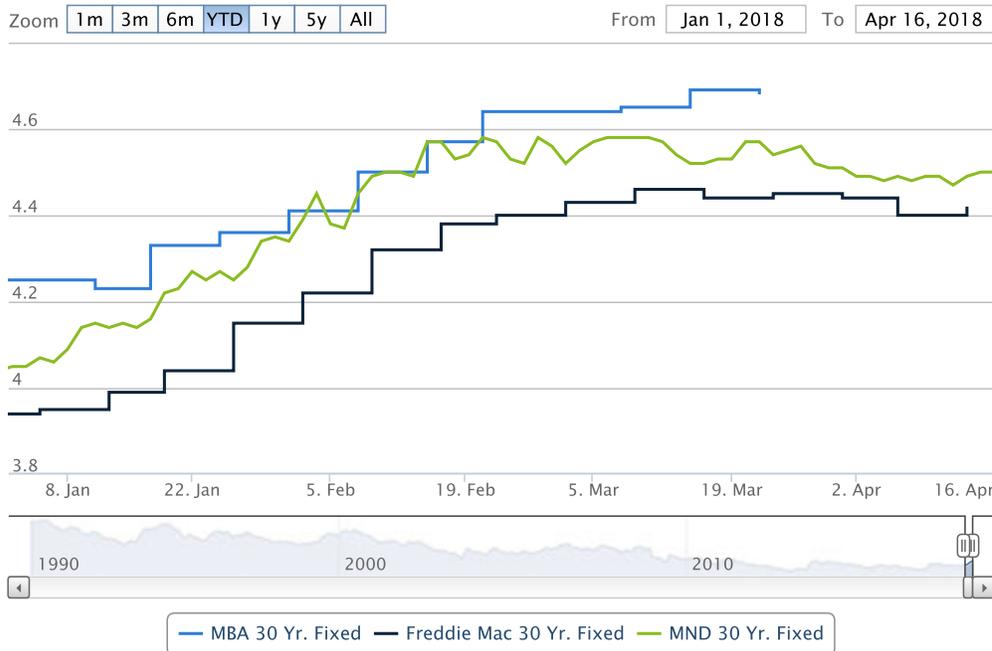
### Average 30 Year Fixed Mortgage Rates

| Report Date                               | Current Interest Rate | Change | Prior Year | YOY Change |
|-------------------------------------------|-----------------------|--------|------------|------------|
| <b>MND's 30 Year Fixed (daily survey)</b> |                       |        |            |            |
| Apr 16 2018                               | 4.50% : (--)          | +0.00  | 4.04%      | 0.46       |
| Apr 13 2018                               | 4.50% : (--)          | +0.01  | 4.05%      | 0.45       |
| Apr 12 2018                               | 4.49% : (--)          | +0.02  | 4.08%      | 0.41       |
| Apr 11 2018                               | 4.47% : (--)          | -0.02  | 4.18%      | 0.29       |
| Apr 10 2018                               | 4.49% : (--)          | +0.00  | 4.17%      | 0.32       |
| Apr 09 2018                               | 4.49% : (--)          | +0.01  | 4.17%      | 0.32       |
| Apr 06 2018                               | 4.48% : (--)          | -0.01  | 4.15%      | 0.33       |
| Apr 05 2018                               | 4.49% : (--)          | +0.01  | 4.14%      | 0.35       |
| <b>MBA 30 Year Fixed (weekly)</b>         |                       |        |            |            |
| Mar 18 2018                               | 4.68% : (0.46)        | -0.01  | 4.36%      | 0.32       |
| Mar 11 2018                               | 4.69% : (0.45)        | 0.04   | 4.30%      | 0.39       |
| Mar 04 2018                               | 4.65% : (0.58)        | 0.01   | 4.36%      | 0.29       |
| <b>Freddie Mac 30 Year Fixed (weekly)</b> |                       |        |            |            |
| Apr 08 2018                               | 4.42% : (0.40)        | 0.02   | 4.14%      | 0.28       |
| Apr 01 2018                               | 4.40% : (0.50)        | -0.04  | 4.14%      | 0.26       |
| Mar 25 2018                               | 4.44% : (0.50)        | -0.01  | 4.30%      | 0.14       |

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### Average 30 Year Fixed Mortgage Rates

Mortgage News Daily, MBA, and Freddie Mac



**CHART TIPS:**

- Tooltip Text:** Mouse over any series or point.
- Zoom:** Click and drag area to zoom.
- Add / Remove Series:** Click series name in the legend.

**SOURCE:**

Mortgage News Daily  
Mortgage Bankers Association  
Freddie Mac

**About this Data**



HUD.GOV

U.S. Department of Housing and Urban Development  
Secretary Ben Carson

## Affordable Housing

### Who Needs Affordable Housing?

Families who pay more than 30 percent of their income for housing are considered cost burdened and may have difficulty affording necessities such as food, clothing, transportation and medical care. An estimated 12 million renter and homeowner households now pay more than 50 percent of their annual incomes for housing. A family with one full-time worker earning the minimum wage cannot afford the local fair-market rent for a two-bedroom apartment anywhere in the United States.

### Where Can Individuals Find Assistance?

Individuals looking for assistance can:

- Find rental, homebuyer, and homeowner assistance
- Find resources for homeless persons, including, youth, veterans, and the chronically homeless
- Find help for victims of foreclosure and Hurricane Sandy and for persons living with HIV/AIDS

### What is HUD Doing to Support Affordable Housing?

Within the Office of Community Planning and Development, the Office of Affordable Housing Programs (OAH) administers the following grant programs designed to increase the stock of housing affordable to low-income households.

The HOME Investments Partnerships Program (HOME) provides grants to States and local governments to fund a wide range of activities including 1) building, buying, and/or rehabilitating housing for rent or homeownership or 2) providing direct rental assistance to low-income families. It is the largest Federal block grant program for State and local governments designed exclusively to create affordable housing for low-income households.

The National Housing Trust Fund (HTF) supports the acquisition, new construction, or reconstruction of rental units for extremely low-income families or families with incomes below the poverty line, whichever is greater.

HUD's Office of Housing and Office of Public and Indian Housing also administer programs to increase the amount of affordable housing available for low-income households across the nation.

### What Information Does HUD Provide?

The HUD Exchange provides a hub for HOME Program information, tools and templates, research, evaluations, best practices, guides, training manuals, and more including:

- HOME Laws and regulations
- Policy guidance (Policy Memos, HOME *FACTS*, HOMEfires)
- HOME Frequently Asked Questions (FAQs)
- HOME Dashboard Reports and other HOME Reports

Related tools and resources can be accessed through HOME Topics.

The HUD Exchange also provides:

**Email Updates** – To receive CPD communications about program policy, upcoming trainings, resources, reporting deadlines, technical assistance, and more, sign up on the HUD Exchange Mailing List.

**Training Opportunities** – For information on upcoming events, self-paced online training, and recorded webinars, go to Training and Events.

**Grantee Information** – To view amounts awarded to organizations under HUD programs over the past several years, go to CPD Allocations and Awards. To learn more about the agencies and organizations that have received funding, visit About Grantees.

**Assistance with Reporting System Questions** – If you have a question related to eCon Planning Suite or IDIS, please submit your question and get a response through Ask A Question.

**In-depth Advising** – To learn about extended communication or long-term assistance available to CPD grantees, visit Technical Assistance.

If you are an organization with a policy question related to HOME, or National Housing Trust Fund (HTF) please contact your local HUD Field Office for assistance.

### How Can My Organization Receive Funds?

Participating jurisdictions receive HOME grants through a formula to fund housing programs which meet local needs and priorities. To find out about how to apply for HOME assistance in your community, contact an agency nearest to your community.

**ENCLOSURE 2**

# NEWLAND SIERRA (/)

Stay Updated

San Diego's First Carbon Neutral Community

Benefits of a Specific Plan Compared to the Current General Plan

Minimizing Traffic Impacts

Reducing Vehicle Miles from the Community

Managing the Threats of Wildfires

Promoting Water Conservation

Types of Housing

Q: What types of housing will be built?

A: A mixture of for-sale homes is proposed. No apartments or rental homes are proposed. The homes will be a variety of single-family detached homes, attached townhomes, cluster homes, age-targeted, and larger lot single-family homes.

Share your thoughts with us by clicking [here \(/contact\)](#)

---

Q: Will there be any rental units?

A: No rental apartment buildings are proposed for the community.

Share your thoughts with us by clicking [here \(/contact\)](#)

---

Q: Are there any "affordable housing" requirements for the community?

A: The County of San Diego does not require subsidized or otherwise "income-restricted" housing to be provided in a project. However, we do plan to have a variety of housing types available, including some at price points that are attainable for middle-income families.

Share your thoughts with us by clicking [here \(/contact\)](#)

Community Character

Parks

Trails and Open Space

Wildlife

Vineyards

Commercial Area

Schools

Grading

Miscellaneous

## CONTACT US (/CONTACT)



(<http://www.newlandcommunities.com/>)



(<http://nashcommunities.com/>)

### Equal Housing Opportunity

†The project description is part of the Specific Plan and draft EIR for the project. The specific details of the project description are subject to refinement as it moves through the approval process.

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EQUAL HOUSING OPPORTUNITY

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**ENCLOSURE 2**

APR 24 2018

SUPERIOR COURT OF THE STATE OF CALIFORNIA

COUNTY OF MONTEREY

CLERK OF THE SUPERIOR COURT  
Sally Lopez DEPUTY

1 Carmel Valley Association, Inc., a California )  
 2 nonprofit corporation, )  
 3 )  
 4                   Petitioner )  
 5           vs. )  
 6 )  
 7 County of Monterey; Board of Supervisors of the )  
 8 County of Monterey, and DOES 1 THROUGH )  
 9 15, )  
 10                   Respondents, )  
 11 )  
 12 Rancho Canada Venture LLC, Carmel )  
 13 Development Company; R. Alan Williams; Does )  
 14 16 through 30, inclusive )  
 15 )  
 16                   Real Parties in Interest. )

CASE NO.: 17CV000131

**Intended Decision**

12 This matter came on for court trial on February 2, 2018. All sides were represented  
13 through their respective attorneys. The matter was argued and taken under submission.

14 This intended decision resolves factual and legal disputes, and shall suffice as a statement  
15 of decision as to all matters contained herein. (Cal. Rules of Court, rule 3.1590(c)(1).)  
16

17 **Background**

18 On April 22, 2004, the Lombardo Land Group submitted a development project  
 19 application to the County of Monterey. (AR 7222-7225.) The application was for a Combined  
 20 Development Permit, rezoning, use permit, General Plan Amendment, a Specific Plan, and a  
 21 Vesting Tentative Map for a "a proposed mixed-income new neighborhood." (AR 7222, 7224.)  
 22 The Applicant proposed 280 units,<sup>1</sup> of which 50% would be deed-restricted Affordable and  
 23 Workforce units. (AR 7224.)  
 24

25 In January 2008, the County circulated a Draft Environmental Impact Report (DEIR) for  
26 what it identified as the "Rancho Canada Village Specific Plan." (AR 214.) That DEIR received  
27

28 <sup>1</sup> The Applicant subsequently changed its proposal to seek the creation of 281 units. (AR 237.)

1 56 comment letters, many of which criticized its adequacy on a number of substantive grounds.  
2 (See, e.g., AR 8923, 9397-9401, 9596-9608, 19050-19116.) At that time, the firm preparing the  
3 DEIR was also working on an EIR for the County's General Plan update. That project took  
4 priority, forcing the Applicant to wait for its completion to proceed. (AR 11347-11348.)

5  
6 The new General Plan went into effect on October 26, 2010. (AR 13574.) It included  
7 changes to the Carmel Valley Master Plan (CVMP). CVMP Policy CV-1.6 established a new  
8 residential subdivision building limit of 266 new residential lots or units in Carmel Valley. (AR  
9 103, 11807, 11824.)<sup>2</sup> In recognition of the proposed Project, the 2010 General Plan established a  
10 Special Treatment Area (CVMP Policy CV-1.27) of "[u]p to 40 acres" for the Project site. (AR  
11 14036.) Within that Special Treatment Area, residential development was allowed at "a density  
12 of up to 10 units/acre,"<sup>3</sup> and was required to include "a minimum of 50% Affordable/Workforce  
13 Housing." (*Ibid.*)

14  
15 Further, the 2010 General Plan raised the minimum affordable housing requirement for  
16 all new housing development across the County to 25%, and committed the County to amending  
17 its Inclusionary Housing Ordinance, Monterey County Code Chapter 18.40 (Inclusionary  
18 Housing Ordinance or Ordinance) to reflect this change. (AR 13583.) To date, no such  
19 amendment has occurred.

20  
21  
22  
23 <sup>2</sup> The findings, General Plan EIR, and Final EIR all recite that the original version of the  
24 2010 General Plan contained a residential unit cap of 266 units. (AR 103, 3738, 11807, 11824.)  
25 However, the actual language of the General Plan refers to a residential unit cap of 200 units.  
(AR 13616.) No party explains this discrepancy. The difference, however, is irrelevant to the  
26 court's analysis. For ease of reference, the court assumes throughout this decision that the initial  
27 cap was 266 units.

28 <sup>3</sup> Notwithstanding this density designation, the Special Treatment Area is still subject to the  
building cap. (AR 13616 ["[n]ew residential subdivision Carmel Valley shall be limited to  
creation of 200 new units"], 14031.)

1 Finally, the General Plan mandated that, within 12 months, the County develop a  
2 Development Evaluation System (DES) in order to assess new development projects proposed  
3 outside of certain priority development areas based on a pass-fail grading system. (AR 13578-  
4 13579.) The General Plan defines "Community Areas, Rural Centers and Affordable Housing  
5 Overlay districts" as "the top priority for development in the unincorporated areas of the  
6 County." (AR 13578.) The County has not yet promulgated the DES.

8 Following the adoption of the General Plan, several lawsuits were filed, including one  
9 brought by Petitioner. (AR 19524.) Petitioner and the County ultimately reached a settlement,  
10 agreeing to an amendment to CVMP Policy CV-1.6 to reduce the residential subdivision limit in  
11 Carmel Valley from 266 new units to 190 new units. (AR 19964-19983; see also AR 3738.) The  
12 Board approved this amendment on February 12, 2013. (AR 14031-14032.) Of the 190-unit cap,  
13 24 of the units were reserved for another property, meaning that, absent a general plan  
14 amendment, the Project was limited to 166 units. (AR 13617, 3738.)

16 Rather than abandoning the Project and commencing the permitting and environmental  
17 review process anew, Real Parties developed a new 130-unit alternative (Alternative), which it  
18 claimed was intended to "respond[] to various concerns raised by the public during the  
19 processing of the [] [P]roject." (AR 18768.) Real Parties explained to the County that the  
20 Alternative addressed "most, if not all, of the concerns expressed by the public, and which  
21 include[d] flood control, utility, recreational, water supply, moderate income housing and other  
22 features that would benefit the community." (AR 18771.) Real Parties provided the County with  
23 extensive information on the Alternative, including proposed maps, property development  
24 standards, and a detailed description of the specific Project impacts the Alternative would  
25 alleviate. (AR 18768-18782.) Nevertheless, Real Parties insisted that the Alternative was "not a  
26 resubmittal for a new project." (AR 18770.)  
27  
28

1 Real Parties then worked with the County and its EIR consultant to prepare a  
2 Recirculated Draft Environmental Impact Report (RDEIR), to include, inter alia, a lengthy  
3 discussion of the Alternative. (AR 17126-17130, 1348-1372.) Real Parties asked the EIR  
4 consultant to “provide an equal level of analysis of the 130-unit alternative” and the Project. (AR  
5 17142.) To accomplish this task, the EIR consultant was forced to put the analysis of the  
6 Alternative in the “Project Description” chapter along with the Project, rather than in the  
7 Alternatives chapter.  
8

9 On June 1, 2016, the County released the RDEIR. (AR 18541.) The RDEIR’s “Project  
10 Description” chapter discussed both the Project and the Alternative, in significant, and roughly  
11 equivalent, detail. (AR 1321, 1348-1372.) The remaining six alternatives were described as  
12 before, in less detail, in the RDEIR’s alternatives chapter. The RDEIR concluded that the 130-  
13 unit Alternative was the “environmentally superior alternative.” (AR 18537, 18541-18543.) In  
14 November 2016, the County issued its Final Environmental Impact Report (FEIR).<sup>4</sup>  
15

16 On November 9, 2016, County Planning Staff recommended that the Planning  
17 Commission advise the County Board of Supervisors (the Board) to approve the 130-unit  
18 Alternative and certify the EIR. (AR 4099.) Staff also explained that, under the Alternative, an  
19 amendment to the Special Treatment Area language in CVMP Policy CV-1.27 would be required  
20 to reduce the affordability requirement from 50% to 20%. (AR 4107.) At the subsequent hearing  
21 on November 16, 2016, the Planning Commission voted 4-3 to adopt staff’s recommendation to  
22 recommend approval of the Alternative and certification of the FEIR. (AR 5256-5279.)  
23 However, the Planning Commission did not recommend that the Board adopt the proposed  
24 General Plan amendment, because it did not secure a majority of the Commission’s vote. (AR  
25 5347-5348.)  
26

27  
28 <sup>4</sup> The FEIR eliminated one alternative due to a change in ownership of the relevant property.  
(AR 134, 3803-3806, 3808-3809.)

1 On December 13, 2016, the Board unanimously approved the 130-unit Alternative based  
2 upon a revised vesting tentative map submitted by Real Parties in Interest (Real Parties). (AR  
3 5360-5361.) The Board also approved a General Plan amendment to the CMVP Policy CV-1.27  
4 Special Treatment Area for the Rancho Canada property, reducing the 50% of  
5 affordable/workforce housing to 20%, and rezoning the Property from public quasi-public to  
6 Medium Density Residential for 129 lots, and Low Density Residential for the Alternative's Lot  
7 130. (AR 5361.) As to inclusionary housing, the Board stated:

9 "Finding NO. 18: INCLUSIONARY HOUSING: The Alternative complies with the  
10 Inclusionary Housing Ordinance requirement to provide a minimum of 20% onsite affordable  
11 housing units. (MCC, Chapter 18.40) Unusual circumstances exist making it appropriate to  
12 modify the requirements of the Inclusionary Ordinance so that 20% Moderate-income housing,  
13 as proposed by the Alternative, is allowed in-lieu of the 8% Moderate-income, 6% Low-income  
14 and 6% Very Low income." (AR 143.)

16 Finally, the Board adopted Condition No. 112, which required Real Parties to comply  
17 with the Ordinance by constructing 25 on-site rental units affordable to moderate-income  
18 households. (AR 211.)

#### 19 *Administrative Record*

20 The court admitted the approximately 30,000-page administrative record into evidence.

21 Together with its opposition brief, the County filed a supplemental administrative record  
22 comprised of 1) omitted public comments on the 2008 DEIR; 2) the County 2015-2023 Housing  
23 Element, dated January 26, 2016; and 3) a Board Order entitled "2016 Annual Progress Report  
24 for the General Plan and Housing Element, and accompanying staff report," dated July 18, 2017.

25 Petitioner does not object to the addition of omitted public comments on the 2008 DEIR.  
26 Consequently, the court admits these comments into the administrative record.  
27  
28





1 Ordinance's requirement that the affordable housing units provided meet specified income  
2 requirements.

3           Additionally, 1) the County contends that Petitioner has waived its right to challenge the  
4 County's failure to timely adopt the DES; and 2) that Petitioner has failed to exhaust its  
5 administrative remedies as to its claims that the County did not timely adopt the DES or amend  
6 its Inclusionary Housing Ordinance. Because these arguments are threshold matters, the court  
7 will address them first.  
8

9           **1.1 Petitioner has not waived its right to challenge the County's failure to timely**  
10           **adopt the DES.**

11           The County maintains that, by virtue of a clause in a settlement agreement, Petitioner has  
12 waived its right to challenge the County's failure to timely adopt the DES. Petitioner responds  
13 that the release does not cover such claims.  
14

15           On November 24, 2010, Petitioner filed a petition for writ of mandate against the County  
16 alleging CEQA violations relating to the 2010 General Plan Update. The parties eventually  
17 entered into a settlement agreement. (AR 19964-19983.) As part of that agreement, executed on  
18 September 24, 2012, Petitioner released the County and its Board from all claims as of the  
19 Agreement's effective date "arising from or relating to certification of the Final EIR for the 2010  
20 Monterey County General Plan and approval of the 2010 Monterey County General Plan as  
21 adopted by the Board of Supervisors on October 26, 2010." (AR 19967.) The County notes that  
22 Petitioner's claim regarding the County's failure to timely promulgate the DES within 12 months  
23 of the 2010 General Plan's effective date was ripe on October 26, 2011. It therefore contends that  
24 the claim was subject to the release.  
25

26           The County's argument is without merit. The release related only to claims concerning  
27 the certification of the FEIR and the County's approval of the General Plan. Petitioner's claim  
28

1 regarding the timeliness of the DES implementation is not such a claim; it relates to the  
2 implementation of the General Plan, not the General Plan's FEIR, or approval process.

3 **1.2 Petitioner's claims are not barred for failure to exhaust its administrative**  
4 **remedies.**

5 The County asserts that Petitioner has failed to exhaust its administrative remedies as to  
6 its claims that the County did not timely adopt the DES or amend its Inclusionary Housing  
7 Ordinance. The County insists that Petitioner was required to exhaust all available administrative  
8 appeals and to raise its precise objections to the County's General Plan implementation "in a  
9 manner that [would have given] the County notice of and an opportunity to act on the issue."  
10

11 **1.2.1 The "Appeal Exhaustion" doctrine does not apply.**

12 The County insists that Petitioner's objections to the County's General Plan  
13 implementation efforts were never properly before the Board of Supervisors because those  
14 objections were only raised in the context of the Project approval process.  
15

16 "[W]here an administrative remedy is provided by statute, relief must be sought from the  
17 administrative body and this remedy exhausted before the courts will act." (*Abelleira v. District*  
18 *Court of Appeal* (1941) 17 Cal.2d 280, 292.) "Exhaustion of administrative remedies is a  
19 jurisdictional prerequisite to resort to the courts." (*Campbell v. Regents of University of*  
20 *California* (2005) 35 Cal.4th 311, 321, internal citations omitted.) Nevertheless, the exhaustion  
21 doctrine does not apply when the relevant statute under which review was offered does not  
22 establish "clearly defined machinery for the submission, evaluation and resolution of complaints  
23 by aggrieved parties." (*Rosenfield v. Malcolm* (1967) 65 Cal.2d 559, 566.)  
24

25 The County fails to identify any procedure in the County Code or General Plan that  
26 Petitioner could have followed to place their specific objections before the Board outside the  
27 context of the Project. Simply put, no such administrative remedy was available, and hence, the  
28 exhaustion doctrine does not apply. (*Id.* at p. 566.)

1                   **1.2.2 The “Issue Exhaustion” doctrine does not apply.**

2                   The County argues that Petitioner is required to satisfy what it calls “issue exhaustion.”  
3 According to the County, Petitioner was required to present its exact objections below so that the  
4 County would have had the opportunity to act and render litigation unnecessary.  
5

6                   The County’s argument relies entirely on citations to CEQA and administrative mandate  
7 cases. (See, e.g., *Resource Defense Fund v. Local Agency Formation Com.* (1987) 191  
8 Cal.App.3d 886, 894 [CEQA]; *Evans v. City of San Jose* (2005) 128 Cal.App.4th 1123, 1136  
9 [County redevelopment plan reviewed under Code Civ. Proc., § 1094.5].) This is no accident.  
10 CEQA expressly mandates such “issue exhaustion.” (Pub. Resources Code, § 21177, subd. (a).)  
11 The rule also applies in administrative mandamus petitions under Code of Civil Procedure  
12 section 1094.5 (*City of Walnut Creek v. County of Contra Costa* (1980) 101 Cal.App.3d 1012,  
13 1019.) In both cases, the actions are direct appeals from administrative proceedings at which an  
14 agency could act to resolve a party’s objections, such as by modifying the project or rejecting it  
15 in its entirety. Were there no such rule, a party could “withhold any defense then available to  
16 [her] or make only a perfunctory or ‘skeleton’ showing in the hearing and thereafter obtain an  
17 unlimited trial de novo, on expanded issues, in the reviewing court. [Citation.]” (*Pegues v. Civil*  
18 *Service Com.* (1998) 67 Cal.App.4th 95, 104, italics in original.) The rule is thus necessary “to  
19 preserve the integrity of the administrative proceedings and to endow them with a dignity beyond  
20 that of a mere shadow-play.” [Citation.]” (*Id.* at pp. 1019-1020.)  
21  
22

23                   Here, Petitioner’s challenges to the County’s General Plan implementation are brought as  
24 part of its petition for writ of *traditional* mandate under Code of Civil Procedure section 1085,  
25 not section 1094.5. It is true that Petitioner simultaneously seeks CEQA relief for its claims  
26 related to the Project, but the County’s exhaustion argument does not relate to those claims. As  
27 to Petitioner’s general plan implementation claims, no hearing or other administrative process  
28

1 occurred.<sup>6</sup> Nevertheless, the County complains that Petitioner raised the relevant issues but only  
2 did so “in conjunction with the Project.” But as discussed *ante*, the County does not identify any  
3 administrative procedure during which Petitioner could have raised these issues outside the  
4 context of the Project approval process. Regardless, Petitioner stated its precise objections in  
5 detail below, both orally and in writing. (E.g., AR 5422, 5435, 20102, 20105, 20333.)  
6

### 7 1.3 Standard of Review.

8 Petitioner seeks writs of mandate compelling the County to implement the DES and to  
9 amend its Inclusionary Housing Ordinance to conform to its General Plan. The County contends  
10 that its failure to take either action stemmed from deliberate decisions to prioritize other  
11 mandatory General Plan tasks. The County insists that these decisions were legislative in  
12 character. Petitioner responds that the decisions were not legislative because they did not involve  
13 enacting or amending the General Plan but rather, 1) as to the DES, failing to implement that  
14 Plan’s mandatory direction; and 2) as to the Inclusionary Housing Ordinance, failing to  
15 implement the Government Code’s mandatory statutory command.  
16

17 Code of Civil Procedure section 1085 “permits judicial review of ministerial duties as  
18 well as quasi-legislative and legislative acts. Mandate will lie to compel performance of a clear,  
19 present and usually ministerial duty in cases where a petitioner has a clear, present and beneficial  
20 right to performance of that duty. [Citation.]” (*County of Del Norte v. City of Crescent*  
21 *City* (1999) 71 Cal.App.4th 965, 972.) “A ministerial act is an act that a public officer is required  
22 to perform in a prescribed manner in obedience to the mandate of legal authority and without  
23 regard to his own judgment or opinion concerning such act’s propriety or impropriety, when a  
24

---

25  
26 <sup>6</sup> Code of Civil Procedure section 1085 nonetheless applies when one of the three mandatory  
27 criteria of Code of Civil Procedure section 1094.5 are not met. (See *O.W.L. Foundation v. City of*  
28 *Rohnert Park* (2008) 168 Cal.App.4th 568, 585.) These criteria include whether the agency  
decision was “made as a result of a proceeding in which by law a hearing is required to be given,  
evidence is required to be taken and discretion in the determination of facts is vested in a public  
agency.” (*Ibid.*, internal citations omitted.)

1 given state of facts exists. Discretion, on the other hand, is the power conferred on public  
2 functionaries to act officially according to the dictates of their own judgment. [Citation.]”  
3 (*Rodriguez v. Solis* (1991) 1 Cal.App.4th 495, 501-502.) Hence, “[w]here a statute or ordinance  
4 clearly defines the specific duties or course of conduct that a governing body must take, that  
5 course of conduct becomes mandatory and eliminates any element of discretion.” (*Great Western*  
6 *Savings & Loan Assn. v. City of Los Angeles* (1973) 31 Cal.App.3d 403, 413.) “Mandamus has  
7 long been recognized as the appropriate means by which to challenge a government official’s  
8 refusal to implement a duly enacted legislative measure.” (*Morris v. Harper* (2001) 94  
9 Cal.App.4th 52, 58; *Brown v. Chiang* (2011) 198 Cal.App.4th 1203, 1231.)

11 Legislative action is the formulation of a rule to be applied in future cases. (*McGill v*  
12 *Regents of Univ. of Cal.* (1996) 44 Cal.App.4th 1776, 1785.) Legislative action includes the  
13 adoption or amendment of a general plan (*Yost v. Thomas* (1984) 36 Cal.3d 561, 570),  
14 “investigation and information gathering in aid of, or as a basis for, prospective legislation”  
15 (*Carrancho v. California Air Resources Bd.* (2003) 111 Cal.App.4th 1255, 1266), adoption of a  
16 general zoning ordinance (*San Diego Bldg. Contractors Assn. v. City Council* (1974) 13 Cal.3d  
17 205, 212), and the determination of jurisdictional boundaries (*City of Santa Cruz v. Local Agency*  
18 *Formation Com.* (1978) 76 Cal.App.3d 381, 387). “Review of a local entity’s legislative  
19 determination is through ordinary mandamus under section 1085.” (*Mike Moore’s 24-Hour*  
20 *Towing v. City of San Diego* (1996) 45 Cal.App.4th 1294, 1303.) “Such review is limited to an  
21 inquiry into whether the action was arbitrary, capricious or entirely lacking in evidentiary  
22 support. [Citation.]” (*Corona-Norco Unified School Dist. v. City of Corona* (1993) 17  
23 Cal.App.4th 985, 992.) When undertaking this inquiry, “the court may not substitute its judgment  
24 for that of the agency, and if reasonable minds may disagree as to the wisdom of the agency’s  
25 action, its determination must be upheld. [Citation.]” (*Helena F. v. West Contra Costa Unified*  
26 *School Dist.* (1996) 49 Cal.App.4th 1793, 1799.) Moreover, the court ““must ensure that an

1 agency has adequately considered all relevant factors, and has demonstrated a rational  
2 connection between those factors, the choice made, and the purposes of the enabling statute.’  
3 [Citation.]” (*Western States Petroleum Assn. v. Superior Court* (1995) 9 Cal.4th 559,  
4 577.) Courts conduct this limited review “out of deference to the separation of powers between  
5 the Legislature and the judiciary, to the legislative delegation of administrative authority to the  
6 agency, and to the presumed expertise of the agency within its scope of authority.” (*California  
7 Hotel & Motel Assn. v. Industrial Welfare Com.* (1979) 25 Cal.3d 200, 212.)

9 Accordingly, the court must determine “whether the [County] had a ministerial duty  
10 capable of direct enforcement or a quasi-legislative duty entitled to a considerable degree of  
11 deference.” (*Carrancho, supra*, 111 Cal.App.4th at p. 1266.) Because they involve discretionary  
12 decisions within the core ambit of an agency, “[q]uasi-legislative administrative decisions are  
13 properly placed at that point of the continuum at which judicial review is more deferential;  
14 ministerial and informal actions do not merit such deference, and therefore lie toward the  
15 opposite end of the continuum.” (*Western States Petroleum Assn., supra*, 9 Cal.4th at p. 576.)  
16 Whether the provision at issue “impose[s] a ministerial duty, for which mandamus will lie, or a  
17 mere obligation to perform a discretionary function is a question of statutory interpretation.  
18 [Citation.]” (*AIDS Healthcare Foundation v. Los Angeles County Dept. of Public Health* (2011)  
19 197 Cal.App.4th 693, 701.) In making such a determination, “[w]e examine the ‘language,  
20 function and apparent purpose’ of the statute. [Citation.] . . . ‘Even if mandatory language  
21 appears in [a] statute creating a duty, the duty is discretionary if the [public entity] must exercise  
22 significant discretion to perform the duty.’ [Citation.]” (*Ibid.*)

25 **1.4 The County’s failure to implement the DES was not an abuse of its discretion.**

26 General Plan Policy LU-1.19 mandates that the DES “shall be established within 12  
27 months of adopting this [2010] General Plan,” or October 26, 2011. The DES has not yet been  
28 implemented.

1           Petitioner argues that the County had a mandatory, ministerial duty to comply with this  
2 Policy by timely promulgating the DES. The County contends that its failure to act was a  
3 legislative decision based on 1) numerous obstacles to the task's completion, including lawsuits,  
4 resultant amendments to the General Plan, and reduced staffing; and, based in part on these  
5 obstacles, 2) a discretionary choice to prioritize other mandatory General Plan tasks. The County  
6 notes that, over the past three years it has worked with the public and stakeholders to develop the  
7 DES and that "the final development of the DES will be a priority" going forward. It maintains  
8 that its decision to prioritize other tasks was not arbitrary or capricious. Petitioner responds that  
9 the County's inaction was not a legislative act because while amending a General Plan may be  
10 legislative, implementing Plan policies is not.

11           General Plan Policy LU-1.19 contains mandatory language. Nevertheless, the County  
12 must exercise "significant discretion" in developing the DES. (*Sonoma AG Art, LLC v.*  
13 *Department of Food and Agriculture* (2004) 125 Cal.App.4th 122, 127, citation omitted.) Policy  
14 LU-1.19 requires the County to develop "a pass-fail system" to assess proposed projects and  
15 their impact on County resources. (AR 13579.) Additionally, the County must devise "a  
16 mechanism to quantitatively evaluate development in light of the policies of the General Plan  
17 and the implementing regulations, resources and infrastructure, and the overall quality of the  
18 development." (*Ibid.*) That mechanism must include nine criteria, but the County has the  
19 discretion to include additional criteria if it deems them necessary. (*Ibid.*)

20           Further, the County must make discretionary decisions with respect to the devotion of  
21 limited resources to the development of the DES. The County is in a far better position than this  
22 court to allocate these resources appropriately in light of other priorities and budgetary  
23 constraints. Consequently, the court concludes that the County's decision as to the timing of its  
24 implementation of the DES is legislative in character, and may be overridden only if it is  
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28

1 “arbitrary, capricious or entirely lacking in evidentiary support. [Citation.]” (*Corona-Norco*  
2 *Unified School Dist., supra*, 17 Cal.App.4th at p. 992.)

3         The 2010 General Plan required the County to draft over 100 new ordinances, plans, and  
4 programs to implement the Plan’s Policies and goals. (AR 21029, 21034.) This process has  
5 required “interdepartmental coordination, obtaining technical information from county  
6 consultants, and scoping with stakeholders through extensive public outreach.” (AR 21034.)  
7 Moreover, since the Plan’s adoption, the County’s Planning Department has experienced  
8 significant turnover, with several key positions still vacant. (AR 21029.) In addition, litigation  
9 over the General Plan led to settlements requiring the adoption of General Plan amendments.  
10 (AR 21035-21036.) These issues required the County to “reallocate staff resources to process  
11 current planning entitlements, in accordance with the Permit Streamlining Act.” (*Ibid.*)  
12 Nevertheless, the County has applied the DES’ criteria to projects where applicable, ensuring the  
13 intent of the Policy has been observed. (AR 106.) Finally, the County has shown that  
14 development of the DES remains a priority. (See, e.g. AR 21026, 21030, 21040-21041.)

15         The court cannot therefore say that the County’s decision to prioritize other legislative  
16 tasks is an abuse of its discretion entitling Petitioner to a writ of traditional mandate.<sup>7</sup>

17         **1.5     The County’s failure to timely amend the Inclusionary Housing Ordinance**  
18                 **was an abuse of its discretion.**

19         General Plan Policy LU-2.13 requires “consistent application of an Affordable Housing  
20 Ordinance that requires 25% of new housing units be affordable to very low, low, moderate, and  
21 workforce income households.” (AR 13583.) Policy LU-2.13 also mandates that any such  
22 ordinance require that 6% of units be affordable to “very low-income households”; 6% of units

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27 <sup>7</sup> This conclusion should not be construed as an approval of the County’s lengthy period of  
28 inaction. The court concludes only that, in the absence of arbitrary and capricious decision-  
making, the question whether the County’s inaction was appropriate is a political one, which lies  
outside the court’s purview.

1 be affordable to “low-income households”; 8% of units be affordable to “moderate-income  
2 households”; and 5% of units be affordable to “Workforce I income households.” (AR 13584.)

3         The Ordinance is inconsistent with Policy LU-2.13’s 25% affordable housing  
4 requirement, because it requires only 20% of “the total number of units approved for the  
5 residential development” to be inclusionary. (MCC, § 18.40.070.A.) The Ordinance is also  
6 inconsistent with Policy LU-2.13’s mandated distribution of housing units among different  
7 income levels, because it does not require that 5% of new inclusionary units be affordable to  
8 “Workforce I income households.” (See MCC, § 18.40.110.A.)

9  
10         Although the General Plan does not contain a specific time trigger for the necessary  
11 amendments, state planning and zoning law provides that the County “shall” amend the  
12 Ordinance “within a reasonable time so that it is consistent with the general plan as amended.”  
13 (Gov. Code, § 65860, subd. (c).) No such amendment has yet occurred. Accordingly, Petitioner  
14 argues that the County had a mandatory, ministerial duty to comply with state planning and  
15 zoning law by timely amending its Inclusionary Housing Ordinance to conform to the General  
16 Plan. Petitioner further argues that the more than seven years since the General Plan was enacted  
17 — and hence, when the inconsistency arose — is not a “reasonable time” in which to act. The  
18 County contends that its failure to act was a legislative decision based on 1) a weighing of  
19 “competing interests,” such as “the economic downturn”; 2) the fact that “very few inclusionary  
20 units [] have been produced”; and 3) “outside deadlines” such as “the deadline to adopt the  
21 Housing Element.” The County claims it has been proceeding “diligently” as to the amendment  
22 process in the past few years.

23  
24         Government Code section 65860, subdivision (c), mandates that the County amend its  
25 Ordinance to conform to the 2010 General Plan “within a reasonable time.” “The obvious  
26 purpose of subdivision (c) is to ensure an orderly process of bringing the regulatory law into  
27 conformity with a new or amended general plan . . . .” (*Leshar Communications, Inc. v. City of*  
28

1 *Walnut Creek* (1990) 52 Cal.3d 531, 546.) But while that section contains mandatory language,  
2 the enactment and amendment of zoning ordinances are legislative acts. (*Johnston v. City of*  
3 *Claremont* (1958) 49 Cal.2d 826, 835; *Yost, supra*, 36 Cal.3d at pp. 570-571.) Consequently, the  
4 arbitrary and capricious standard applies to the question of whether the County has unreasonably  
5 delayed its amendment of the Ordinance. (*Corona-Norco Unified School Dist., supra*, 17  
6 Cal.App.4th at p. 992.)

8 The County's delay was arbitrary and capricious. The County delayed its amendment on  
9 many of the same grounds as it deferred development of the DES, namely myriad other  
10 important tasks necessitated by the amendment of the General Plan and a paucity of staff  
11 available to address those tasks. (AR 21029, 21034-21036.) But unlike the DES, which as  
12 discussed *ante*, required significant time and discretion to develop, amending the Ordinance to  
13 conform it to the General Plan would require nothing more than approving the specific  
14 percentages already decided by the County, as set forth in Policy LU-2.13. (AR 13583-13854.)

16 Further, the suggestion that this act was not a priority for the County is unreasonable. The  
17 general plan is the "constitution for future development located at the top of the hierarchy of  
18 local government law regulating land use." (*DeVita v. County of Napa* (1995) 9 Cal.4th 763, 773,  
19 internal citations omitted.) Hence, "[a] zoning ordinance that is inconsistent with the general plan  
20 is invalid when passed [citations] and one that was originally consistent but has become  
21 inconsistent *must be brought into conformity with the general plan*. [Citation.]" (*Leshner, supra*,  
22 52 Cal.3d at p. 541, italics added; Gov. Code, § 65860, subd. (a) [zoning ordinances *shall be*  
23 *consistent with the general plan . . .*].)

25 The County's attempt to justify its inaction based on "competing interests and outside  
26 deadlines" is also unpersuasive. The County references a passage in its Housing Element in  
27 which it states, "due to the recent economic crisis, very little new development has been  
28 constructed in the County and few new inclusionary units have been produced." (AR 20914.)

1 Contrary to the County's suggestion, the observation that little development, including "few new  
2 inclusionary units" underscores the need for *more* inclusionary development. Regardless, the  
3 statement is conclusory, and the County has not cited supporting evidence in the record. (See  
4 *People v. Bassett* (1968) 69 Cal.2d 122, 139 [substantial evidence "must be reasonable in nature,  
5 credible, and of solid value; it must actually be 'substantial' proof of the essentials which the law  
6 requires in a particular case".]) Similarly, the County's statement in briefing that "outside  
7 deadlines (such as deadlines to receive grant monies)" justify its failure to act is unsupported by  
8 either explanation or citation to the record. Further, the other statement the County references  
9 from its Housing Element, that it "anticipates revisiting the Inclusionary Housing Ordinance to  
10 ensure consistency with the General Plan and reflect market condition" (AR 20980), is  
11 inadequate assurance in light of the County's already considerable delay. Finally, the fact that the  
12 County has discussed the need to revise the Ordinance at a Housing Advisory Committee  
13 meeting is insufficient to establish that the County is acting diligently. (AR 17705-17709.)

14  
15  
16 The court recognizes that it owes the County significant deference in reviewing its  
17 inactivity for abuse of discretion. (*California Hotel & Motel Assn., supra*, 25 Cal.3d at p. 212.)  
18 Nevertheless, even that broad deference has limits. (*American Coatings Assn., Inc. v. South*  
19 *Coast Air Quality Dist.* (2012) 54 Cal.4th 446, 461 [even under arbitrary or capricious review, a  
20 "reasonable basis for the decision" is required]; see also *Halaco Engineering Co. v. South*  
21 *Central Coast Regional Com.* (1986) 42 Cal.3d 52, 79 [the arbitrary or capricious standard  
22 "encompasses," *inter alia*, "conduct not supported by a fair or substantial reason".]) In short, the  
23 court cannot say that the County's delay of over seven years in implementing a simple  
24 amendment to its Inclusionary Housing Ordinance was reasonable. (Gov. Code, § 65860, subd.  
25 (c).)

26  
27 **1.6 The Alternative is consistent with General Plan Policy LU-1.19.**  
28

1           Petitioner contends that the County erred in finding that the Alternative was consistent  
2 with General Plan Policy LU-1.19. Petitioner further contends that without a DES, any finding of  
3 consistency with that Policy is *per se* improper. The County responds that although it has not  
4 enacted a DES, it nevertheless evaluated the Alternative in light of the criteria prescribed by  
5 Policy LU-1.19. (See AR 106-109.) Petitioner does not challenge the substance of the County's  
6 evaluation. Instead, Petitioner replies that these criteria were nonexclusive and that their  
7 application is valid only in the context of a quantitative, pass-fail system, as the Policy envisions  
8 the DES will be.

10           As to the County's general plan consistency findings, the court must assess whether the  
11 County "acted arbitrarily, capriciously, or without evidentiary basis. [Citation.]" (*Concerned*  
12 *Citizens of Calaveras County v. Board of Supervisors* (1985) 166 Cal.App.3d 90, 96.) The  
13 County's consistency findings "can be reversed only if [they are] based on evidence from which  
14 no reasonable person could have reached the same conclusion. [Citation.]" (*A Local & Regional*  
15 *Monitor v. City of Los Angeles* (1993) 16 Cal.App.4th 630, 648.) The Board's reading of its  
16 General Plan "comes to this court with a strong presumption of regularity." (*Sequoyah Hills*  
17 *Homeowners Assn. v. City of Oakland* (1993) 23 Cal.App.4th 704, 717.) "This is because the  
18 body which adopted the general plan policies in its legislative capacity has unique competence to  
19 interpret those policies when applying them in its adjudicatory capacity. [Citation.]" (*Save our*  
20 *Peninsula Committee v. Monterey County Board of Supervisors* (2001) 87 Cal.App.4th 99, 142.)  
21 This court's role "is simply to decide whether [County] officials considered the applicable  
22 policies and the extent to which the proposed project conforms with those policies. [Citations.]"  
23 (*Sequoyah Hills, supra*, 23 Cal.App.4th at pp. 719-720.)

26           The Board determined that the purposes underlying Policy LU-1.19 could be adequately  
27 served by evaluating the Alternative in light of the Policy's minimum criteria. Specifically, it  
28 found, "the fact that the County has not adopted the DES does not preclude consideration of the

1 project. This resolution includes evaluation of this development in accordance with Policy LU-  
2 1.19.” (AR 106.) The Board explained that “based on the specific facts associated with this  
3 application it is determined that the project would pass the DES, if a pass/fail scoring system  
4 were in place.” (*Ibid.*) And, after a discussion of the Alternative’s consistency with the majority  
5 of the criteria, the Board concluded that the Alternative was consistent with Policy LU-1.19. (AR  
6 107-109.)

8 The Board engaged in a thorough analysis of the DES’ criteria; its finding that the  
9 Alternative is consistent with Policy LU-1.19 is not “arbitrar[y], capricious[, or without  
10 evidentiary basis. [Citation.]” (*Concerned Citizens of Calaveras County, supra*, 166 Cal.App.3d  
11 at p. 96.) The court cannot say “no reasonable person could have reached the same conclusion.  
12 [Citation.]” (*A Local & Regional Monitor, supra*, 16 Cal.App.4th at p. 648.) It is possible that the  
13 Board would have reached a different conclusion if a formal DES were existent, but it is not this  
14 court’s role to so speculate. (*Sequoiah Hills, supra*, 23 Cal.App.4th at pp. 719-720.)

16 Petitioner argues that even if the above is so, the use of a pass-fail system is a  
17 fundamental, mandatory policy to which the Alternative must conform. The court disagrees. It is  
18 true that “the nature of the policy and the nature of the inconsistency are critical factors to  
19 consider.” (*Families Unafraid to Uphold Rural El Dorado County v. El Dorado County Bd. of*  
20 *Supervisors* (1998) 62 Cal.App.4th 1332, 1341.) “A project is inconsistent if it conflicts with a  
21 general plan policy that is fundamental, mandatory, and clear. [Citation.]” (*Endangered Habitats*  
22 *League, Inc. v. County of Orange* (2005) 131 Cal.App.4th 777, 782.) “In other words, a project’s  
23 consistency with a general plan’s broader policies cannot overcome a project’s inconsistency  
24 with a general plan’s more specific, mandatory and fundamental policies. [Citations.]” (*Spring*  
25 *Valley Lake Association v. City of Victorville* (2016) 248 Cal.App.4th 91, 101.) But these  
26 principles do not apply here.  
27  
28

1 Policy LU-1.19 provides that, for certain areas, including the one in which the Project is  
2 located, a DES “shall be established . . . . *The system* shall be a pass-fail system and shall include  
3 a mechanism to quantitatively evaluate development in light of the policies of the General Plan  
4 and the implementing regulations, resources and infrastructure, and the overall quality of the  
5 development.” (AR 13578-13579, italics added.) Policy LU-1.19’s mandatory language applies  
6 to the requisite elements of the DES *once established*, not to specific projects.  
7

8 **1.7 The Alternative is only partially consistent with the Inclusionary Housing**  
9 **Ordinance.**

10 Petitioner argues that the Alternative is inconsistent with the Inclusionary Housing  
11 Ordinance in two ways. First, Petitioner maintains that the County erred in its calculation of the  
12 minimum number of affordable housing units by considering only new units as opposed to total  
13 units. Second, Petitioner asserts that the County erred by departing from the Ordinance’s  
14 requirement that the affordable housing units provided be distributed among moderate-, low-,  
15 and very-low-income households.  
16

17 Before reaching these arguments, it is necessary to address the standard of review.  
18 Petitioner argues that the court independently reviews the County’s interpretation of the  
19 ordinance. The County responds that its determination that the Alternative conformed to its  
20 ordinance is entitled to deference.  
21

22 Petitioner is correct that, to the extent that the Board’s decision rests on its interpretation  
23 of the ordinance, “a question of law is presented for our independent review. [Citation.]” (*MHC*  
24 *Operating Limited Partnership v. City of San Jose* (2003) 106 Cal.App.4th 204, 219.) However,  
25 the County is correct that its interpretation is entitled to deference. (*Ibid.*) Indeed, “[t]he  
26 appropriate mode of review . . . is one in which the judiciary, although taking ultimate  
27 responsibility for the construction of the statute, accords great weight and respect to the  
28 administrative construction.” (*International Business Machines v. State Bd. of*

1 *Equalization* (1980) 26 Cal.3d 923, 931, fn. 7.) “How much weight to accord an agency’s  
2 construction is situational, and greater weight may be appropriate when an agency has a  
3 comparative interpretive advantage over the courts, as when the legal text to be interpreted is  
4 technical, obscure, complex, open-ended, or entwined with issues of fact, policy, and discretion.”  
5 (*American Coatings Assn., Inc.*, *supra*, 54 Cal.4th at p. 461, internal citations omitted.) Further, a  
6 body which adopts an ordinance “in its legislative capacity has unique competence to interpret  
7 th[e] [ordinance] when applying [it] in its adjudicatory capacity.” (*Save our Peninsula*  
8 *Committee*, *supra*, 87 Cal.App.4th at p. 142.)

10 **1.7.1 The County’s calculation of the minimum number of affordable**  
11 **housing units was reasonable.**

12  
13 Petitioner contends that the County erred in its calculation of the minimum number of  
14 affordable housing units. The Inclusionary Housing Ordinance provides, “To satisfy its  
15 inclusionary requirement on-site, a residential development must construct inclusionary units in  
16 an amount equal to or greater than twenty (20) percent of the total number of units approved for  
17 the residential development . . . .” (MCC, § 18.40.070.A.)<sup>8</sup> The Project will provide 25 such  
18 units. The Project consists of 130 units, but five of these units already exist. If the calculation is  
19 based on the total number of units, the Ordinance would require 26 units. If instead, as the  
20 County determined, only new units need be considered, only 25 units would be required.  
21 Petitioner argues that the term “total number of units” means what it says. The County interprets  
22

23  
24 <sup>8</sup> Normally, General Plan Policy LU-1.19 would require development in the Project area to  
25 contain 35% affordable housing. (AR 13579.) Additionally, Policy LU-2.13 requires amendment  
26 of the Ordinance to mandate that “25% of new housing units be affordable to very low, low,  
27 moderate, and workforce income households.” (AR 13583.) However, as part of the approvals,  
28 the Board amended the text of CVMP Policy CV-1.27, which addresses the specific area in  
which the Project is located, to clarify, “*Notwithstanding any other General Plan policies,*  
residential development may be allowed with a density of up to 10 units/acre in this area with a  
minimum 20% affordable housing.” (AR 145, italics in original.) The amended language  
effectively renders the portions of General Plan Policies LU-1.19 and LU-2.13 quoted above  
inapplicable to the Project.

1 the Ordinance to refer only to new construction, noting that the County Code defines “residential  
2 development” as the construction of “new or additional dwelling units and/or lots.” (MCC, §  
3 18.40.040.Y.)

4         Petitioner’s interpretation is not without merit. However, this court owes considerable  
5 deference to the Board because that body adopted the Ordinance in its legislative capacity (*Save*  
6 *our Peninsula, supra*, 87 Cal.App.4th at p. 142) and because interpretation of the Ordinance is  
7 “entwined with issues of fact, policy, and discretion.” (*American Coatings Assn., Inc., supra*, 54  
8 Cal.4th at p. 461, internal citations omitted.) Moreover, the County’s interpretation is both  
9 reasonable and supported by the text of the Ordinance.  
10

11         As used in MCC section 18.40.070.A, the term “total number of units approved” is  
12 modified twice by the term “residential development,” which is defined as the construction of  
13 “new or additional dwelling units and/or lots.” (MCC, § 18.40.040.Y.) This is logical; the term  
14 “development” implies new or modified property. Likewise, the Ordinance’s stated purpose  
15 repeatedly emphasizes development:  
16

17         “The purposes of this Chapter are to enhance the public welfare, benefit the property  
18 being *developed*, assure compatibility between future housing *development* and the housing units  
19 affordable to persons of very low, low, and moderate income, and ensure that remaining  
20 *developable* land in the County is utilized in a manner consistent with State and local housing  
21 policies and needs.” (MCC, § 18.40.030, italics added.)  
22

23         In short, the County did not err in its interpretation of the Ordinance.

24                 **1.7.2 The County’s decision to exempt the Project from the normal**  
25                         **distribution of affordable housing units was not supported by**  
26                         **substantial evidence.**

27         Finally, Petitioner disputes the Board’s finding that the Project complied with the  
28 Ordinance notwithstanding that it would construct 25 rental units affordable to moderate-income

1 households only. The County claims that “unusual or unforeseen circumstances” justified this  
2 departure from the normal distribution of affordable housing units among households of different  
3 income levels.

4           MCC section 18.40.110.A requires projects to set aside 8% of the total units in the  
5 development for moderate-income households, 6% for low-income households, and an additional  
6 6% for very-low-income households.<sup>9</sup> The Ordinance also provides that this distribution may be  
7 departed from where “as a result of unusual or unforeseen circumstances, it would not be  
8 appropriate to apply, or would be appropriate to modify, the requirements of this Chapter . . .  
9 based on substantial evidence, supporting that determination.” (MCC, § 18.40.050.B.2.)

10           Here, the Board found “unusual or unforeseen circumstances” present. Although not  
11 expressly stated, it appears the Board concluded that the reduction in the area unit cap effected  
12 by the County’s 2013 amendment to the CVMP was the relevant unforeseen circumstance.<sup>10</sup>  
13 Thus, the Board cited the applicant’s representation “that due to the significant reduction in units  
14 proposed between the Project and the Alternative it is not financially feasible to comply with the  
15 Inclusionary Ordinance’s requirements, particularly related to providing low and very low-  
16  
17  
18

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19           <sup>9</sup> The Ordinance defines these terms as referring to households “with an annual income  
20 which does not exceed one hundred twenty (120) percent of the median income, adjusted for  
21 household size” [moderate-income household]; “with an annual income which does not exceed  
22 HUD’s annual determination for low income households with incomes of eighty (80) percent of  
23 the median income, adjusted for household size” [low-income household]; and “with an annual  
24 income which does not exceed HUD’s annual determination for very low income households  
25 earning fifty (50) percent of median income, adjusted for household size” [very-low-income  
26 household]. (MCC, § 18.40.040.Q, T, and BB.)

27           <sup>10</sup> By contrast, the County’s choice of the 130-unit Alternative alone was not an “unusual or  
28 unforeseen circumstance.” The County had the power to approve the Project or an alternative,  
especially if the County adjudged that alternative less harmful to the environment than the  
Project. (Pub. Resources Code, §§ 21002-21002.1, 21004; Guidelines, § 15002, subd. (a)(3);  
*Dusek v. Redevelopment Agency* (1985) 173 Cal.App.3d 1029, 1041 [rejecting claim that CEQA  
was violated where the agency approved a narrower project than the one described in an EIR].)

1 income units.” (AR 143.) In support of this finding, the County referenced two letters from local  
2 banks, both of which state that bank financing would not be available if the Alternative complied  
3 with the Ordinance’s requirements. (AR 20413-20414.) Petitioner contends that this evidence is  
4 insufficient because, inter alia, it is unsure “what these letters are responding to and the nature of  
5 the request.”<sup>11</sup> Petitioner does not elaborate, but the court agrees with its underlying sentiment;  
6 the bank letters lack sufficient foundation to constitute substantial evidence.  
7

8 “Substantial evidence”<sup>12</sup> requires evidence of ‘ponderable legal significance.’ [Citation.]  
9 It is not synonymous with ‘any’ evidence.” (*Newman v. State Personnel Bd.* (1992) 10  
10 Cal.App.4th 41, 47.) Thus, “[s]ubstantial evidence is relevant evidence that a reasonable mind  
11 might accept as adequate to support a conclusion. Such evidence must be reasonable, credible,  
12 and of solid value.” (*California Youth Authority v. State Personal Bd.* (2002) 104 Cal.App.4th  
13 575, 584-585, internal citations omitted.) Further, substantial evidence “‘must actually be  
14 ‘substantial’ proof of the essentials which the law requires in a particular case.’ [Citations.]”  
15 (*United Professional Planning, Inc. v. Superior Court* (1970) 9 Cal.App.3d 377, 392-393.)  
16 Expert opinion may constitute substantial evidence, but only if the expert’s opinion is “based on  
17 conclusions or assumptions supported by evidence in the record. Opinion testimony which is  
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19

20 <sup>11</sup> Petitioner further contends that 1) it is “unclear” whether Real Parties “currently have bank  
21 financing for the Project”; and 2) “difficulty obtaining bank financing” is not an unusual or  
22 unforeseen circumstance. Petitioner’s arguments mischaracterize the County’s point. It is  
23 irrelevant whether Real Parties currently have bank financing. The County relies on the letters to  
24 support the applicant’s claim that it would be financially infeasible to comply with the  
25 Ordinance’s prescribed allocation of affordable housing units. Moreover, “difficulty obtaining  
26 bank financing” is not the unusual or unforeseen circumstance at issue. Rather, as stated above,  
27 the amendment of the CVMP’s unit cap and resulting development of the Alternative was the  
28 “unforeseen circumstance” that the applicant argued rendered strict compliance with the  
Ordinance economically infeasible. (See AR 20413-20414.)

26 <sup>12</sup> MCC Chapter 18.40 does not define “substantial evidence.” The court presumes that the  
27 County intended the term to be defined and applied as it has been in other contexts, such as, for  
28 example, in review of a petition for writ for administrative mandate. (Code Civ. Proc., § 1094.5,  
subd. (c).)

1 conjectural or speculative 'cannot rise to the dignity of substantial evidence.' [Citation.]”

2 (*Roddenberry v. Roddenberry* (1996) 44 Cal.App.4th 634, 651.)

3 Neither letter is of “ponderable legal significance” because 1) neither letter explains in  
4 sufficient detail how the “unforeseen circumstance” rendered it economically infeasible for Real  
5 Parties to comply with the Inclusionary Housing Ordinance; and 2) the record does not document  
6 any of the assumptions upon which the relevant opinions are based. (*Newman, supra*, 10  
7 Cal.App.4th at p. 47.) The first letter, from Monterey County Bank, states “the loss in revenue  
8 generated by an increase in the percentage or allocation of inclusionary housing renders your  
9 project economically infeasible to enable us to offer you bank financing. These requested  
10 changes to the inclusionary housing would result in insufficient cash flow and profit necessary to  
11 support bank financing.” (AR 20413.) The letter does not provide any basis for its conclusion of  
12 a potential “loss in revenue.” (*Ibid.*) The letter details neither the revenue the Project would  
13 generate nor the resulting loss in revenue from complying with the Ordinance. Similarly, the  
14 letter speaks of “insufficient cash flow and profit,” but because the bank does not tie these terms  
15 to specific numbers, it is impossible to determine whether this conclusion is reliable. (*Ibid.*)

16 Nor is the 1st Capital Bank letter substantial evidence of financial infeasibility. The Bank  
17 states that financing is “problematic” and that “in discussions” between unnamed parties “we  
18 have considered the inclusion of 6% low and 6% very low levels of affordability for the  
19 inclusionary homes in rendering this determination.” (AR 20414.) The Bank follows with a  
20 conclusory paragraph suggesting that only Real Parties’ preferred outcome “may be considered  
21 to qualify for loan financing.” (*Ibid.*) The letter provides no support for either point.

22 Finally, the County asserts that the Board of Supervisors also based its decision on the  
23 belief that “moderate income housing fit the particular needs of Carmel Valley.” The County  
24 bases this claim on a single statement by a Supervisor made at the December 13, 2016 Board of  
25 Supervisors meeting at which the Alternative was approved. (AR 5485.) There, the Supervisor  
26  
27  
28

1 opined that exempting the Alternative from the normal distribution of affordable housing was  
2 “eminently reasonable” based on, inter alia, “the area’s existent affordable housing including the  
3 Pacific Meadow and more.” (AR 5485:5-8.) The Supervisor offered no further explanation or  
4 supporting facts. (*Ibid.*) Likewise, the County fails to cite to evidence in the record substantiating  
5 the comment. Absent evidentiary support, the comment does not constitute substantial evidence.  
6 (See *California Youth Authority, supra*, 104 Cal.App.4th at pp. 584-585.)  
7

8 Put simply, the conclusory opinions set forth in the bank letters and in the  
9 aforementioned testimony “cannot rise to the dignity of substantial evidence.” (*Roddenberry,*  
10 *supra*, 44 Cal.App.4th at p. 651, citation omitted.)

## 11 **2.0 Petitioner brings several CEQA Claims.**

12 Petitioner raises a number of claims under CEQA. Specifically, Petitioner contends that  
13 1) the EIR’s Project Description is unstable and “shifting”; 2) Real Parties effectively abandoned  
14 the Proposed Project in favor of the Alternative, but feigned otherwise; and 3) the EIR did not  
15 analyze a reasonable range of alternatives.  
16

17 Real Parties respond that 1) the Project Description is not unstable because the 281-Unit  
18 Project and the 130-Unit Alternative are differentiated throughout the EIR; 2) the Project  
19 remained the true project throughout the EIR process; and 3) the EIR analyzed a sufficient range  
20 of legally feasible alternatives.  
21

### 22 **2.1 The EIR’s Project Description is not “shifting” or “unstable.”**

23 Petitioner argues that the EIR’s Project Description “straddles” both the Project and the  
24 Alternative, impermissibly shifting between them, causing confusion, and vitiating the EIR’s  
25 function as a vehicle for public participation in the environmental review process.  
26

27 “The purpose of an environmental impact report is to identify the significant effects on  
28 the environment of a project, to identify alternatives to the project, and to indicate the manner in  
which those significant effects can be mitigated or avoided.” (Pub. Resources Code, § 21002.1.)

1 To meet these goals, an EIR must adequately define the project. “[A]n accurate, stable and finite  
2 project description is the *sine qua non* of an informative and legally sufficient EIR. The defined  
3 project and not some different project must be the EIR’s bona fide subject.” (*County of Inyo v.*  
4 *City of Los Angeles* (1977) 71 Cal.App.3d 185, 199.) “[O]nly through an accurate view of the  
5 project may the public and interested parties and public agencies balance the proposed project’s  
6 benefits against its environmental cost, consider appropriate mitigation measures, assess the  
7 advantages of terminating the proposal and properly weigh other alternatives. [Citation.]” (*San*  
8 *Joaquin Raptor Rescue Center v. County of Merced* (2007) 149 Cal.App.4th 645, 655.) “A  
9 curtailed, enigmatic or unstable project description draws a red herring across the path of public  
10 input.” (*County of Inyo, supra*, 71 Cal.App.3d at pp. 197-198.) Nevertheless, “[t]he CEQA  
11 reporting process is not designed to freeze the ultimate proposal in the precise mold of the initial  
12 project; indeed, new and unforeseen insights may emerge during investigation, evoking revision  
13 of the original proposal.” (*Id.* at p. 199.)

14  
15  
16 “With respect to an EIR’s project description, only four items are mandatory: (1) a  
17 detailed map with the precise location and boundaries of the proposed project, (2) a statement of  
18 project objectives, (3) a general description of the project’s technical, economic, and  
19 environmental characteristics, and (4) a statement briefly describing the intended uses of the EIR  
20 and listing the agencies involved with and the approvals required for implementation.  
21 (Guidelines, § 15124.)” Aside from these four items, the Guidelines advise that the project  
22 description should not ‘supply extensive detail beyond that needed for evaluation and review of  
23 the [project’s] environmental impact.’ (Guidelines, § 15124.)” (*California Oak Foundation v.*  
24 *Regents of University of California* (2010) 188 Cal.App.4th 227, 269-270.)

25  
26 Petitioner’s argument relies heavily on *County of Inyo, supra*, 71 Cal.App.3d 185. There,  
27 the City of Los Angeles proposed to increase groundwater pumping to supply growing water  
28

1 needs. (*Id.* at p. 189.) The EIR initially described the project as “a proposed increase of 51 cfs<sup>13</sup>  
2 in the long-term subsurface extraction rate and an increase of 65 cfs in the high-year rate, these  
3 increases being destined solely for ‘unanticipated’ uses within the Owens Valley.” (*Ibid.*)  
4 However the EIR went on to discuss proposals “far broader than the initially described project”  
5 including a water conservation program, rearrangement of reservoir operations, and the  
6 extraction of groundwater at a significantly higher rate than proposed in the initial project  
7 description. (*Id.* at p. 190.) Further, the EIR shifted between these descriptions repeatedly, as did  
8 the final approval resolution. (*Id.* at pp. 190-191.) Consequently, the court concluded the City’s  
9 “selection of a narrow project as the launching pad for a vastly wider proposal frustrated  
10 CEQA’s public information aims.” (*Id.* at pp. 199-200.)

11  
12 *County of Inyo* is distinguishable. Here, the RDEIR does not shift between differing  
13 descriptions of the project. Instead, the Project Description chapter of the RDEIR demarcates  
14 between the 281-Unit Proposed Project and the 130-Unit Alternative:

15  
16 “The Rancho Cañada Village Project (Proposed Project) would develop an 81-plus-acre  
17 area within the West Course at Rancho Cañada Golf Club in Carmel Valley, California, an  
18 unincorporated area of Monterey County (County). The project site would be comprised of a mix  
19 of residential and recreational uses, including a 281-unit residential neighborhood and 39 acres  
20 of permanent open space and common areas within the 81-plus acres.

21  
22 “The 130-Unit Alternative is proposed as a planned unit development (PUD) on  
23 approximately 82 acres. This alternative proposes similar uses as the Proposed Project but with a  
24 lower number of overall units and lower density.” (AR 1348, fn. omitted.)

25 The RDEIR goes on to note that the Project and the Alternative are proposed for the same  
26 geographical location. (AR 1349.) However, it then describes them separately. The RDEIR

27  
28 <sup>13</sup> The term “cfs” denotes “cubic feet per second” of water extracted.

1 begins with a detailed description of the Project, setting forth the distribution of proposed  
2 housing, open space and common areas, a restoration and mitigation plan, neighborhood parks, a  
3 circulation framework, utilities, drainage, design guidelines, and construction plans. (AR 1352-  
4 1364.) The RDEIR then presents a similar level of detail as to the Alternative. (AR 1364-1373.)  
5 Throughout the RDEIR, the Project and the Alternative are clearly differentiated (see, e.g., AR  
6 18430), and the Project is consistently identified (See, e.g. AR 1315, 1352 [describing the  
7 Project as “a 281-unit residential neighborhood”]; 1840).<sup>14</sup>

9 Accordingly, Petitioner’s claim that the Project Description is “unstable” is meritless.

10 **2.2 The EIR’s Project Description is not accurate.**

11 Petitioner also argues that the EIR’s Project Description is inaccurate to the extent it  
12 suggests that the Proposed Project, not the Alternative, is the true project.

14 “The EIR’s function is to ensure that government officials who decide to build or approve  
15 a project do so with a full understanding of the environmental consequences and, equally  
16 important, that the public is assured those consequences have been taken into account.”  
17 (*Vineyard Area Citizens for Responsible Growth, Inc. v. City of Rancho Cordova* (2007) 40  
18 Cal.4th 412, 449.) These goals cannot be accomplished without an accurate project description.  
19 (*County of Inyo, supra*, 71 Cal.App.3d at p. 199 [“an accurate, stable and finite project  
20 description is the *sine qua non* of an informative and legally sufficient EIR”].) “An accurate  
21 project description is necessary for an intelligent evaluation of the potential environmental  
22 effects of a proposed activity.” (*San Joaquin Raptor, supra*, 27 Cal.App.4th at p. 730.)

24 As the RDEIR recognized, the 2010 General Plan and 2013 amendment to the CVMP  
25 effectively limited residential subdivision development in Carmel Valley to 166 new units. (AR

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26 <sup>14</sup> Additionally, the Project did not proceed from a narrow description to a “vastly wider  
27 proposal.” (*Id.* at pp. 199-200.) In fact, the reverse is true. The Alternative is significantly  
28 narrower than the Project; it was designed in part to reduce Project impacts. (AR 1365, 18541,  
18768.)

1 1319.) To facilitate the Project, then, “the residential unit cap from residential subdivision would  
2 need to be raised to 305 units.” (*Ibid.*) Shortly thereafter, Real Parties developed the 130-unit  
3 Alternative. (AR 18768.)

4 Real Parties provided the County with extensive information on the Alternative,  
5 including proposed maps, property development standards, and a detailed description of the  
6 specific impacts the Alternative would alleviate. (AR 18768-18782.) Real Parties asked the EIR  
7 consultant to “provide an equal level of analysis of the 130-unit alternative” and the Project. (AR  
8 17142.) However, to accomplish this task, the EIR consultant was forced to put the analysis of  
9 the Alternative in the “Project Description” chapter along with the Project, rather than in the  
10 Alternatives chapter. (*Ibid.*) Thus, the RDEIR’s “Project Description” chapter discussed both the  
11 Project and the Alternative, in significant, and roughly equivalent, detail. (AR 1321, 1348-1372.)

12 The remaining six alternatives were described as before, in much less detail, in the  
13 RDEIR’s alternatives chapter. (AR 1843-1856.) Neither Real Parties nor the County offer any  
14 explanation why the Alternative was treated differently than the other six alternatives. Only the  
15 Alternative was analyzed “at a level of detail equal to that for the Proposed Project.” (AR 1321.)  
16 Of the remaining six alternatives,<sup>15</sup> only two, Alternatives 1 (the No-Project Alternative) and 4  
17 (the Low Density Alternative) would satisfy the CVWP’s unit cap. (AR 1322-1323, 1325.) The  
18 RDEIR rejected both of these alternatives for failure to meet basic project objectives. (AR 1322,  
19 1325.) Perhaps most tellingly, the Project itself failed to meet the CVWP’s unit cap, a point the  
20 County expressly discussed in its findings. (AR 135.)

21 Real Parties note that CEQA does not prohibit the County from structuring its  
22 EIR in this fashion. Indeed an EIR need not follow any particular format so long as it contains  
23 the information required by CEQA and the Guidelines. (Cal. Code of Regs., tit. 14 (Guidelines),

24  
25  
26  
27  
28 <sup>15</sup> As mentioned *ante*, the FEIR subsequently eliminated one of these alternatives due to a  
change in ownership of necessary land. (See fn. 2, *supra*; AR 134, 3803-3806, 3808-3809.)

1 § 15120, subd. (a).) Lead agencies may tailor their EIRs “to different situations and intended  
2 uses . . . consistent with the guidelines . . .” (Guidelines, § 15160.) Here however, the error is  
3 not specifically the way in which the EIR is structured. Rather, the EIR’s structure evinces that  
4 the Alternative was the actual project under consideration.

5 “The defined project and not some different project must be the EIR’s bona fide subject.”  
6 (County of Inyo, supra, 71 Cal.App.3d at p. 199.) The Project’s history demonstrates that the  
7 “Alternative” effectively replaced the Project as the true project under consideration, and that  
8 consequently, the existing Project Description is inaccurate. Absent an accurate project  
9 description, the EIR could not fulfill its central function to provide sufficient information to  
10 allow the public and decision-makers to “ascertain the project’s environmentally significant  
11 effects, assess ways of mitigating them, and consider project alternatives.” (Sierra Club, supra,  
12 163 Cal.App.4th at p. 533; County of Inyo, supra, 71 Cal.App.3d at pp. 192-193.) In short, the  
13 EIR’s inaccurate project description violated CEQA.<sup>16</sup>

### 14 2.3 The EIR’s Alternatives analysis does not satisfy CEQA.

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21 <sup>16</sup> Petitioner asserts a number of other indicators in the record in support of this conclusion.  
22 None are persuasive. For example, Petitioner observes that the vesting tentative map approved  
23 by the Board was not the original map, but rather, “a wholly new map” for the Alternative. (AR  
24 98.) However, CEQA authorizes the County to adopt an alternative rather than the project  
25 proposed, particularly if the County determines that alternative would be less harmful to the  
26 environment. (Pub. Resources Code, §§ 21002-21002.1, 21004; Guidelines, § 15002, subd.  
27 (a)(3).) “Decisionmakers . . . have the flexibility to implement that portion of a project which  
28 satisfies their environmental concerns.” (Dusek, supra, 173 Cal.App.3d at p. 1041.) Additionally,  
Petitioner erroneously suggests that the Alternative, rather than the Project was considered by the  
Planning Commission. In fact, the staff report reveals that both were considered. (AR 4104-  
4119.) The page that Petitioner cites in the record (AR 4123) is a page from staff’s Draft  
Resolution to the Planning Commission. Regardless, the court’s conclusion makes it unnecessary  
to discuss these and Petitioner’s other arguments along these lines.

1 Finally, Petitioner argues that the six alternatives analyzed in the EIR<sup>17</sup> do not represent a  
2 reasonable range of alternatives. The court notes that, because the Alternative was actually the  
3 Project, only five true alternatives were considered. The court also notes that the alternatives  
4 analysis was fatally skewed because it was undertaken in comparison to the Project, not the  
5 Alternative. (Pub. Resources Code, § 21002.1 [one purpose of an EIR is “to identify alternatives  
6 to the project”]; Guidelines, § 15126.6 [“[t]he EIR shall include sufficient information about  
7 each alternative to allow meaningful evaluation, analysis, and comparison *with the proposed*  
8 *project*”].) But even were this not the case, the alternatives analysis would still be deficient.

10 Petitioner contends that three of the alternatives were infeasible because they proposed  
11 densities in excess of the 190-unit cap established by CVMP Policy CV-1.6. Real Parties respond  
12 that the settlement did not divest the County’s land use authority or police power to approve  
13 alternatives in excess of the cap through a general plan amendment, and hence the alternatives  
14 were legally feasible.

16 “The core of an EIR is the mitigation and alternatives sections.” (*Citizens of Goleta*  
17 *Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 565.) An EIR must examine “a range of  
18 reasonable alternatives.” (Guidelines, § 15126.6, subd. (a).) CEQA establishes no categorical  
19 legal imperative as to the scope of alternatives to be analyzed in an EIR; no set number of  
20 alternatives is necessary to constitute a legally adequate range. (*Citizens of Goleta Valley, supra*,  
21 52 Cal.3d at p. 566.) The court will uphold the County’s “selection of alternatives unless it is  
22 ‘manifestly unreasonable’ or inclusion of an alternative does not ‘contribute to a reasonable  
23 range of alternatives.’ [Citation.]” (*Bay Area Citizens v. Association of Bay Area*  
24 *Governments* (2016) 248 Cal.App.4th 966, 1018.) This determination is “subject to a rule of

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27 <sup>17</sup> Petitioner focuses on the RDEIR, which contained *seven* alternatives, overlooking that the  
28 change to *six* alternatives did not occur until the FEIR. (See fn. 2, *supra*.) This distinction does  
not affect the court’s analysis, however.

1 reason.” (*Laurel Heights Improvement Assn. v. Regents of University of California* (1988) 47  
2 Cal.3d 376, 407.)

3           Additionally, the alternatives examined must be “potentially feasible.” (Guidelines, §  
4 15126.6, subd. (a).) For these purposes, “feasible” is defined as “capable of being accomplished  
5 in a successful manner within a reasonable period of time, taking into account economic,  
6 environmental, legal, social, and technological factors.” (Guidelines, § 15364.) “[A]n alternative  
7 is not feasible where there is no way to legally implement it. [Citation.]” (*Uphold Our Heritage*  
8 *v. Town of Woodside* (2007) 147 Cal.App.4th 587, 602.)

9  
10           As discussed *ante*, CVMP Policy CV-1.6 limits development in the relevant area to 190  
11 new units, for which 24 are already accounted. (AR 14031-14032.) And, as Petitioner suggests,  
12 three of the five true alternatives proposed exceed the Policy’s unit cap; both the FEIR and the  
13 County’s findings acknowledge that approving any of these alternatives would require a General  
14 Plan amendment. (AR 135-136, 3738.) It is also true that the settlement agreement between  
15 Petitioner and the County does not “restrict the County’s land use authority or police power in  
16 any way with respect to future legislative, administrative or other actions by the County.” (AR  
17 19972.) Hence, Real Parties are correct that the three alternatives were legally feasible. Indeed,  
18 had the Board approved one of the three relevant alternatives, it could have simultaneously  
19 amended the general plan to raise the unit cap. The Board took exactly this step by amending  
20 CMVP Policy CV-1.27 as part of its Resolution certifying the FEIR and approving a Combined  
21 Development Permit for the Alternative. (AR 98, 102.)

22  
23           But the mere fact that the three relevant alternatives were legally feasible does not mean  
24 they were *practically* feasible. Amending the General Plan to enlarge the cap would have  
25 violated the County’s settlement agreement with Petitioner. (AR 3738.) While the County had  
26 the power to do this, it is clear that it did not have the will. The County’s own findings explain  
27 that the inconvenience, expense, and political costs to the County were too great to make any of  
28

1 the four relevant alternatives “capable of being accomplished in a successful manner within a  
2 reasonable period of time, taking into account economic, environmental, legal, social, and  
3 technological factors.” (Guidelines, § 15364; see *Citizens for Open Government v. City of*  
4 *Lodi* (2012) 205 Cal.App.4th 296, 313 [EIR properly rejected alternative uses for a site because  
5 the site was zoned only for a particular use].) Hence, as to Alternative 3, which proposed a 186  
6 unit project (AR 1849-1852), the County explained:

8 “The 190-unit cap was instituted as a result of settlement of litigation and retaining the  
9 cap avoids unnecessary controversy over the maximum level of residential development  
10 that is allowable within the CVMP area and avoids potential renewal of litigation under  
11 the settlement agreement. From a policy standpoint, the Medium-Density Alternative is  
12 not acceptable because it does not comply with the CVMP unit cap” (AR 135).

13 The County drew the same conclusion as to Alternatives 5 and 6, both of which proposed 281-  
14 unit projects (AR 136), and as to the “Proposed Project” itself (AR 135).

15 Only two alternatives, Alternatives 1 (the No-Project Alternative) and 4 (the Low Density  
16 Alternative) would satisfy the CVWP’s unit cap. (AR 1322-1323, 1325.) Although CEQA  
17 requires an EIR to explore a “no project” alternative (Guidelines, § 15126, subd. (e)), that  
18 “alternative” is not a true alternative because, by definition, it would meet “*almost none* of the  
19 project’s objectives.” (*Watsonville Pilots Assn v. City of Watsonville* (2010) 183 Cal.App.4th  
20 1059, 1090, italics in original.) Consequently, the EIR effectively examined only a single  
21 feasible alternative.

22 CEQA requires that an EIR provide “enough of a variation to allow informed decision  
23 making. [Citation.]” (*Mann v. Community Redevelopment Agency* (1991) 233 Cal.App.3d 1143,  
24 1151.) A single alternative cannot fairly be termed a “reasonable range of potentially feasible  
25 alternatives that will foster informed decision-making and public participation.” (Guidelines, §  
26 15126.6, subd. (a).) The court therefore concludes that the County’s selection of alternatives was  
27 “manifestly unreasonable,” in violation of CEQA. (*Federation of Hillside and Canyon*  
28 *Associations v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1265.)

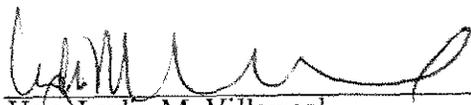
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*Disposition*

The petition for writ of mandate is partially granted. Petitioner's request for a writ compelling the County to develop and promulgate the DES is denied. The remainder of the requested writ relief is granted.

The court directs Petitioner's attorney to prepare an appropriate judgment and writ consistent with this ruling, present them to opposing counsel for approval as to form, and return them to this court for signature.

Dated: 4/24/18

  
\_\_\_\_\_  
Hon. Lydia M. Villarreal  
Judge of the Superior Court

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**CERTIFICATE OF MAILING**  
**(Code of Civil Procedure Section 1013a)**

I do hereby certify that I am employed in the County of Monterey. I am over the age of eighteen years and not a party to the within stated cause. I placed true and correct copies of the **Intended Decision** for collection and mailing this date following our ordinary business practices. I am readily familiar with the Court's practices for collection and processing correspondence for mailing. On the same day that correspondence is placed for collection and mailing, it is deposited in the ordinary course of business with the United States Postal Services in Salinas, California, in a sealed envelope with postage fully prepaid. The names and addresses of each person to whom notice was mailed is as follows:

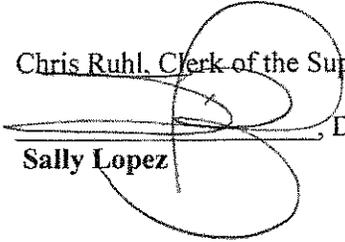
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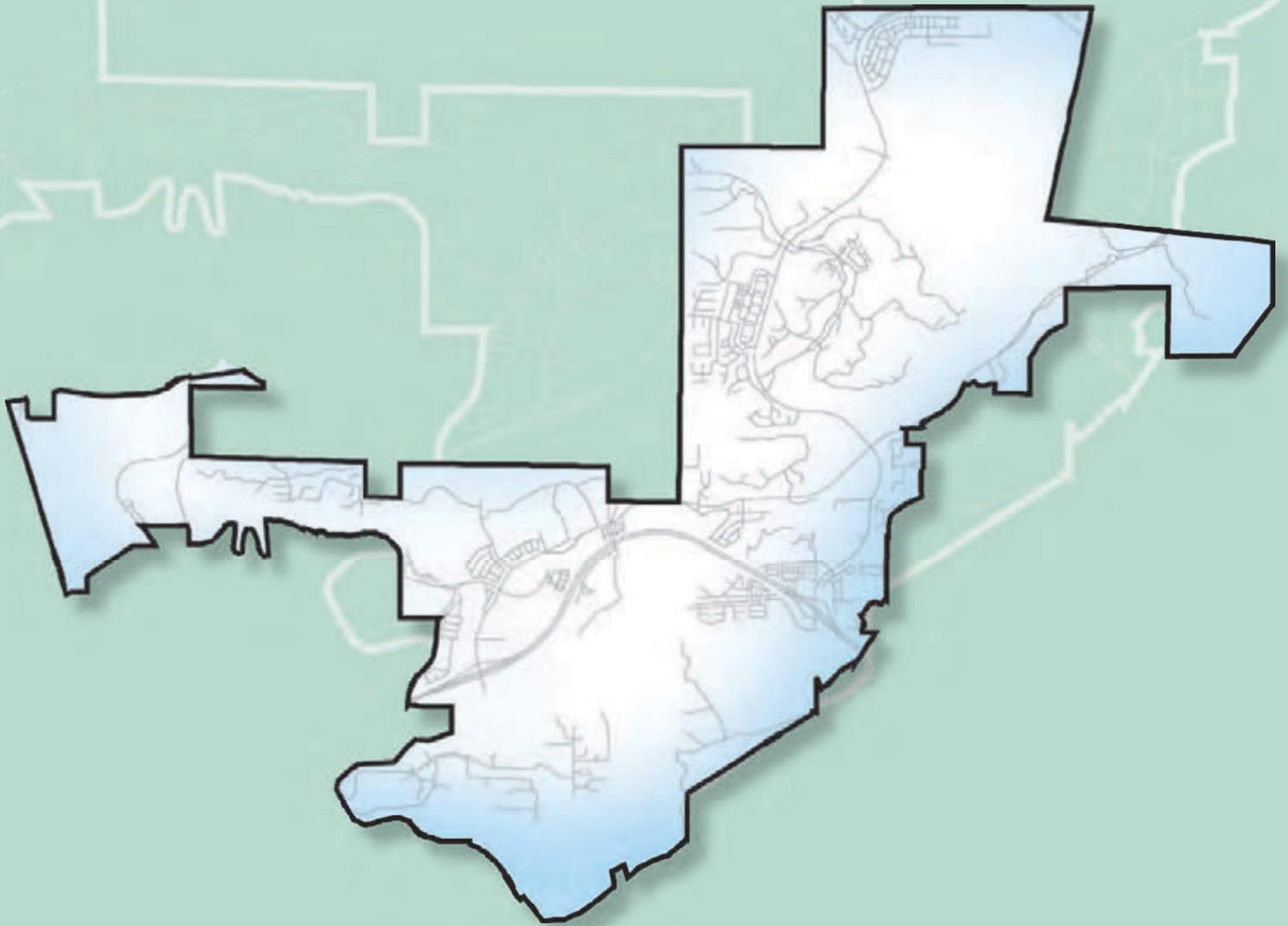
Dated: APR 24 2018

Chris Ruhl, Clerk of the Superior Court,  
Sally Lopez, Deputy Clerk



**ENCLOSURE 3**

# *North City Future Urbanizing Area Framework Plan*



THE CITY OF SAN DIEGO

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**NORTH CITY FUTURE  
URBANIZING AREA  
FRAMEWORK PLAN**

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City of San Diego Planning Department  
202 C Street, MS 4A  
San Diego, CA 92101



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## **7. AFFORDABLE HOUSING AND HOUSING FOR PERSONS WITH SPECIAL NEEDS**

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**Section 3, Land Use**, defines the location, amount, and type of housing to be built in the NCFUA. Principles for the design of residential areas are included in **Section 4, Urban Design**. The principles in this section address housing needs that are unlikely to be satisfied by the market, but that must be met in order to create diverse communities meeting the needs of San Diego residents.

### **7.1 GUIDING PRINCIPLES: HOUSING**

- 7.1a Include housing affordable to all income levels in the NCFUA.
- 7.1b Provide the area's "fair share" of affordable housing and housing for persons with special needs, consistent with the City's Housing Element and the Regional Fair Share Distribution prepared by SANDAG.
- 7.1c Recognize that market economics will not result in the production of housing units for low-income households without specific requirements that they be included in development projects.
- 7.1d Funds collected by the City in lieu of construction of affordable dwelling units within the NCFUA shall be retained for future construction of affordable units within the NCFUA and shall not be distributed for use citywide.

### **7.2 IMPLEMENTING PRINCIPLES: INCLUSIONARY HOUSING REQUIREMENTS**

- 7.2a Apply to residential development projects the inclusionary requirements in effect for the NCFUA under the City's planned residential development provisions. These requirements specify that residential development projects must provide housing on-site, affordable to low-income families as certified by the San Diego Housing Commission.

This requirement can be fulfilled by: 1) a set aside of no less than 20 percent of the units for occupancy by, and at rates affordable to, families earning no more than 65 percent of median area income, adjusted for family size, or 2) a dedication of developable land of equivalent value. The affordable units must remain affordable for the life of the unit and should be phased proportionate to development of the market-rate units. The bedroom composition of the affordable units should be similar to that of the market-rate units. Developers of projects with ten or fewer housing units and projects falling within the estate and very low-density residential category may, at the discretion of the City, satisfy the requirements of the inclusionary program by donating to the City an amount of money equivalent to the cost of achieving the level of affordability required by the inclusionary program.

- 7.2b Affordable units should be dispersed throughout the NCFUA, primarily in or near the compact communities.
- 7.2c In planning for the NCFUA, recognize that the mandated level of affordability will require that developers be granted a density increase of 25 percent over the otherwise maximum allowable residential density, as well as at least one additional concession or incentive as described in California Government Code section 65913.4. Subarea planning studies should anticipate the awarding of the density bonus in analyzing demand for public facilities and in projecting future population.
- 7.2d If the City of San Diego adopts a citywide inclusionary housing program, the citywide program will take precedence.
- 7.2e If the City of San Diego adopts a citywide inclusionary housing program that includes measures to offset the cost of providing affordable housing, such as incentives relating to permit processing, development standards, and project financing, these offsets should apply in the NCFUA.

### **7.3 IMPLEMENTING PRINCIPLES: HOUSING FOR PERSONS WITH SPECIAL NEEDS**

- 7.3a Consistent with State Law (Welfare and Institutions Code Section 5115 et seq), recognize the 24-hour care of six or fewer mentally disordered or otherwise handicapped persons as residential use. Therefore, facilities caring for such persons in residential structures are not required to obtain conditional use permits. (However, state licensing is required in all cases).
- 7.3b Recognize the need for group housing and housing for persons with special needs or desires. Such housing can include congregate care for elderly persons, single-room occupancy hotels, housing for temporary workers, housing with supportive services such as daycare built into the development, and co-housing (an alternative form of housing which combines individual units with facilities for shared meals, child care and other support services) by establishing that, such uses are welcome in the NCFUA in areas designated by the Framework Plan for buildings and activities of compatible type and intensity. Encourage the siting of such housing during subarea plan preparation.
- 7.3c Encourage developers to work with builders and operators of group housing during subarea and project planning, and to integrate such housing into their projects.

**LL-19**

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May 14, 2018

## VIA EMAIL

William Witt, Esq., Sr. Deputy County Counsel  
Office of County Counsel  
County of San Diego  
County Administration Center  
1600 Pacific Highway, Room 355  
San Diego, CA 92101  
Email: [william.witt@sdcounty.ca.gov](mailto:william.witt@sdcounty.ca.gov)

**Re: Enforcement of County Contracting Requirements for Newland Sierra Project**

Dear Mr. Witt:

I am writing on behalf of my client Golden Door Properties LLC (“Golden Door”) regarding what appears to be the use of unauthorized/unapproved consultants for the Newland Sierra Project environmental impact report (“EIR”). We understand that you may be handling legal matters regarding the County staff’s processing of the developer’s application for the Newland project. This letter concerns Newland’s compliance with the County of San Diego’s CEQA contracting rules, as set forth in the County’s officially approved CEQA Guidelines. I am writing to you to request that processing of this project halt until this matter is resolved. (If you are not the County Counsel responsible for this type of matter, please forward this letter to the individual in your office who would be responsible for handling this matter.)<sup>1</sup>

The County of San Diego CEQA Guidelines<sup>2</sup> state clearly that consultants used to author technical studies in support of EIRs for projects within the County’s jurisdiction must be pre-approved through inclusion on the County’s “CEQA Consultants List for Privately Initiated

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<sup>1</sup> I have also cc’d your client to this letter in case your office is not the appropriate office to initially handle this matter.

<sup>2</sup> Available at <https://www.sandiegocounty.gov/content/dam/sdc/pds/docs/CEQAGDLN.pdf> (“All technical studies and environmental impact reports (EIRs) for privately initiated projects not prepared by staff shall be prepared by a consultant on the County of San Diego CEQA Consultant List for Privately Initiated Projects, to be further known as the ‘CEQA Consultant List.’”).

Projects,”<sup>3</sup> unless the retention of such consultants have been secured “through the standard County procurement processes.”

These approved consultant list requirements have been included in the County’s CEQA Guidelines to assure that the consultants retained are objective, qualified, and retained by the County using fairly applied and standard consultant contract terms in any agreement with the County.<sup>4</sup> The contracting rules and procedure set forth in the County’s CEQA Guidelines ensure that County has examined the record of performance, professional qualifications, and specialized experience, among other things, of potential consultants, that staff have access to all the relevant consultant documents and work product, and as a result the public is given access to these same documents through the Public Records Act. Failure to hire the approved consultants on the list, with the approved standard form contracts, frustrates the public’s interest in objectivity and transparency in work on public documents.

We also note that there has been recently a considerable amount of controversy regarding what appears to be the County’s plan to “bundle” or “batch” several General Plan amendment applications this summer in order to avoid new potential Supervisors and/or potential voter initiatives that may be chosen by the voters this fall.<sup>5</sup> The County’s unprecedented rush to approve these projects has required short-circuiting either or both of the County’s traditional planning practices (such as meaningful involvement and consultation of community sponsor groups) and the County’s clearly expressed legal requirements (such as the CEQA contracting requirements discussed herein). We suspect, therefore, that the County may be engaged in an improper pattern and practice of allowing EIR technical studies to be authored by unauthorized and unvetted consultants. Can you confirm that no other project that may be scheduled to go before the Planning Commission or the Board of Supervisors this summer or fall has used, in the project draft or final EIR, consultants not listed on the County’s approved CEQA consultant list?

Upon our review of the Newland draft EIR and the County’s disclosure so far of documents in relation to a request under the Public Records Act, it seems clear that the Newland draft EIR has violated the clear requirements of the County’s CEQA Guidelines.

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<sup>3</sup> Available at

<https://www.sandiegocounty.gov/content/dam/sdc/pds/ProjectPlanning/docs/CeqaConsultantsList.pdf>.

<sup>4</sup> See, e.g., County of San Diego CEQA Guidelines, at A-6–A-7 (“Consultants may be removed from the CEQA Consultant List at any time for any of the following reasons: ... Quality of judgment, i.e., objective and scientific, regarding determination of environmental significance of impacts.”), & Attachment B (Form Memorandum of Understanding Environmental Impact Report / Technical Study Preparation).

<sup>5</sup> See, e.g., J. Harry Jones, *Provision allowing county to expedite housing projects draws ire* *Provision allowing county to expedite housing projects draws ire*, S.D. UNION TRIB. (May 12, 2018), available at <http://www.sandiegouniontribune.com/business/growth-development/sd-no-development-bundle-20180504-story.html>.

In particular, we noted that the following technical studies offered in support of the Newland EIR do not have authors that appear on the County’s “CEQA Consultants List for Privately Initiated Projects”:

| <b>Name</b>                                    | <b>Firm</b>           | <b>Topic Area</b>        | <b>EIR Reference</b>                                                                                               |
|------------------------------------------------|-----------------------|--------------------------|--------------------------------------------------------------------------------------------------------------------|
| Unspecified                                    | Ecology Artisans      | Agricultural Resources   | Appendix GG, Newland Sierra Agricultural Alternative Report                                                        |
| Robert Stroh                                   | Leighton & Associates | Groundwater              | Appendix J-4, Groundwater Resources, Newland Sierra, San Diego County, California                                  |
| Unspecified                                    | Fusco Engineering     | Transportation & Traffic | Appendix HH, Newland Sierra Parkway Feasibility Study, Evaluation of Alternatives to Widening of Deer Springs Road |
| Katy Cole, Greg O’Donnell, and Ronald T. Milam | Fehr & Peers          | Transportation & Traffic | Appendix R-2, Newland Sierra VMT Analysis to Respond to SB 743                                                     |
| Katy Cole, Ryan Caldera                        | Fehr & Peers          | Transportation & Traffic | Appendix R-3, Newland Sierra TDM Program - VMT Reduction Evaluation                                                |

Though we received some CEQA contracts in response to our October 10, 2017 request under the Public Records Act, we noted that there were no contracts disclosed in regards to the consultants listed above.<sup>6</sup>

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<sup>6</sup> On October 10, 2017, my firm requested under the Public Records Act “Any and all documents submitted to the County pursuant to the aforementioned contracts or agreements,” among other categories of documents. On October 20, this was subsequently confirmed to the County as including “all documents and communications in the County’s possession provided by such third party to the County, provided by the County to that third party, or otherwise shared between the County and that third party pertaining to the Newland Sierra Project’s environmental review.” After receiving a relatively limited disclosure of documents in October and November 2017, I inquired as to the completeness of the County’s disclosure in an email letter to the County on April 10, 2018. I have yet to receive a substantive response to my April inquiry other than that a response is forthcoming, and so I assume that the County does not have any additional contracts responsive to the October 10th request. To be clear, we still consider the County’s disclosure in response to the October 10 request to have been inadequate and still await the County’s further response or disclosure. Finally, as you know, we prefer to raise our client’s concerns as early as possible in the process. It seems that sufficient time has passed, given our multiple requests under the Public Records Act, to presume that the County does not have evidence that the unauthorized consultants noted herein were properly retained pursuant to the County’s CEQA Guidelines (i.e., through inclusion on the approved list or retention “through the standard County procurement processes.”)

Because the County's CEQA Guidelines clearly require the use of specifically authorized consultants for these issue areas, the Newland EIR may not incorporate these technical studies and cannot proceed in its current form. Fortunately, we believe that the County has options that may resolve this problem, going forward:

*Option 1:* Halt processing of the Newland project until the County amends its approved CEQA consultants list to include the consultants listed above and each of the consultants noted above execute the standard contract as described in the County's CEQA Guidelines. Upon execution of any new contract, the consultant should review, revise, and update his/her work on the Newland project following the requirements of the County's contracting rules, as well as provide access to all his/her documents used for this work product to County staff as required by that contract. The revised and updated work should be made available to the public, as well as the documents made available to County staff, prior to any action on the Newland project by the Planning Commission.

*Option 2:* Halt processing of the Newland project, delete the technical studies noted above from the Newland EIR, provide Newland the opportunity to provide whatever analysis County staff believes is necessary to replace the deleted technical studies but using approved CEQA consultants, and recirculate the draft EIR for a new round of public review and comment pursuant to the CEQA Guidelines.

We believe that further processing and/or certification of the Newland EIR using these unauthorized consultants violates the County's clear CEQA consulting contracting rules. We hope that the County will remedy this serious error by halting processing the Newland project until the Newland EIR comes into compliance, either by amending the approved consultants list or by re-doing the affected technical studies and EIR analysis using approved consultants.

We would appreciate a response to this letter by May 23, 2018, so we can determine how best to proceed. If we do not hear from you by then, we will assume that the County intends to take no action and will proceed with processing the Newland EIR using these unauthorized consultants and technical studies, and we will proceed accordingly, which may include seeking judicial intervention for enforcement of its CEQA contracting rules.<sup>7</sup>

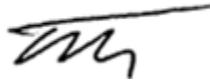
Please include this comment letter in the administrative record for the project, and thank you for your time and attention to this matter.

---

<sup>7</sup> Judicial intervention is warranted presently, since the Newland EIR has been released using unauthorized consultants, i.e., in violation of the County's CEQA Guidelines. Therefore, waiting to challenge the Newland EIR on this basis only after the County has rendered its decision on the project is not an adequate remedy. As the case law demonstrates, a local government's CEQA Guidelines are enforceable. (See, e.g., *Benton v. Board of Supervisors* (1991) 226 Cal.App.3d 1467, 1474-75; *Kennedy v. City of Hayward* (1980) 105 Cal.App.3d 953, 960 & fn.10; *AAGLA v. City of Los Angeles* (2001) 90 Cal.App.4th 1162, 1173; *California Bldg. Indus. Ass'n v. Bay Area Air Quality Mgmt. Dist.* (2016) 2 Cal.App.5th 1067, 1088; see also *Golden Door Properties, LLC v. County of San Diego* (37-2016-00037402, Apr. 28, 2017) Superior Court San Diego, Minute Order, at p. 8.)

LATHAM & WATKINS<sup>LLP</sup>

Very truly yours,



Taiga Takahashi  
of LATHAM & WATKINS LLP

cc: Mark Wardlaw, County of San Diego PDS  
Darin Neufeld, County of San Diego PDS  
Ashley Smith, County of San Diego PDS  
William Pettingill, Chief Deputy County Counsel  
Claudia Silva, Assistant County Counsel  
Stephanie Saathoff, Clay Co.  
Denise Price, Clay Co.  
Clif Williams, Latham & Watkins  
Christopher Garrett, Esq., Latham & Watkins  
Kathy Van Ness, Golden Door

**LL-20**

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May 21, 2018

**VIA EMAIL**

Ed Pert  
Regional Manager, South Coast Region  
California Department of Fish and Wildlife  
3883 Ruffin Road  
San Diego, CA 92123

Mendel Stewart  
Field Supervisor  
United States Fish and Wildlife Service  
2177 Salk Avenue, Suite 250  
Carlsbad, California 92008

**Re: Newland Sierra Project Conflicts with General Plan Collaboration Requirements**

Dear Mr. Pert and Mr. Stewart:

As you know, we represent Golden Door Properties, LLC (“Golden Door”), a world-class resort and agricultural operation in rural Twin Oaks Valley. The Golden Door has restored farming and beekeeping on its property, including the replanting of many new trees on the property—sharing its bounty at a community Farm Stand and through retail operations. The Golden Door has raised many concerns with the County about the proposed Newland Sierra Project and the impacts of adding urban density the size of the City of Del Mar in our rural community.

As discussed in greater detail in our comment letter on the Draft EIR, the Newland Sierra Project site is located on an important core habitat area that provides for regional linkage. It is located within pre-approved mitigation area (“PAMA”) land in the Draft North County Multiple Species Conservation Program (“NC MSCP” or “Plan”) and surrounded by PAMA on all sides. (See **Attachment A** [PAMA map].) The Project Site is the second largest block of contiguous natural habitat west of I-15 in PAMA. The draft NC MSCP habitat evaluation model indicates habitat on and adjacent to the Project Site is moderate, high, and very high quality habitat. The Newland Sierra Project threatens to fragment important core habitat area and sever regional wildlife connections.

We are concerned that the County has violated its own General Plan requirements to consult with federal and state agencies, such as yours, regarding the project’s potential environmental impacts in connection with its analysis of the Newland Sierra Project. San Diego

County General Plan Policy COS-1.4 requires collaboration with adjacent federal and state agencies, providing in full:

Collaborate with other jurisdictions and trustee agencies to achieve well-defined common resource preservation and management goals.

Therefore, the County was clearly required to collaborate with the California Department of Fish and Wildlife (“CDFW”) and the United States Fish and Wildlife Service (“FWS”).

The Draft EIR for the Newland Sierra Project indicates the County has failed to satisfy this requirement because it concludes that the policy is “not applicable,” as the “project applicant supports the County’s collaboration with other jurisdictions and trustee agencies.” (Draft EIR, Appendix DD, p. DD-16.) As an initial matter, it is a faulty conclusion to determine that Policy COS-1.4 does not apply to the Project because it only applies to the County. Ultimately, the County is responsible for the content of the EIR. (See *Friends of La Vina v. Cty. of Los Angeles*, 232 Cal.App.3d 1446; see also Pub. Res. Code § 21082.1, [“[A] draft EIR shall be prepared directly by, or under contract to, a public agency” and “draft documents” must reflect the independent judgment of the County.]; CEQA Guidelines § 15084(c) [agency required to “subject the draft to the agency’s own review and analysis.”].) Therefore, the County must abide by its General Plan, inclusive of Policy COS-1.4, in its analysis of the Newland Sierra Project and collaborate with your agencies.

In addition, the Draft EIR claims that the project applicant and the County have “coordinated and consulted” with the wildlife agencies. But, while meetings may have occurred, there is no evidence that the Project design has been altered to accommodate agency comments or that the County and Project applicant have reached an agreement with the agencies. Caselaw is clear that mere consultation does not amount to “collaboration.” In *California Native Plant Society v. City of Rancho Cordova* (2009) 172 Cal.App.4th 603, the court determined that the project was inconsistent with the city’s general plan’s policy requiring “consultation” and “coordination” with the state and federal wildlife agencies. There, the court noted that the city approved the project despite FWS’ “repeated objections that the proposed biological resource mitigation measures were inadequate,” analyzing the definitions of “coordinate” and “consultation” to determine that coordination requires more than just mere solicitation and consideration of input:

[W]e believe that even under this definition the concept of “coordination” means more than trying to work together with someone else . . .

Although the City suggests “coordination” is synonymous with “consultation”—and therefore the City satisfied its “coordination” obligation under the general plan at the same time it satisfied its “consultation” obligation under the plan—that is not true. While the City could “consult” with the Service by soliciting and considering the Service’s comments on the draft EIR, the City

could not “coordinate” with the Service by simply doing those things. The City may be correct in asserting that “[c]onsultation is not a synonym for ‘agreement,’” but Action NR.1.7.1 required more than “consultation” with the Service; it required “coordination,” and by definition “coordination” implies some measure of cooperation that is not achieved merely by asking for and considering input or trying to work together. Had the City intended the obligation under Action NR.1.7.1 to be one of mere “consultation,” it could have used that word, as it did in Action NR.1.1.3. The fact that it did not do so supports the conclusion that the City intended “coordination” to have a different meaning than “consultation,” consistent with the dictionary definitions of those words.

That the word “coordination,” as used in the City’s general plan, implies a measure of cooperation is apparent not only from the dictionary definition of the word, but also from the context in which the word is used in the plan.

(*Id.*, pp. 640-41.)

Here, General Plan Policy COS-1.4 requires the County to “collaborate,” with CDFW and FWS for resource preservation. Similar to “consult” in *California Native Plant Society v. City of Rancho Cordova*, “collaborate” carries with it a heavier burden than mere discussion with the agencies. CDFW and FWS levied serious concerns regarding the Newland Sierra Project’s potential wildlife impacts due to the important biological resources in the Project’s footprint, and proposed alternatives aimed at preserving wildlife corridors. Rather than take these comments seriously and engage with the agency in order to reach a mutually beneficial outcome, the Draft EIR designed alternatives based on the agency comments in a manner fundamentally designed to fail.

For example, the DEIR concludes that these alternatives would have increased land use planning impacts (DEIR at pp. 4-68, 4-77, 4-85, Table 4-1), whereas the Draft EIR concludes that the Project itself would have no such impacts. As discussed in the Golden Door’s comment letter on the Draft EIR, this is not the case. In addition, the Draft EIR failed to analyze easy solutions to the perceived issues with the agency alternatives, which could have been easily remedied through engagement with the agencies. For instance, the Draft EIR concludes that these alternatives would have an increased hazards impact due to the delay in fire services, but failed to analyze placing a fire station on the Project site to reduce the impact to a less than significant level.

Despite concluding that the Wildlife Agency Alternatives would reduce the impacts to biological resources, the Draft EIR rejects the alternatives. This does not amount to “collaboration” with the agencies to ensure the County’s resource preservation goals are met, but rather a cursory dismissal of valid agency concerns. As such, the Newland Sierra Project is inconsistent with the County’s General Plan requirements to collaborate with the wildlife

agencies. The agencies should ensure that the County does not abrogate its collaboration requirement in order to protect the important biological resources within the Project site.

We thank you for your time and attention to our comments. Should you have any questions, please do not hesitate to contact me at 858.523.5400.

Best regards,



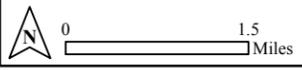
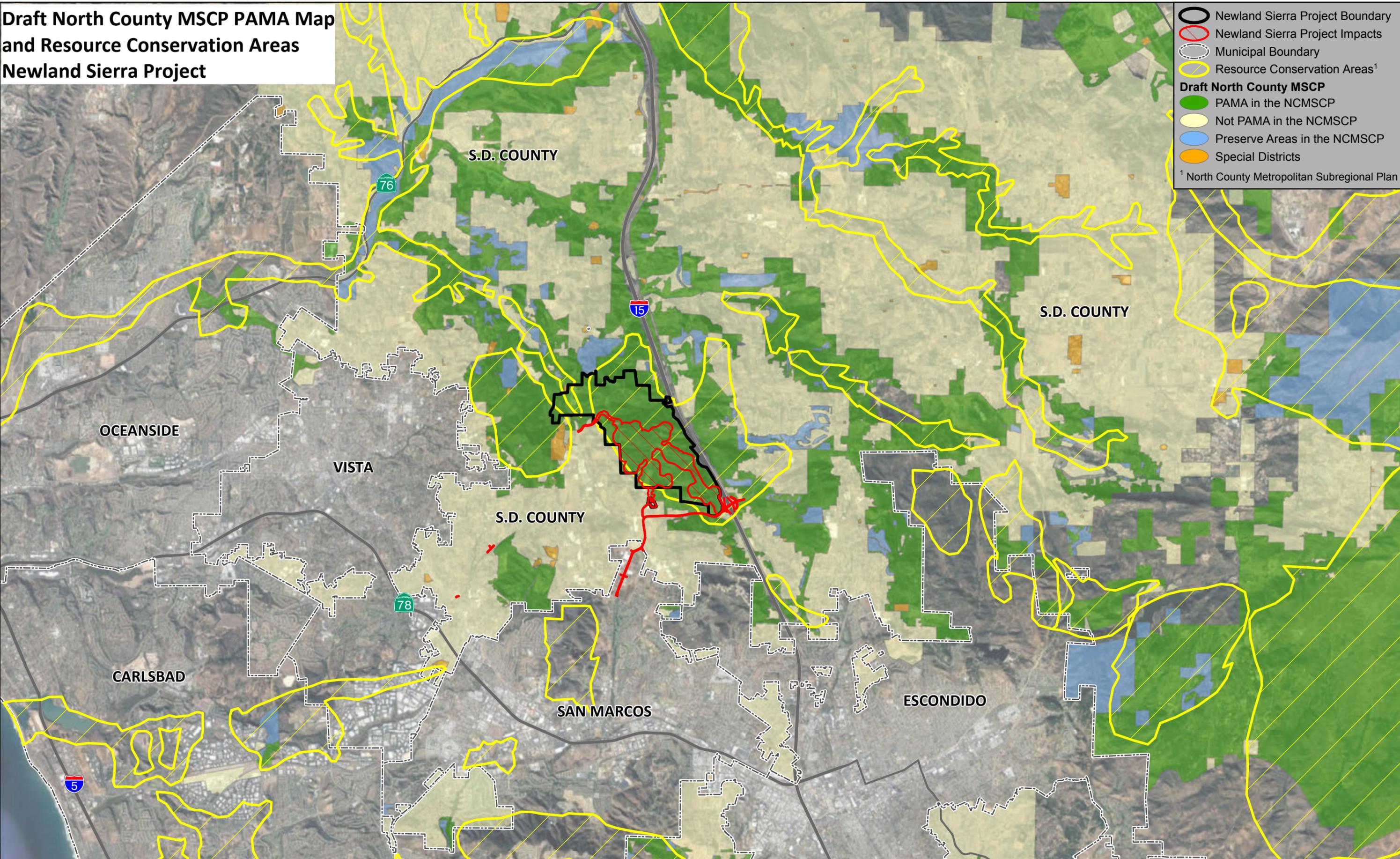
Taiga Takahashi  
of LATHAM & WATKINS LLP

cc: Karen Goebel, U.S. Fish & Wildlife Service  
Doreen Stadtlander, U.S. Fish & Wildlife Service  
County Board of Supervisors  
County Planning Commission  
Darin Neufeld, County Planning and Development Services  
Mark Slovick, County Planning and Development Services  
William W. Witt, Office of County Counsel  
Claudia Silva, Office of County Counsel  
Dan Silver, Endangered Habitats League  
George Courser, Sierra Club  
Duncan McFetridge, Cleveland National Forest Foundation  
Stephanie Saathoff, Clay Co.  
Denise Price, Clay Co.  
Kathy Van Ness, Golden Door Spa

# **ATTACHMENT A**

**Draft North County MSCP PAMA Map  
and Resource Conservation Areas  
Newland Sierra Project**

-  Newland Sierra Project Boundary
  -  Newland Sierra Project Impacts
  -  Municipal Boundary
  -  Resource Conservation Areas<sup>1</sup>
  - Draft North County MSCP**
  -  PAMA in the NCMSCP
  -  Not PAMA in the NCMSCP
  -  Preserve Areas in the NCMSCP
  -  Special Districts
- <sup>1</sup> North County Metropolitan Subregional Plan



Source: SanGIS, SANDAG; Google; Newland Sierra Project Draft EIR

**LL-21**

**From:** [Christine.Sherer@LW.com](mailto:Christine.Sherer@LW.com) <[Christine.Sherer@LW.com](mailto:Christine.Sherer@LW.com)>

**Sent:** Tuesday, May 22, 2018 5:32 PM

**To:** Smith, Ashley <[Ashley.Smith2@sdcountry.ca.gov](mailto:Ashley.Smith2@sdcountry.ca.gov)>; Neufeld, Darin <[Darin.Neufeld@sdcountry.ca.gov](mailto:Darin.Neufeld@sdcountry.ca.gov)>

**Subject:** Golden Door Comment on Newland Sierra GHG Mitigation

Attached is a comment letter from Kathy Van Ness of the Golden Door on the Newland Sierra project.

**Christine Sherer**

Legal Secretary

**LATHAM & WATKINS LLP**

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Darin Neufeld  
Ashley Smith  
Planning and Development Services  
County of San Diego  
5510 Overland Avenue, Suite 310  
San Diego, CA 92123

Dear Mr. Neufeld and Ms. Smith:

I am writing on behalf of the Golden Door, to follow up my letter in January of this year asking that the County of San Diego (County) to do its part to ensure that greenhouse gas (GHG) emissions are reduced within the County. For your reference, I have included that letter here and ask that you include this letter and its attachments into the administrative record for the Newland Sierra project.

As you know, the Golden Door is a world class spa and resort committed to sustainability and environmental stewardship. We are much more than just a spa. We are also owners and operators of a significant agricultural operation, continuing a long agricultural tradition in our rural Twin Oaks Valley community. We have developed new water sources to feed our groves, prepared our soil with natural nutrient sources, and cultivated our trees for optimal health. At Golden Door, we believe in renewing our land to help revitalize the environment. We have transplanted thirty-five 30-year-old Manzanilla olive trees from a commercial orchard. recently added 131-acres of citrus groves to our agricultural holdings, and brought new life to over 75 acres of now fruitful avocado groves. With the growing threat of climate change, the Golden Door is committed to ensuring it reduces its on-site GHG emissions.

As such, we write today with particular respect to the Newland Sierra Project's significant GHG emissions impacts. Newland proposes mitigation measures M-GHG-1 and M-GHG-2 to require the Project to offset 100 percent of its GHG emissions from construction and operations. Both mitigation measures employ the following "geographic priority" scheme for such offsets:

- 1) project design features/on-site reduction measures;
- 2) off-site within the unincorporated areas of the County of San Diego;
- 3) off-site within the County of San Diego;
- 4) off-site within the State of California;
- 5) off-site within the United States; and
- 6) off-site internationally.

Newland's mitigation measure M-GHG-3 would implement design features alleged to mitigate 18 percent of the Project's operational emissions, leaving 100 percent of construction emissions and 82 percent of operational emissions to be mitigated through the purchase of off-site carbon offset credits.

Due to the Golden Door's significant concerns regarding the proposed Newland project, it retained Phyllis Fox, Ph.D., to analyze GHG issues related to the proposed Newland Sierra project. Dr. Fox already submitted a detailed report on the Newland DEIR's air quality and GHG

impacts analysis. As a General Plan Amendment project, the Newland Project could attempt to proceed pursuant to the carbon offset mitigation scheme set forth in the recently adopted Climate Action Plan, which on the requirements for "feasibility" set forth by the California Environmental Quality Act. Dr. Fox has drafted a report analyzing GHG mitigation proposals for the Newland Project and describing numerous mitigation measures that are likely feasible and should be considered – many of which have been adopted for other projects or endorsed by public agencies. The Golden Door submitted this report as a comment on the County's recent consideration of its Climate Action Plan. It is attached here as well, and it should be considered as a supplement to her prior comments on the Newland project. Each mitigation measure discussed in Dr. Fox's report – mitigation for both construction and operations emissions – should be considered by the County as part of EIR certification for the Project.

Thank you for your time and attention to our comments. Please do not hesitate to contact us should you have any questions or comments.

Best Regards,

A handwritten signature in black ink, appearing to read 'Kathy VanNess', written over a long horizontal line that extends across the page.

Kathy VanNess  
Chief Operating Officer/General Manager  
Golden Door Properties



## GOLDEN DOOR®

San Diego County Planning Commissioners  
c/o Lisa Fitzpatrick, Planning & Development Services  
5510 Overland Avenue, Suite 110  
San Diego, CA 92123  
[Lisa.Fitzpatrick@sdcounty.ca.gov](mailto:Lisa.Fitzpatrick@sdcounty.ca.gov)

Dear Commissioners,

The Golden Door is a world class spa and resort committed to sustainability and environmental stewardship. But we are much more than just a spa, we are also owners and operators of a significant agricultural operation, continuing a long agricultural tradition in our rural community. We have developed new water sources to feed our groves, prepared our soil with natural nutrient sources, and cultivated our trees for optimal health. At Golden Door, we believe in renewing our land to help revitalize the environment. We have transplanted thirty-five 30-year-old Manzanillo olive trees from a commercial orchard, recently added 131-acres of citrus groves to our agricultural holdings, and brought new life to over 75 acres of now fruitful avocado groves. With the growing threat of climate change, the Golden Door is committed to ensuring it reduces its on-site greenhouse gas (GHG) emissions. As such, we ask that the County of San Diego (County) does its part to ensure GHG emissions are reduced within the County.

We are concerned that the Climate Action Plan (CAP) does not do its part to ensure California will achieve GHG reduction mandates set by the legislature. For example, the CAP should require that GHG impacts resulting from general plan amendments (sprawl projects) are mitigated using local GHG emission reductions projects. Local emission reductions projects include local boiler efficiency upgrades, reforestation projects, compost additions to rangeland, organic waste digestion, livestock management, urban forest and urban tree planting, and weatherization.

But, the CAP doesn't require mitigation projects for general plan amendments to be local. Instead, the CAP allows offset mitigation projects to occur off-shore, anywhere in the world unrestrained. A private developer can merely buy offset credits from a foreign entity, claiming to have reduced GHG emissions. Doing so may be hard to enforce, and off-shore offsets deprive County residents the localized reductions necessary to meet the County's goals, and the economic benefits associated with conducting offset projects within the County. Reducing GHG emissions in the County also has the important benefit of reducing other toxic air pollutants, known as co-pollutants, so that San Diego County residents will be able to breathe cleaner air. In fact, the California Air Resources Board has recognized the important "co-benefits" of reducing GHGs, such as contributions to the "green economy" and improving public health.

The CAP does provide one conceptual program for investment in local emissions-reducing projects. However, these local direct investment projects are "already spoken for," because they are needed to reduce GHG emissions from planned development already in the approved general plan. The development projects that

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require amendments to the general plan create new additional GHG emissions. The County must identify new local emissions-reducing projects that will mitigate these new additional GHG emissions before amending the general plan to allow more development in rural areas. Unfortunately, the CAP's proposal allows for unlimited sprawl development to move forward in reliance on a program of off-shore offsets that reneges on the County's promises and deprives its residents of important co-benefits.

The County's proposed off-shore offset program for sprawl projects would not meet the County's obligation to reduce its fair share of GHG emissions within the County and would deprive County residents of important co-benefits. County residents would miss out on potential reductions in toxic co-pollutants and commute times on our already congested roadways. The County's proposal would also deprive the local San Diego economy of important investment in green projects.

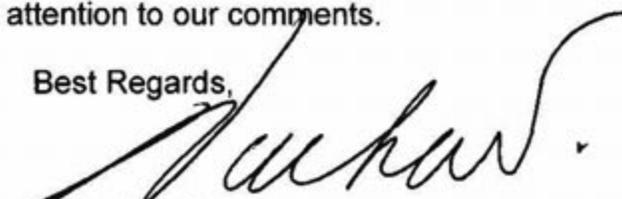
Also, off-shore offset projects encourage the setting aside of land in low- and lower-middle-income countries, which may impair economic development in those countries. Land that might otherwise be used by local governments for housing or other infrastructure projects, projects which might enable those developing economies to grow, is instead set aside by private developers. Similar impacts have occurred here in California, such as in Owens Valley, where residents were deprived of water in order to fuel Los Angeles' growth at the cost of Owens Valley's environment and economy. The County should not similarly depress low- and lower-middle-income countries in order to develop San Diego. We simply have no way to know what the ripple effects will be from imposing offset mitigation requirements in other states or countries where the County lacks authority and oversight. Environmental justice considerations at home and abroad must be taken into consideration.

Further, the effects of paying landowners not to farm their land (one such potential offset measure) may have unintentional consequences. Allowing land to lay fallow may result in greater flooding, as the land may not appropriately drain without assistance from crops. The County must consider the effects of these types of offset projects and others.

We ask that the County live up to its promises and require that offset projects and measures occur within San Diego County first. Action can be taken in the County to combat GHG emissions, and local businesses and landowners should be allowed to innovate before the County looks to other parts of the globe. The County's proposal in the Final CAP, to rely on off-shore offsets as justification for approving sprawl development projects, is a dereliction of duty and should be re-visited and revised before the County approves this important plan to reduce GHG emissions.

We thank you for your time and attention to our comments.

Best Regards,

A handwritten signature in black ink, appearing to read 'Kathy VanNess', written over a white background.

Kathy VanNess  
Chief Operating Officer/General Manager  
Golden Door Properties

Phyllis Fox, PhD, PE  
745 White Pine Avenue  
Rockledge, FL 32955  
321-626-6885

Kathy Van Ness  
General Manager/Chief Operating Officer  
Golden Door  
777 Deer Springs Road  
San Marcos, CA 92069

Dear Ms. Van Ness:

The County of San Diego is in the process of developing a Climate Action Plan (CAP) that will serve as a comprehensive strategy guide to reducing greenhouse gas (GHG) emissions in unincorporated areas of San Diego County, such as those where the Golden Door is located. The CAP primarily focuses on reducing GHG emissions by 2020 and 2030, consistent with legislatively adopted state targets. The Final Supplemental Environmental Impact Report (Final SEIR) for the CAP<sup>1</sup> argues that requiring further GHG reduction would be “speculative” with the information known today due to uncertainty regarding future technological advances and changes in state and federal law beyond 2030.<sup>2</sup>

However, the Final SEIR for the CAP concluded that impacts from the CAP are “significant and unavoidable.”<sup>3</sup> An EIR may conclude that an impact is significant and unavoidable only if all available and feasible mitigation measures have been proposed, but are inadequate to reduce the impact to a less than significant level.<sup>4</sup> The lead agency cannot simply conclude that an impact is significant and unavoidable without requiring all feasible mitigation.

Mitigation Measure GHG-1 in the CAP’s Final SEIR provides geographic priorities for GHG mitigation required to be implemented for General Plan Amendment projects, beginning with (1) project design features/on-site reduction measures; (2) off site within the unincorporated areas of the County of San Diego; (3) offsite within the County of San Diego; (4) offsite within the State of California; (5) offsite within the United States; and (6) offsite internationally<sup>5</sup> The County has indicated in responses to comments and public statements that a feasibility determination complying with CEQA’s feasibility standards will be required for a

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<sup>1</sup> San Diego County, Climate Action Plan; available at [https://www.sandiegocounty.gov/content/sdc/pds/ceqa/Climate\\_Action\\_Plan\\_Public\\_Review.html](https://www.sandiegocounty.gov/content/sdc/pds/ceqa/Climate_Action_Plan_Public_Review.html)

<sup>2</sup> Final SEIR, p. 2.7-22.

<sup>3</sup> Final SEIR, p. 2.7-23.

<sup>4</sup> See Cal. Code Regs. Title 14 (“CEQA Guidelines”), § 15126.2.

<sup>5</sup> San Diego County, Climate Action Plan, p. 8-52.

project to move from mitigation in one geographic priority area to a subsequent geographic priority area on the list. The Newland Sierra Project uses a similar geographic priority list in GHG mitigation measures listed in its Draft EIR<sup>6</sup> but fails to include all feasible mitigation in one priority area to the next with the result that 18% of the mitigation is on-site and the balanced unenforceable and unidentified off-site mitigation measures.

The CAP has failed to require all feasible mitigation for greenhouse gas emissions from new developments. Instead, the County has styled the CAP as an “adaptive management plan” that would be adjusted based on future progress, technological innovations, and legislative changes. However, many GHG mitigation measures are currently available that could be required in the CAP to further reduce GHG emissions. These are discussed below with respect to the Newland Sierra Project, which will be located within the unincorporated area covered by the CAP and involves the full range of impacts and issues the CAP should address. While the GHG mitigation measures discussed below apply specifically to Newland Sierra, they should be considered feasible mitigation measures that must be considered in the feasibility determinations to be made with respect to the CAP’s list of geographic priorities.

## **1. NEWLAND SIERRA GHG MITIGATION IS INADEQUATE**

Newland Sierra<sup>7</sup> proposes to develop a 1,985-acre site west of Interstate 15 in rural San Diego County, about 6.4 miles north of the City of Escondido and about 4.6 miles north of the city of San Marcos (Newland Sierra Project or Project). Thus, it falls within the CAP project area. The Newland Sierra Project would include:

- 875 single family dwelling units
- 935 multi-family dwelling units
- 325 senior adult dwelling units
- 81,000 square feet of neighborhood commercial
- 6-acre, 555-student K-8 school site
- 35.9 acres of parks

The County has issued a draft environmental impact report (DEIR) for the Newland Sierra Project (Newland Sierra DEIR).<sup>8</sup> This DEIR states that total GHG emissions of 52,986 metric tons (MT) of equivalent carbon dioxide (CO<sub>2</sub>E) emissions per year (MT CO<sub>2</sub>E/yr) will be

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<sup>6</sup> Newland Sierra Draft EIR, pp. 2.7-48, 2.7-51.

<sup>7</sup> On August 14, 2017, I provided written comments to the County discussing the Newland Sierra Draft EIR’s air quality and GHG analyses. This report’s additional analysis focusing on feasible GHG mitigation is intended to respond to the County’s focus on “feasibility” for the geographic priorities in the CAP, which will also be relevant to the Newland Sierra Project. The County’s proposal to use CEQA’s feasibility standard as the trigger to rely on subsequent geographic priority areas had not been made public at the time of my previous report.

<sup>8</sup> County of San Diego, Draft Environmental Impact Report, Newland Sierra Project, Prepared by Dudek, June 2017; available at <http://www.sandiegocounty.gov/content/sdc/pds/ceqa/SP-15-001/NSDEIR.html>

reduced by 18% through on-site design features. The remaining 82% of GHG emissions would be reduced through an offset program that does not include any locational requirements or direct investment requirements. The design features and offset program do not constitute all feasible mitigation to mitigate a significant impact under CEQA.

### **1.1. Operational GHG Mitigation**

The Project would generate GHG emissions from vehicular traffic and energy use. The Newland DEIR estimated that the “mitigated” Project would result in 43,498 MT CO<sub>2</sub>E/yr in the buildout year and concluded that mitigated GHG emissions would be “potentially significant” (Impact GHG-2).<sup>9</sup> The DEIR estimated that 18% of the increase in GHG emissions would be mitigated using on-site reductions achieved through a transportation demand management (TDM) program and on-site solar (M-GHG-3). The reduction of the remaining 82% of emissions would be achieved through an offset program that does not have any locational requirements or direct investment requirements (M-GHG-2).<sup>10</sup>

The proposed offset program and design features do not satisfy the CEQA requirement that mitigation must be real, permanent, quantifiable, verifiable, and enforceable to satisfy CEQA.<sup>11</sup> Further, the Newland Sierra DEIR has failed to require all feasible operational GHG mitigation.

There are many other on-site mitigation measures that could and should have been required before opting for off-site offsets. The following sections first explain why the offset program in M-GHG-2 and the design features in M-GHG-3 are not valid CEQA mitigation, followed by a discussion of additional feasible GHG mitigation that must be required to satisfy CEQA.

#### **1.1.1. Newland Sierra’s Carbon Offset Program Is Not Valid CEQA Mitigation**

Newland Sierra’s offset program would “offset” 82% of the project’s GHG emission. This offset program is inconsistent with CEQA and is not valid mitigation for the Project’s GHG emission increases. CEQA mitigation must provide certainty that the reductions will occur, that the claimed reductions are enforceable, and that the mitigation measures do not create additional impacts.<sup>12</sup>

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<sup>9</sup> Newland Sierra DEIR, p. 2.7-42, -46, -72, Table 2.7-8.

<sup>10</sup> Newland Sierra DEIR, Section 7.6.1, pp. 7-42/49.

<sup>11</sup> Cal. Health & Safety Code Section 38562(d)(1).

<sup>12</sup> *Madera Oversight Coalition, Inc. v. Cty of Madera* (2011) 199 Cal. App. 4th 48, 83 [“[T]he EIR must describe and discuss feasible mitigation measures for each significant environmental effect, provided feasible measures exist”]; *Gray v. Cty. of Madera* (2008) 167 Cal. App. 4th 1099, 1116 [substantial evidence must show that mitigation measures will be effective and feasible]; CEQA Guidelines, §§ 15126.4, subd. (a)(1), 15091, subd. (b) (2); CEQA § 21081.6.

First, the Newland Sierra offset program proposes only 18% of the GHG reduction on site, forgoing benefits of local mitigation. Many additional feasible on-site GHG emission reduction options are available for the Newland Sierra Project that were not required. In contrast, a similar project, the 21,500-home Newhall Ranch project in north Los Angeles County, along the Santa Susana Mountains between five freeways and the Ventura County line,<sup>13</sup> proposes 53% of its reductions on site. In general, all feasible on-site mitigation should be required before off-site offsets are used because on-site reductions result in local co-benefits, including better health outcomes for Project and nearby residents, lower energy costs, improved access to transportation options, recreational opportunities, and general resource efficiency.<sup>14</sup> The Newland Sierra Project has failed to meet this goal.

Second, the DEIR fails to require that the offsets offer an equivalent GHG reduction benefit annually, as opposed to a one-time reduction.

Third, the offsets must be local to the extent feasible. The asserted 82% off-site emission reductions are not the extent feasible. Other EIRs have provided more effective requirements for emissions reductions to occur on-site or locally. For example, the CARB Southern California Consolidation Project DEIR<sup>15</sup> requires CARB to fully mitigate the construction-related GHG emissions before any grading takes place and to fully mitigate 100% of its annual operational GHG emissions each year for the life of the project. The Bilby Ridge DEIR also encourages the applicant “to consider generating or purchasing local and California-only carbon credits as the preferred mechanism to implement its off-site mitigation measure for GHG emissions and that will facilitate the State’s efforts in achieving the GHG emission reduction goal.” Compliance “shall be provided” in the application to the lead agency, LAFCo.<sup>16</sup>

On-site GHG mitigation is important because it contributes to the mitigation of other significant and unavoidable Project impacts, including AQ-2 (significant construction VOC, NO<sub>x</sub>, CO, PM<sub>10</sub>, PM<sub>2.5</sub> impacts), AQ-3 (significant daily operational VOC, CO, PM<sub>10</sub>, PM<sub>2.5</sub> impacts), and AQ-5 (significant annual VOC, CO, PM<sub>10</sub>, PM<sub>2.5</sub>). Thus, all feasible on-site GHG mitigation must be implemented as mitigation for other significant impacts. As discussed elsewhere in these comments, the Newland Sierra DEIR fails to require all feasible on-site GHG mitigation.

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<sup>13</sup> <https://nrm.dfg.ca.gov/documents/ContextDocs.aspx?cat=NewhallRanchFinal>

<sup>14</sup> Office of Planning and Research, Chapter 8, Climate Change, p. 230; available at [http://www.opr.ca.gov/docs/OPR\\_C8\\_final.pdf](http://www.opr.ca.gov/docs/OPR_C8_final.pdf)

<sup>15</sup> CARB, Southern California Consolidation Project Draft Environmental Impact Report, March 2017 (CARB, March 2017); available at: [https://www.dudek.com/SoCalConsolidationCEQA/ARB\\_SCCP\\_Draft\\_EIR\\_March2017.pdf](https://www.dudek.com/SoCalConsolidationCEQA/ARB_SCCP_Draft_EIR_March2017.pdf)

<sup>16</sup> Sacramento Local Agency Formation Commission (SLAFC), Draft Environmental Impact Report, Bilby Ridge Sphere of Influence Amendment, December 2017 (SLAFC, December 2017), Prepared by Ascent, Table ES-1, pp. ES-33, ES-39-40; available at [http://www.saclafco.org/Documents/Bilby\\_Ridge\\_DEIR/Bilby%20Ridge%20SOI%20Amendment-DEIR.pdf](http://www.saclafco.org/Documents/Bilby_Ridge_DEIR/Bilby%20Ridge%20SOI%20Amendment-DEIR.pdf)

The Project should only purchase and retire carbon credits that have been issued by a recognized and reputable, accredited carbon registry, as apparently assumed for all off-site offsets, if it is impracticable to fully offset operational emissions through direct investments or quantifiable and verifiable programs.<sup>17</sup>

The Chevron Refinery FEIR, for example, required Chevron to provide \$30 million over 10 years to fund the implementation of the “Community Greenhouse Gas Reduction Measures”, which measures shall be selected by the City through a public process with input from stakeholders from the City, North Richmond, and Chevron...<sup>18</sup>

Fourth, the Newland Sierra DEIR does not establish any limits on the location of the offsets, which could be on other continents under the DEIR’s proposal. In fact, all reductions could be obtained internationally, resulting in no local benefits or mitigation of other significant Project impacts. The County has admitted in its CAP that there are no projects within the County that would qualify for carbon credit sales at this time. This is further incentive to require all feasible on-site mitigation before offsets are considered. Comments 1.1.4 to 1.1.11 discuss additional feasible on-site mitigation that the County should require.

Fifth, the offset program does not require any direct investment in local infrastructure, allowing all off-site reductions to be offset purchases. Offset purchases would not mitigate other significant impacts that would be mitigated by on-site GHG mitigation.

Sixth, the offset program fails to identify nearby GHG mitigation options that have many local co-benefits. The offset program, for example, could require the funding of off-site, solar-powered EV charging stations (Comment 1.1.6) and energy efficiency improvements at existing facilities located in the surrounding communities that will be adversely impacted by the Project, including building retrofits and solar panel installations.

Seventh, the offset program includes a “true-up” provision, at the election of the Project applicant and subject to the County Planning Director’s approval, after Project approval, to reduce the quantity of GHG emissions the applicant is required to mitigate.<sup>19</sup> This would occur outside of CEQA review, preventing public comment.

Eighth, the Newland Sierra DEIR’s offset approach in M-GHG-1 and M-GHG-2 has not been approved by CARB. In fact, CARB recommends that “lead agencies prioritize on-site design features and direct investments in GHG reductions in the vicinity of the project.”<sup>20</sup> Without the concurrence of the expert agency on complicated GHG emissions calculations and

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<sup>17</sup> SLAFC, December 2017, Table ES-1, p. ES-40.

<sup>18</sup> Chevron Refinery Modernization Project Final EIR, Revisions to Draft EIR Volumes 1 & 2, June 2014, p. 4-26 (Chevron FEIR); available at <https://s3.amazonaws.com/chevron/Final+EIR/Volume+3+Final+EIR.pdf> and Chevron Refinery Modernization Project Environmental and Community Investment Agreement Between City of Richmond, California and Chevron Products Company, A Division of Chevron U.S.A. Inc.

<sup>19</sup> Newland Sierra DEIR, Table S-1, p. S.0-97-99.

<sup>20</sup> Newland Sierra DEIR, p. 2.7-47.

offsets, the County is not able to provide adequate assurance that the mitigation measures will be effective. Further, the lack of any enforceability for the “priority” system for the geographic location of offsets renders M-GHG-1 and M-GHG-2 inadequate under the requirements the County placed on itself in its General Plan and General Plan EIR.

Ninth, the offset approach does not require any reporting. The CARB Southern California Consolidation Project DEIR, for example, was considered enforceable “because ARB is required to submit a report as part of the Mitigation Monitoring and Reporting Program before any grading activities demonstrating it has complied with the standards and components of the mitigation measure.” Further, operational emissions are made enforceable by assuring compliance as follows:<sup>21</sup>

- Before ARB begins to occupy and operate the facility, it shall develop a GHG emissions report with the estimated first year facility emissions based on the final design in consideration of MM-GHG-2, and document how ARB is fully mitigating 100% of the first year’s estimated operational GHG emissions generated by the project through the options identified within the mitigation measure. ARB will post this report on ARB’s webpage.
- Every year thereafter (by the beginning of the new fiscal year) for the lifetime of the project (estimated at 30 years), ARB shall prepare an updated report with estimates for the following year’s operational emissions (which may include revised mobile source emissions based on survey data collected for MM-GHG-2), document how ARB is fully mitigating 100% of the projected year’s estimated operational GHG emissions generated by the project through direct investment activities, or by obtaining and retiring carbon offset credits as described in in a quantity sufficient to offset. ARB will post this report on ARB’s webpage.
- If during the lifetime of the project, the operational emissions are eliminated to zero through MM-GHG-2, ARB can publish a final report documenting that determination and end its obligations to further mitigate operational emissions.

### **1.1.2. Traffic Demand Management (TDM) Program Is Not Valid CEQA Mitigation**

The Newland Sierra DEIR assumed that 11.1% of Newland Sierra’s GHG reductions would be achieved through traffic demand management (TDM), detailed in measures project design features PDF-1 through PDF-20.<sup>22</sup> These measures rely primarily on “promoting” and “coordinating” activities that stand little chance of being effectively implemented in the Project’s rural setting far from transit infrastructure within a steep Project Site containing circuitous internal roads. “Promoting” and “coordinating” are not enforceable and thus do not qualify as valid CEQA mitigation.

The Applicant has not committed to funding and managing the TDM program. There is no requirement to convert the various “promoting” and “coordinating” activities into GHG reductions for comparison with assumed GHG emission reductions. Who would coordinate,

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<sup>21</sup> CARB, March 2017, Table 1-1, p. 1-2.

<sup>22</sup> Newland Sierra DEIR, Table 2.7-7, p. 2.7-60 (“total VMT reduction from implementation of TDM program = 11.1%).

promote, and provide the various features of the TDM program? PDF-20 suggests the residents, through a homeowner's association, would be responsible. Who would pay for and assure that the TDM measures achieve the assumed GHG emission reductions? This measure should be modified to require funding by the Applicant through a Community Facilities District, County Service Area or other nonrevocable funding mechanism.<sup>23</sup>

The Newland Sierra DEIR's TDM program is not enforceable and thus is not valid CEQA mitigation. The CARB Southern California Consolidation Project EIR requires an aggressive TDM program designed to encourage the use of alternative transportation options to driving alone in a conventional vehicle.<sup>24</sup> The program requires CARB to undertake or fund feasible GHG mitigation, including direct investment opportunities such as funding building retrofit programs that invest in: cool roofs, solar panels, solar water heaters, smart meters, energy efficient lighting, energy efficient appliances, energy efficient windows, insulation, water conservation measures, and other similar retrofit measures associated with green buildings within the geographic area of the SCAQMD. The results will be summarized in a report that quantifies the emissions and credits and provides supporting technical documentation.<sup>25</sup> Compliance will be determined as follows:<sup>26</sup>

Implementation of this option has the potential to reduce operations-related GHG emissions from the transportation sector. The actual amount to be credited toward reductions under the Annual GHG Emissions Report will be based on survey of usage of these incentives. As part of the Monitoring and Mitigation Reporting Program, ARB shall prepare a report that quantifies the emissions and credits and provides supporting technical documentation. ARB will post the report on ARB's webpage. ARB will select the methodologies and self-monitor the Mitigation Monitoring and Reporting Program during the operations phase as described below in the 'Approach to Implementation on MM-GHG-2'.

The CARB DEIR sets out a two-tier process for determining compliance. First, the ARB will seek to directly undertake or fund feasible and cost-effective activities that reduce or sequester GHG emissions on a ton-per-ton basis as follows:

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<sup>23</sup> CAPCOA, CEQA & Climate Change: Evaluating and Addressing Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act, January 2008, Table 16, p. B-12; available at [www.capcoa.org/download/CAPCOA+White+Paper](http://www.capcoa.org/download/CAPCOA+White+Paper)

<sup>24</sup> CARB, March 2017, p. 5.7-46/47.

<sup>25</sup> CARB, March 2017, p. 5.7-47.

<sup>26</sup> CARB, March 2017, Table 1-1, p. 1-21.

Under this option, ARB will seek to directly undertake or fund feasible and cost-effective activities that reduce or sequester GHG emissions on a ton per ton basis to mitigate operational emissions. Direct investment opportunities include, but are not limited to, funding building retrofits programs that invest in: cool roofs, solar panels, solar water heaters, smart meters, energy efficient lighting (including, but not limited to, light bulb replacement), energy efficient appliances, energy efficient windows, insulation, water conservation measures, and any other similar retrofit measures associated with green buildings within the geographic area of the South Coast Air Quality Management District. As part of the Monitoring and Mitigation Reporting Program, ARB shall prepare a report that quantifies the emissions and credits and provides supporting technical documentation. ARB will post the report on ARB's webpage. ARB will select the methodologies and self-monitor the Mitigation Monitoring and Reporting Program during the operations phase as described below in the 'Approach to Implementation on MM-GHG-2'.

If this is not successful, then and only then are carbon credits considered:<sup>27</sup>

If the mitigation measures above do not reduce annual operational emission to zero, ARB may consider purchasing and retiring offsets from an accredited registry. As part of the Monitoring and Mitigation Reporting Program, ARB shall prepare a report that quantifies the emissions and credits and provides supporting technical documentation. ARB will post the report on ARB's webpage. ARB will select the methodologies and self-monitor the Mitigation Monitoring and Reporting Program during the operations phase as described below in the 'Approach to Implementation on MM-GHG-2'.

In contrast, the Newland Sierra DEIR does not set out any method to ensure that the assumed reductions are enforceable, beyond a transportation coordinator operating as part of a homeowner's association (PDF-20), with no requirement to measure or report to the CEQA lead agency.

At a minimum, the DEIR must include a detailed analysis of the effectiveness and likely implementation for each PDF and cannot merely assign CAPCOA credits that were intended to measure emissions reductions in more urban and mixed use (i.e., self-sustaining) areas.

### **1.1.3. Design Features Are Not Valid CEQA Mitigation**

The operational GHG emission calculations assume the use of 32 Project design features to reduce GHG emissions by 18%.<sup>28</sup> These design features are listed in the Newland Sierra DEIR as measures PDF-1 to PDF-32.<sup>29</sup> Because mitigation measure M-GHG-3 categorizes these

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<sup>27</sup> CARB, March 2017, Table 1-1, p. 1-22 and p. 5.7-47 ("If the mitigation measures above do not reduce annual operational emission to zero, ARB may consider purchasing and retiring offsets from an accredited registry.").

<sup>28</sup> Newland Sierra DEIR, p. 2.7-47.

<sup>29</sup> Newland Sierra DEIR, pp. 7-7 to 7-10.

design features as mitigation measures,<sup>30</sup> all CEQA requirements for mitigation measures must apply to each design feature, including requirements for certainty and enforceability. These requirements have not been met.

The DEIR does not provide any basis for the assumed GHG emission reductions for these 32 design features. The DEIR cites CAPCOA 2010 as the basis for the assumed GHG emission reductions.<sup>31</sup> This document sets out complex formulae that can be used to calculate GHG emission reductions as a percentage of GHG emissions from vehicle miles traveled (VMT).<sup>32</sup> However, GHG emissions from the Project arise from both increases in VMT as well as increases in the use of utilities, including water, natural gas, and electricity. The DEIR does not contain any calculations to support the assumed GHG emission reductions for any of the design features. Further, the DEIR is silent on how it converted reductions expressed in terms of VMT based on the cited CAPCOA 2010 document into reductions expressed as a percentage of total Project GHG emissions.

The DEIR also does not require any post-Project demonstration that the GHG reductions assumed for project design features are achieved in practice. Thus, the assumed reductions are not enforceable and therefore are not valid CEQA mitigation. Design features must be enforceable to serve as a basis for controlling GHG emissions—but they are not, because the DEIR does not include any pre- or post-Project method to confirm that the reductions will occur. Further, the various design features are ambiguous as they are based on coordinating and promoting without identifying a responsible party, identifying a funding source, or requiring any monitoring and reporting to the County.

Project design features must be made enforceable—as required, for example, by the Newhall Ranch GHG mitigation program—by requiring the applicant or its designee to submit building design plans to San Diego County for review and approval before construction begins. These plans must demonstrate that each project component complies with the design features relied on as GHG mitigation. The County shall hold the applicant or its designee accountable for meeting the criteria in PDF-1 to PDF-32 prior to issuing building permits. Further, prior to the issuance of building permits, the applicant or its designee shall establish and fund a dedicated account to implement the various subsidies and programs called for in the PDF design features.<sup>33</sup>

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<sup>30</sup> See, e.g., Newland Sierra DEIR, Table S-1, p. S.0-99; p. 2.7-47 (“Additionally, M-GHG-2 ensures the project design features will be implemented to further reduce potential GHG emissions.”); p. 2.7-51 (M-GHG-3: “To reduce GHG emissions, the project applicant () shall implement the project design features listed in EIR Table 2.7-7.”).

<sup>31</sup> Newland Sierra DEIR, Greenhouse Gas Emissions Technical Report, June 2017, Table 15.

<sup>32</sup> CAPCOA, Quantifying Greenhouse Gas Mitigation Measures, August 2010; available at [https://www.arb.ca.gov/cc/capandtrade/auctionproceeds/capcoa\\_quantifying\\_ghg\\_measures.pdf](https://www.arb.ca.gov/cc/capandtrade/auctionproceeds/capcoa_quantifying_ghg_measures.pdf)

<sup>33</sup> See, e.g., Newhall Ranch Draft Additional Environmental Analysis (Newhall DAEA), November 3, 2016, pp. 2-27/28 at pdf 58-59; available at <https://nrm.dfg.ca.gov/documents/ContextDocs.aspx?cat=NewhallRanchDraftAEA>

### 1.1.3.1. Design Feature PDF-1 (Land Use Diversity)

PDF-1 provides a 5% GHG credit for land use diversity. The basis for the assumed 5% is not disclosed or supported in the DEIR. Instead, it is simply asserted as a “land use strategy” that applies to vehicle miles traveled.<sup>34</sup> The Project contains a mere 81,000 square feet of neighborhood-serving commercial development in the Town Center<sup>35</sup> for 2,135 homes,<sup>36</sup> which is inadequate to meet the vast majority of residents’ commercial needs.

The proposed Specific Plan and land use designations allow for about 2,199 residential dwelling units and about 1,777,684 square feet of commercial use, or 808 square feet of commercial use per dwelling unit.<sup>37</sup> The Project, on the other hand, is providing only 38 square feet of commercial use per dwelling unit. The DEIR contains no evidence that such a low ratio of commercial to residential area warrants a 5% GHG credit.

Further, the commercial development will not occur until Phase 2, even though more than 1,800 of the proposed 2,135 homes will be constructed in Phase 1. Even if a land use diversity credit was warranted for this Project, the DEIR cannot provide a credit for the time period prior to the diversity of land uses being built out. Moreover, the Project Site layout spreads out across steep terrain with a circuitous internal road network, thus limiting the potential for alternative transportation. The proposed commercial site is about 2 miles away from the majority of residential units and is much more likely to cause added vehicle trips on Deer Springs Road from the units in the Valley, Summit, and Knoll neighborhoods (1,028 residential units total). Further, land use diversity credits should not be allowed for “park” use, which is required and assumed in residential areas, or a school “site” that has not even been committed to be used for a school and with no commitment as to which and how many of the students within the Project Site would be able to attend the school—particularly when the Project Site is proposed to be split between multiple school districts. In addition, the Town Center will attract traffic from nearby roadways, especially I 15, which has the potential to increase GHG emissions not otherwise accounted for.

Finally, the DEIR is silent on how compliance with the assumed 5% GHG emission reductions would be demonstrated. Thus, these measures are not enforceable and therefore not valid CEQA mitigation.

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<sup>34</sup> Newland Sierra DEIR, Appendix D (VMT Reduction Measures and Reduction Calculations) of Appendix K (Greenhouse Gas Emissions Technical Report) of Appendix K, p. 19 of 26.

<sup>35</sup> Newland Sierra DEIR, pp. S.0-2, 1-2, 1-6, 1-25.

<sup>36</sup> Newland Sierra DEIR, p. 1-35.

<sup>37</sup> Newland Sierra DEIR, p. 1-35.

### **1.1.3.2. Design Features PDF-2 and -3 (Pedestrian and Bicycle Trails and Network)**

These two design features would develop a comprehensive trails network and provide bicycle racks along main travel corridors. Additional bicycle facilities should be provided, including:

- sufficient short-term and long-term bicycle parking facilities to meet peak season maximum demand;
- “end-of-trip” facilities including showers, lockers, and changing space; and
- a designated bicycle route connecting all units, on-site bicycle parking facilities, off-site bicycle facilities, site entrances, and primary building entrances, to all streets contiguous with the Project site in order to minimize conflicts with automobile parking and circulation facilities.<sup>38</sup>

The Newland Sierra DEIR assumed a 2% reduction in GHG emissions for these two measures. However, the DEIR fails to provide any support for the assumed 2% reduction in total GHG emissions. Further, the DEIR is silent on how compliance with the assumed 2% GHG emission reduction would be demonstrated. Thus, these measures are not enforceable and therefore are not valid CEQA mitigation.

### **1.1.3.3. Design Features PDF-4 to PDF-8 (Bike-, Car-, and Ride-Share Measures)**

These four design features provide for an electric bike share program, a car share program, a local shuttle service, and ridesharing support features for residents. The DEIR assumed a total GHG emission reduction of 2.8% for these five measures. The DEIR is silent on how the assumed emission reductions were calculated, who would pay for them, and who would implement and operate these measures. The DEIR also does not provide any reporting or other method to assure the assumed reductions actually occur.

These measures appear to require funding from and participation by residents or another external source, after the Project is fully built out. Further, the DEIR is silent on how compliance with the assumed 2.8% GHG emission reduction would be demonstrated. Thus, these measures are not enforceable and therefore are not valid CEQA mitigation. At a minimum, the DEIR should include a feasibility study to determine the potential effectiveness of such measures given the remote location and local terrain and a cost comparison against other methods of transportation to determine whether such measures will even meet the threshold level to be funded and implemented by the residents.

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<sup>38</sup> See, e.g., March Joint Power Authority (MJPA), Draft Environmental Impact Report for the Meridian West Campus-Lower Plateau Project, Prepared by Dudek, June 2017 (MJPA, June 2017), Table 4.6-5, p. 4.6-40; available at [http://marchjpa.com/documents/docs\\_forms/deir\\_west.pdf](http://marchjpa.com/documents/docs_forms/deir_west.pdf)

#### **1.1.3.4. Design Feature PDF-9 (Provide Transit Subsidies for Residents)**

This design feature provides a transit fare subsidy for residents. The DEIR assumed a total GHG emission reduction of 0.9% for this measure. However, emission reductions would only occur if the subsidies are used. The DEIR fails to demonstrate that residents would use transit, even if subsidies are provided. As already noted, the nearest transit station is over six miles away, suggesting demand for transit subsidies may not exist or would be much lower than assumed in the DEIR.

This design also lacks any specificity, including who will pay for the subsidy, how much the subsidy will be, whether there are any restrictions on qualifying for the subsidy or use of the subsidy (e.g., only for certain transit authorities or modalities), and who would secure and distribute the subsidies.

The DEIR is also silent on how the assumed emission reduction of 0.9% was calculated, who would secure the subsidies, how they would be distributed to residents, and how the County would confirm the subsidies were used to offset VMT. Thus, PDF-9 is not enforceable and therefore is not valid CEQA mitigation.

#### **1.1.3.5. Design Feature PDFs 10-13, 20 (TDM Program Marketing for Residents)**

These PDFs establish a marketing program for the TDM program to promote the various design features to reduce vehicle miles traveled. The Newland Sierra DEIR fails to fund and set up a non-profit Transportation Management Organization (TMO) or equivalent management entity with the authority and funding to provide the TDM services assumed in these mitigation measures.<sup>39</sup>

Further, the transportation coordinator required by PDF-20 would not have the authority to require that residents partake of any of the design features offered to reduce VMT. Further, PDF-20 is not listed in Table 2.7-7 as a Project design feature to reduce GHG emissions.<sup>40</sup>

The remote location of the Project and its steep terrain would discourage the use of design features to reduce VMT. Further, it is illogical to assume additional GHG emission reductions (0.5%) for marketing an ineffective tool. Because the underlying program is inadequate, as explained above, marketing it without any authority to require any of the measures does not warrant an additional 0.5% reduction in total GHG emissions.

The DEIR is also silent on how the assumed emission reduction of 0.5% for these marketing measures was calculated and how the County would confirm the marketing resulted

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<sup>39</sup> Newhall DAEA, p. 2-28, pdf 59.

<sup>40</sup> Newland Sierra DEIR, Table 2.7-7, p. 2.7-60.

in an additional 0.5% reduction in total GHG emissions. Thus, PDF 10-13 and 20 are not enforceable and therefore are not valid CEQA mitigation.

#### **1.1.3.6. Design Feature PDF 14 (Transit Subsidies)**

This design feature provides a transit fare subsidy for employees of the Town Center. It is not valid CEQA mitigation for the same reasons as PDF 9, which provides subsidies for residents. See Comment 1.1.3.5.

#### **1.1.3.7. Design Features PDF 15-19 (TDM Program Marketing for Employees)**

These design features provide a credit for marketing the Project's TDM program for employees and fails for the same reasons as PDFs 10-13. See Comment 1.1.3.5.

#### **1.1.3.8. Design Features PDF-21-32 (Other Project-Specific Reduction Features)**

The Newland Sierra DEIR identifies other design features that are included in the Project, but for which no GHG emission reductions were claimed. These measures include greywater systems, minimization of stormwater runoff, green waste collection, productive landscapes, cool roofs, and energy-efficient appliances.<sup>41</sup> The DEIR does not require that these measures actually be installed and used. For example, PDF-26 indicates that all single-family homes "shall be plumbed for greywater systems for use in private yards."<sup>42</sup> However, the DEIR does not require that these greywater systems be used, nor require them for multi-family and senior adult homes. Other EIRs require that these measures be "used."<sup>43</sup> Similarly, PDF-31 allows builders to "offer" residents their choice of energy-efficient appliances but does not provide for financial incentives, as required in other EIRs.<sup>44</sup>

These and other similar measures identified below should be specifically required as feasible GHG mitigation and made enforceable by requiring monitoring and reporting to assure they are installed and operated. However, any attempt to quantify emissions reductions from PDFs 21-32 would require recirculation of the DEIR for the public to analyze the effectiveness of such PDFs as mitigation measures under M-GHG-3.<sup>45</sup>

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<sup>41</sup> Newland Sierra DEIR, Table 2.7-7, p. 2.7-61.

<sup>42</sup> Newland Sierra DEIR, p. 7-10.

<sup>43</sup> MJPA, June 2017, pp. 4.6-33/34 ("Modest cool roof **will be constructed**"; "Waterless urinals and high efficiency toilets **will be used throughout**"; "Water efficient faucets **will be used throughout**"; Greywater (purple pipe) irrigation system **will be used** for outdoor water").

<sup>44</sup> SLAFC, December 2017, Table ES-1, p. ES-30 ("Provide incentives to future residents to purchase EnergyStar™ appliances.").

<sup>45</sup> *Laurel Heights Improvement Assn. v. Regents of University of California* (1993) 6 Cal. 4th 1112, 1120 (recirculation "required when the information added to the EIR changes the EIR in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of

In addition, other similar building envelope and facility operation measures are feasible and should also be required. These include:<sup>46,47,48,49</sup>

- Require bus stops, express lanes, and bus stop shelters for existing/ planned transit service;
- Energy use should be reported compared to targets set on per-capita energy use;
- Use of traffic calming measures including all internal sidewalks a minimum 5 feet wide, all sidewalks with vertical curbs, roadways routed to avoid “skewed intersections”;
- Internal and adjacent intersections should use the following traffic-calming features: marked crosswalks, count-down signal times, curb extensions, speed tables, raised crosswalks, raised intersections, median islands, tight corner radii, roundabouts or mini-circles;
- Applicant shall participate in funding of off-site traffic improvements to reduce idling by increasing traffic flow through synchronized traffic signals;<sup>50</sup> Internal and adjacent streets should use the following traffic-calming features: planter strips with trees, chicanes/chokers (variations in road width to discourage high-speed travel);
- Provide preferential parking for park and ride to incentivize carpooling, vanpooling, commuter bus, and electric vehicles;
- Require “cool parking” by, for example, providing tree cover to reduce heat-island effect;
- Provide storage space in garages for bicycles and bicycle trailers;
- Provide preferential parking for EV/CNG vehicles;
- Provide residential buildings with a “utility” room or space for recharging batteries – e.g., for use in a car, electric lawnmower, other electric landscaping equipment, and batteries for small items;
- Provide a complimentary electric lawnmower to each buyer with a yard;
- Use only drought-resistant native trees, trees with low emissions and high carbon sequestration potential;<sup>51</sup>

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the project or a feasible project alternative or mitigation measure that would clearly reduce such an effect and that the project’s proponents have declined to implement.”).

<sup>46</sup> CAPCOA 2008, Appendix B, Table 16, pp. B-1 to B-31.

<sup>47</sup> SLAFC, December 2017.

<sup>48</sup> MJPA, June 2017, Table 4.6-5, p. 4.6-43.

<sup>49</sup> SLAFC, December 2017, Table ES-1.

<sup>50</sup> MJPA, June 2017, Table 4.6-5, p. 4.6-43, Policy 6.1.

<sup>51</sup> MJPA, June 2017, p. 4.6-34 (“water efficient landscaping: No turf; only drought tolerant plants”). The Newland Sierra DEIR allows warm-season turf grass in rear and side yards of single-family homes. (PDF-25).

- Use water-efficient irrigation systems, i.e., smart sprinkler meters, and landscaping techniques/design;
- Dedicate space in a centralized, accessible location for a weekly farmers' market;
- Orient building to maximize shade in the summer and maximize solar access to walls and windows in the winter;
- For non-roof surfaces, provide shade and/or use light-colored/high-albedo materials and/or open grid pavement for at least 30% of the site's nonroof impervious surfaces, including parking lots, walkways, plazas, etc., or place a minimum of 50% of parking spaces underground or covered by structured parking or use an open-grid pavement system for a minimum of 50% of the parking lot area;
- Require organic waste collection;
- Require the installation and use of low-water use faucets, toilets, shower heads, and appliances that exceed CALGreen residential voluntary measures; and
- Implement CALGreen Tier 2 standards or better.<sup>52</sup>

#### **1.1.4. All Feasible On-Site Solar Not Required**

The Newland DEIR assumed that 6.5% of Newland Sierra's GHG reductions would be achieved through on-site solar.<sup>53</sup> The DEIR asserts the Project would be designed to include solar photovoltaic panels for all single-family and multi-family residential development, sufficient to offset 100% of the residential structural electricity demand, excluding water demand.<sup>54</sup> The Newland DEIR variously estimated this would reduce GHG emissions from generation of electricity to support the Project by 3,453 MT CO<sub>2</sub>E/yr<sup>55</sup> to 3,737 MT CO<sub>2</sub>E/yr<sup>56</sup> or by about 6.5%. There are several problems with this assumed reduction in GHG emissions.

First, the Newland DEIR does not require the **use** of solar panels to generate on-site electricity, but only the installation of panels. There is no requirement in the DEIR to confirm that this design feature has been satisfactorily implemented and achieves the assumed GHG reductions. The DEIR cannot rely on solar panels to reduce GHG emissions from electricity use unless accompanied by an enforceable mitigation measure and sufficient design information to demonstrate feasibility, given site constraints.

Second, no analysis is provided to support the potential to generate 100% of the on-site electricity demand from on-site solar. On-site solar panels, absent storage options, may not be

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<sup>52</sup> Newland Sierra DEIR, p. 2.7-19.

<sup>53</sup> Newland Sierra DEIR, pp. 2.7-41, 3.1-12 to 3.1-13.

<sup>54</sup> Newland Sierra DEIR pp. 3.1-12 to 3.1-13.

<sup>55</sup> Newland Sierra DEIR, p. 2.7-41.

<sup>56</sup> Newland Sierra DEIR, Table 2.7-6, p. 2.7-57.

able to offset 100% of the electrical demand. The failure to use 100% solar in residential units would increase GHG emissions from electricity generation by 3,453 to 3,737 MT CO<sub>2</sub>E/yr.<sup>57</sup> The DEIR should have evaluated all feasible renewable energy options, including geothermal, acquisition of additional land in the vicinity to install the needed PV panels, and entering into a long-term (20-year minimum) purchase agreement for renewable energy in which the provider is contractually bound to retire the Renewable Energy Credits (RECs) associated with the renewable energy on CARB's behalf.<sup>58</sup>

Third, the DEIR does not contain any design/development details to ensure that roofs can accommodate solar (e.g., they could be too steep or improperly oriented). The DEIR is also silent on how the multi-family units would be designed to accommodate solar.

Fourth, the DEIR assumes that street lighting would be solar powered but fails to require solar panels to satisfy this electrical demand or otherwise explain how solar street lighting would be made enforceable.<sup>59</sup>

Fifth, the DEIR is silent as to electrical demand and mitigation for landscaping and maintenance equipment, such as blowers and lawn mowers. These are frequently gas powered. A mitigation measure should be added requiring electrical landscaping equipment and exterior electrical outlets to allow sufficient powering.<sup>60</sup>

The DEIR should be modified to prohibit the use of electricity from off-site sources and to specifically require the use of on-site solar as mitigation, sufficient to supply 100% of the on-site electricity demand, as assumed in the GHG emission calculations. Absent an enforceable requirement to use solar for 100% of on-site residential electrical demand, the DEIR must include all feasible mitigation for GHG emissions from residential electrical demand. Further, the DEIR must demonstrate that 100% solar is feasible by providing design details of the single and multifamily units showing how solar panels will be integrated.

#### **1.1.5. The DEIR Fails to Mitigate GHG Emissions from Natural Gas Use**

The Newland Sierra Specific Plan stated the “project will increase demand for natural gas and electricity...”<sup>61</sup> GHG emissions from electricity use are mitigated using on-site solar panels, discussed in Comment 1.1.4. However, no mitigation at all is proposed for GHG emissions from natural gas use, which contributes 4.7% of the GHG emissions.<sup>62</sup> Mitigated

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<sup>57</sup> Newland Sierra DEIR, p. 2.7-41.

<sup>58</sup> See, e.g., CARB, March 2017, Table 1-1, p. 1-2.

<sup>59</sup> Newland Sierra Specific Plan, p. 258 (“solar-powered street lights”).

<sup>60</sup> See, e.g., SLAFC, December 2017, Table ES-1, pp. ES-31, ES-36 (“provide electrical outlets on the exterior of project buildings to allow sufficient powering of electric landscaping equipment.”).

<sup>61</sup> Newland Sierra Specific Plan, p. 51.

<sup>62</sup> Newland Sierra DEIR, Table 2.7-6, p. 2.7-57.

GHG emissions equal unmitigated GHG emissions, indicating that the DEIR does not include any mitigation at all for GHG emissions from using natural gas.<sup>63</sup>

The increased demand in natural gas use is for building heating, water heating, and cooking associated with the residential, commercial, and school land uses at the Project site.<sup>64</sup> Table 1<sup>65</sup> indicates that the majority of the natural gas is used within on-site housing:

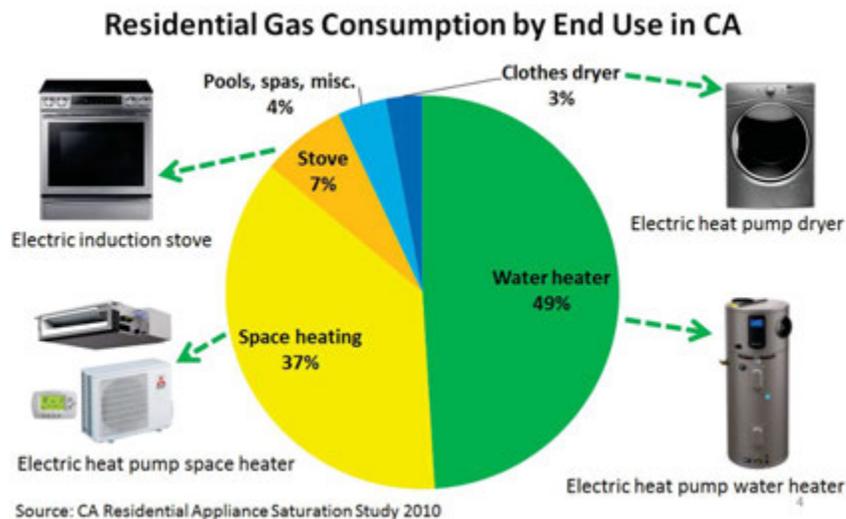
**Table 1**  
**Estimated Natural Gas Demand**

| Component             | Estimated Natural Gas Demand (kBTU/yr) |
|-----------------------|----------------------------------------|
| Commercial            | 181,440                                |
| School                | 196,020                                |
| Parks                 | 0                                      |
| Age-Qualified Housing | 4,662,660                              |
| Multi-Family Housing  | 15,983,800                             |
| Single-Family Housing | 24,931,000                             |
| <b>Total</b>          | <b>45,954,920</b>                      |

Source: Appendix K; CalEEMod 2013

Residential gas consumption for age-qualified, multi-family, and single-family housing is responsible for 99% of the projected gas use. These emissions can be significantly reduced by requiring all-electric housing, commercial, and school energy uses. Residential gas consumption, for example, can be eliminated by requiring electrified housing, as summarized in Figure 1.

**Figure 1**  
**Methods to Electrify Housing**



<sup>63</sup> Newland Sierra DEIR, Table 2.7-8 (GHG emissions from natural gas consumption = 2,452 MT/yr) compared to Table 2.7-6 (GHG emissions from natural gas consumption = 2,452 MT/yr).

<sup>64</sup> Newland Sierra DEIR, p. 3.1-13, Table S-2, pdf-32 (“All fireplaces would be natural-gas-fired.”), p. 1-15, PDF-32 (“All fireplaces would be natural-gas-fired.”).

<sup>65</sup> Newland Sierra DEIR, Table 3.1-2.

GHG emissions from electricity are now lower than from natural gas. Further, GHG emissions from electricity can be fully mitigated by requiring on-site solar panels. Technology is available today to replace all gas appliances with efficient electric appliances. The increase in electricity demand from electrifying housing could be fully offset by using on-site solar panels designed to handle the resulting increase in electrical load. California home builders, such as City Ventures<sup>66</sup> and KB Homes, have begun building homes without gas lines, replacing gas central heating, hot water and stoves with electric appliances. See, for example, the new solar all-electric homes already built in San Diego County<sup>67</sup> and elsewhere:<sup>68,69</sup>



Eliminating residential gas use eliminates the need to install gas pipelines under streets and inside homes, reducing home costs as well as construction GHG and criteria pollutant emissions. Electrification not only achieves significant GHG reductions, it also improves indoor air quality and safety by removing a flammable material from living areas. Improved safety is an important benefit in earthquake- and fire-prone areas such as the Project site.<sup>70</sup>

Figure 1 indicates that 86% of the residential gas consumption is for heating. GHG emissions from water heating, comprising 49% of the natural gas consumption, can be completely eliminated by requiring the use of high-efficiency heat pumps. These pumps pull in heat from ambient air, compress the air to increase its temperature, and route the resulting heat through a condenser coil to transfer heat to water in a tank. This is much more efficient than gas and electric resistance heating. Alternatively, solar water heaters could be used.

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<sup>66</sup> City Ventures Residences; available at <https://www.cityventures.com/balanced-power-solar-and-gas/>

<sup>67</sup> Chula Vista, Vista Mar; available at <https://www.cityventures.com/chula-vista/>

<sup>68</sup> City Ventures; available at <https://www.cityventures.com/balanced-power-solar-and-gas/>

<sup>69</sup> KB Homes; available at <https://www.kbhome.com/energy-efficient-homes>

<sup>70</sup> David Hochschild and Mark Ferron, California's Next Frontier: Clean Electricity for Everything, May 20, 2016; available at <https://www.sfchronicle.com/opinion/article/California-s-next-frontier-clean-electricity-7872652.php>

### 1.1.6. Electric Vehicle (EV) Charging Equipment

The Project would also include electric vehicle (EV) charging equipment in the garages of all single-family residential units<sup>71</sup> and in 3% of the Town Center's commercial core parking spaces. Further, the applicant would be "encouraged" to install EV charging stations in 3% of the park-and-ride parking spaces.<sup>72</sup> This does not constitute all feasible GHG mitigation achievable by EV charging equipment.

First, the Newland Sierra DEIR fails to require the **use** of this EV charging equipment. EV charging stations would only offset GHG emissions if Newland Sierra occupants and visitors were required to use battery electric vehicles (BEVs). Plug-in hybrid electric vehicles (PHEVs) can drive in gasoline mode and thus would not satisfy the assumed GHG reductions. Absent a requirement to only allow BEVs in all garages and parking spaces, the charging stations would not reduce GHG emissions. Newland Sierra should offer subsidies to residents, schools, and bus services to buy zero-emission vehicles to facilitate the use of the EV charging equipment.

Second, the charging stations themselves use electricity. The DEIR is silent on GHG emissions from supplying electricity for the charging stations. The DEIR should be modified to require the use of solar-powered charging stations.

Third, the DEIR only requires EV charging stations in the garages of all single-family homes. The DEIR should be modified to require EV charging stations for multi-family units, which comprise 995 of the Project's total of 2,135 residential units.<sup>73</sup>

Fourth, the DEIR only requires EV charging at 3% of its commercial center parking spaces.<sup>74</sup> The DEIR must require all feasible mitigation. Thus, it should be modified to require EV charging at 100% of its commercial center parking.

Fifth, the DEIR only "encourages" EV charging at 3% of the park-and-ride parking spaces. The DEIR should be modified to require EV charging at 100% of the park-and-ride parking spaces.

Sixth, the DEIR fails to include any off-site EV charging stations beyond the park-and-ride chargers. There are numerous nearby opportunities for off-site charging stations that should be required in lieu of generic, undefined future GHG offsets. The Newhall EIR, for example, requires that before the issuance of the first building permit, the applicant must provide proof of installation of off-site EV charging stations capable of serving 20 off-site parking spaces. Thereafter, the applicant must provide proof of installation of EV charging stations prior to issuance of a building permit per the following ratios: one off-site parking

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<sup>71</sup> Newland Sierra Specific Plan, p. 131 ("Single-family homes shall include an electric vehicle charger in the garage").

<sup>72</sup> Newland Sierra DEIR, p. 2.7-38.

<sup>73</sup> Newland Sierra Specific Plan, Table 3.

<sup>74</sup> Newland Sierra Specific Plan, p. 125.

space shall be served by an electric vehicle charging station for every 30 dwelling units and one off-site parking space shall be serviced by an EV charging station for every 7,000 square feet of commercial development. EV charging stations capable of servicing 2,036 parking spaces would be required if the maximum allowable development occurs.<sup>75</sup>

Finally, the DEIR cannot rely on EV charging stations to reduce GHG emissions unless accompanied by an enforceable mitigation measure and sufficient design information to demonstrate feasibility, given site constraints. In the Newhall EIR, for example, building permits are contingent on demonstration of proof of installation of EV charging stations.<sup>76</sup> The CARB Southern California Consolidation EIR requires the mitigation to be quantified and supported by technical documentation in a report submitted as part of the Mitigation Monitoring and Reporting Program, using an approved methodology demonstrating the reductions are valid.<sup>77</sup>

### **1.1.7. Building Energy Efficiency**

The GHG emission calculations assume reductions from complying with the 2016 Title 24 standards or future, more stringent versions of Title 24 that are applicable to the land uses at buildout, predicting net zero efficiency mandates for residential building will be in effect when the first homes are constructed. However, Newland Sierra will only comply with net zero building efficiency if and when implemented. It is not required as mitigation and thus is not enforceable on the Applicant. However, building Newland Sierra to achieve net zero efficiency is feasible today and should be required as enforceable mitigation.

### **1.1.8. Traffic Signal Synchronization**

The Newland Sierra DEIR states that improvements will be made to off-site traffic signals and signal timing to mitigate traffic impacts, as part of the GHG Reduction Climate Change Action Plan.<sup>78</sup> These improvements are relied upon to reduce GHG emissions. However, traffic signalization is not required as enforceable mitigation. Further, the DEIR does not contain any details on the proposed signalization. Therefore, traffic signalization is not enforceable mitigation for GHG impacts.

The DEIR should be modified to specifically require that the applicant or its designee submit traffic signal plans for review and approval to the County and Caltrans and pay any needed fees. The DEIR should state that the Project is responsible for paying 100% of the applicable cost of the signal synchronization work, with assurance that the necessary funding will be available to fully implement this measure, prior to issuing traffic signal permits. Issuance of traffic signal permits shall be contingent on the applicant providing adequate

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<sup>75</sup> Newhall DAEA, pp. 2-31/32, pdf 62-63: Mitigation Measure 2-12: Off-Site Electric Vehicle Chargers.

<sup>76</sup> Newhall DAEA, pp. 2-31/32.

<sup>77</sup> CARB, March 2017, Table 1-1, p. 1-21.

<sup>78</sup> Newland Sierra DEIR, p. 2.17-30 (CC-1.5).

evidence that the mitigation will be implemented as assumed in the GHG emission calculations.<sup>79</sup>

### 1.1.9. Zero-Emission Buses

The DEIR is silent on zero-emission buses for local school and general transit, a feasible mitigation measure that must be required as mitigated GHG impacts are significant, requiring all feasible mitigation.

The Project site will include a 6-acre school site and its residents will attend nearby schools.<sup>80</sup> These schools are served by school buses. The EIR should require that Newland Sierra fund zero-emission school and other transit buses that serve unincorporated areas of San Diego County. The DEIR, for example, should require that the Project applicant or its designee provide the County with proof that funding has been provided for the purchase, operation and maintenance of electric school and other buses. The proof of funding shall be demonstrated incrementally, paced to keep up with occupancy and enrollment levels.<sup>81</sup>

Further, many transit bus fleets are currently operating zero-emission buses in California.<sup>82</sup> Twelve major cities – including London, Paris, Los Angeles, and Cape Town – have recently committed to buying only zero-emission buses from 2025 and to making major areas free of fossil fuel emissions by 2030.<sup>83</sup> The Los Angeles County Metropolitan Transportation Authority has announced it will eliminate emissions from its 2,300 bus fleet by replacing its existing fleet with buses that run on electric batteries or other forms of zero-emission power.<sup>84</sup>

The Newhall Ranch Resource Management and Development Plan, for example, includes an electric transit bus program. This program requires the applicant or its designee to provide Los Angeles County with proof that it has provided a subsidy of \$100,000 per bus for the replacement of up to 10 diesel or compressed natural gas transit buses with electric buses. This measure is feasible and enforceable because the applicant must provide the subsidy in advance of securing the building permits.<sup>85</sup>

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<sup>79</sup> Newhall DAEA, p. 2-29, pdf 60, Mitigation Measure 2-7: Traffic Signal Synchronization.

<sup>80</sup> Newland Sierra DEIR, pp. S.0-2, 1-2, 1-6, 1-23 to 1-24, 1-37, Table 1-10, Figure 1-33.

<sup>81</sup> Newhall DAEA, p. 2-29, pdf 60, Mitigation Measure 2-8, Electric School Bus Program.

<sup>82</sup> CARB, Advanced Clean Transit, May 2015, pp. 5, 6; available at <https://www.arb.ca.gov/msprog/bus/workshoppresentation.pdf>

<sup>83</sup> Alister Doyle, Twelve Big Cities to Buy Zero Emissions Buses, Extend Green Areas, Reuters, October 23, 2017; available at <https://www.reuters.com/article/us-climatechange-cities/twelve-big-cities-to-buy-zero-emissions-buses-extend-green-areas-idUSKBN1CS13I>

<sup>84</sup> Laura J. Nelson, L.A. Metro Wants to Spend \$138 Million on Electric Buses. The Goal: An Emission-free Fleet by 2030, Los Angeles Times, July 21, 2017; available at <http://www.latimes.com/local/lanow/la-me-ln-metro-electric-buses-20170721-story.html>

<sup>85</sup> Newhall DAEA, p. 2-30, pdf 61, Mitigation Measure 2-9: Electric Transit Bus Program.

### **1.1.10. Swimming Pool Heating**

Swimming pools may be constructed on residential lots at a homeowner's discretion, either as part of the primary purchase or after the house has been constructed and sold. The Applicant has estimated that no more than half of the lowest-density lots (2 to 4 dwelling units per acre) and no more than one-quarter to one-third of the next lowest-density lots (4 to 8 dwelling units per acre) are likely to have pools installed. Further, pools will be installed in three community parks.<sup>86</sup>

The GHG emission calculations do not include any emissions from pool heating nor any mitigation for these emissions. These emissions can be mitigated by requiring electric heating for swimming pools, provided by on-site solar panels. The Newhall Ranch Resource Management and Development Plan, for example, requires design plans that demonstrate that all swimming pools on the project site have been designed and constructed to use solar water heating or other technology with an equivalent level of energy efficiency.<sup>87</sup>

### **1.1.11. Electric Vehicle and Other Subsidies**

The Newland Sierra DEIR provides EV chargers, but does not require their use or provide any incentives for residents to purchase and use them. The Newhall EIR includes a mitigation measure that establishes a fund dedicated to providing subsidies for the purchase of EVs. The dedicated account must incrementally fund, for each project, a subsidy of \$1,000 per residence, on a first-come, first-served basis, for 50% of the total residences.<sup>88</sup> The developer of the Newhall Ranch subsidy program, for example, will provide more than \$21.5 million for residents and bus providers to buy electric vehicles, electric school and city buses and electric bikes as part of the bike-share program.<sup>89</sup> The Bilby Ridge DEIR provides incentives to future residents to purchase EnergyStar™ appliances (including clothes washers, dishwashers, fans, and refrigerators).

## **1.2. Construction GHG Mitigation**

The Newland Sierra Project would be constructed in two phases over 10 years. Phase I includes roadway improvements, installation of on-site water tanks, and construction of five neighborhoods. Phase 2 includes Camino Mayor improvements, two additional residential neighborhoods, and the Town Center.

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<sup>86</sup> Technical Memorandum from John Porcello, GSI Water Solutions, Inc., to Rita Brandin, Newland Sierra, LLC, Re: Water Conservation Demand Study for the Newland Sierra Specific Plan and EIR, December 20, 2016, p. 15 and Table 11.

<sup>87</sup> Newhall DAEA, p. 2-26, pdf 57: Mitigation Measure 2-3: Swimming Pool Heating.

<sup>88</sup> Newhall DAEA, p. 2-27, pdf 58: Mitigation Measure 2-4: Residential Electric Vehicle Chargers and Vehicle Subsidy.

<sup>89</sup> Newhall DAEA, p. 2-27, Mitigation Measure 2-4: Residential Electric Vehicle Chargers and Vehicle Subsidy; Jeff Collins, Working Toward a 'Net Zero' Community, Orange County Register, December 3, 2017; available at <https://www.ocregister.com/2017/12/03/working-toward-a-net-zero-community/>

The Newland DEIR estimated that construction of the Project would emit 93,323 MT CO<sub>2</sub>E/yr, resulting in a potentially significant impact, labeled impact GHG-1.<sup>90</sup> The only mitigation required for these GHG emissions is M-GHG-1, which proposes to mitigate impacts from construction and vegetation removal emissions through an offset program that does not have any locational requirements or direct investment requirements.

This proposed offset program has all of the flaws previously discussed for the operational GHG offset program in Comment 1.1. Thus, the proposed construction offset program is inconsistent with CEQA and is not valid mitigation for the Project's construction GHG emission increases. CEQA mitigation must provide certainty that the reductions will occur, that the claimed reductions are enforceable, and that the mitigation measures do not create additional impacts.

Further, even assuming the offset program were valid CEQA mitigation, which it is not, the Newland Sierra DEIR significantly underestimated construction GHG emissions as discussed in my 8/14/17 comments. Thus, the offset program will not mitigate the significant increases in construction GHG emissions.

### **1.2.1. On-Site Mitigation Must Be Required for Construction Emissions**

Other agencies have established on-site mitigation measures to reduce GHG emissions from construction. Most of these measures have been required as CEQA mitigation for construction impacts in other EIRs.<sup>91,92,93,94,95,96</sup> These measures generally involve:

- reducing fuel use,
- enforcing idling time, including for delivery and construction vehicles (limited to 2 minutes),
- limiting and enforcing vehicle speed on unpaved roads to 15 mph,
- equipment maintenance checked by a certified visible emission evaluator,
- driver training,

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<sup>90</sup> Newland Sierra DEIR, p. 2.7-34.

<sup>91</sup> Chevron Refinery Modernization Project Final EIR, Revisions to Draft EIR Volumes 1 & 2, June 2014, pp. 4-25 to 4-28 (Chevron FEIR); available at [https://s3.amazonaws.com/chevron/Final+EIR/Volume+3\\_Final+EIR.pdf](https://s3.amazonaws.com/chevron/Final+EIR/Volume+3_Final+EIR.pdf)

<sup>92</sup> Peter Truitt, Potential for Reducing Greenhouse Gas Emissions in the Construction Sector, February 2009; available at <https://archive.epa.gov/sectors/web/pdf/construction-sector-report.pdf>

<sup>93</sup> The World Bank, Greenhouse Gas Emissions Mitigation in Road Construction and Rehabilitation, November 2010; available at [http://siteresources.worldbank.org/INTEAPASTAE/Resources/ROADEO\\_User\\_Manual.pdf](http://siteresources.worldbank.org/INTEAPASTAE/Resources/ROADEO_User_Manual.pdf)

<sup>94</sup> CAPCOA 2008, Appendix B, Table 16, pp. B-31 to B-32.

<sup>95</sup> SLAFC, December 2017, Table ES-1, p. ES-29.

<sup>96</sup> CARB, March 2017, Section 5.7.6.

- requiring construction vehicles to operate with the highest tier engines commercially available,
- using properly sized equipment,
- replacing or repowering older, less fuel-efficient equipment with newer models,
- using alternative fueled (e.g., biofuels, electric) engines for trucks and non-road equipment,
- using alternatives to diesel generators, such as dual-fuel generators that use a mix of natural gas or propane and diesel,
- using existing grid power for electric energy rather than operating temporary gasoline/diesel powered generators,
- requiring diesel equipment fleets to be lower emitting than any current emission standard,
- reducing employee commuting,
- conserving electricity,
- recycling and reusing wastes from construction,
- selecting construction materials with lower environmental impacts,
- using labor intensive techniques for excavation,
- using high modulus asphalt concrete for roads,
- using warm and half-warm asphalt mixes,
- recycling/reusing at least 50% of construction waste or demolition materials (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard),
- using gravel roads and surface treatment instead of bituminous/cement concrete pavements,
- taking maintenance into account during design,
- using locally-sourced building materials with a high recycled material content to the greatest extent feasible, but at least 10%,
- minimizing tree removal,
- using fly ash in concrete, and
- ensuring recycling of steel.

The Chevron EIR further required that Chevron hire, at commercially reasonable rates and at Chevron's expense, a qualified third-party entity acceptable to the City of Richmond to quantify and verify in writing whether the reductions achieved from its construction mitigation plan adequately mitigated the project's potentially significant GHG impact. The report "shall be subject to City's reasonable approval." For any year in which construction emissions are not reduced below the GHG significance threshold, Chevron was required to reduce emissions from other equipment at the refinery or permanently retire or retrofit from diesel to electric power, one or more facility sources that emit more than 300 MT CO<sub>2</sub>E/yr.<sup>97</sup> Similarly, the CARB Southern California Consolidation Project DEIR requires CARB to prepare a report that

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<sup>97</sup> Chevron FEIR, p. 4-25.

quantifies the emissions and credits and provides supporting technical documentation, and to post the report on CARB's webpage.<sup>98</sup>

Further, the Sacramento Metropolitan Air Quality Management District (SMAQMD) specifically lists the following feasible on-site construction GHG mitigation measures:<sup>99</sup>

- Improve fuel efficiency from construction equipment:
  - Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to no more than 3 minutes (5 minute limit is required by the state airborne toxics control measure [Title 13, sections 2449(d)(3) and 2485 of the California Code of Regulations]). Provide clear signage that posts this requirement for workers at the entrances to the site.
  - Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is operated.
  - Train equipment operators in proper use of equipment.
  - Use the proper size of equipment for the job.
  - Use equipment with new technologies (repowered engines, electric drive trains).
- Perform on-site material hauling with trucks equipped with on-road engines (if determined to be less emissive than the off-road engines).
- Use alternative fuels for generators at construction sites such as propane or solar, or use electrical power.
- Use an ARB approved low carbon fuel for construction equipment. (*NOx emissions from the use of low carbon fuel must be reviewed and increases mitigated.*)
- Encourage and provide carpools, shuttle vans, transit passes and/or secure bicycle parking for construction worker commutes.
- Reduce electricity use in the construction office by using compact fluorescent bulbs, powering off computers every day, and replacing heating and cooling units with more efficient ones.
- Recycle or salvage non-hazardous construction and demolition debris (goal of at least 75% by weight).

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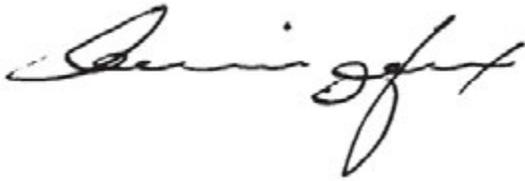
<sup>98</sup> CARB, March 2017, pp. 5.7-45/46.

<sup>99</sup> Sacramento Metropolitan Air Quality Management District (SMAQMD, Guidance for Construction GHG Emissions Reduction, CEQA Guide, December 2009, Revised September 2010, May 2016; available at <http://www.airquality.org/LandUseTransportation/Documents/Ch6ConstructionMitMeasuresFINAL5-2016.pdf>

- Use locally sourced or recycled materials for construction materials (goal of at least 20% based on costs for building materials, and based on volume for roadway, parking lot, sidewalk and curb materials). Wood products utilized should be certified through a sustainable forestry program.
- Minimize the amount of concrete for paved surfaces or utilize a low carbon concrete option.
- Produce concrete on-site if determined to be less emissive than transporting ready mix.
- Use SmartWay certified trucks for deliveries and equipment transport.
- Develop a plan to efficiently use water for adequate dust control.

In addition, the DEIR should require the use of established criteria for the selection of sustainable on-site construction equipment.<sup>100</sup>

Sincerely,

A handwritten signature in black ink, appearing to read "Phyllis Fox". The signature is fluid and cursive, with a large initial "P" and "F".

Phyllis Fox, Ph.D., PE

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<sup>100</sup> M. Waris et al., Criteria for the Selection of Sustainable Onsite Construction Equipment, International Journal of Sustainable Built Environment, v. 3, issue 1, June 2014, pp. 96-110; available at <https://www.sciencedirect.com/science/article/pii/S221260901400034X>

Phyllis Fox, Ph.D, PE  
Environmental Management

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Dr. Fox has over 40 years of experience in the field of environmental engineering, including air pollution control (BACT, BART, MACT, LAER, RACT), greenhouse gas emissions and control, cost effectiveness analyses, water quality and water supply investigations, hydrology, hazardous waste investigations, environmental permitting, nuisance investigations (odor, noise), environmental impact reports, CEQA/NEPA documentation, risk assessments, and litigation support.

## **EDUCATION**

Ph.D. Environmental/Civil Engineering, University of California, Berkeley, 1980.

M.S. Environmental/Civil Engineering, University of California, Berkeley, 1975.

B.S. Physics (with high honors), University of Florida, Gainesville, 1971.

## **REGISTRATION**

Registered Professional Engineer: Arizona (2001-2014; #36701; retired), California (2002-present; CH 6058), Florida (2001-2016; #57886; retired), Georgia (2002-2014; #PE027643; retired), Washington (2002-2014; #38692; retired), Wisconsin (2005-2014; #37595-006; retired)  
Board Certified Environmental Engineer, American Academy of Environmental Engineers, Certified in Air Pollution Control (DEE #01-20014), 2002-2014; retired)  
Qualified Environmental Professional (QEP), Institute of Professional Environmental Practice (QEP #02-010007, 2001-2015: retired).

## **PROFESSIONAL HISTORY**

Environmental Management, Principal, 1981-present

Lawrence Berkeley National Laboratory, Principal Investigator, 1977-1981

University of California, Berkeley, Program Manager, 1976-1977

Bechtel, Inc., Engineer, 1971-1976, 1964-1966

## **PROFESSIONAL AFFILIATIONS**

American Chemical Society (1981-2010)

Phi Beta Kappa (1970-present)

Sigma Pi Sigma (1970-present)

*Who's Who Environmental Registry*, PH Publishing, Fort Collins, CO, 1992.

*Who's Who in the World*, Marquis Who's Who, Inc., Chicago, IL, 11th Ed., p. 371, 1993-present.

*Who's Who of American Women*, Marquis Who's Who, Inc., Chicago, IL, 13th Ed., p. 264, 1984-present.

*Who's Who in Science and Engineering*, Marquis Who's Who, Inc., New Providence, NJ, 5<sup>th</sup> Ed., p. 414, 1999-present.

*Who's Who in America*, Marquis Who's Who, Inc., 59<sup>th</sup> Ed., 2005.

*Guide to Specialists on Toxic Substances*, World Environment Center, New York, NY, p. 80, 1980.

National Research Council Committee on Irrigation-Induced Water Quality Problems (Selenium), Subcommittee on Quality Control/Quality Assurance (1985-1990).

National Research Council Committee on Surface Mining and Reclamation, Subcommittee on Oil Shale (1978-80)

### *REPRESENTATIVE EXPERIENCE*

Performed environmental and engineering investigations, as outlined below, for a wide range of industrial and commercial facilities including: petroleum refineries and upgrades thereto; reformulated fuels projects; refinery upgrades to process heavy sour crudes, including tar sands and light sweet crudes from the Eagle Ford and Bakken Formations; petroleum, gasoline and ethanol distribution terminals; coal, coke, and ore/mineral export terminals; LNG export, import, and storage terminals; crude-by-rail projects; bioenergy facilities; shale oil plants; crude oil/condensate marine and rail terminals; coal gasification and liquefaction plants; oil and gas production, including conventional, thermally enhanced, hydraulic fracking, and acid stimulation techniques; underground storage tanks; pipelines; compressor stations; gasoline stations; landfills; railyards; hazardous waste treatment facilities; nuclear, hydroelectric, geothermal, wood, biomass, waste, tire-derived fuel, gas, oil, coke and coal-fired power plants; transmission lines; airports; hydrogen plants; petroleum coke calcining plants; coke plants; activated carbon manufacturing facilities; asphalt plants; cement plants; incinerators; flares; manufacturing facilities (e.g., semiconductors, electronic assembly, aerospace components, printed circuit boards, amusement park rides); lanthanide processing plants; ammonia plants; nitric acid plants; urea plants; food processing plants; wineries; almond hulling facilities; composting facilities; grain processing facilities; grain elevators; ethanol production facilities; soy bean oil extraction plants; biodiesel plants; paint formulation plants; wastewater treatment plants; marine terminals and ports; gas processing plants; steel mills; iron nugget production facilities; pig iron plant, based on blast furnace technology; direct reduced iron plant; acid regeneration facilities; railcar refinishing facility; battery manufacturing plants; pesticide manufacturing and repackaging facilities; pulp and paper mills; olefin plants; methanol plants; ethylene crackers; alumina plants, desalination plants; selective catalytic reduction (SCR) systems; selective noncatalytic reduction (SNCR) systems; halogen acid furnaces; contaminated property redevelopment projects (e.g., Mission Bay, Southern Pacific Railyards, Moscone Center expansion, San Diego Padres Ballpark); residential developments; commercial office parks, campuses, and shopping centers; server farms; transportation plans; and a wide range of mines including sand and gravel, hard rock, limestone, nacholite, coal, molybdenum, gold, zinc, and oil shale.

*EXPERT WITNESS/LITIGATION SUPPORT*

- For the California Attorney General, assist in determining compliance with probation terms in the matter of *People v. Chevron USA*.
- For plaintiffs, assist in developing Petitioners' proof brief for *National Parks Conservation Association et al v. U.S. EPA, Petition for Review of Final Administrative Action of the U.S. EPA*, In the U.S. Court of Appeals for the Third Circuit, Docket No. 14-3147.
- For plaintiffs, expert witness in civil action relating to alleged violations of the Clean Air Act, Prevention of Significant Deterioration, for historic modifications (1997-2000) at the Cemex cement plant in Lyons, Colorado. Reviewed produced documents, prepared expert and rebuttal reports on PSD applicability based on NOx emission calculations for a collection of changes considered both individually and collectively. Deposed August 2011. *United States v. Cemex, Inc.*, In U.S. District Court for the District of Colorado (Civil Action No. 09-cv-00019-MSK-MEH). Case settled June 13, 2013.
- For plaintiffs, in civil action relating to alleged violations of the Clean Air Act, Prevention of Significant Deterioration, for historic modifications (1988 – 2000) at James De Young Units 3, 4, and 5. Reviewed produced documents, analyzed CEMS and EIA data, and prepared netting and BACT analyses for NOx, SO2, and PM10 (PSD case). Expert report February 24, 2010 and affidavit February 20, 2010. *Sierra Club v. City of Holland, et al.*, U.S. District Court, Western District of Michigan (Civil Action 1:08-cv-1183). Case settled. Consent Decree 1/19/14.
- For plaintiffs, in civil action alleging failure to obtain MACT permit, expert on potential to emit hydrogen chloride (HCl) from a new coal-fired boiler. Reviewed record, estimated HCl emissions, wrote expert report June 2010 and March 2013 (Cost to Install a Scrubber at the Lamar Repowering Project Pursuant to Case-by-Case MACT), deposed August 2010 and March 2013. *Wildearth Guardian et al. v. Lamar Utilities Board*, Civil Action No. 09-cv-02974, U.S. District Court, District of Colorado. Case settled August 2013.
- For plaintiffs, expert witness on permitting, emission calculations, and wastewater treatment for coal-to-gasoline plant. Reviewed produced documents. Assisted in preparation of comments on draft minor source permit. Wrote two affidavits on key issues in case. Presented direct and rebuttal testimony 10/27 - 10/28/10 on permit enforceability and failure to properly calculate potential to emit, including underestimate of flaring emissions and omission of VOC and CO emissions from wastewater treatment, cooling tower, tank roof landings, and malfunctions. *Sierra Club, Ohio Valley Environmental Coalition, Coal River Mountain Watch, West Virginia Highlands Conservancy v. John Benedict, Director, Division of Air Quality, West Virginia Department of Environmental Protection and TransGas Development System, LLC*, Appeal No. 10-01-AQB. Virginia Air Quality Board remanded the permit on March 28, 2011 ordering reconsideration of potential to emit calculations,

including: (1) support for assumed flare efficiency; (2) inclusion of startup, shutdown and malfunction emissions; and (3) inclusion of wastewater treatment emissions in potential to emit calculations.

- For plaintiffs, expert on BACT emission limits for gas-fired combined cycle power plant. Prepared declaration in support of CBE's Opposition to the United States' Motion for Entry of Proposed Amended Consent Decree. Assisted in settlement discussions. *U.S. EPA, Plaintiff, Communities for a Better Environment, Intervenor Plaintiff, v. Pacific Gas & Electric Company, et al.*, U.S. District Court, Northern District of California, San Francisco Division, Case No. C-09-4503 SI.
- Technical expert in confidential settlement discussions with large coal-fired utility on BACT control technology and emission limits for NO<sub>x</sub>, SO<sub>2</sub>, PM, PM<sub>2.5</sub>, and CO for new natural gas fired combined cycle and simple cycle turbines with oil backup. (July 2010). Case settled.
- For plaintiffs, expert witness in remedy phase of civil action relating to alleged violations of the Clean Air Act, Prevention of Significant Deterioration, for historic modifications (1998-99) at Gallagher Units 1 and 3. Reviewed produced documents, prepared expert and rebuttal reports on historic and current-day BACT for SO<sub>2</sub>, control costs, and excess emissions of SO<sub>2</sub>. Deposed 11/18/09. *United States et al. v. Cinergy, et al.*, In U.S. District Court for the Southern District of Indiana, Indianapolis Division, Civil Action No. IP99-1693 C-M/S. Settled 12/22/09.
- For plaintiffs, expert witness on MACT, BACT for NO<sub>x</sub>, and enforceability in an administrative appeal of draft state air permit issued for four 300-MW pet-coke-fired CFBs. Reviewed produced documents and prepared prefiled testimony. Deposed 10/8/09 and 11/9/09. Testified 11/10/09. *Application of Las Brisas Energy Center, LLC for State Air Quality Permit*; before the State Office of Administrative Hearings, Texas. Permit remanded 3/29/10 as LBEC failed to meet burden of proof on a number of issues including MACT. Texas Court of Appeals dismissed an appeal to reinstate the permit. The Texas Commission on Environmental Quality and Las Brisas Energy Center, LLC sought to overturn the Court of Appeals decision but moved to have their appeal dismissed in August 2013.
- For defense, expert witness in unlawful detainer case involving a gasoline station, minimart, and residential property with contamination from leaking underground storage tanks. Reviewed agency files and inspected site. Presented expert testimony on July 6, 2009, on causes of, nature and extent of subsurface contamination. *A. Singh v. S. Assaedi*, in Contra Costa County Superior Court, CA. Settled August 2009.
- For plaintiffs, expert witness on netting and enforceability for refinery being upgraded to process tar sands crude. Reviewed produced documents. Prepared expert and rebuttal reports addressing use of emission factors for baseline, omitted sources including coker, flares, tank landings and cleaning, and enforceability. Deposed. *In the Matter of Objection to the Issuance of Significant Source Modification Permit No. 089-25484-00453 to BP Products*

*North America Inc., Whiting Business Unit, Save the Dunes Council, Inc., Sierra Club., Inc., Hoosier Environmental Council et al., Petitioners, B. P. Products North American, Respondents/Permittee*, before the Indiana Office of Environmental Adjudication. Case settled.

- For plaintiffs, expert witness on BACT, MACT, and enforceability in appeal of Title V permit issued to 600 MW coal-fired power plant burning Powder River Basin coal. Prepared technical comments on draft air permit. Reviewed record on appeal, drafted BACT, MACT, and enforceability pre-filed testimony. Drafted MACT and enforceability pre-filed rebuttal testimony. Deposed March 24, 2009. Testified June 10, 2009. *In Re: Southwestern Electric Power Company*, Arkansas Pollution Control and Ecology Commission, Consolidated Docket No. 08-006-P. Recommended Decision issued December 9, 2009 upholding issued permit. Commission adopted Recommended Decision January 22, 2010.
- For plaintiffs, expert witness in remedy phase of civil action relating to alleged violations of the Clean Air Act, Prevention of Significant Deterioration, for historic modifications (1989-1992) at Wabash Units 2, 3 and 5. Reviewed produced documents, prepared expert and rebuttal report on historic and current-day BACT for NO<sub>x</sub> and SO<sub>2</sub>, control costs, and excess emissions of NO<sub>x</sub>, SO<sub>2</sub>, and mercury. Deposed 10/21/08. *United States et al. v. Cinergy, et al.*, In U.S. District Court for the Southern District of Indiana, Indianapolis Division, Civil Action No. IP99-1693 C-M/S. Testified 2/3/09. Memorandum Opinion & Order 5-29-09 requiring shutdown of Wabash River Units 2, 3, 5 by September 30, 2009, run at baseline until shutdown, and permanently surrender SO<sub>2</sub> emission allowances.
- For plaintiffs, expert witness in liability phase of civil action relating to alleged violations of the Clean Air Act, Prevention of Significant Deterioration, for three historic modifications (1997-2001) at two portland cement plants involving three cement kilns. Reviewed produced documents, analyzed CEMS data covering subject period, prepared netting analysis for NO<sub>x</sub>, SO<sub>2</sub> and CO, and prepared expert and rebuttal reports. *United States v. Cemex California Cement*, In U.S. District Court for the Central District of California, Eastern Division, Case No. ED CV 07-00223-GW (JCRx). Settled 1/15/09.
- For intervenors Clean Wisconsin and Citizens Utility Board, prepared data requests, reviewed discovery and expert report. Prepared prefiled direct, rebuttal and surrebuttal testimony on cost to extend life of existing Oak Creek Units 5-8 and cost to address future regulatory requirements to determine whether to control or shutdown one or more of the units. Oral testimony 2/5/08. Application for a Certificate of Authority to Install Wet Flue Gas Desulfurization and Selective Catalytic Reduction Facilities and Associated Equipment for Control of Sulfur Dioxide and Nitrogen Oxide Emissions at Oak Creek Power Plant Units 5, 6, 7 and 8, WPSC Docket No. 6630-CE-299.
- For plaintiffs, expert witness on alternatives analysis and BACT for NO<sub>x</sub>, SO<sub>2</sub>, total PM<sub>10</sub>, and sulfuric acid mist in appeal of PSD permit issued to 1200 MW coal fired power plant burning Powder River Basin and/or Central Appalachian coal (Longleaf). Assisted in drafting technical comments on NO<sub>x</sub> on draft permit. Prepared expert disclosure. Presented 8+ days

of direct and rebuttal expert testimony. Attended all 21 days of evidentiary hearing from 9/5/07 – 10/30/07 assisting in all aspects of hearing. *Friends of the Chatahooche and Sierra Club v. Dr. Carol Couch, Director, Environmental Protection Division of Natural Resources Department, Respondent, and Longleaf Energy Associates, Intervener*. ALJ Final Decision 1/11/08 denying petition. ALJ Order vacated & remanded for further proceedings, Fulton County Superior Court, 6/30/08. Court of Appeals of GA remanded the case with directions that the ALJ's final decision be vacated to consider the evidence under the correct standard of review, July 9, 2009. The ALJ issued an opinion April 2, 2010 in favor of the applicant. Final permit issued April 2010.

- For plaintiffs, expert witness on diesel exhaust in inverse condemnation case in which Port expanded maritime operations into residential neighborhoods, subjecting plaintiffs to noise, light, and diesel fumes. Measured real-time diesel particulate concentrations from marine vessels and tug boats on plaintiffs' property. Reviewed documents, depositions, DVDs, and photographs provided by counsel. Deposed. Testified October 24, 2006. *Ann Chargin, Richard Hackett, Carolyn Hackett, et al. v. Stockton Port District*, Superior Court of California, County of San Joaquin, Stockton Branch, No. CV021015. Judge ruled for plaintiffs.
- For plaintiffs, expert witness on NOx emissions and BACT in case alleging failure to obtain necessary permits and install controls on gas-fired combined-cycle turbines. Prepared and reviewed (applicant analyses) of NOx emissions, BACT analyses (water injection, SCR, ultra low NOx burners), and cost-effectiveness analyses based on site visit, plant operating records, stack tests, CEMS data, and turbine and catalyst vendor design information. Participated in negotiations to scope out consent order. *United States v. Nevada Power*. Case settled June 2007, resulting in installation of dry low NOx burners (5 ppm NOx averaged over 1 hr) on four units and a separate solar array at a local business.
- For plaintiffs, expert witness in appeal of PSD permit issued to 850 MW coal fired boiler burning Powder River Basin coal (Iatan Unit 2) on BACT for particulate matter, sulfuric acid mist and opacity and emission calculations for alleged historic violations of PSD. Assisted in drafting technical comments, petition for review, discovery requests, and responses to discovery requests. Reviewed produced documents. Prepared expert report on BACT for particulate matter. Assisted with expert depositions. Deposed February 7, 8, 27, and 28, 2007. *In Re PSD Construction Permit Issued to Great Plains Energy, Kansas City Power & Light – Iatan Generating Station, Sierra Club v. Missouri Department of Natural Resources, Great Plains Energy, and Kansas City Power & Light*. Case settled March 27, 2007, providing offsets for over 6 million ton/yr of CO<sub>2</sub> and lower NOx and SO<sub>2</sub> emission limits.
- For plaintiffs, expert witness in remedy phase of civil action relating to alleged violations of the Clean Air Act, Prevention of Significant Deterioration, for historic modifications of coal-fired boilers and associated equipment. Reviewed produced documents, prepared expert report on cost to retrofit 24 coal-fired power plants with scrubbers designed to remove 99% of the sulfur dioxide from flue gases. Prepared supplemental and expert report on cost

estimates and BACT for SO<sub>2</sub> for these 24 complaint units. Deposed 1/30/07 and 3/14/07. *United States and State of New York et al. v. American Electric Power*, In U.S. District Court for the Southern District of Ohio, Eastern Division, Consolidated Civil Action Nos. C2-99-1182 and C2-99-1250. Settlement announced 10/9/07.

- For plaintiffs, expert witness on BACT, enforceability, and alternatives analysis in appeal of PSD permit issued for a 270-MW pulverized coal fired boiler burning Powder River Basin coal (City Utilities Springfield Unit 2). Reviewed permitting file and assisted counsel draft petition and prepare and respond to interrogatories and document requests. Reviewed interrogatory responses and produced documents. Assisted with expert depositions. Deposed August 2005. Evidentiary hearings October 2005. *In the Matter of Linda Chipperfield and Sierra Club v. Missouri Department of Natural Resources*. Missouri Supreme Court denied review of adverse lower court rulings August 2007.
- For plaintiffs, expert witness in civil action relating to plume touchdowns at AEP's Gavin coal-fired power plant. Assisted counsel draft interrogatories and document requests. Reviewed responses to interrogatories and produced documents. Prepared expert report "Releases of Sulfuric Acid Mist from the Gavin Power Station." The report evaluates sulfuric acid mist releases to determine if AEP complied with the requirements of CERCLA Section 103(a) and EPCRA Section 304. This report also discusses the formation, chemistry, release characteristics, and abatement of sulfuric acid mist in support of the claim that these releases present an imminent and substantial endangerment to public health under Section 7002(a)(1)(B) of the Resource Conservation and Recovery Act ("RCRA"). *Citizens Against Pollution v. Ohio Power Company*, In the U.S. District Court for the Southern District of Ohio, Eastern Division, Civil Action No. 2-04-cv-371. Case settled 12-8-06.
- For petitioners, expert witness in contested case hearing on BACT, enforceability, and emission estimates for an air permit issued to a 500-MW supercritical Power River Basin coal-fired boiler (Weston Unit 4). Assisted counsel prepare comments on draft air permit and respond to and draft discovery. Reviewed produced file, deposed (7/05), and prepared expert report on BACT and enforceability. Evidentiary hearings September 2005. *In the Matter of an Air Pollution Control Construction Permit Issued to Wisconsin Public Service Corporation for the Construction and Operation of a 500 MW Pulverized Coal-fired Power Plant Known as Weston Unit 4 in Marathon County, Wisconsin*, Case No. IH-04-21. The Final Order, issued 2/10/06, lowered the NO<sub>x</sub> BACT limit from 0.07 lb/MMBtu to 0.06 lb/MMBtu based on a 30-day average, added a BACT SO<sub>2</sub> control efficiency, and required a 0.0005% high efficiency drift eliminator as BACT for the cooling tower. The modified permit, including these provisions, was issued 3/28/07. Additional appeals in progress.
- For plaintiffs, adviser on technical issues related to Citizen Suit against U.S. EPA regarding failure to update New Source Performance Standards for petroleum refineries, 40 CFR 60, Subparts J, VV, and GGG. *Our Children's Earth Foundation and Sierra Club v. U.S. EPA et al.* Case settled July 2005. CD No. C 05-00094 CW, U.S. District Court, Northern District of

California – Oakland Division. Proposed revisions to standards of performance for petroleum refineries published 72 FR 27178 (5/14/07).

- For interveners, reviewed proposed Consent Decree settling Clean Air Act violations due to historic modifications of boilers and associated equipment at two coal-fired power plants. In response to stay order, reviewed the record, selected one representative activity at each of seven generating units, and analyzed to identify CAA violations. Identified NSPS and NSR violations for NO<sub>x</sub>, SO<sub>2</sub>, PM/PM<sub>10</sub>, and sulfuric acid mist. Summarized results in an expert report. *United States of America, and Michael A. Cox, Attorney General of the State of Michigan, ex rel. Michigan Department of Environmental Quality, Plaintiffs, and Clean Wisconsin, Sierra Club, and Citizens' Utility Board, Intervenors, v. Wisconsin Electric Power Company, Defendant*, U.S. District Court for the Eastern District of Wisconsin, Civil Action No. 2:03-CV-00371-CNC. Order issued 10-1-07 denying petition.
- For a coalition of Nevada labor organizations (ACE), reviewed preliminary determination to issue a Class I Air Quality Operating Permit to Construct and supporting files for a 250-MW pulverized coal-fired boiler (Newmont). Prepared about 100 pages of technical analyses and comments on BACT, MACT, emission calculations, and enforceability. Assisted counsel draft petition and reply brief appealing PSD permit to U.S. EPA Environmental Appeals Board (EAB). Order denying review issued 12/21/05. *In re Newmont Nevada Energy Investment, LLC, TS Power Plant*, PSD Appeal No. 05-04 (EAB 2005).
- For petitioners and plaintiffs, reviewed and prepared comments on air quality and hazardous waste based on negative declaration for refinery ultra low sulfur diesel project located in SCAQMD. Reviewed responses to comments and prepared responses. Prepared declaration and presented oral testimony before SCAQMD Hearing Board on exempt sources (cooling towers) and calculation of potential to emit under NSR. Petition for writ of mandate filed March 2005. Case remanded by Court of Appeals to trial court to direct SCAQMD to re-evaluate the potential environmental significance of NO<sub>x</sub> emissions resulting from the project in accordance with court's opinion. California Court of Appeals, Second Appellate Division, on December 18, 2007, affirmed in part (as to baseline) and denied in part. *Communities for a Better Environment v. South Coast Air Quality Management District and ConocoPhillips and Carlos Valdez et al v. South Coast Air Quality Management District and ConocoPhillips*. Certified for partial publication 1/16/08. Appellate Court opinion upheld by CA Supreme Court 3/15/10. (2010) 48 Cal.4th 310.
- For amici seeking to amend a proposed Consent Decree to settle alleged NSR violations at Chevron refineries, reviewed proposed settlement, related files, subject modifications, and emission calculations. Prepared declaration on emission reductions, identification of NSR and NSPS violations, and BACT/LAER for FCCUs, heaters and boilers, flares, and sulfur recovery plants. *U.S. et al. v. Chevron U.S.A.*, Northern District of California, Case No. C 03-04650. Memorandum and Order Entering Consent Decree issued June 2005. Case No. C 03-4650 CRB.

- For petitioners, prepared declaration on enforceability of periodic monitoring requirements, in response to EPA's revised interpretation of 40 CFR 70.6(c)(1). This revision limited additional monitoring required in Title V permits. 69 FR 3203 (Jan. 22, 2004). *Environmental Integrity Project et al. v. EPA* (U.S. Court of Appeals for the District of Columbia). Court ruled the Act requires all Title V permits to contain monitoring requirements to assure compliance. *Sierra Club v. EPA*, 536 F.3d 673 (D.C. Cir. 2008).
- For interveners in application for authority to construct a 500 MW supercritical coal-fired generating unit before the Wisconsin Public Service Commission, prepared pre-filed written direct and rebuttal testimony with oral cross examination and rebuttal on BACT and MACT (Weston 4). Prepared written comments on BACT, MACT, and enforceability on draft air permit for same facility.
- For property owners in Nevada, evaluated the environmental impacts of a 1,450-MW coal-fired power plant proposed in a rural area adjacent to the Black Rock Desert and Granite Range, including emission calculations, air quality modeling, comments on proposed use permit to collect preconstruction monitoring data, and coordination with agencies and other interested parties. Project cancelled.
- For environmental organizations, reviewed draft PSD permit for a 600-MW coal-fired power plant in West Virginia (Longview). Prepared comments on permit enforceability; coal washing; BACT for SO<sub>2</sub> and PM<sub>10</sub>; Hg MACT; and MACT for HCl, HF, non-Hg metallic HAPs, and enforceability. Assist plaintiffs draft petition appealing air permit. Retained as expert to develop testimony on MACT, BACT, offsets, enforceability. Participate in settlement discussions. Case settled July 2004.
- For petitioners, reviewed record produced in discovery and prepared affidavit on emissions of carbon monoxide and volatile organic compounds during startup of GE 7FA combustion turbines to successfully establish plaintiff standing. *Sierra Club et al. v. Georgia Power Company* (Northern District of Georgia).
- For building trades, reviewed air quality permitting action for 1500-MW coal-fired power plant before the Kentucky Department for Environmental Protection (Thoroughbred).
- For petitioners, expert witness in administrative appeal of the PSD/Title V permit issued to a 1500-MW coal-fired power plant. Reviewed over 60,000 pages of produced documents, prepared discovery index, identified and assembled plaintiff exhibits. Deposed. Assisted counsel in drafting discovery requests, with over 30 depositions, witness cross examination, and brief drafting. Presented over 20 days of direct testimony, rebuttal and sur-rebuttal, with cross examination on BACT for NO<sub>x</sub>, SO<sub>2</sub>, and PM/PM<sub>10</sub>; MACT for Hg and non-Hg metallic HAPs; emission estimates for purposes of Class I and II air modeling; risk assessment; and enforceability of permit limits. Evidentiary hearings from November 2003 to June 2004. *Sierra Club et al. v. Natural Resources & Environmental Protection Cabinet, Division of Air Quality and Thoroughbred Generating Company et al.* Hearing Officer Decision issued August 9, 2005 finding in favor of plaintiffs on counts as to risk, BACT

(IGCC/CFB, NO<sub>x</sub>, SO<sub>2</sub>, Hg, Be), single source, enforceability, and errors and omissions. Assist counsel draft exceptions. Cabinet Secretary issued Order April 11, 2006 denying Hearing Offer's report, except as to NO<sub>x</sub> BACT, Hg, 99% SO<sub>2</sub> control and certain errors and omissions.

- For citizens group in Massachusetts, reviewed, commented on, and participated in permitting of pollution control retrofits of coal-fired power plant (Salem Harbor).
- Assisted citizens group and labor union challenge issuance of conditional use permit for a 317,000 ft<sup>2</sup> discount store in Honolulu without any environmental review. In support of a motion for preliminary injunction, prepared 7-page declaration addressing public health impacts of diesel exhaust from vehicles serving the Project. In preparation for trial, prepared 20-page preliminary expert report summarizing results of diesel exhaust and noise measurements at two big box retail stores in Honolulu, estimated diesel PM10 concentrations for Project using ISCST, prepared a cancer health risk assessment based on these analyses, and evaluated noise impacts.
- Assisted environmental organizations to challenge the DOE Finding of No Significant Impact (FONSI) for the Baja California Power and Sempra Energy Resources Cross-Border Transmissions Lines in the U.S. and four associated power plants located in Mexico (DOE EA-1391). Prepared 20-page declaration in support of motion for summary judgment addressing emissions, including CO<sub>2</sub> and NH<sub>3</sub>, offsets, BACT, cumulative air quality impacts, alternative cooling systems, and water use and water quality impacts. Plaintiff's motion for summary judgment granted in part. U.S. District Court, Southern District decision concluded that the Environmental Assessment and FONSI violated NEPA and the APA due to their inadequate analysis of the potential controversy surrounding the project, water impacts, impacts from NH<sub>3</sub> and CO<sub>2</sub>, alternatives, and cumulative impacts. *Border Power Plant Working Group v. Department of Energy and Bureau of Land Management*, Case No. 02-CV-513-IEG (POR) (May 2, 2003).
- For Sacramento school, reviewed draft air permit issued for diesel generator located across from playfield. Prepared comments on emission estimates, enforceability, BACT, and health impacts of diesel exhaust. Case settled. BUG trap installed on the diesel generator.
- Assisted unions in appeal of Title V permit issued by BAAQMD to carbon plant that manufactured coke. Reviewed District files, identified historic modifications that should have triggered PSD review, and prepared technical comments on Title V permit. Reviewed responses to comments and assisted counsel draft appeal to BAAQMD hearing board, opening brief, motion to strike, and rebuttal brief. Case settled.
- Assisted California Central Coast city obtain controls on a proposed new city that would straddle the Ventura-Los Angeles County boundary. Reviewed several environmental impact reports, prepared an air quality analysis, a diesel exhaust health risk assessment, and detailed review comments. Governor intervened and State dedicated the land for conservation purposes April 2004.
- Assisted Central California city to obtain controls on large alluvial sand quarry and asphalt plant proposing a modernization. Prepared comments on Negative Declaration on air quality,

public health, noise, and traffic. Evaluated process flow diagrams and engineering reports to determine whether proposed changes increased plant capacity or substantially modified plant operations. Prepared comments on application for categorical exemption from CEQA. Presented testimony to County Board of Supervisors. Developed controls to mitigate impacts. Assisted counsel draft Petition for Writ. Case settled June 2002. Substantial improvements in plant operations were obtained including cap on throughput, dust control measures, asphalt plant loadout enclosure, and restrictions on truck routes.

- Assisted oil companies on the California Central Coast in defending class action citizen's lawsuit alleging health effects due to emissions from gas processing plant and leaking underground storage tanks. Reviewed regulatory and other files and advised counsel on merits of case. Case settled November 2001.
- Assisted oil company on the California Central Coast in defending property damage claims arising out of a historic oil spill. Reviewed site investigation reports, pump tests, leachability studies, and health risk assessments, participated in design of additional site characterization studies to assess health impacts, and advised counsel on merits of case. Prepare health risk assessment.
- Assisted unions in appeal of Initial Study/Negative Declaration ("IS/ND") for an MTBE phaseout project at a Bay Area refinery. Reviewed IS/ND and supporting agency permitting files and prepared technical comments on air quality, groundwater, and public health impacts. Reviewed responses to comments and final IS/ND and ATC permits and assisted counsel to draft petitions and briefs appealing decision to Air District Hearing Board. Presented sworn direct and rebuttal testimony with cross examination on groundwater impacts of ethanol spills on hydrocarbon contamination at refinery. Hearing Board ruled 5 to 0 in favor of appellants, remanding ATC to district to prepare an EIR.
- Assisted Florida cities in challenging the use of diesel and proposed BACT determinations in prevention of significant deterioration (PSD) permits issued to two 510-MW simple cycle peaking electric generating facilities and one 1,080-MW simple cycle/combined cycle facility. Reviewed permit applications, draft permits, and FDEP engineering evaluations, assisted counsel in drafting petitions and responding to discovery. Participated in settlement discussions. Cases settled or applications withdrawn.
- Assisted large California city in federal lawsuit alleging peaker power plant was violating its federal permit. Reviewed permit file and applicant's engineering and cost feasibility study to reduce emissions through retrofit controls. Advised counsel on feasible and cost-effective NO<sub>x</sub>, SO<sub>x</sub>, and PM<sub>10</sub> controls for several 1960s diesel-fired Pratt and Whitney peaker turbines. Case settled.
- Assisted coalition of Georgia environmental groups in evaluating BACT determinations and permit conditions in PSD permits issued to several large natural gas-fired simple cycle and combined-cycle power plants. Prepared technical comments on draft PSD permits on BACT, enforceability of limits, and toxic emissions. Reviewed responses to comments, advised

counsel on merits of cases, participated in settlement discussions, presented oral and written testimony in adjudicatory hearings, and provided technical assistance as required. Cases settled or won at trial.

- Assisted construction unions in review of air quality permitting actions before the Indiana Department of Environmental Management ("IDEM") for several natural gas-fired simple cycle peaker and combined cycle power plants.
- Assisted coalition of towns and environmental groups in challenging air permits issued to 523 MW dual fuel (natural gas and distillate) combined-cycle power plant in Connecticut. Prepared technical comments on draft permits and 60 pages of written testimony addressing emission estimates, startup/shutdown issues, BACT/LAER analyses, and toxic air emissions. Presented testimony in adjudicatory administrative hearings before the Connecticut Department of Environmental Protection in June 2001 and December 2001.
- Assisted various coalitions of unions, citizens groups, cities, public agencies, and developers in licensing and permitting of over 110 coal, gas, oil, biomass, and pet coke-fired power plants generating over 75,000 MW of electricity. These included base-load, combined cycle, simple cycle, and peaker power plants in Alaska, Arizona, Arkansas, California, Colorado, Georgia, Florida, Illinois, Indiana, Kentucky, Michigan, Missouri, Ohio, Oklahoma, Oregon, Texas, West Virginia, Wisconsin, and elsewhere. Prepared analyses of and comments on applications for certification, preliminary and final staff assessments, and various air, water, wastewater, and solid waste permits issued by local agencies. Presented written and oral testimony before various administrative bodies on hazards of ammonia use and transportation, health effects of air emissions, contaminated property issues, BACT/LAER issues related to SCR and SCONOX, criteria and toxic pollutant emission estimates, MACT analyses, air quality modeling, water supply and water quality issues, and methods to reduce water use, including dry cooling, parallel dry-wet cooling, hybrid cooling, and zero liquid discharge systems.
- Assisted unions, cities, and neighborhood associations in challenging an EIR issued for the proposed expansion of the Oakland Airport. Reviewed two draft EIRs and prepared a health risk assessment and extensive technical comments on air quality and public health impacts. The California Court of Appeals, First Appellate District, ruled in favor of appellants and plaintiffs, concluding that the EIR "2) erred in using outdated information in assessing the emission of toxic air contaminants (TACs) from jet aircraft; 3) failed to support its decision not to evaluate the health risks associated with the emission of TACs with meaningful analysis," thus accepting my technical arguments and requiring the Port to prepare a new EIR. See *Berkeley Keep Jets Over the Bay Committee, City of San Leandro, and City of Alameda et al. v. Board of Port Commissioners* (August 30, 2001) 111 Cal.Rptr.2d 598.
- Assisted lessor of former gas station with leaking underground storage tanks and TCE contamination from adjacent property. Lessor held option to purchase, which was forfeited based on misrepresentation by remediation contractor as to nature and extent of

contamination. Remediation contractor purchased property. Reviewed regulatory agency files and advised counsel on merits of case. Case not filed.

- Advised counsel on merits of several pending actions, including a Proposition 65 case involving groundwater contamination at an explosives manufacturing firm and two former gas stations with leaking underground storage tanks.
- Assisted defendant foundry in Oakland in a lawsuit brought by neighbors alleging property contamination, nuisance, trespass, smoke, and health effects from foundry operation. Inspected and sampled plaintiff's property. Advised counsel on merits of case. Case settled.
- Assisted business owner facing eminent domain eviction. Prepared technical comments on a negative declaration for soil contamination and public health risks from air emissions from a proposed redevelopment project in San Francisco in support of a CEQA lawsuit. Case settled.
- Assisted neighborhood association representing residents living downwind of a Berkeley asphalt plant in separate nuisance and CEQA lawsuits. Prepared technical comments on air quality, odor, and noise impacts, presented testimony at commission and council meetings, participated in community workshops, and participated in settlement discussions. Cases settled. Asphalt plant was upgraded to include air emission and noise controls, including vapor collection system at truck loading station, enclosures for noisy equipment, and improved housekeeping.
- Assisted a Fortune 500 residential home builder in claims alleging health effects from faulty installation of gas appliances. Conducted indoor air quality study, advised counsel on merits of case, and participated in discussions with plaintiffs. Case settled.
- Assisted property owners in Silicon Valley in lawsuit to recover remediation costs from insurer for large TCE plume originating from a manufacturing facility. Conducted investigations to demonstrate sudden and accidental release of TCE, including groundwater modeling, development of method to date spill, preparation of chemical inventory, investigation of historical waste disposal practices and standards, and on-site sewer and storm drainage inspections and sampling. Prepared declaration in opposition to motion for summary judgment. Case settled.
- Assisted residents in east Oakland downwind of a former battery plant in class action lawsuit alleging property contamination from lead emissions. Conducted historical research and dry deposition modeling that substantiated claim. Participated in mediation at JAMS. Case settled.
- Assisted property owners in West Oakland who purchased a former gas station that had leaking underground storage tanks and groundwater contamination. Reviewed agency files and advised counsel on merits of case. Prepared declaration in opposition to summary

judgment. Prepared cost estimate to remediate site. Participated in settlement discussions. Case settled.

- Consultant to counsel representing plaintiffs in two Clean Water Act lawsuits involving selenium discharges into San Francisco Bay from refineries. Reviewed files and advised counsel on merits of case. Prepared interrogatory and discovery questions, assisted in deposing opposing experts, and reviewed and interpreted treatability and other technical studies. Judge ruled in favor of plaintiffs.
- Assisted oil company in a complaint filed by a resident of a small California beach community alleging that discharges of tank farm rinse water into the sanitary sewer system caused hydrogen sulfide gas to infiltrate residence, sending occupants to hospital. Inspected accident site, interviewed parties to the event, and reviewed extensive agency files related to incident. Used chemical analysis, field simulations, mass balance calculations, sewer hydraulic simulations with SWMM44, atmospheric dispersion modeling with SCREEN3, odor analyses, and risk assessment calculations to demonstrate that the incident was caused by a faulty drain trap and inadequate slope of sewer lateral on resident's property. Prepared a detailed technical report summarizing these studies. Case settled.
- Assisted large West Coast city in suit alleging that leaking underground storage tanks on city property had damaged the waterproofing on downgradient building, causing leaks in an underground parking structure. Reviewed subsurface hydrogeologic investigations and evaluated studies conducted by others documenting leakage from underground diesel and gasoline tanks. Inspected, tested, and evaluated waterproofing on subsurface parking structure. Waterproofing was substandard. Case settled.
- Assisted residents downwind of gravel mine and asphalt plant in Siskiyou County, California, in suit to obtain CEQA review of air permitting action. Prepared two declarations analyzing air quality and public health impacts. Judge ruled in favor of plaintiffs, closing mine and asphalt plant.
- Assisted defendant oil company on the California Central Coast in class action lawsuit alleging property damage and health effects from subsurface petroleum contamination. Reviewed documents, prepared risk calculations, and advised counsel on merits of case. Participated in settlement discussions. Case settled.
- Assisted defendant oil company in class action lawsuit alleging health impacts from remediation of petroleum contaminated site on California Central Coast. Reviewed documents, designed and conducted monitoring program, and participated in settlement discussions. Case settled.
- Consultant to attorneys representing irrigation districts and municipal water districts to evaluate a potential challenge of USFWS actions under CVPIA section 3406(b)(2). Reviewed agency files and collected and analyzed hydrology, water quality, and fishery data. Advised counsel on merits of case. Case not filed.

- Assisted residents downwind of a Carson refinery in class action lawsuit involving soil and groundwater contamination, nuisance, property damage, and health effects from air emissions. Reviewed files and provided advise on contaminated soil and groundwater, toxic emissions, and health risks. Prepared declaration on refinery fugitive emissions. Prepared deposition questions and reviewed deposition transcripts on air quality, soil contamination, odors, and health impacts. Case settled.
- Assisted residents downwind of a Contra Costa refinery who were affected by an accidental release of naphtha. Characterized spilled naphtha, estimated emissions, and modeled ambient concentrations of hydrocarbons and sulfur compounds. Deposed. Presented testimony in binding arbitration at JAMS. Judge found in favor of plaintiffs.
- Assisted residents downwind of Contra Costa County refinery in class action lawsuit alleging property damage, nuisance, and health effects from several large accidents as well as routine operations. Reviewed files and prepared analyses of environmental impacts. Prepared declarations, deposed, and presented testimony before jury in one trial and judge in second. Case settled.
- Assisted business owner claiming damages from dust, noise, and vibration during a sewer construction project in San Francisco. Reviewed agency files and PM10 monitoring data and advised counsel on merits of case. Case settled.
- Assisted residents downwind of Contra Costa County refinery in class action lawsuit alleging property damage, nuisance, and health effects. Prepared declaration in opposition to summary judgment, deposed, and presented expert testimony on accidental releases, odor, and nuisance before jury. Case thrown out by judge, but reversed on appeal and not retried.
- Presented testimony in small claims court on behalf of residents claiming health effects from hydrogen sulfide from flaring emissions triggered by a power outage at a Contra Costa County refinery. Analyzed meteorological and air quality data and evaluated potential health risks of exposure to low concentrations of hydrogen sulfide. Judge awarded damages to plaintiffs.
- Assisted construction unions in challenging PSD permit for an Indiana steel mill. Prepared technical comments on draft PSD permit, drafted 70-page appeal of agency permit action to the Environmental Appeals Board challenging permit based on faulty BACT analysis for electric arc furnace and reheat furnace and faulty permit conditions, among others, and drafted briefs responding to four parties. EPA Region V and the EPA General Counsel intervened as amici, supporting petitioners. EAB ruled in favor of petitioners, remanding permit to IDEM on three key issues, including BACT for the reheat furnace and lead emissions from the EAF. Drafted motion to reconsider three issues. Prepared 69 pages of technical comments on revised draft PSD permit. Drafted second EAB appeal addressing lead emissions from the EAF and BACT for reheat furnace based on European experience with SCR/SNCR. Case settled. Permit was substantially improved. See *In re: Steel Dynamics, Inc.*, PSD Appeal Nos. 99-4 & 99-5 (EAB June 22, 2000).

- Assisted defendant urea manufacturer in Alaska in negotiations with USEPA to seek relief from penalties for alleged violations of the Clean Air Act. Reviewed and evaluated regulatory files and monitoring data, prepared technical analysis demonstrating that permit limits were not violated, and participated in negotiations with EPA to dismiss action. Fines were substantially reduced and case closed.
- Assisted construction unions in challenging PSD permitting action for an Indiana grain mill. Prepared technical comments on draft PSD permit and assisted counsel draft appeal of agency permit action to the Environmental Appeals Board challenging permit based on faulty BACT analyses for heaters and boilers and faulty permit conditions, among others. Case settled.
- As part of a consent decree settling a CEQA lawsuit, assisted neighbors of a large west coast port in negotiations with port authority to secure mitigation for air quality impacts. Prepared technical comments on mobile source air quality impacts and mitigation and negotiated a \$9 million CEQA mitigation package. Represented neighbors on technical advisory committee established by port to implement the air quality mitigation program. Program successfully implemented.
- Assisted construction unions in challenging permitting action for a California hazardous waste incinerator. Prepared technical comments on draft permit, assisted counsel prepare appeal of EPA permit to the Environmental Appeals Board. Participated in settlement discussions on technical issues with applicant and EPA Region 9. Case settled.
- Assisted environmental group in challenging DTSC Negative Declaration on a hazardous waste treatment facility. Prepared technical comments on risk of upset, water, and health risks. Writ of mandamus issued.
- Assisted several neighborhood associations and cities impacted by quarries, asphalt plants, and cement plants in Alameda, Shasta, Sonoma, and Mendocino counties in obtaining mitigations for dust, air quality, public health, traffic, and noise impacts from facility operations and proposed expansions.
- For over 100 industrial facilities, commercial/campus, and redevelopment projects, developed the record in preparation for CEQA and NEPA lawsuits. Prepared technical comments on hazardous materials, solid wastes, public utilities, noise, worker safety, air quality, public health, water resources, water quality, traffic, and risk of upset sections of EIRs, EISs, FONSI, initial studies, and negative declarations. Assisted counsel in drafting petitions and briefs and prepared declarations.
- For several large commercial development projects and airports, assisted applicant and counsel prepare defensible CEQA documents, respond to comments, and identify and evaluate "all feasible" mitigation to avoid CEQA challenges. This work included developing mitigation programs to reduce traffic-related air quality impacts based on energy conservation programs, solar, low-emission vehicles, alternative fuels, exhaust treatments, and transportation management associations.

*SITE INVESTIGATION/REMEDICATION/CLOSURE*

- Technical manager and principal engineer for characterization, remediation, and closure of waste management units at former Colorado oil shale plant. Constituents of concern included BTEX, As, 1,1,1-TCA, and TPH. Completed groundwater monitoring programs, site assessments, work plans, and closure plans for seven process water holding ponds, a refinery sewer system, and processed shale disposal area. Managed design and construction of groundwater treatment system and removal actions and obtained clean closure.
- Principal engineer for characterization, remediation, and closure of process water ponds at a former lanthanide processing plant in Colorado. Designed and implemented groundwater monitoring program and site assessments and prepared closure plan.
- Advised the city of Sacramento on redevelopment of two former railyards. Reviewed work plans, site investigations, risk assessment, RAPS, RI/FSs, and CEQA documents. Participated in the development of mitigation strategies to protect construction and utility workers and the public during remediation, redevelopment, and use of the site, including buffer zones, subslab venting, rail berm containment structure, and an environmental oversight plan.
- Provided technical support for the investigation of a former sanitary landfill that was redeveloped as single family homes. Reviewed and/or prepared portions of numerous documents, including health risk assessments, preliminary endangerment assessments, site investigation reports, work plans, and RI/FSs. Historical research to identify historic waste disposal practices to prepare a preliminary endangerment assessment. Acquired, reviewed, and analyzed the files of 18 federal, state, and local agencies, three sets of construction field notes, analyzed 21 aerial photographs and interviewed 14 individuals associated with operation of former landfill. Assisted counsel in defending lawsuit brought by residents alleging health impacts and diminution of property value due to residual contamination. Prepared summary reports.
- Technical oversight of characterization and remediation of a nitrate plume at an explosives manufacturing facility in Lincoln, CA. Provided interface between owners and consultants. Reviewed site assessments, work plans, closure plans, and RI/FSs.
- Consultant to owner of large western molybdenum mine proposed for NPL listing. Participated in negotiations to scope out consent order and develop scope of work. Participated in studies to determine premining groundwater background to evaluate applicability of water quality standards. Served on technical committees to develop alternatives to mitigate impacts and close the facility, including resloping and grading, various thickness and types of covers, and reclamation. This work included developing and evaluating methods to control surface runoff and erosion, mitigate impacts of acid rock

drainage on surface and ground waters, and stabilize nine waste rock piles containing 328 million tons of pyrite-rich, mixed volcanic waste rock (andesites, rhyolite, tuff). Evaluated stability of waste rock piles. Represented client in hearings and meetings with state and federal oversight agencies.

*REGULATORY (PARTIAL LIST)*

- In December 2017, prepared comments on a DEIR for a bioenergy facility in San Bernardino County.
- In September and November 2017, prepared comments on revised Negative Declaration for Delicato Winery in San Joaquin County, California.
- In October and November 2017, prepared comments on North City Project Pure Water San Diego Program DEIR/DEIS to reclaim wastewater for municipal use.
- In August 2017, reviewed DEIR on a new residential community in eastern San Diego County and researched and wrote 60 pages of comments on air quality, greenhouse gas emissions, and health impacts.
- In August 2017, reviewed responses to comments on Part 70 operating permit and researched and wrote comments on metallic HAP issues.
- In July 2017, reviewed the FEIS for an expansion of the Port of Gulfport and researched and wrote 10 pages of comments on air quality and public health.
- In June 2017, reviewed and prepared technical report on an Application for a synthetic minor source construction permit for a new Refinery in North Dakota.
- In June 2017, reviewed responses to NPCA and other comments on the BP Cherry Point Refinery modifications and assisted counsel in evaluating issues to appeal, including GHG BACT, coker heater SCR cost effectiveness analysis, and SO<sub>2</sub> BACT.
- In June 2017, reviewed Part 70 Operating Permit Renewal/Modification for the Noranda Alumina LC/Gramercy Holdings I, LLC alumina processing plant, St. James, Louisiana, and prepared comments on HAP emissions from bauxite feedstock.
- In May and June 2017, reviewed FEIR on Tesoro Integration Project and prepared responses to comments on the DEIR.
- In May 2017, prepared comments on tank VOC and HAP emissions from Tesoro Integration Project, based on real time monitoring at the Tesoro and other refineries in the SCAQMD.
- In April 2017, prepared comments on Negative Declaration for Delicato Winery in San Joaquin County, California.

- In March 2017, reviewed Negative Declaration for Ellmore geothermal facility in Imperial County, California and prepared summary of issues.
- In March 2017, prepared response to Phillips 66 Company's Appeal of the San Luis Obispo County Planning Commission's Decision Denying the Rail Spur Extension Project Proposed for the Santa Maria Refinery.
- In February 2017, prepared comments on Kalama draft Title V permit for 10,000 MT/day methanol production and marine export facility in Kalama, Washington.
- In January 2017, researched and wrote 51 pages of comments on proposed Title V and PSD permits for the St. James Methanol Plant, St. James Louisiana, on BACT and enforceability of permit conditions.
- In December 2016, prepared comments on draft Title V Permit for Yuhuang Chemical Inc. Methanol Plant, St. James, Louisiana, responding to EPA Order addressing enforceability issues.
- In November 2016, prepared comments on Initial Study/Mitigated Negative Declaration for the AES Battery Energy Storage Facility, Long Beach, CA.
- In November 2016, prepared comments on Campo Verde Battery Energy Storage System Draft Environmental Impact Report.
- In October 2016, prepared comments on Title V Permit for NuStar Terminal Operations Partnership L.P, Stockton, CA.
- In October 2016, prepared expert report, Technical Assessment of Achieving the 40 CFR Part 423 Zero Discharge Standard for Bottom Ash Transport Water at the Belle River Power Plant, East China, Michigan. Reported resulted in a 2 year reduction in compliance date for elimination of bottom ash transport water. 1/30/17 DEQ Letter.
- In September 2016, prepared comments on Proposed Title V Permit and Environmental Assessment Statement, Yuhuang Chemical Inc. Methanol Plant, St. James, Louisiana.
- In September 2016, prepared response to "Further Rebuttal in Support of Appeal of Planning Commission Resolution No. 16-1, Denying Use Permit Application 12PLN-00063 and Declining to Certify Final Environmental Impact Report for the Valero Benicia Crude-by-Rail Project.
- In August 2016, reviewed and prepared comments on manuscript: Hutton et al., Freshwater Flows to the San Francisco Bay-Delta Estuary over Nine Decades: Trends Evaluation.
- In August/September 2016, prepared comments on Mitigated Negative Declaration for the Chevron Long Wharf Maintenance and Efficiency Project.

- In July 2016, prepared comments on the Ventura County APCD Preliminary Determination of Compliance and the California Energy Commission Revised Preliminary Staff Assessment for the Puente Power Project.
- In June 2016, prepared comments on an Ordinance (1) Amending the Oakland Municipal Code to Prohibit the Storage and Handling of Coal and Coke at Bulk Material Facilities or Terminals Throughout the City of Oakland and (2) Adopting CEQA Exemption Findings and supporting technical reports. Council approved Ordinance on an 8 to 0 vote on June 27, 2016.
- In May 2016, prepared comments on Draft Title V Permit and Draft Environmental Impact Report for the Tesoro Los Angeles Refinery Integration and Compliance Project.
- In March 2016, prepared comments on Valero's Appeal of Planning Commission's Denial of Valero Crude-by-Rail Project
- In February 2016, prepared comments on Final Environmental Impact Report, Santa Maria Rail Spur Project.
- In February 2016, prepared comments on Final Environmental Impact Report, Valero Benicia Crude by Rail Project.
- In January 2016, prepared comments on Draft Programmatic Environmental Impact Report for the Southern California Association of Government's (SCAG) 2016-2040 Regional Transportation Plan/Sustainable Communities Strategy.
- In November 2015, prepared comments on Final Environmental Impact Report for Revisions to the Kern County Zoning Ordinance – 2015(C) (Focused on Oil and Gas Local Permitting), November 2015.
- In October 2015, prepared comments on Revised Draft Environmental Report, Valero Benicia Crude by Rail Project.
- In September 2015, prepared report, "Environmental, Health and Safety Impacts of the Proposed Oakland Bulk and Oversized Terminal, and presented oral testimony on September 21, 2015 before Oakland City Council on behalf of the Sierra Club.
- In September 2015, prepared comments on revisions to two chapters of EPA's Air Pollution Control Cost Manual: Docket ID No. EPA-HQ-OAR-2015-0341.
- In June 2015, prepared comments on DEIR for the CalAm Monterey Peninsula Water Supply Project.
- In April 2015, prepared comments on proposed Title V Operating Permit Revision and Prevention of Significant Deterioration Permit for Arizona Public Service's Ocotillo Power Plant Modernization Project (5 GE LMS100 105-MW simple cycle turbines operated as peakers), in Tempe, Arizona; Final permit appealed to EAB.

- In March 2015, prepared “Comments on Proposed Title V Air Permit, Yuhuang Chemical Inc. Methanol Plant, St. James, Louisiana”. Client filed petition objecting to the permit. EPA granted majority of issues. In the Matter of Yuhuang Chemical Inc. Methanol Plant, St. James Parish, Louisiana, Permit No. 2560-00295-V0, Issued by the Louisiana Department of Environmental Quality, Petition No. VI-2015-03, Order Responding to the Petitioners’ Request for Objection to the Issuance of a Title V Operating Permit, September 1, 2016.
- In February 2015, prepared compilation of BACT cost effectiveness values in support of comments on draft PSD Permit for Bonanza Power Project.
- In January 2015, prepared cost effectiveness analysis for SCR for a 500-MW coal fire power plant, to address unpermitted upgrades in 2000.
- In January 2015, prepared comments on Revised Final Environmental Impact Report for the Phillips 66 Propane Recovery Project. *Communities for a Better Environment et al. v. Contra Costa County et al. Contra Costa County (Superior Court, Contra Costa County, Case No. MSN15-0301, December 1, 2016).*
- In December 2014, prepared “Report on Bakersfield Crude Terminal Permits to Operate.” In response, the U.S. EPA cited the Terminal for 10 violations of the Clean Air Act. The Fifth Appellate District Court upheld the finding in this report in CBE et al v. San Joaquin Valley Unified Air Pollution Control District and Bakersfield Crude Terminal LLC et al, Super. Ct. No. 284013, June 23, 2017.
- In December 2014, prepared comments on Revised Draft Environmental Impact Report for the Phillips 66 Propane Recovery Project.
- In November 2014, prepared comments on Revised Draft Environmental Impact Report for Phillips 66 Rail Spur Extension Project and Crude Unloading Project, Santa Maria, CA to allow the import of tar sands crudes.
- In November 2014, prepared comments on Draft Environmental Impact Report for Phillips 66 Ultra Low Sulfur Diesel Project, responding to the California Supreme Court Decision, *Communities for a Better Environment v. South Coast Air Quality Management Dist. (2010) 48 Cal.4th 310.*
- In November 2014, prepared comments on Draft Environmental Impact Report for the Tesoro Avon Marine Oil Terminal Lease Consideration.
- In October 2014, prepared: “Report on Hydrogen Cyanide Emissions from Fluid Catalytic Cracking Units”, pursuant to the Petroleum Refinery Sector Risk and Technology Review and New Source Performance Standards, 79 FR 36880.
- In October 2014, prepared technical comments on Final Environmental Impact Reports for Alon Bakersfield Crude Flexibility Project to build a rail terminal to allow the import/export

of tar sands and Bakken crude oils and to upgrade an existing refinery to allow it to process a wide range of crudes.

- In October 2014, prepared technical comments on the Title V Permit Renewal and three De Minimus Significant Revisions for the Tesoro Logistics Marine Terminal in the SCAQMD.
- In September 2014, prepared technical comments on the Draft Environmental Impact Report for the Valero Crude by Rail Project.
- In August 2014, for EPA Region 6, prepared technical report on costing methods for upgrades to existing scrubbers at coal-fired power plants.
- In July 2014, prepared technical comments on Draft Final Environmental Impact Reports for Alon Bakersfield Crude Flexibility Project to build a rail terminal to allow the import/export of tar sands and Bakken crude oils and to upgrade an existing refinery to allow it to process a wide range of crudes.
- In June 2014, prepared technical report on Initial Study and Draft Negative Declaration for the Tesoro Logistics Storage Tank Replacement and Modification Project.
- In May 2014, prepared technical comments on Intent to Approve a new refinery and petroleum transloading operation in Utah.
- In March and April 2014, prepared declarations on air permits issued for two crude-by-rail terminals in California, modified to switch from importing ethanol to importing Bakken crude oils by rail and transferring to tanker cars. Permits were issued without undergoing CEQA review. One permit was upheld by the San Francisco Superior Court as statute of limitations had run. The Sacramento Air Quality Management District withdrew the second one due to failure to require BACT and conduct CEQA review.
- In March 2014, prepared technical report on Negative Declaration for a proposed modification of the air permit for a bulk petroleum and storage terminal to allow the import of tar sands and Bakken crude oil by rail and its export by barge, under the New York State Environmental Quality Review Act (SEQRA).
- In February 2014, prepared technical report on proposed modification of air permit for midwest refinery upgrade/expansion to process tar sands crudes.
- In January 2014, prepared cost estimates to capture, transport, and use CO<sub>2</sub> in enhanced oil recovery, from the Freeport LNG project based on both Selexol and Amine systems.
- In January 2014, prepared technical report on Draft Environmental Impact Report for Phillips 66 Rail Spur Extension Project, Santa Maria, CA. Comments addressed project description (piecemealing, crude slate), risk of upset analyses, mitigation measures, alternative analyses and cumulative impacts.

- In November 2013, prepared technical report on the Phillips 66 Propane Recovery Project, Rodeo, CA. Comments addressed project description (piecemealing, crude slate) and air quality impacts.
- In September 2013, prepared technical report on the Draft Authority to Construct Permit for the Casa Diablo IV Geothermal Development Project Environmental Impact Report and Declaration in Support of Appeal and Petition for Stay, U.S. Department of the Interior, Board of Land Appeals, Appeal of Decision Record for the Casa Diablo IV Geothermal Development Project.
- In September 2013, prepared technical report on Effluent Limitation Guidelines for Best Available Technology Economically Available (BAT) for Bottom Ash Transport Waters from Coal-Fired Power Plants in the Steam Electric Power Generating Point Source Category.
- In July 2013, prepared technical report on Initial Study/Mitigated Negative Declaration for the Valero Crude by Rail Project, Benicia, California, Use Permit Application 12PLN-00063.
- In July 2013, prepared technical report on fugitive particulate matter emissions from coal train staging at the proposed Coyote Island Terminal, Oregon, for draft Permit No. 25-0015-ST-01.
- In July 2013, prepared technical comments on air quality impacts of the Finger Lakes LPG Storage Facility as reported in various Environmental Impact Statements.
- In July 2013, prepared technical comments on proposed Greenhouse Gas PSD Permit for the Celanese Clear Lake Plant, including cost analysis of CO<sub>2</sub> capture, transport, and sequestration.
- In June/July 2013, prepared technical comments on proposed Draft PSD Preconstruction Permit for Greenhouse Gas Emission for the ExxonMobil Chemical Company Baytown Olefins Plant, including cost analysis of CO<sub>2</sub> capture, transport, and sequestration.
- In June 2013, prepared technical report on a Mitigated Negative Declaration for a new rail terminal at the Valero Benicia Refinery to import increased amounts of "North American" crudes. Comments addressed air quality impacts of refining increased amounts of tar sands crudes.
- In June 2013, prepared technical report on Draft Environmental Impact Report for the California Ethanol and Power Imperial Valley 1 Project.
- In May 2013, prepared comments on draft PSD permit for major expansion of midwest refinery to process 100% tar sands crudes, including a complex netting analysis involving debottlenecking, piecemealing, and BACT analyses.

- In April 2013, prepared technical report on the Draft Supplemental Environmental Impact Statement (DSEIS) for the Keystone XL Pipeline on air quality impacts from refining increased amount of tar sands crudes at Refineries in PADD 3.
- In October 2012, prepared technical report on the Environmental Review for the Coyote Island Terminal Dock at the Port of Morrow on fugitive particulate matter emissions.
- In October 2012-October 2014, review and evaluate Flint Hills West Application for an expansion/modification for increased (Texas, Eagle Ford Shale) crude processing and related modification, including netting and BACT analysis. Assist in settlement discussions.
- In February 2012, prepared comments on BART analysis in PA Regional Haze SIP, 77 FR 3984 (Jan. 26, 2012). On Sept. 29, 2015, a federal appeals court overturned the U.S. EPA's approval of this plan, based in part on my comments, concluding "...we will vacate the 2014 Final Rule to the extent it approved Pennsylvania's source-specific BART analysis and remand to the EPA for further proceedings consistent with this Opinion." Nat'l Parks Conservation Assoc. v. EPA, 3d Cir., No. 14-3147, 9/19/15.
- Prepared cost analyses and comments on New York's proposed BART determinations for NOx, SO2, and PM and EPA's proposed approval of BART determinations for Danskammer Generating Station under New York Regional Haze State Implementation Plan and Federal Implementation Plan, 77 FR 51915 (August 28, 2012).
- Prepared cost analyses and comments on NOx BART determinations for Regional Haze State Implementation Plan for State of Nevada, 77 FR 23191 (April 18, 2012) and 77 FR 25660 (May 1, 2012).
- Prepared analyses of and comments on New Source Performance Standards for Greenhouse Gas Emissions for New Stationary Sources: Electric Utility Generating Units, 77 FR 22392 (April 13, 2012).
- Prepared comments on CASPR-BART emission equivalency and NOx and PM BART determinations in EPA proposed approval of State Implementation Plan for Pennsylvania Regional Haze Implementation Plan, 77 FR 3984 (January 26, 2012).
- Prepared comments and statistical analyses on hazardous air pollutants (HAPs) emission controls, monitoring, compliance methods, and the use of surrogates for acid gases, organic HAPs, and metallic HAPs for proposed National Emission Standards for Hazardous Air Pollutants from Coal- and Oil-Fired Electric Utility Steam Generating Units, 76 FR 24976 (May 3, 2011).
- Prepared cost analyses and comments on NOx BART determinations and emission reductions for proposed Federal Implementation Plan for Four Corners Power Plant, 75 FR 64221 (October 19, 2010).

- Prepared cost analyses and comments on NO<sub>x</sub> BART determinations for Colstrip Units 1- 4 for Montana State Implementation Plan and Regional Haze Federal Implementation Plan, 77 FR 23988 (April 20, 2010).
- For EPA Region 8, prepared report: Revised BART Cost Effectiveness Analysis for Tail-End Selective Catalytic Reduction at the Basin Electric Power Cooperative Leland Olds Station Unit 2 Final Report, March 2011, in support of 76 FR 58570 (Sept. 21, 2011).
- For EPA Region 6, prepared report: Revised BART Cost-Effectiveness Analysis for Selective Catalytic Reduction at the Public Service Company of New Mexico San Juan Generating Station, November 2010, in support of 76 FR 52388 (Aug. 22, 2011).
- For EPA Region 6, prepared report: Revised BART Cost-Effectiveness Analysis for Flue Gas Desulfurization at Coal-Fired Electric Generating Units in Oklahoma: Sooner Units 1 & 2, Muskogee Units 4 & 5, Northeastern Units 3 & 4, October 2010, in support of 76 FR 16168 (March 26, 2011). My work was upheld in: *State of Oklahoma v. EPA*, App. Case 12-9526 (10th Cir. July 19, 2013).
- Identified errors in N<sub>2</sub>O emission factors in the Mandatory Greenhouse Gas Reporting Rule, 40 CFR 98, and prepared technical analysis to support Petition for Rulemaking to Correct Emissions Factors in the Mandatory Greenhouse Gas Reporting Rule, filed with EPA on 10/28/10.
- Assisted interested parties develop input for and prepare comments on the Information Collection Request for Petroleum Refinery Sector NSPS and NESHAP Residual Risk and Technology Review, 75 FR 60107 (9/29/10).
- Technical reviewer of EPA's "Emission Estimation Protocol for Petroleum Refineries," posted for public comments on CHIEF on 12/23/09, prepared in response to the City of Houston's petition under the Data Quality Act (March 2010).
- Prepared comments on SCR cost effectiveness for EPA's Advanced Notice of Proposed Rulemaking, Assessment of Anticipated Visibility Improvements at Surrounding Class I Areas and Cost Effectiveness of Best Available Retrofit Technology for Four Corners Power Plant and Navajo Generating Station, 74 FR 44313 (August 28, 2009).
- Prepared comments on Proposed Rule for Standards of Performance for Coal Preparation and Processing Plants, 74 FR 25304 (May 27, 2009).
- Prepared comments on draft PSD permit for major expansion of midwest refinery to process up to 100% tar sands crudes. Participated in development of monitoring and controls to mitigate impacts and in negotiating a Consent Decree to settle claims in 2008.
- Reviewed and assisted interested parties prepare comments on proposed Kentucky air toxic regulations at 401 KAR 64:005, 64:010, 64:020, and 64:030 (June 2007).

- Prepared comments on proposed Standards of Performance for Electric Utility Steam Generating Units and Small Industrial-Commercial-Industrial Steam Generating Units, 70 FR 9706 (February 28, 2005).
- Prepared comments on Louisville Air Pollution Control District proposed Strategic Toxic Air Reduction regulations.
- Prepared comments and analysis of BAAQMD Regulation, Rule 11, Flare Monitoring at Petroleum Refineries.
- Prepared comments on Proposed National Emission Standards for Hazardous Air Pollutants; and, in the Alternative, Proposed Standards of Performance for New and Existing Stationary Sources: Electricity Utility Steam Generating Units (MACT standards for coal-fired power plants).
- Prepared Authority to Construct Permit for remediation of a large petroleum-contaminated site on the California Central Coast. Negotiated conditions with agencies and secured permits.
- Prepared Authority to Construct Permit for remediation of a former oil field on the California Central Coast. Participated in negotiations with agencies and secured permits.
- Prepared and/or reviewed hundreds of environmental permits, including NPDES, UIC, Stormwater, Authority to Construct, Prevention of Significant Deterioration, Nonattainment New Source Review, Title V, and RCRA, among others.
- Participated in the development of the CARB document, *Guidance for Power Plant Siting and Best Available Control Technology*, including attending public workshops and filing technical comments.
- Performed data analyses in support of adoption of emergency power restoration standards by the California Public Utilities Commission for “major” power outages, where major is an outage that simultaneously affects 10% of the customer base.
- Drafted portions of the Good Neighbor Ordinance to grant Contra Costa County greater authority over safety of local industry, particularly chemical plants and refineries.
- Participated in drafting BAAQMD Regulation 8, Rule 28, Pressure Relief Devices, including participation in public workshops, review of staff reports, draft rules and other technical materials, preparation of technical comments on staff proposals, research on availability and costs of methods to control PRV releases, and negotiations with staff.
- Participated in amending BAAQMD Regulation 8, Rule 18, Valves and Connectors, including participation in public workshops, review of staff reports, proposed rules and other supporting technical material, preparation of technical comments on staff proposals, research on availability and cost of low-leak technology, and negotiations with staff.

- Participated in amending BAAQMD Regulation 8, Rule 25, Pumps and Compressors, including participation in public workshops, review of staff reports, proposed rules, and other supporting technical material, preparation of technical comments on staff proposals, research on availability and costs of low-leak and seal-less technology, and negotiations with staff.
- Participated in amending BAAQMD Regulation 8, Rule 5, Storage of Organic Liquids, including participation in public workshops, review of staff reports, proposed rules, and other supporting technical material, preparation of technical comments on staff proposals, research on availability and costs of controlling tank emissions, and presentation of testimony before the Board.
- Participated in amending BAAQMD Regulation 8, Rule 18, Valves and Connectors at Petroleum Refinery Complexes, including participation in public workshops, review of staff reports, proposed rules and other supporting technical material, preparation of technical comments on staff proposals, research on availability and costs of low-leak technology, and presentation of testimony before the Board.
- Participated in amending BAAQMD Regulation 8, Rule 22, Valves and Flanges at Chemical Plants, etc, including participation in public workshops, review of staff reports, proposed rules, and other supporting technical material, preparation of technical comments on staff proposals, research on availability and costs of low-leak technology, and presentation of testimony before the Board.
- Participated in amending BAAQMD Regulation 8, Rule 25, Pump and Compressor Seals, including participation in public workshops, review of staff reports, proposed rules, and other supporting technical material, preparation of technical comments on staff proposals, research on availability of low-leak technology, and presentation of testimony before the Board.
- Participated in the development of the BAAQMD Regulation 2, Rule 5, Toxics, including participation in public workshops, review of staff proposals, and preparation of technical comments.
- Participated in the development of SCAQMD Rule 1402, Control of Toxic Air Contaminants from Existing Sources, and proposed amendments to Rule 1401, New Source Review of Toxic Air Contaminants, in 1993, including review of staff proposals and preparation of technical comments on same.
- Participated in the development of the Sunnyvale Ordinance to Regulate the Storage, Use and Handling of Toxic Gas, which was designed to provide engineering controls for gases that are not otherwise regulated by the Uniform Fire Code.
- Participated in the drafting of the Statewide Water Quality Control Plans for Inland Surface Waters and Enclosed Bays and Estuaries, including participation in workshops, review of draft plans, preparation of technical comments on draft plans, and presentation of testimony before the SWRCB.

- Participated in developing Se permit effluent limitations for the five Bay Area refineries, including review of staff proposals, statistical analyses of Se effluent data, review of literature on aquatic toxicity of Se, preparation of technical comments on several staff proposals, and presentation of testimony before the Bay Area RWQCB.
- Represented the California Department of Water Resources in the 1991 Bay-Delta Hearings before the State Water Resources Control Board, presenting sworn expert testimony with cross examination and rebuttal on a striped bass model developed by the California Department of Fish and Game.
- Represented the State Water Contractors in the 1987 Bay-Delta Hearings before the State Water Resources Control Board, presenting sworn expert testimony with cross examination and rebuttal on natural flows, historical salinity trends in San Francisco Bay, Delta outflow, and hydrodynamics of the South Bay.
- Represented interveners in the licensing of over 20 natural-gas-fired power plants and one coal gasification plant at the California Energy Commission and elsewhere. Reviewed and prepared technical comments on applications for certification, preliminary staff assessments, final staff assessments, preliminary determinations of compliance, final determinations of compliance, and prevention of significant deterioration permits in the areas of air quality, water supply, water quality, biology, public health, worker safety, transportation, site contamination, cooling systems, and hazardous materials. Presented written and oral testimony in evidentiary hearings with cross examination and rebuttal. Participated in technical workshops.
- Represented several parties in the proposed merger of San Diego Gas & Electric and Southern California Edison. Prepared independent technical analyses on health risks, air quality, and water quality. Presented written and oral testimony before the Public Utilities Commission administrative law judge with cross examination and rebuttal.
- Represented a PRP in negotiations with local health and other agencies to establish impact of subsurface contamination on overlying residential properties. Reviewed health studies prepared by agency consultants and worked with agencies and their consultants to evaluate health risks.

#### *WATER QUALITY/RESOURCES*

- Directed and participated in research on environmental impacts of energy development in the Colorado River Basin, including contamination of surface and subsurface waters and modeling of flow and chemical transport through fractured aquifers.
- Played a major role in Northern California water resource planning studies since the early 1970s. Prepared portions of the Basin Plans for the Sacramento, San Joaquin, and Delta basins including sections on water supply, water quality, beneficial uses, waste load

allocation, and agricultural drainage. Developed water quality models for the Sacramento and San Joaquin Rivers.

- Conducted hundreds of studies over the past 40 years on Delta water supplies and the impacts of exports from the Delta on water quality and biological resources of the Central Valley, Sacramento-San Joaquin Delta, and San Francisco Bay. Typical examples include:
  1. Evaluate historical trends in salinity, temperature, and flow in San Francisco Bay and upstream rivers to determine impacts of water exports on the estuary;
  2. Evaluate the role of exports and natural factors on the food web by exploring the relationship between salinity and primary productivity in San Francisco Bay, upstream rivers, and ocean;
  3. Evaluate the effects of exports, other in-Delta, and upstream factors on the abundance of salmon and striped bass;
  4. Review and critique agency fishery models that link water exports with the abundance of striped bass and salmon;
  5. Develop a model based on GLMs to estimate the relative impact of exports, water facility operating variables, tidal phase, salinity, temperature, and other variables on the survival of salmon smolts as they migrate through the Delta;
  6. Reconstruct the natural hydrology of the Central Valley using water balances, vegetation mapping, reservoir operation models to simulate flood basins, precipitation records, tree ring research, and historical research;
  7. Evaluate the relationship between biological indicators of estuary health and down-estuary position of a salinity surrogate (X2);
  8. Use real-time fisheries monitoring data to quantify impact of exports on fish migration;
  9. Refine/develop statistical theory of autocorrelation and use to assess strength of relationships between biological and flow variables;
  10. Collect, compile, and analyze water quality and toxicity data for surface waters in the Central Valley to assess the role of water quality in fishery declines;
  11. Assess mitigation measures, including habitat restoration and changes in water project operation, to minimize fishery impacts;
  12. Evaluate the impact of unscreened agricultural water diversions on abundance of larval fish;
  13. Prepare and present testimony on the impacts of water resources development on Bay hydrodynamics, salinity, and temperature in water rights hearings;

14. Evaluate the impact of boat wakes on shallow water habitat, including interpretation of historical aerial photographs;
  15. Evaluate the hydrodynamic and water quality impacts of converting Delta islands into reservoirs;
  16. Use a hydrodynamic model to simulate the distribution of larval fish in a tidally influenced estuary;
  17. Identify and evaluate non-export factors that may have contributed to fishery declines, including predation, shifts in oceanic conditions, aquatic toxicity from pesticides and mining wastes, salinity intrusion from channel dredging, loss of riparian and marsh habitat, sedimentation from upstream land alternations, and changes in dissolved oxygen, flow, and temperature below dams.
- Developed, directed, and participated in a broad-based research program on environmental issues and control technology for energy industries including petroleum, oil shale, coal mining, and coal slurry transport. Research included evaluation of air and water pollution, development of novel, low-cost technology to treat and dispose of wastes, and development and application of geohydrologic models to evaluate subsurface contamination from in-situ retorting. The program consisted of government and industry contracts and employed 45 technical and administrative personnel.
  - Coordinated an industry task force established to investigate the occurrence, causes, and solutions for corrosion/erosion and mechanical/engineering failures in the waterside systems (e.g., condensers, steam generation equipment) of power plants. Corrosion/erosion failures caused by water and steam contamination that were investigated included waterside corrosion caused by poor microbiological treatment of cooling water, steam-side corrosion caused by ammonia-oxygen attack of copper alloys, stress-corrosion cracking of copper alloys in the air cooling sections of condensers, tube sheet leaks, oxygen in-leakage through condensers, volatilization of silica in boilers and carry over and deposition on turbine blades, and iron corrosion on boiler tube walls. Mechanical/engineering failures investigated included: steam impingement attack on the steam side of condenser tubes, tube-to-tube-sheet joint leakage, flow-induced vibration, structural design problems, and mechanical failures due to stresses induced by shutdown, startup and cycling duty, among others. Worked with electric utility plant owners/operators, condenser and boiler vendors, and architect/engineers to collect data to document the occurrence of and causes for these problems, prepared reports summarizing the investigations, and presented the results and participated on a committee of industry experts tasked with identifying solutions to prevent condenser failures.
  - Evaluated the cost effectiveness and technical feasibility of using dry cooling and parallel dry-wet cooling to reduce water demands of several large natural-gas fired power plants in California and Arizona.

- Designed and prepared cost estimates for several dry cooling systems (e.g., fin fan heat exchangers) used in chemical plants and refineries.
- Designed, evaluated, and costed several zero liquid discharge systems for power plants.
- Evaluated the impact of agricultural and mining practices on surface water quality of Central Valley streams. Represented municipal water agencies on several federal and state advisory committees tasked with gathering and assessing relevant technical information, developing work plans, and providing oversight of technical work to investigate toxicity issues in the watershed.

#### *AIR QUALITY/PUBLIC HEALTH*

- Prepared or reviewed the air quality and public health sections of hundreds of EIRs and EISs on a wide range of industrial, commercial and residential projects.
- Prepared or reviewed hundreds of NSR and PSD permits for a wide range of industrial facilities.
- Designed, implemented, and directed a 2-year-long community air quality monitoring program to assure that residents downwind of a petroleum-contaminated site were not impacted during remediation of petroleum-contaminated soils. The program included real-time monitoring of particulates, diesel exhaust, and BTEX and time integrated monitoring for over 100 chemicals.
- Designed, implemented, and directed a 5-year long source, industrial hygiene, and ambient monitoring program to characterize air emissions, employee exposure, and downwind environmental impacts of a first-generation shale oil plant. The program included stack monitoring of heaters, boilers, incinerators, sulfur recovery units, rock crushers, API separator vents, and wastewater pond fugitives for arsenic, cadmium, chlorine, chromium, mercury, 15 organic indicators (e.g., quinoline, pyrrole, benzo(a)pyrene, thiophene, benzene), sulfur gases, hydrogen cyanide, and ammonia. In many cases, new methods had to be developed or existing methods modified to accommodate the complex matrices of shale plant gases.
- Conducted investigations on the impact of diesel exhaust from truck traffic from a wide range of facilities including mines, large retail centers, light industrial uses, and sports facilities. Conducted traffic surveys, continuously monitored diesel exhaust using an aethalometer, and prepared health risk assessments using resulting data.
- Conducted indoor air quality investigations to assess exposure to natural gas leaks, pesticides, molds and fungi, soil gas from subsurface contamination, and outgassing of carpets, drapes, furniture and construction materials. Prepared health risk assessments using collected data.
- Prepared health risk assessments, emission inventories, air quality analyses, and assisted in the permitting of over 70 1 to 2 MW emergency diesel generators.

- Prepare over 100 health risk assessments, endangerment assessments, and other health-based studies for a wide range of industrial facilities.
- Developed methods to monitor trace elements in gas streams, including a continuous real-time monitor based on the Zeeman atomic absorption spectrometer, to continuously measure mercury and other elements.
- Performed nuisance investigations (odor, noise, dust, smoke, indoor air quality, soil contamination) for businesses, industrial facilities, and residences located proximate to and downwind of pollution sources.

### **PUBLICATIONS AND PRESENTATIONS (Partial List - Representative Publications)**

J.P. Fox, P.H. Hutton, D.J. Howes, A.J. Draper, and L. Sears, Reconstructing the Natural Hydrology of the San Francisco Bay-Delta Watershed, *Hydrology and Earth System Sciences*, Special Issue: Predictions under Change: Water, Earth, and Biota in the Anthropocene, v. 19, pp. 4257-4274, 2015. <http://www.hydrol-earth-syst-sci.net/19/4257/2015/hess-19-4257-2015.pdf>. See also: Estimates of Natural and Unimpaired Flows for the Central Valley of California: Water Years 1922-2014 at: <https://msb.water.ca.gov/documents/86728/a702a57f-ae7a-41a3-8bff-722e144059d6>.

D. Howes, P. Fox, and P. Hutton, Evapotranspiration from Natural Vegetation in the Central Valley of California: Monthly Grass Reference Based Vegetation Coefficients and the Dual Crop Coefficient Approach, *Journal of Hydrologic Engineering*, v.20, no. 10, October 2015.

Phyllis Fox and Lindsey Sears, *Natural Vegetation in the Central Valley of California*, June 2014, Prepared for State Water Contractors and San Luis & Delta-Mendota Water Authority, 311 pg.

J.P. Fox, T.P. Rose, and T.L. Sawyer, Isotope Hydrology of a Spring-fed Waterfall in Fractured Volcanic Rock, 2007.

C.E. Lambert, E.D. Winegar, and Phyllis Fox, Ambient and Human Sources of Hydrogen Sulfide: An Explosive Topic, Air & Waste Management Association, June 2000, Salt Lake City, UT.

San Luis Obispo County Air Pollution Control District and San Luis Obispo County Public Health Department, *Community Monitoring Program*, February 8, 1999.

The Bay Institute, *From the Sierra to the Sea. The Ecological History of the San Francisco Bay-Delta Watershed*, 1998.

J. Phyllis Fox, *Well Interference Effects of HDPP's Proposed Wellfield in the Victor Valley Water District*, Prepared for the California Unions for Reliable Energy (CURE), October 12, 1998.

J. Phyllis Fox, *Air Quality Impacts of Using CPVC Pipe in Indoor Residential Potable Water Systems*, Report Prepared for California Pipe Trades Council, California Firefighters Association, and other trade associations, August 29, 1998.

J. Phyllis Fox and others, *Authority to Construct Avila Beach Remediation Project*, Prepared for Unocal Corporation and submitted to San Luis Obispo Air Pollution Control District, June 1998.

J. Phyllis Fox and others, *Authority to Construct Former Guadalupe Oil Field Remediation Project*, Prepared for Unocal Corporation and submitted to San Luis Obispo Air Pollution Control District, May 1998.

J. Phyllis Fox and Robert Sears, *Health Risk Assessment for the Metropolitan Oakland International Airport Proposed Airport Development Program*, Prepared for Plumbers & Steamfitters U.A. Local 342, December 15, 1997.

Levine-Fricke-Recon (Phyllis Fox and others), *Preliminary Endangerment Assessment Work Plan for the Study Area Operable Unit, Former Solano County Sanitary Landfill, Benicia, California*, Prepared for Granite Management Co. for submittal to DTSC, September 26, 1997.

Phyllis Fox and Jeff Miller, "Fathead Minnow Mortality in the Sacramento River," *IEP Newsletter*, v. 9, n. 3, 1996.

Jud Monroe, Phyllis Fox, Karen Levy, Robert Nuzum, Randy Bailey, Rod Fujita, and Charles Hanson, *Habitat Restoration in Aquatic Ecosystems. A Review of the Scientific Literature Related to the Principles of Habitat Restoration*, Part Two, Metropolitan Water District of Southern California (MWD) Report, 1996.

Phyllis Fox and Elaine Archibald, *Aquatic Toxicity and Pesticides in Surface Waters of the Central Valley*, California Urban Water Agencies (CUWA) Report, September 1997.

Phyllis Fox and Alison Britton, *Evaluation of the Relationship Between Biological Indicators and the Position of X2*, CUWA Report, 1994.

Phyllis Fox and Alison Britton, *Predictive Ability of the Striped Bass Model*, WRINT DWR-206, 1992.

J. Phyllis Fox, *An Historical Overview of Environmental Conditions at the North Canyon Area of the Former Solano County Sanitary Landfill*, Report Prepared for Solano County Department of Environmental Management, 1991.

J. Phyllis Fox, *An Historical Overview of Environmental Conditions at the East Canyon Area of the Former Solano County Sanitary Landfill*, Report Prepared for Solano County Department of Environmental Management, 1991.

Phyllis Fox, *Trip 2 Report, Environmental Monitoring Plan, Parachute Creek Shale Oil Program*, Unocal Report, 1991.

- J. P. Fox and others, "Long-Term Annual and Seasonal Trends in Surface Salinity of San Francisco Bay," *Journal of Hydrology*, v. 122, p. 93-117, 1991.
- J. P. Fox and others, "Reply to Discussion by D.R. Helsel and E.D. Andrews on Trends in Freshwater Inflow to San Francisco Bay from the Sacramento-San Joaquin Delta," *Water Resources Bulletin*, v. 27, no. 2, 1991.
- J. P. Fox and others, "Reply to Discussion by Philip B. Williams on Trends in Freshwater Inflow to San Francisco Bay from the Sacramento-San Joaquin Delta," *Water Resources Bulletin*, v. 27, no. 2, 1991.
- J. P. Fox and others, "Trends in Freshwater Inflow to San Francisco Bay from the Sacramento-San Joaquin Delta," *Water Resources Bulletin*, v. 26, no. 1, 1990.
- J. P. Fox, "Water Development Increases Freshwater Flow to San Francisco Bay," *SCWC Update*, v. 4, no. 2, 1988.
- J. P. Fox, *Freshwater Inflow to San Francisco Bay Under Natural Conditions*, State Water Contracts, Exhibit 262, 58 pp., 1987.
- J. P. Fox, "The Distribution of Mercury During Simulated In-Situ Oil Shale Retorting," *Environmental Science and Technology*, v. 19, no. 4, pp. 316-322, 1985.
- J. P. Fox, "El Mercurio en el Medio Ambiente: Aspectos Referentes al Peru," (Mercury in the Environment: Factors Relevant to Peru) Proceedings of Simposio Los Pesticidas y el Medio Ambiente," ONERN-CONCYTEC, Lima, Peru, April 25-27, 1984. (Also presented at Instituto Tecnologico Pesquero and Instituto del Mar del Peru.)
- J. P. Fox, "Mercury, Fish, and the Peruvian Diet," *Boletin de Investigacion*, Instituto Tecnologico Pesquero, Lima, Peru, v. 2, no. 1, pp. 97-116, 1984.
- J. P. Fox, P. Persoff, A. Newton, and R. N. Heistand, "The Mobility of Organic Compounds in a Codisposal System," *Proceedings of the Seventeenth Oil Shale Symposium*, Colorado School of Mines Press, Golden, CO, 1984.
- P. Persoff and J. P. Fox, "Evaluation of Control Technology for Modified In-Situ Oil Shale Retorts," *Proceedings of the Sixteenth Oil Shale Symposium*, Colorado School of Mines Press, Golden, CO, 1983.
- J. P. Fox, *Leaching of Oil Shale Solid Wastes: A Critical Review*, University of Colorado Report, 245 pp., July 1983.
- J. P. Fox, *Source Monitoring for Unregulated Pollutants from the White River Oil Shale Project*, VTN Consolidated Report, June 1983.
- A. S. Newton, J. P. Fox, H. Villarreal, R. Raval, and W. Walker II, *Organic Compounds in Coal Slurry Pipeline Waters*, Lawrence Berkeley Laboratory Report LBL-15121, 46 pp., Sept. 1982.

- M. Goldstein et al., *High Level Nuclear Waste Standards Analysis, Regulatory Framework Comparison*, Battelle Memorial Institute Report No. BPMD/82/E515-06600/3, Sept. 1982.
- J. P. Fox et al., *Literature and Data Search of Water Resource Information of the Colorado, Utah, and Wyoming Oil Shale Basins*, Vols. 1-12, Bureau of Land Management, 1982.
- A. T. Hodgson, M. J. Pollard, G. J. Harris, D. C. Girvin, J. P. Fox, and N. J. Brown, *Mercury Mass Distribution During Laboratory and Simulated In-Situ Retorting*, Lawrence Berkeley Laboratory Report LBL-12908, 39 pp., Feb. 1982.
- E. J. Peterson, A. V. Henicksman, J. P. Fox, J. A. O'Rourke, and P. Wagner, *Assessment and Control of Water Contamination Associated with Shale Oil Extraction and Processing*, Los Alamos National Laboratory Report LA-9084-PR, 54 pp., April 1982.
- P. Persoff and J. P. Fox, *Control Technology for In-Situ Oil Shale Retorts*, Lawrence Berkeley Laboratory Report LBL-14468, 118 pp., Dec. 1982.
- J. P. Fox, *Codisposal Evaluation: Environmental Significance of Organic Compounds*, Development Engineering Report, 104 pp., April 1982.
- J. P. Fox, *A Proposed Strategy for Developing an Environmental Water Monitoring Plan for the Paraho-Ute Project*, VTN Consolidated Report, Sept. 1982.
- J. P. Fox, D. C. Girvin, and A. T. Hodgson, "Trace Elements in Oil Shale Materials," *Energy and Environmental Chemistry, Fossil Fuels*, v.1, pp. 69-101, 1982.
- M. Mehran, T. N. Narasimhan, and J. P. Fox, "Hydrogeologic Consequences of Modified In-situ Retorting Process, Piceance Creek Basin, Colorado," *Proceedings of the Fourteenth Oil Shale Symposium*, Colorado School of Mines Press, Golden, CO, 1981 (LBL-12063).
- U. S. DOE (J. P. Fox and others), *Western Oil Shale Development: A Technology Assessment*, v. 1-9, Pacific Northwest Laboratory Report PNL-3830, 1981.
- J. P. Fox (ed), "Oil Shale Research," Chapter from the *Energy and Environment Division Annual Report 1980*, Lawrence Berkeley Laboratory Report LBL-11989, 82 pp., 1981 (author or co-author of four articles in report).
- D.C. Girvin and J.P. Fox, *On-Line Zeeman Atomic Absorption Spectroscopy for Mercury Analysis in Oil Shale Gases*, U.S. EPA Report EPA-600/7-80-130, June 1980.
- J. P. Fox, *The Partitioning of Major, Minor, and Trace Elements during In-Situ Oil Shale Retorting*, Ph.D. Dissertation, U. of Ca., Berkeley, also Report LBL-9062, 441 pp., 1980 (*Diss. Abst. Internat.*, v. 41, no. 7, 1981).
- J.P. Fox, "Elemental Composition of Simulated *In Situ* Oil Shale Retort Water," *Analysis of Waters Associated with Alternative Fuel Production, ASTM STP 720*, L.P. Jackson and C.C. Wright, Eds., American Society for Testing and Materials, pp. 101-128, 1981.

J. P. Fox, P. Persoff, P. Wagner, and E. J. Peterson, "Retort Abandonment -- Issues and Research Needs," in *Oil Shale: the Environmental Challenges*, K. K. Petersen (ed.), p. 133, 1980 (Lawrence Berkeley Laboratory Report LBL-11197).

J. P. Fox and T. E. Phillips, "Wastewater Treatment in the Oil Shale Industry," in *Oil Shale: the Environmental Challenges*, K. K. Petersen (ed.), p. 253, 1980 (Lawrence Berkeley Laboratory Report LBL-11214).

R. D. Giaouque, J. P. Fox, J. W. Smith, and W. A. Robb, "Geochemical Studies of Two Cores from the Green River Oil Shale Formation," *Transactions*, American Geophysical Union, v. 61, no. 17, 1980.

J. P. Fox, "The Elemental Composition of Shale Oils," Abstracts of Papers, 179th National Meeting, ISBN 0-8412-0542-6, Abstract No. FUEL 17, 1980.

J. P. Fox and P. Persoff, "Spent Shale Grouting of Abandoned In-Situ Oil Shale Retorts," *Proceedings of Second U.S. DOE Environmental Control Symposium*, CONF-800334/1, 1980 (Lawrence Berkeley Laboratory Report LBL-10744).

P. K. Mehta, P. Persoff, and J. P. Fox, "Hydraulic Cement Preparation from Lurgi Spent Shale," *Proceedings of the Thirteenth Oil Shale Symposium*, Colorado School of Mines Press, Golden, CO, 1980 (Lawrence Berkeley Laboratory Report LBL-11071).

F. E. Brinckman, K. L. Jewett, R. H. Fish, and J. P. Fox, "Speciation of Inorganic and Organoarsenic Compounds in Oil Shale Process Waters by HPLC Coupled with Graphite Furnace Atomic Absorption (GFAA) Detectors," Abstracts of Papers, Div. of Geochemistry, Paper No. 20, Second Chemical Congress of the North American Continent, August 25-28, 1980, Las Vegas (1980).

J. P. Fox, D. E. Jackson, and R. H. Sakaji, "Potential Uses of Spent Shale in the Treatment of Oil Shale Retort Waters," *Proceedings of the Thirteenth Oil Shale Symposium*, Colorado School of Mines Press, Golden, CO, 1980 (Lawrence Berkeley Laboratory Report LBL-11072).

J. P. Fox, *The Elemental Composition of Shale Oils*, Lawrence Berkeley Laboratory Report LBL-10745, 1980.

R. H. Fish, J. P. Fox, F. E. Brinckman, and K. L. Jewett, *Fingerprinting Inorganic and Organoarsenic Compounds in Oil Shale Process Waters Using a Liquid Chromatograph Coupled with an Atomic Absorption Detector*, Lawrence Berkeley Laboratory Report LBL-11476, 1980.

National Academy of Sciences (J. P. Fox and others), *Surface Mining of Non-Coal Minerals, Appendix II: Mining and Processing of Oil Shale and Tar Sands*, 222 pp., 1980.

J. P. Fox, "Elemental Composition of Simulated In-Situ Oil Shale Retort Water," in *Analysis of Waters Associated with Alternative Fuel Production*, ASTM STP 720, L. P. Jackson and C. C. Wright (eds.), American Society for Testing and Materials, pp. 101-128, 1980.

R. D. Giaque, J. P. Fox, and J. W. Smith, *Characterization of Two Core Holes from the Naval Oil Shale Reserve Number 1*, Lawrence Berkeley Laboratory Report LBL-10809, 176 pp., December 1980.

B. M. Jones, R. H. Sakaji, J. P. Fox, and C. G. Daughton, "Removal of Contaminative Constituents from Retort Water: Difficulties with Biotreatment and Potential Applicability of Raw and Processed Shales," *EPA/DOE Oil Shale Wastewater Treatability Workshop*, December 1980 (Lawrence Berkeley Laboratory Report LBL-12124).

J. P. Fox, *Water-Related Impacts of In-Situ Oil Shale Processing*, Lawrence Berkeley Laboratory Report LBL-6300, 327 p., December 1980.

M. Mehran, T. N. Narasimhan, and J. P. Fox, *An Investigation of Dewatering for the Modified In-Situ Retorting Process, Piceance Creek Basin, Colorado*, Lawrence Berkeley Laboratory Report LBL-11819, 105 p., October 1980.

J. P. Fox (ed.) "Oil Shale Research," Chapter from the *Energy and Environment Division Annual Report 1979*, Lawrence Berkeley Laboratory Report LBL-10486, 1980 (author or coauthor of eight articles).

E. Ossio and J. P. Fox, *Anaerobic Biological Treatment of In-Situ Oil Shale Retort Water*, Lawrence Berkeley Laboratory Report LBL-10481, March 1980.

J. P. Fox, F. H. Pearson, M. J. Kland, and P. Persoff, *Hydrologic and Water Quality Effects and Controls for Surface and Underground Coal Mining -- State of Knowledge, Issues, and Research Needs*, Lawrence Berkeley Laboratory Report LBL-11775, 1980.

D. C. Girvin, T. Hadeishi, and J. P. Fox, "Use of Zeeman Atomic Absorption Spectroscopy for the Measurement of Mercury in Oil Shale Offgas," *Proceedings of the Oil Shale Symposium: Sampling, Analysis and Quality Assurance*, U.S. EPA Report EPA-600/9-80-022, March 1979 (Lawrence Berkeley Laboratory Report LBL-8888).

D. S. Farrier, J. P. Fox, and R. E. Poulson, "Interlaboratory, Multimethod Study of an In-Situ Produced Oil Shale Process Water," *Proceedings of the Oil Shale Symposium: Sampling, Analysis and Quality Assurance*, U.S. EPA Report EPA-600/9-80-022, March 1979 (Lawrence Berkeley Laboratory Report LBL-9002).

J. P. Fox, J. C. Evans, J. S. Fruchter, and T. R. Wildeman, "Interlaboratory Study of Elemental Abundances in Raw and Spent Oil Shales," *Proceedings of the Oil Shale Symposium: Sampling, Analysis and Quality Assurance*, U.S. EPA Report EPA-600/9-80-022, March 1979 (Lawrence Berkeley Laboratory Report LBL-8901).

J. P. Fox, "Retort Water Particulates," *Proceedings of the Oil Shale Symposium: Sampling, Analysis and Quality Assurance*, U.S. EPA Report EPA-600/9-80-022, March 1979 (Lawrence Berkeley Laboratory Report LBL-8829).

- P. Persoff and J. P. Fox, "Control Strategies for In-Situ Oil Shale Retorts," *Proceedings of the Twelfth Oil Shale Symposium*, Colorado School of Mines Press, Golden, CO, 1979 (Lawrence Berkeley Laboratory Report LBL-9040).
- J. P. Fox and D. L. Jackson, "Potential Uses of Spent Shale in the Treatment of Oil Shale Retort Waters," *Proceedings of the DOE Wastewater Workshop*, Washington, D. C., June 14-15, 1979 (Lawrence Berkeley Laboratory Report LBL-9716).
- J. P. Fox, K. K. Mason, and J. J. Duvall, "Partitioning of Major, Minor, and Trace Elements during Simulated In-Situ Oil Shale Retorting," *Proceedings of the Twelfth Oil Shale Symposium*, Colorado School of Mines Press, Golden, CO, 1979 (Lawrence Berkeley Laboratory Report LBL-9030).
- P. Persoff and J. P. Fox, *Control Strategies for Abandoned In-Situ Oil Shale Retorts*, Lawrence Berkeley Laboratory Report LBL-8780, 106 pp., October 1979.
- D. C. Girvin and J. P. Fox, *On-Line Zeeman Atomic Absorption Spectroscopy for Mercury Analysis in Oil Shale Gases*, Environmental Protection Agency Report EPA-600/7-80-130, 95 p., August 1979 (Lawrence Berkeley Laboratory Report LBL-9702).
- J. P. Fox, *Water Quality Effects of Leachates from an In-Situ Oil Shale Industry*, Lawrence Berkeley Laboratory Report LBL-8997, 37 pp., April 1979.
- J. P. Fox (ed.), "Oil Shale Research," Chapter from the *Energy and Environment Division Annual Report 1978*, Lawrence Berkeley Laboratory Report LBL-9857 August 1979 (author or coauthor of seven articles).
- J. P. Fox, P. Persoff, M. M. Moody, and C. J. Sisemore, "A Strategy for the Abandonment of Modified In-Situ Oil Shale Retorts," *Proceedings of the First U.S. DOE Environmental Control Symposium*, CONF-781109, 1978 (Lawrence Berkeley Laboratory Report LBL-6855).
- E. Ossio, J. P. Fox, J. F. Thomas, and R. E. Poulson, "Anaerobic Fermentation of Simulated In-Situ Oil Shale Retort Water," *Division of Fuel Chemistry Preprints*, v. 23, no. 2, p. 202-213, 1978 (Lawrence Berkeley Laboratory Report LBL-6855).
- J. P. Fox, J. J. Duvall, R. D. McLaughlin, and R. E. Poulson, "Mercury Emissions from a Simulated In-Situ Oil Shale Retort," *Proceedings of the Eleventh Oil Shale Symposium*, Colorado School of Mines Press, Golden, CO, 1978 (Lawrence Berkeley Laboratory Report LBL-7823).
- J. P. Fox, R. D. McLaughlin, J. F. Thomas, and R. E. Poulson, "The Partitioning of As, Cd, Cu, Hg, Pb, and Zn during Simulated In-Situ Oil Shale Retorting," *Proceedings of the Tenth Oil Shale Symposium*, Colorado School of Mines Press, Golden, CO, 1977.
- Bechtel, Inc., *Treatment and Disposal of Toxic Wastes*, Report Prepared for Santa Ana Watershed Planning Agency, 1975.
- Bay Valley Consultants, *Water Quality Control Plan for Sacramento, Sacramento-San Joaquin and San Joaquin Basins*, Parts I and II and Appendices A-E, 750 pp., 1974.

POST GRADUATE COURSES  
(Partial)

S-Plus Data Analysis, MathSoft, 6/94.  
Air Pollutant Emission Calculations, UC Berkeley Extension, 6-7/94  
Assessment, Control and Remediation of LNAPL Contaminated Sites, API and USEPA, 9/94  
Pesticides in the TIE Process, SETAC, 6/96  
Sulfate Minerals: Geochemistry, Crystallography, and Environmental Significance,  
Mineralogical Society of America/Geochemical Society, 11/00.  
Design of Gas Turbine Combined Cycle and Cogeneration Systems, Thermoflow, 12/00  
Air-Cooled Steam Condensers and Dry- and Hybrid-Cooling Towers, Power-Gen, 12/01  
Combustion Turbine Power Augmentation with Inlet Cooling and Wet Compression,  
Power-Gen, 12/01  
CEQA Update, UC Berkeley Extension, 3/02  
The Health Effects of Chemicals, Drugs, and Pollutants, UC Berkeley Extension, 4-5/02  
Noise Exposure Assessment: Sampling Strategy and Data Acquisition, AIHA PDC 205, 6/02  
Noise Exposure Measurement Instruments and Techniques, AIHA PDC 302, 6/02  
Noise Control Engineering, AIHA PDC 432, 6/02  
Optimizing Generation and Air Emissions, Power-Gen, 12/02  
Utility Industry Issues, Power-Gen, 12/02  
Multipollutant Emission Control, Coal-Gen, 8/03  
Community Noise, AIHA PDC 104, 5/04  
Cutting-Edge Topics in Noise and Hearing Conservation, AIHA 5/04  
Selective Catalytic Reduction: From Planning to Operation, Power-Gen, 12/05  
Improving the FGD Decision Process, Power-Gen, 12/05  
E-Discovery, CEB, 6/06  
McIlvaine Hot Topic Hour, FGD Project Delay Factors, 8/10/06  
McIlvaine Hot Topic Hour, What Mercury Technologies Are Available, 9/14/06  
McIlvaine Hot Topic Hour, SCR Catalyst Choices, 10/12/06  
McIlvaine Hot Topic Hour, Particulate Choices for Low Sulfur Coal, 10/19/06  
McIlvaine Hot Topic Hour, Impact of PM2.5 on Power Plant Choices, 11/2/06  
McIlvaine Hot Topic Hour, Dry Scrubbers, 11/9/06  
Cost Estimating and Tricks of the Trade – A Practical Approach, PDH P159, 11/19/06  
Process Equipment Cost Estimating by Ratio & Proportion, PDH G127 11/19/06  
Power Plant Air Quality Decisions, Power-Gen 11/06  
McIlvaine Hot Topic Hour, WE Energies Hg Control Update, 1/12/07  
Negotiating Permit Conditions, EEUC, 1/21/07  
BACT for Utilities, EEUC, 1/21/07  
McIlvaine Hot Topic Hour, Chinese FGD/SCR Program & Impact on World, 2/1/07  
McIlvaine Hot Topic Hour, Mercury Control Cost & Performance, 2/15/07  
McIlvaine Hot Topic Hour, Mercury CEMS, 4/12/07

Coal-to-Liquids – A Timely Revival, 9<sup>th</sup> Electric Power, 4/30/07  
Advances in Multi-Pollutant and CO<sub>2</sub> Control Technologies, 9<sup>th</sup> Electric Power, 4/30/07  
Mellvaine Hot Topic Hour, Measurement & Control of PM<sub>2.5</sub>, 5/17/07  
Mellvaine Hot Topic Hour, Co-firing and Gasifying Biomass, 5/31/07  
Mellvaine Hot Topic Hour, Mercury Cost and Performance, 6/14/07  
Ethanol 101: Points to Consider When Building an Ethanol Plant, BBI International, 6/26/07  
Low Cost Optimization of Flue Gas Desulfurization Equipment, Fluent, Inc., 7/6/07.  
Mellvaine Hot Topic Hour, CEMS for Measurement of NH<sub>3</sub>, SO<sub>3</sub>, Low NO<sub>x</sub>, 7/12/07  
Mellvaine Hot Topic Hour, Mercury Removal Status & Cost, 8/9/07  
Mellvaine Hot Topic Hour, Filter Media Selection for Coal-Fired Boilers, 9/13/07  
Mellvaine Hot Topic Hour, Catalyst Performance on NO<sub>x</sub>, SO<sub>3</sub>, Mercury, 10/11/07  
PRB Coal Users Group, PRB 101, 12/4/07  
Mellvaine Hot Topic Hour, Mercury Control Update, 10/25/07  
Circulating Fluidized Bed Boilers, Their Operation, Control and Optimization, Power-Gen, 12/8/07  
Renewable Energy Credits & Greenhouse Gas Offsets, Power-Gen, 12/9/07  
Petroleum Engineering & Petroleum Downstream Marketing, PDH K117, 1/5/08  
Estimating Greenhouse Gas Emissions from Manufacturing, PDH C191, 1/6/08  
Mellvaine Hot Topic Hour, NO<sub>x</sub> Reagents, 1/17/08  
Mellvaine Hot Topic Hour, Mercury Control, 1/31/08  
Mellvaine Hot Topic Hour, Mercury Monitoring, 3/6/08  
Mellvaine Hot Topic Hour, SCR Catalysts, 3/13/08  
Argus 2008 Climate Policy Outlook, 3/26/08  
Argus Pet Coke Supply and Demand 2008, 3/27/08  
Mellvaine Hot Topic Hour, SO<sub>3</sub> Issues and Answers, 3/27/08  
Mellvaine Hot Topic Hour, Mercury Control, 4/24/08  
Mellvaine Hot Topic Hour, Co-Firing Biomass, 5/1/08  
Mellvaine Hot Topic Hour, Coal Gasification, 6/5/08  
Mellvaine Hot Topic Hour, Spray Driers vs. CFBs, 7/3/08  
Mellvaine Hot Topic Hour, Air Pollution Control Cost Escalation, 9/25/08  
Mellvaine Hot Topic Hour, Greenhouse Gas Strategies for Coal Fired Power Plant Operators, 10/2/08  
Mellvaine Hot Topic Hour, Mercury and Toxics Monitoring, 2/5/09  
Mellvaine Hot Topic Hour, Dry Precipitator Efficiency Improvements, 2/12/09  
Mellvaine Hot Topic Hour, Coal Selection & Impact on Emissions, 2/26/09  
Mellvaine Hot Topic Hour, 98% Limestone Scrubber Efficiency, 7/9/09  
Mellvaine Hot Topic Hour, Carbon Management Strategies and Technologies, 6/24/10  
Mellvaine Hot Topic Hour, Gas Turbine O&M, 7/22/10  
  
Mellvaine Hot Topic Hour, Industrial Boiler MACT – Impact and Control Options, March 10, 2011  
Mellvaine Hot Topic Hour, Fuel Impacts on SCR Catalysts, June 30, 2011.

Interest Rates, PDH P204, 3/9/12

Mechanics Liens, PDHOnline, 2/24/13.

Understanding Concerns with Dry Sorbent Injection as a Coal Plant Pollution Control, Webinar #874-567-839 by Cleanenergy.Org, March 4, 2013

Webinar: Coal-to-Gas Switching: What You Need to Know to Make the Investment, sponsored by PennWell Power Engineering Magazine, March 14, 2013. Available at:

<https://event.webcasts.com/viewer/event.jsp?ei=1013472>.

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May 31, 2018

## VIA EMAIL

Ashley Smith  
Planning and Development Services  
County of San Diego  
5510 Overland Avenue, Suite 310  
San Diego, CA 92123

**Re: Newland Sierra (Log No. PDS2015-ER-15-08-001; SCH No. 2015021036, Project Numbers: PDS2015-GPA-15-001, PDS2015-SP-15-001, PDS2015-REZ-15-001, PDS2015-TM-5597, PDSXXXX-HLP-XXX) – Failure to Properly Analyze and Mitigate Biological Impacts**

Dear Ms. Smith:

As you are aware, we represent Golden Door Properties, LLC (“Golden Door”), a world-class resort and agricultural operation in rural Twin Oaks Valley. The Golden Door has restored farming and beekeeping, including replanting many new trees, on its property, and shares its products through a community Farm Stand and other retail operations. The Golden Door has raised many concerns with the County about the proposed Newland Sierra Project and the impacts of adding urban density the size of the City of Del Mar in our rural community.

We write today with respect to the Project’s biological resources impacts, as follow-up to our letters dated May 22, 2017 (to the County) and May 21, 2018 (to the U.S. Fish & Wildlife Service, on which County staff were copied) and County staff’s letters to us dated June 5 and August 25, 2017 regarding the North County MSCP. As noted in the attached memorandum, there are many procedural and substantive deficiencies in the draft EIR and project application materials. We believe that these defects are of sufficient severity that the project application cannot proceed until these defects are corrected and the project’s environmental review documents are re-published to the public for review and comment under CEQA and other laws.

LATHAM & WATKINS<sup>LLP</sup>

Thank you for your time and attention to our comments. Please do not hesitate to contact us should you have any questions or comments.

Best regards,



Taiga Takahashi  
of LATHAM & WATKINS LLP

Enclosure

cc: Darin Neufeld, County Planning and Development Services  
Mark Slovick, County Planning and Development Services  
William W. Witt, Office of County Counsel  
Claudia Silva, Office of County Counsel  
Dan Silver, Endangered Habitats League  
George Courser, Sierra Club  
Stephanie Saathoff, Clay Co.  
Denise Price, Clay Co.  
Christopher Garrett, Latham & Watkins  
Kathy Van Ness, Golden Door

**I. THE PROJECT'S EXEMPTION FROM THE RESOURCE PROTECTION ORDINANCE CANNOT EXEMPT IT FROM THE CEQA SIGNIFICANCE THRESHOLDS.**

The significance threshold for biological resources is clear. As stated on page 2.4-81 of the draft EIR, "A significant impact would result if: ... The project would conflict with one or more local policies or ordinances protecting biological resources ... The project would impact any amount of wetlands or sensitive habitat lands as outlined in the Resource Protection Ordinance (RPO)." The Resource Protection Ordinance defines "sensitive habitat lands" as including not only wetlands, but also "steep slope lands." (County Code § 86.602(c).)

The Draft EIR erroneously asserts that "Impacts would be reduced to less than significant with implementation of M-BIO-8D, M-BIO-8A, and M-BIO-12" (draft EIR at pp. 2.4-134–135) but fails to discuss or analyze the fact that the Project's Resource Protection Plan admits that the project is not consistent with the RPO. (Dudek Resource Protection Plan for the Newland Sierra Project (April 2017) at pp. 4-5 ["County Staff and the Wildlife Agencies agree that the proposed Newland Sierra Project (project) is not feasible to implement if the County RPO is strictly applied to areas outside of the designated biological open space"]; see also draft EIR at p. 3.3-39 ["The project must also be in conformance with the RPO. However, the project is not strictly in conformance with RPO ...."].) Clearly, if the Newland project cannot be implemented due to the RPO, the project is necessarily fundamentally inconsistent and incompatible with the RPO's requirements. This is undoubtedly a significant impact under the County's CEQA significance thresholds. Newland's proposed exemption from the RPO, which would only take place after project approval, cannot exempt it from the significance threshold, which is applied before project approval.

**II. THE PROJECT'S BIOLOGICAL ANALYSIS IS MISSING CRUCIAL INFORMATION.**

**A. The Project analysis does not resolve impacts to the natural fire regime.**

Page 2.4-97 of the draft EIR states that "If the natural fire regime is suppressed, longer-than-natural fire return intervals can result in excessive buildup of fuel loads so that when fires do occur, they are catastrophic. Unnaturally long fire intervals can also result in senescence of plant communities, such as chaparral, that rely on shorter intervals for rejuvenation. The potential cumulative indirect project impacts would be **significant (Impact BI-C-1)**." (See also p. 2.4-65.)

The Draft EIR goes on to summarily conclude that "Potential cumulative indirect impacts would be significant and would be reduced to less than significant through mitigation measures M-BIO-8A through M-BIO-8E, which would provide for habitat management and conservation of open space areas that would allow for unimpeded wildlife movement and use. This impact would also be mitigated through M-BIO-10 through M-BIO-12." There is no discussion of the project's impacts on natural fire regimes. (See also Jennings, 2018: "Both scenarios (too little fire, too frequent fire) present potential threats for species and community dynamics in southern California as shifts in the natural fire regime, coupled with increasing habitat fragmentation, have the potential to impact wildlife populations, communities, and entire ecosystems.").

Only two mitigation measures address fire (M-BIO-8C and M-BIO-11) but neither discuss the project's impacts on natural fire regimes. In fact, if the project does indeed attain its goal "To minimize the potential exposure of the project Site to fire hazards" (p. 2.4-120), this would constitute creating "Unnaturally long fire intervals [which] can also result in senescence of plant communities, such as chaparral, that rely on shorter intervals for rejuvenation." Nothing in the

draft EIR addresses this impact, and its failure to do so prevents the EIR from providing a legally adequate CEQA analysis.

**B. The Project analysis does not conduct an adequate biological analysis of the impacts of the new interchange and instead illegally defers this analysis to another agency.**

Page 2.4-123 of the draft EIR provides a deferred mitigation measure for the impacts of the new interchange, which the draft EIR concedes “may have the potential to impact or remove biological resources, including RPO wetlands.” The draft EIR then concludes that further study by Caltrans will “ensure potential impacts to biological resources remain less than significant.” This a classic example of illegally deferred mitigation.

It is axiomatic that in the right circumstances, an agency may defer the implementation of mitigation measures provided that the mitigation is enforceable and effective. What the agency may not do, however, is purport to make a significance conclusion based on the future study of the impact. That is exactly what the draft EIR does here. M-BIO-13 only states that Caltrans “should prepare, or cause to be prepared, a biological resources study to evaluate these potential impacts.” The County cannot make a significance conclusion based on a future study. In addition, M-BIO-13 contains no provisions to “ensure potential impacts to biological resources remain less than significant.”

The impropriety of M-BIO-13 is even clearer when the draft EIR itself discloses that the Newland clearly does know some detail of the scope and nature of the new interchange. For example, Figure 6D of the RPP clearly shows the outline of some design of the new interchange – accordingly, the draft EIR must analyze these impacts and not defer them for future study by another agency.

**C. The Project’s analysis regarding off-site wetlands is not supported by substantial evidence.**

Table 3 of the RPP at page 22 asserts that impacts of off-site RPO wetlands is identical for either Option A or Option B. This appears to define common sense, given that Option A proposes “approximately 6,600-foot-long section of the segment of Deer Springs Road between Sarver Lane and Mesa Rock Road to a 2.1B Community Collector (two lanes of travel with a continuous center turn lane). The balance of the road southwest into the city of San Marcos and east to I-15, including its intersections with Sarver Lane and Mesa Rock Road, would be improved to a 4.1A Major Road (a four-lane road with a raised median),” whereas Option B proposes to “construct the entire length of the road from the I-15 interchange to its intersection with Twin Oaks Valley Road as a four-lane road, with an approximately 7,600-foot-long section of the road between Sarver Lane and Mesa Rock Road as a 4.1B Major Road (four lanes of travel with a continuous center turn lane), and the balance of the road, including its intersections with Sarver Lane and Mesa Rock Road, as a 4.1A Major Road.” Because Option A and Option B propose different widths to Deer Springs Road, the impacts to wetlands should also be different. But the RPP asserts the impact is identical. This cannot be the case unless Option A and Option B were identical, which they are not. Indeed, except for this one table, the entirety of the 70-page RPP makes no distinction between Option A and Option B—a severe informational deficiency that renders the draft EIR to be fundamentally incomplete and unable to legally proceed in its current form under CEQA.

This, along with other inconsistencies identified in our other correspond, render the draft EIR fundamentally inadequate under CEQA and it requires substantial revision and recirculation before proceeding on for further review.

**D. The Project analysis fails to identify or analyze inconsistency with the General Plan's resource protection requirements.**

The General Plan generally requires compliance with the County's Resource Protection Ordinance. (See 2017 County General Plan Implementation Plan, at pp. 30, 36, 39.)<sup>1</sup> The project proposes to exempt itself from the Resource Protection Ordinance; therefore, it cannot be deemed to have complied with the applicable General Plan Policies. (As noted in the Implementation Plan, these include M-2.3, M-4.5, LU-6.1, COS-2.1, COS-2.2, COS-2.3, COS-3.1, COS-3.2, LU-7.2, COS-6.3, COS-6.4, S-3.1, S-3.2, S-3.3, LU-6.8, COS-5.3, COS-12.2, S-8.1, S-8.2, and S-9.6.)

Though the draft EIR asserts that the project's RPP is the "functional equivalent" to the RPO, as noted in our August 2017 comment letter, there is no analysis or evidence that substantiates this conclusory assertion. Similarly, there is no analysis or evidence that the RPP complies with the applicable General Plan Policies noted herein.

**E. The Project analysis fails to analyze the project under the County's Biological Mitigation Ordinance.**

The EIR is also defective because it does not include an appropriate analysis of Biological Mitigation Ordinance requirements. Page 2.4-90 of the draft EIR claims that "The Biological Mitigation Ordinance does not apply to the draft North County Plan planning area. Therefore, no impacts to Biological Resource Core Areas would occur." This is an improper analysis under CEQA. The current publicly available draft North County MSCP (<https://www.sandiegocounty.gov/content/dam/sdc/pds/mscp/docs/MSCPNorthCountyPlan.pdf>) at pages 13-14 states that "The County's BMO (Appendix A) will be the primary instrument for determining mitigation requirements for discretionary development projects." Appendix A (<https://www.sandiegocounty.gov/content/dam/sdc/pds/mscp/docs/AppendixANCBMO.pdf>) presents draft Biological Mitigation Ordinance requirements for the North County MSCP area. If the project is going to take "credit" for being in the draft North County MSCP area (which it does, see, for example, page 3.3-44 of the draft EIR, asserting that "The proposed project is currently designated as 'Proposed Hardline Area' in the North County MSCP"), then it must also analyze the requirements of the current draft, including the draft Biological Mitigation Ordinance for the North County MSCP area. Otherwise, it is a defective analysis that does not meet CEQA's requirements. (See, e.g., *Banning Ranch Conservancy v. City of Newport Beach* (2017) 2 Cal.5th 918, 941 ["For all the reasons stated above, the Banning Ranch EIR is insufficient. The City did provide a detailed biological analysis of project impacts, which may have been adequate were Banning Ranch not in the coastal zone. But, however technically accurate the City's analysis might otherwise be, it fell short by failing to account for the Coastal Act's ESHA protections."].)

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<sup>1</sup> Available at [https://www.sandiegocounty.gov/content/dam/sdc/pds/gpupdate/docs/GP/Implementation%20Plan\\_v2017.pdf](https://www.sandiegocounty.gov/content/dam/sdc/pds/gpupdate/docs/GP/Implementation%20Plan_v2017.pdf).

**F. The Project's analysis of impacts to California gnatcatcher is not supported by substantial evidence.**

The draft EIR notes that a large portion of the project site (over 700 acres) is designated as "critical habitat" for the California gnatcatcher, which is a federally protected species under the Endangered Species Act. (Draft EIR at p. 2.4-28.) The draft EIR then dismisses the critical habitat designation and concludes there will be a less than significant impact because "the project was designed to avoid 33 percent (25.2 acres) of the suitable habitat ...." (*Id.* at p. 2.4-93.) The threshold for significance makes no mention of "suitable habitat" – rather, it states broadly that an impact will be significant if the project "would reduce the likelihood of survival and recovery of listed species in the wild." (*Id.* at p. 2.4-81.) The draft EIR fails to provide any analysis regarding whether the project's impact on "*critical habitat*" "would reduce the likelihood of survival and recovery" of California gnatcatcher. The draft EIR cannot dismiss the critical habitat designation and focus only on "suitable habitat for nesting." As noted by the U.S. Fish & Wildlife Service, critical habitat "contain[s] features essential to the conservation of an endangered or threatened species and that may require special management and protection. Critical habitat may also include areas that are not currently occupied by the species but will be needed for its recovery."<sup>2</sup> "Nesting" is not the only important factor in the "survival and recovery of listed species in the wild"; "physical or biological features needed for life processes" must also be considered. These include: "space for individual and population growth and for normal behavior; cover or shelter; food, water, air, light, minerals, or other nutritional or physiological requirements; sites for breeding and rearing offspring; and habitats that are protected from disturbances or are representative of the historical geographical and ecological distributions of a species ... unoccupied areas that are essential for the conservation of the species." The draft EIR's failure to consider these factors renders it an inadequate document under CEQA.

**G. The Project does not adequately mitigate for impacts to oak root zones.**

The draft EIR states that there will be a requirement for 58.8 acres of mitigation for the project's impacts to oak root zones. (Draft EIR at p. 2.4-173.) The draft EIR also asserts that the project will provide "excess" mitigation of 2.1 acres. (*Ibid.*) This is a clear informational error that requires correction and recirculation, because the discrepancy in the calculation cannot be dismissed by mere "rounding error." The mitigation table discloses that the project will mitigate approximately 38.5 acres (21.7 on-site and 16.8 off-site). The mitigation requirement is approximately 58.8 acres; accordingly there is a mitigation *deficit of 21 acres*, not an excess of "2.1" acres. This failure to properly analyze and mitigate these impacts is sufficient to find the draft EIR legally inadequate. (See, e.g., *Lotus v. Department of Transportation* (2014) 223 Cal.App.4th 645.)

**H. The Project analysis' conclusory assertion regarding impacts to wildlife crossings is not supported by substantial evidence.**

Even though the project proposes to substantially expand the width of Deer Springs Road (to double or even triple its current size, from 2 lanes to 4 or 6 lanes), the draft EIR concludes, without any evidence, that "Wildlife are expected to cross Deer Springs Road and Twin Oaks Valley Road similar to current conditions, because the open space configuration would allow for continued movement to the south and west." Open space to the north and east does not determine the viability of wildlife crossings; rather, as noted by biological experts,

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<sup>2</sup> See <https://www.fws.gov/endangered/what-we-do/critical-habitats-faq.html>.

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wildlife crossings are also impacted by the width of the road and traffic volumes, both of which the project proposes to substantially increase. These impacts require mitigation, but the project proposes none other than “open space”:

- “to adequately ensure there is functional connectivity for wildlife to move to and from the open space in the San Marcos Mountains, appropriately sited and designed wildlife crossing structures need to be installed along Twin Oaks Valley Road.” (Jennings, 2017);
- “The proposed increase in the size of Deer Springs Road, the improvements to the I-15 interchange, as well as the expansion of the footprint of development in the immediate vicinity of the I-15 interchange would be exceptionally difficult to plan so that wildlife could continue to move through the area, particularly given the importance of north-south movement through this area ... Appropriately sized, spaced, sited, and designed structures must be included in the design of the road to allow for wildlife movement to avoid increasing the mortality effect of the road and limit the degree of the barrier effect that will occur when the road is widened. Furthermore, incorporating the addition of wildlife crossing structure.” (Jennings, 2017);
- “Other roads of concern in the proposed project are Camino Mayor and the proposed section of Mesa Rock Road that would bisect the proposed central section of “open space”. These two roads would also need to incorporate appropriate wildlife crossing structures to limit the impacts of these roadways on habitat and movement.” (Jennings, 2017).

However, having “open space” does not address the actual increased physical difficulty of wildlife crossing what is currently a 2-lane road as compared to what the project proposes to be at least a 4-lane road or even 6-lane road. There is simply no substantial evidence in the record that “Wildlife are expected to cross Deer Springs Road and Twin Oaks Valley Road similar to current conditions” even when Deer Springs Road is widened to double or triple its current size.

**I. The Project analysis impermissibly fails to include an evaluation of a “non-MSCP hardline” alternative.**

Planning Director Mark Wardlaw wrote in a letter dated June 5, 2017, that:

In order for a project to be included as a hardline within the approved Multiple Species Conservation Plan - North County Plan (Final Plan), the project footprint to be developed and the footprint to be preserved, including any offsite mitigation areas, must be concurred upon by the Wildlife Agencies, the project proponent, and the County. While the Project is the only proposed project included within the current Draft Plan that has not yet received Board approval, inclusion of the Project in the Draft Plan does not, in any manner, indicate County support for the Project or provide the Project with an approval advantage.

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(See also Letter from R. Talleh, Deputy Director, Planning & Development Services, County of San Diego, *RE: Response to "North County MSCP Steering Committee Presentation"* (Aug. 25, 2017).)

However, the Newland Project draft EIR assumes the Project's inclusion in the "hardline" areas in the draft North County MSCP. Because the North County MSCP is still in draft form and still requires concurrence from federal and state wildlife agencies—and if it is indeed true that "inclusion of the Project in the Draft Plan does not, in any manner, indicate County support for the Project or provide the Project with an approval advantage"—the Project's environmental review documents must evaluate a "non-MSCP hardline" alternative. This alternative would analyze the Project under the possibility that the project site is not included with the MSCP hardline areas.

Failure to include a "non-MSCP hardline" alternative effectively concedes that the Project is going to be included within the North County MSCP hardline area and therefore is a violation of CEQA's rule against piecemealing project approvals. Assuming that the Project site will be designated as "hardline" in the North County MSCP does, in fact, "indicate County support for the Project or provide the Project with an approval advantage" if there is no evaluation of an alternative that does not assume the hardline designation.

Further, failure to analyze a "non-MSCP hardline" alternative or continuing to assume that the Newland Project will be designated as "hardline" in the final North County MSCP violates several mandatory general plan policies. First, as noted in our May 21 letter, General Plan Policy COS-1.4 requires the County to "collaborate," with federal and state wildlife agencies regarding resource preservation. Assuming the inclusion of the Newland project within the MSCP hardline areas before the North County MSCP has been approved violates this policy. Similarly, assuming the inclusion of the Project within the MSCP hardline areas prior to public review and comment on the current draft of the North County MSCP violates General Plan Policy COS-1.10. General Plan Policy COS-1.10 requires the County to "Ensure an open, transparent, and inclusive decision-making process by involving the public throughout the course of planning and implementation of habitat conservation plans and resource management plans." The County's assumption that the Newland Project will be approved as a hardline area in the North County MSCP effectively evades public involvement and input regarding whether the Project Site should be included as a hardline area.

To remedy these errors, the Newland EIR must either include the evaluation of a "non-MSCP hardline" alternative or it must be delayed until after the draft North County MSCP has been approved.

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June 13, 2018

## VIA EMAIL

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**Re: Newland Sierra (Log No. PDS2015-ER-15-08-001; SCH No. 2015021036, Project Numbers: PDS2015-GPA-15-001, PDS2015-SP-15-001, PDS2015-REZ-15-001, PDS2015-TM-5597, PDSXXXX-HLP-XXX) – Newland Sierra Project Inconsistency with North County MSCP**

Dear Ms. Smith:

As you are aware, we represent Golden Door Properties, LLC (“Golden Door”), a world-class resort and agricultural operation in rural Twin Oaks Valley. The Golden Door has restored farming and beekeeping, including replanting many new trees, on its property, and shares its products through a community Farm Stand and other retail operations. The Golden Door has raised many concerns with the County about the proposed Newland Sierra Project and the impacts of adding urban density the size of the City of Del Mar in our rural community.

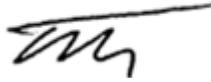
We write today with respect to the Project’s critical inconsistencies with the draft North County MSCP, as a follow-up and supplemental comment to our prior correspondence, in particular our letters dated May 21, 2018, and May 31, 2018. As noted in the enclosed report by Dr. Megan Jennings, there are many procedural and substantive deficiencies in the draft EIR with regarding to this issue. In particular, the draft EIR’s assumption that the Newland project will be designated as “hardline” in the draft North County MSCP “will threaten the functionality of the preserve in the central coastal zone of the [Gopher Canyon-Twin Oaks] plan area.” We believe that these defects are of sufficient severity that the project’s review and processing cannot proceed until these defects are corrected and the project’s environmental review documents are re-published to the public for review and comment under CEQA and other laws. Specifically, the County must evaluate a non-MSCP hardline alternative in the Newland EIR. As noted by the Fourth District Court of Appeal, a valid CEQA analysis should include an evaluation of the project against the current regulations, e.g.: “[E]stimates based on current

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regulations were also required since the anticipated revised regulations had not yet been enacted.” As you know, the draft North County MSCP has not yet been enacted.

Thank you for your time and attention to our comments. Please do not hesitate to contact us should you have any questions or comments.

Best regards,



Taiga Takahashi  
of LATHAM & WATKINS LLP

Enclosure

cc: Darin Neufeld, County Planning and Development Services  
Mark Slovick, County Planning and Development Services  
William W. Witt, Office of County Counsel  
Claudia Silva, Office of County Counsel  
Dan Silver, Endangered Habitats League  
George Courser, Sierra Club  
Stephanie Saathoff, Clay Co.  
Denise Price, Clay Co.  
Christopher Garrett, Latham & Watkins  
Kathy Van Ness, Golden Door

**ENCLOSURE**

## **Draft North County Multiple Species Conservation Plan Issues Relating to the Proposed Newland Sierra Project**

Megan K. Jennings, Ph.D.

June 12, 2018

Based on a review of the May 23, 2017 working draft of the North County Multiple Species Conservation Plan (NC MSCP), there are several issues of NC MSCP consistency and feasibility as it relates to the proposed Newland Sierra project and the proposed hardline of the project area in this draft of the NC MSCP. The proposed Newland Sierra project will preclude implementation of the conservation goals of the NC MSCP, challenging connectivity and the overall functionality of the reserve design of the NC MSCP as well as vegetation conservation targets.

### **Connectivity and Reserve Design Issues**

The proposed open space design for the Newland Sierra project is inconsistent with the conservation and connectivity goals of the North County MSCP and precludes resilient reserve design in the western portion of the plan area.

### ***Proposed Hardline Not Reviewed or Approved by Wildlife Agencies***

The proposed hardline of the Newland Sierra project was put into the draft plan by the County at the developer's request but not yet been reviewed by wildlife agencies or been available for public comment. Hardline projects are areas where development impact areas and the preserved open space areas have been predetermined and hardlined for the purposes of a conservation plan. Hardline projects are included and analyzed in Habitat Conservation Plans approved pursuant to 16 U.S.C. section 1539(a)(2)(A) and Natural Community and Conservation Planning Act (California Fish and Game Code section 2800 et seq.) plans such as the NC MSCP. These plans must receive concurrence from the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) prior to implementation.

In the case of the NC MSCP, the plan must also be approved by the County Board of Supervisors. To date, the NC MSCP has received neither the required concurrence from the wildlife agencies nor the approval of the Board of Supervisors. The determination to place this area into hardline is in direct conflict with the management goals of the NC MSCP and is based on an inadequate assessment of connectivity and is in direct conflict with Wildlife Corridor Conservation Goal and Actions (p. 5-83) stated in the Draft NC MSCP dated May 2017 (and see below).

### ***Connectivity Design of Project Inconsistent with NC MSCP Corridor Conservation Goal and Actions***

The main goal relating to connectivity is to “conserve wildlife corridors within the Preserve, and connect adjacent HCP core areas for a range of wildlife species.”

More specifically, the Corridor Conservation Actions (p. 5-83) state that:

- Large contiguous blocks of habitat are preferred
- Stepping stones are not a goal, rather a minimum
- Corridors should have edge buffering
- Design should consider factors that impact wildlife passage like human developments, edge effects, roads and driveway, reduced structural and compositional diversity of vegetation, agricultural cultivation, free roaming pets, lighting, and noise

- Whenever possible, include deliberate redundancies linking cores in more than one way to establish and/or retain functional connectivity

The proposed design of open space “Blocks” and “Corridors” in the Newland Sierra project is not consistent with these draft guidelines for connectivity planning and implementation in the NC MSCP. Instead, the proposed design separates the second largest block of open space remaining in the Draft NC MSCP Plan area in three separate blocks. The three separate blocks are 870.2, 153.9, and 185 acres and are described as “interconnected” (DEIR, p. 2.4-1). All are considered “medium” in size according to the Draft NC MSCP (pp. 4-4 to 4-5), and two are on the small end of medium. These three blocks are separated from each other by large sections of the development, roads, or passage through narrow pinch points that constrain wildlife movement. The design creates stepping stones that are separated and confined by the proposed development features and the “corridors” are not buffered from these effects. Furthermore, the most likely movement pathways in the proposed plan area will be permanently altered by development.

In the DEIR, the two smaller habitat blocks (Block 2 and Block 3) in the proposed project are included in a description of the proposed open space design as “large, interconnected open space blocks within the project” (DEIR, p. 2.4-1). The size of the proposed open spaces under the proposed development plan are compared to that of other preserved lands in the vicinity of the project area (DEIR, Table 2.4-24, p. 2.4-168) to assert that the two smaller habitat blocks (Block 2 and Block 3) in the proposed project are of adequate size and support a reserve design consistent with the Draft NC MSCP. However, what this in fact demonstrates is that the project would take the second largest block of habitat remaining west of I-15 in the NC MSCP Plan area and fragment it resulting in three smaller “medium” blocks, as defined by the Draft NC MSCP (pp. 4-4 to 4-5), two of which are on the small end of medium. This is directly in conflict with the stated connectivity and conservation planning goals of the NC MSCP.

In addition, the flawed logic justifying the open space design that would fragment this large habitat block ignores the fact that the configuration and location of these blocks is just as important as their size to supporting wildlife movement. Reducing the overall size of the habitat patch in this area will significantly impact wildlife habitat and movement and cannot be adequately mitigated by an open space design that introduces more fragmentation and exposure to edge effects.

### ***Site-Specific Connectivity Issues***

Under the Draft NC MSCP, the Valley Center Planning Unit (PU) and Gopher Canyon-Twin Oaks PU would more appropriately be treated as one piece, similar to the Santa Margarita-Mt. Olympus PU that crosses over I-15. The pre-approved mitigation area (PAMA) in the combination of these two units primarily functions to preserve wildlife connectivity, particularly east-west connectivity across I-15, and as such, should be interconnected when considering the stated goals and conservation actions for each PU. The Merriam Mountains is critical to accomplishing conservation actions stated in each of these Planning Units.

For the Valley Center PU, there is a Conservation Action that states (bold type added to emphasize critical elements of the NC MSCP objectives and actions that are threatened by the proposed Newland-Sierra hardline):

**Conserve land within this Planning Unit to ensure the ecological functionality of the Valley Center Linkage** (see Section 5.4)

*Issue: However, there is a conflict between specific proposed activities in the Newland-Sierra hardline area and this NC MSCP action, because the Merriam Mountains area is a key pinch point for this implementing this action.*

For the Gopher Canyon-Twin Oaks PU, one Conservation Action is to:

**Conserve land to provide for wildlife movement between the Gopher Canyon-Twin Oaks Planning Unit and conserved lands within adjacent MHCP Plan Areas (San Marcos).**

*Issue: Again, there is a conflict between specific proposed activities in the Newland-Sierra hardline area and this NC MSCP action, because the Merriam Mountains area is a key pinch point towards accomplishing this goal.*

Further, in the section on Regional Linkages under Section 5.4 “Preserve Connectivity” (p. 5-69), the description of the Valley Center Linkage (NC3) acknowledges “Several impediments to connectivity exist within this linkage including Interstate 15 and Old Highway 395. Portions of Moosa Creek, particularly west of Interstate 15, are heavily constrained by existing agricultural and residential development.”

As such, the Merriam Mountains area should be considered in planning for landscape connectivity between Valley Center and Bonsall, in particular for species that may move along ridges or mid-slopes and through chaparral rather than riparian areas.

The I-15 linkage should also have a wide buffer so as not to incur edge effects from adjacent development, wherever possible. There is already development in a number of locations along this linkage, so preserving larger blocks of high quality habitat for resting and foraging along the corridor are important for its functioning as a stepping stone corridor.

### **Vegetation Community Conservation Issues**

There are no specific vegetation community conservation acreage targets for each of the North County NC MSCP Planning Units (PUs), but this the scale at which impacts will occur and preservation of these vegetation communities requires a consideration of the spatial distribution of intact communities of each vegetation type as well as the distribution of the proposed activities (e.g., development projects such as the Newland Sierra project) that will fragment the natural vegetation in those areas.

There are 15,645 acres of chaparral vegetation, the predominant vegetation type in the Merriam Mountains, currently in the baseline preserve of the NC MSCP For chaparral vegetation. Another 24,885 acres of chaparral is within Pre-approved Mitigation Area (PAMA) and an additional 9,470 acres are likely to be acquired by public agencies and land conservancies.

The goal for this vegetation type is to establish: “Large areas of conserved chaparral vegetation, featuring a variety of chaparral types, throughout the Plan Area sufficient to maintain sustainable occurrences of covered species utilizing this habitat.”

The distribution of the types of chaparral vegetation mentioned is not mapped or described in the NC MSCP. According to the SANDAG vegetation layer, the Merriam Mountains chaparral is southern mixed chaparral.

**Chaparral Objectives** (bold type added to emphasize the critical element of the NC MSCP objectives and actions threatened by the proposed Newland-Sierra hardline):

- Conserve a total of X acres of chaparral vegetation featuring a variety of chaparral types, within publicly held and privately owned conserved lands (including Baseline Preserve).
- **Maintain the viability** of 15,645 acres of chaparral vegetation within the Baseline Preserve

- Conserve X acres of chaparral vegetation within the PAMA through avoidance and mitigation for private development projects during the 50-year permit term.
- Conserve X acres of chaparral vegetation within the PAMA through acquisition by public agencies and land conservancies during the 50-year permit term.

Chaparral Conservation Actions (bold type added to emphasize critical elements of the NC MSCP objectives and actions that are threatened by the proposed Newland-Sierra hardline):

- 1) **Conserve chaparral vegetation throughout the PUs**, particularly within the Santa Margarita-Mount Olympus (PU-1), Guejito-Pauma (PU-2), and Ramona (PU-8) PUs

*Issue:* There is a conflict between specific proposed activities in the Newland-Sierra hardline area and this NC MSCP objective, because the viability of entire vegetation communities cannot be accomplished if conservation targets are focused only on certain locations within the Plan Area. These targets must be set in a programmatic fashion (i.e., at the PU level), not on an ad-hoc, project-by-project basis.

- 2) **Conserve large areas of chaparral contiguous with other natural vegetation communities to provide linkages and corridors for covered species and other sensitive species within the plan area.**

- 3) **Manage chaparral vegetation within conserved lands to benefit covered species**, including Hermes copper butterfly, Del Mar manzanita, and Encinitas baccharis

*Issue:* There is a conflict between specific proposed activities in the Newland-Sierra hardline area and this NC MSCP objective, because this objective cannot be achieved if there are very few conserved lands within a PU. Acquisitions and conservation in PAMA must also be targeted to benefit covered species.

- 4) **Implement the North County BMO, RPO, and Conservation Subdivision Program to require avoidance, minimization, and mitigation measures for impacts to chaparral vegetation for private and public projects**

*Issue:* The Newland Sierra project should be held to this standard. The draft EIR proposes to exempt the project entirely from the RPO and essentially asserts that there are no requirements or standards of the BMO that may be applied, even though there is a draft BMO for North County in the draft NC MSCP.

Although the Objectives for the planning unit focus on the viability of natural vegetation within the baseline preserve, the 321 acres in the Gopher Canyon-Twin Oaks PU make up less than 7% of the chaparral vegetation within the PU. The viability of the vegetation is dependent on what is happening in the surrounding environs. This includes fragmentation that may introduce or increase the spread of invasive plants and increased fire risk that, through repeated fires at short intervals, could result in vegetation type conversion from chaparral to non-native annual grasses in this planning unit.

Fire-return intervals (the average time between two fire events) in southern Californian shrubland habitats are now 30% shorter now than during pre-settlement (Keeley *et al.* 1999, Safford *et al.* 2011). This shifting disturbance regime with shortened intervals between fires interrupts the successional cycle, reduces plant diversity, and can result in large-scale vegetation type conversion to non-native annual grasslands (Zedler *et al.* 1983, Bachelet *et al.* 2001, Lenihan *et al.* 2003, Syphard *et al.* 2006, Keeley and Brennan 2012), and has been linked to increased human development, particularly at intermediate densities (Syphard *et al.* 2007, 2009). As human populations in southern California have grown dramatically over the last century, particularly in coastal areas, short fire-return intervals paired with habitat fragmentation may have synergistic and long-term impacts on landscape connectivity that present a formidable conservation challenge.

In the NC MSCP Plan Area, the proposed hardline for the Newland Sierra project would result in loss and degradation of over 35% of the chaparral vegetation in the Gopher Canyon-Twin Oaks PU (1,760 acres out of 4,779). Overall, this represents a nearly 23% reduction of native cover across the entire planning unit (1,760 acres out of 7,752), contrary to chaparral Conservation Action 1.

With only 719 acres of baseline preserve in this PU to start with and over 7,000 acres of natural vegetation, development of greater than one-quarter of the land available for PAMA in this Planning Unit will threaten the functionality of the preserve in the central coastal zone of the plan area.

This is particularly concerning because the Gopher Canyon-Twin Oaks PU is one of only three PUs west of the I-15, and it is a critical component of the western portion of the plan area.

Further, the loss and fragmentation of this large, contiguous block of chaparral is inconsistent with Conservation Action 2 because potential linkages between the Valley Center PU immediately to the east will be separated and there will be no viable connection between the chaparral vegetation in these two PUs. This connection is important because the Valley Center PU is primarily made up of long, linear strings of preserve and PAMA, and large core areas are needed adjacent to these areas to preserve viable vegetation communities and populations of covered and listed plant and animal species.

In addition, if the NC MSCP covered species associated with chaparral are to maintain viable populations, then distribution of adequate blocks of contiguous habitat comprised of chaparral vegetation should be preserved throughout the plan area, rather than just in the 3 largest Planning Units (Santa Margarita-Mount Olympus, Guejito-Pauma, and Ramona), which are primarily east of I-15. These covered species include western spadefoot toad, coast horned lizard, golden eagle, and pallid bat.

Accordingly, it is critical that these important programmatic biological conservation issues are resolved through the NC MSCP process, before the Newland Sierra project should assume either the nature or extent of the NC MSCP's treatment of the Merriam Mountains area in developing any project in this area. Given the importance of the Merriam Mountains area to biological conservation objectives and actions in the draft NC MSCP and as set forth in federal and state laws and regulations, the best practice would be for the NC MSCP to be fully studied, analyzed, and approved before moving forward with any consideration of large-scale development in the Merriam Mountains area.

## References

Bachelet, D., R. P. Neilson, J. M. Lenihan, and R. J. Drapek. 2001. Climate change effects on vegetation distribution and carbon budget in the United States. *Ecosystems* 4: 164-185.

- Keeley, J. E., C. J. Fotheringham, and M. Morais. 1999. Reexamining fire suppression impacts on shrubland fire regimes. *Science* 284: 1829–1832.
- Keeley, J. E., & Brennan, T. J. 2012. Fire-driven alien invasion in a fire-adapted ecosystem. *Oecologia* 169(4):1043-1052.
- Lenihan, J.M., R. Drapek, D. Bachelet, and R.P. Neilson. 2003. Climate change effects on vegetation distribution, carbon, and fire in California. *Ecological Applications* 13: 1667-1681.
- Safford, H.D., K. van de Water, and D. Schmidt. 2011. California Fire Return Interval Departure (FRID) map, 2010 version. USDA Forest Service, Pacific Southwest Region and The Nature Conservancy-California. URL: <http://www.fs.fed.us/r5/rs/clearinghouse/r5gis/frid/>
- Syphard, A. D., K. C. Clarke, and J. Franklin. 2006. Simulating fire frequency and urban growth in southern California coastal shrublands, USA. *Landscape Ecology* 22:431–445.
- Syphard, A.D., V.C. Radeloff, J.E. Keeley, T.J. Hawbaker, M.K. Clayton, S.I. Stewart, and R.B. Hammer. 2007. Human influence on California fire regimes. *Ecological Applications* 17(5): 1388-1402.
- Syphard, A.D., V.C. Radeloff, T.J. Hawbaker, and S.I. Stewart. 2009. Conservation threats due to human-caused increases in fire frequency in Mediterranean-climate ecosystems. *Conservation Biology* 23(3): 758-769.
- Zedler, P. H., Gautier, C. R., & McMaster, G. S. 1983. Vegetation change in response to extreme events: the effect of a short interval between fires in California chaparral and coastal scrub. *Ecology* 64(4):809-818.

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June 14, 2018

## VIA EMAIL

Ashley Smith  
Planning and Development Services  
County of San Diego  
5510 Overland Avenue, Suite 310  
San Diego, CA 92123

**Re: Newland Sierra (Log No. PDS2015-ER-15-08-001; SCH No. 2015021036, Project Numbers: PDS2015-GPA-15-001, PDS2015-SP-15-001, PDS2015-REZ-15-001, PDS2015-TM-5597, PDSXXXX-HLP-XXX) – Failure to Properly Analyze and Mitigate Impacts from Noise**

Dear Ms. Smith:

As you are aware, we represent Golden Door Properties, LLC (“Golden Door”), a world-class resort and agricultural operation in rural Twin Oaks Valley. The Golden Door has restored farming and beekeeping, including replanting many new trees, on its property, and shares its products through a community Farm Stand and other retail operations. The Golden Door has raised many concerns with the County about the proposed Newland Sierra Project and the impacts of adding urban density the size of the City of Del Mar in our rural community.

We write today with respect to the Project’s noise impacts, as follow-up and supplemental to our prior correspondence. As noted in the attached memorandum, there are many procedural and substantive deficiencies in the draft EIR with regarding to this issue. We believe that these defects are of sufficient severity that the project’s review and processing cannot proceed until these defects are corrected and the project’s environmental review documents are re-published to the public for review and comment under CEQA and other laws.

LATHAM & WATKINS<sup>LLP</sup>

Thank you for your time and attention to our comments. Please do not hesitate to contact us should you have any questions or comments.

Best regards,



Taiga Takahashi  
of LATHAM & WATKINS LLP

Enclosure

cc: Darin Neufeld, County Planning and Development Services  
Mark Slovick, County Planning and Development Services  
William W. Witt, Office of County Counsel  
Claudia Silva, Office of County Counsel  
Dan Silver, Endangered Habitats League  
George Courser, Sierra Club  
Stephanie Saathoff, Clay Co.  
Denise Price, Clay Co.  
Christopher Garrett, Latham & Watkins  
Kathy Van Ness, Golden Door

**ENCLOSURE**



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4 June 2018

Kathy Van Ness  
Golden Door Properties, LLC  
777 Deer Springs Road  
San Marcos, California

SUBJECT: Newland Sierra – San Diego County, California  
Acoustic and Vibration Review

Dear Ms. Van Ness:

Per your request, we have reviewed the following sections of the Draft Environmental Impact Report (DEIR) for the Newland Sierra Project (dated June 2017) in San Diego County, California with the primary focus the potential significant impacts to the existing operations at the Golden Door.

- Section 2.10 Noise
- Section 2.13 Traffic and Circulation
- Appendix Q: Noise Report (by DUDEK)
- Appendix R: Traffic Impact Analysis (by LLG)

In summary, the current Newland project assessment is incomplete. First, it does not fully address regulatory requirements; it does not include a proper noise survey of the project site and vicinity that establishes baseline conditions with appropriate confidence. Second, the Newland studies have not proposed mitigation measures for identified significant impacts; rather they propose deferred analysis or classifies them as unavoidable. We disagree with such positions for the reasons noted herein.

The study is missing an assessment of noise and vibration at the Golden Door property, where quiet ambient conditions are required for operation. Some construction activities identified in the study would likely be disturbing and clearly audible above ambient conditions, even if the San Diego County noise limits are met. The Newland technical analysis should, but does not, address these conditions.

## **NOISE AND VIBRATION CRITERIA**

The Newland technical analysis is generally missing an assessment of noise and vibration impacts to the Golden Door facility, located south-west of the project along Deer Springs Road. This assessment should be included given the Golden Door's proximity to Deer Springs Road and the project site. This receiver (the Golden Door property) should be assessed using the standards for residential uses and NSLUs since it includes sleeping facilities, and meets the following definition from *San Diego County Guidelines for Determining Significance* (dated January 2009):

### **1.1.6 Noise Sensitive Land Use (NSLU)**

Any residence, hospital, school, hotel, resort, library, or similar facility where quiet is an important attribute of the environment.

This type of facility relies on quiet ambient conditions with minimal intruding noise common in a rural area to operate successfully. Existing ambient conditions should be maintained to avoid significant impacts and such an assessment is required for CEQA items XI.c and XI.d discussed below.

## **NOISE SURVEY**

The noise study by DUDEK is incomplete as it has not properly documented existing ambient noise levels in the project vicinity. Only daytime short-term noise measurements (20 mins long) were taken (primarily next to existing roadways). This is insufficient to establish ambient noise conditions (CEQA Items XI.c & d) or to address regulatory requirements (CEQA Item XI.a).

Noise standards in the San Diego County General Plan are in terms of CNEL, which is the average noise level over 24-hours. Accordingly, CNEL inherently requires noise measurements over 24-hour period, at a minimum. Measurements were only taken during mid-day and do not allow for establishing the full range of noise exposure, particularly for congested segments such as Deer Springs Road (currently Traffic Level of Service F). (Refer to definitions of common acoustical terms attached to this letter.)

Statistical noise metrics (such as L90 and L99) (typically required to properly establish existing ambient conditions) are missing from the noise study. We anticipate ambient noise levels are very low away from the road on the Golden Door property and a survey of these conditions should be considered to properly evaluate the impact of construction related noise as discussed in the sections below.

The Newland technical analysis does not use proper instrumentation. Measured daytime levels were as low as 39 dBA, which is near the noise floor (lowest measurable level) of the sound level meter used in the Newland technical analysis (SoftdB Piccolo). This type of instrument may not be adequate in conducting 24-hour noise surveys since nighttime and early morning ambient noise levels are expected to be at or below this level.

Reported existing conditions on Deer Springs Road should be further evaluated and compared to the noise study performed for the San Diego County General Plan Update (FEIR Dated August 2011, Section 2.11), which reports existing noise levels close to 10 dB lower (64 dBA CNEL) than the DUDEK study at a similar distance from the road (100 feet). It is difficult to evaluate the credibility or merits of the Newland technical analysis without analysis as to why existing noise levels are different in the General Plan Update analysis.

#### **TRAFFIC NOISE MODELING**

The Newland noise study has not clearly documented the basis of modeling for future conditions without the project. This is key in assessing noise under CEQA Items a, b and c as described in the sections below.

The study has not included adequate documentation of modeled future conditions with the proposed road changes along Deer Springs Road (Options A and B) including adding new lanes (e.x. 6 lane vs 4 lane vs 2 lane with shared turning lane), grading and realignment that all affect traffic noise exposure. Without this information, the accuracy of the modeled future conditions cannot be verified.

#### **CEQA ITEM XI.a – Noise exposure exceeding codes and standards**

##### Traffic Noise

The study is missing assessment of project generated traffic noise against the following noise limits in the San Diego County General Plan (Table N-2, Items 1 & 3). A proper noise survey with minimum 24-hour measurements is required to address these limits as described in the section above.

- 60 dBA CNEL at existing or future noise sensitive land uses (NSLU)
- 65 dBA CNEL at existing commercial land uses

The Newland study has only partially assessed project noise against the following significance criteria (*San Diego County Guidelines for Determining Significance*). The Newland study has not properly documented existing conditions (see Noise Study section above). Further, the basis of the traffic noise modeling may be flawed and require revisiting as described below.

- 3 dB increase over existing, at “documented noisy site” (exceeding standards above)
- 10 dB increase over existing
- 2 dB increase over existing, inclusive of non-project conditions

Future traffic noise on Deer Springs Road without the project may be overpredicted, considering that this road and nearby intersections are currently operating at Level of Service LOS F as described in the Traffic Impact Analysis (Appendix R1a), which would limit traffic noise due to reduced speed during congestion. Traffic noise should be assessed under free traffic flow conditions (typically at LOS C), as this would result in worst-case noise exposure.

The predicted noise levels appear to be based on the expansion of Deer Springs Road according to the San Diego County General Plan, but this may not be an accurate representation of future conditions for the following reasons.

First, this roadway expansion may not be an active project or may not occur at all (could be accepted at LOS F), consistent with the *Regional Connectivity* policy in the Mobility Element of the San Diego County General Plan, considering this roadway is already beyond capacity:

*“Regional connectivity issues would apply when congestion on State freeways and highways causes regional travelers to use County roads, resulting in congestion on the County road network. Rather than widening County roads to accommodate this traffic, the deficiencies in the regional road network should be addressed.”*

Future traffic on this road (without the project), if expanded, may not increase, because traffic flow may be limited by the service level of the I-15 interchange area, as the Deer Springs Road segment and turning lanes were accepted at LOS E/F per the Mobility Element of the current general plan.

Furthermore, Caltrans reportedly has no projects in this area, including the I-15 interchange, and has stated that the traffic impact study is “insufficient and misleading” (see letter from Roy Abboud dated August 10, 2017). Since the Newland study appears to be the basis for future traffic noise analysis, it needs to be revised to address any changes in the traffic analysis

#### General Construction Noise

Section 3.3 of the report provides only a generic assessment of noise and vibration from general construction activities such as grading, earthmoving, batch processing and others. Assessment is only included for residential receivers near the proposed project entrance (I-15 interchange) and is missing assessment for other NSLUs such as residences and the Golden

Door property along Deer Springs Road. Assessment of construction of Deer Springs Road is also missing.

The study concludes the following are potentially significant impacts but proposes no mitigation (discussed below):

- On-site construction of Town Center neighborhood
- Construction on Mesa Rock Road at proposed project entrance

The study has incorrectly determined the following impacts to be less than significant due to “project design features” such as properly maintained construction equipment, generic setbacks from sensitive receivers, and others, but provides no quantitative evidence to support this claim (mitigation discussed below).

- Construction staging areas
- Equipment repair
- Portable Rock-Crushing/Processing Facility

#### Construction Related Traffic Noise

Construction traffic on Deer Springs Road is improperly assessed by comparing the anticipated number of vehicles on the road to what appears to be the peak hour and average daily traffic volume (ADT). Construction traffic is typically comprised of large trucks and other heavy vehicles, which generate higher noise levels than typical automobiles.

According to observations made during the Newland noise study, traffic on Deer Springs Road is primarily automobiles, with trucks accounting for less than 5% total volume. Construction traffic would therefore be out of character for this existing rural area and should instead be assessed based on noise increase over ambient conditions and the county’s limits at sensitive receivers.

#### Other Construction Activities

Some other construction activities may include blasting, pile driving, rock crushing, cement batch plant, and possibly others. The Newland study confirms such activities will likely be used for this project. The Newland study does not include a technical assessment of blasting noise but identifies it as a potentially significant impact requiring further analysis (mitigation discussed below).

The Newland study has not properly analyzed noise from pile driving, claiming the county’s impulsive noise limits do not apply since the pile driver would not generate noise for more than 20% of the hour, which is below the county’s threshold of 25% of the measurement time

(*San Diego County Guidelines for Determining Significance, Noise, Section 4.2.C*). However, the claimed 20% use time is based on a generic “use factor” used by noise prediction software issued by the Federal Highway Administration (FHWA). The Newland study does not even attempt to make an estimate of actual usage time. A project specific analysis should therefore be provided based on the actual and detailed project construction schedule and plan as discussed in the mitigation section below.

**CEQA ITEM XI.b – Excessive exposure to groundborne vibration or noise**

Construction Vibration

The study only provides generic assessment of construction vibration but confirms various activities including grading, blasting, and others are potentially significant. Specific assessment including all sensitive receivers near the project site and along Deer Springs Road should be carried out. Such assessment currently does not exist.

**CEQA ITEM XI.c & d – Substantial permanent or temporary increase in ambient noise**

Traffic Noise

Increases in traffic noise above existing conditions in the project vicinity would need to be reassessed once a proper noise study has been completed as discussed in the section above.

Construction Noise & Vibration

The study is missing an assessment of construction noise and vibration in comparison to local ambient conditions, and this would require a proper study as discussed above. Assessment should include the full range of planned construction processes such as blasting, batch processing, grading etc. as well as construction related traffic that may be out of character for this rural area. This assessment should be used to author specifications that are included in bidding and contract documents to accurately reflect project delivery methods that would affect construction costs.

Ambient noise levels on the Golden Door property are likely very low (40 dBA or less), particularly away from the road, and we anticipate construction activities such as blasting, pile driving and construction on Deer Springs Road would be clearly audible as estimated in Table 1 below. This type of facility requires a quiet environment, and such a large increase in noise levels would be disruptive and alternatives to loud construction methods (such as pile driving) may need to be required if there is no other feasible mitigation. This is particularly important for this large-scale development where construction reportedly could span close to 10 years.

TABLE 1 – Estimated Construction Noise at Golden Door Property

| Example Activity                                                                                  | Ref. Level at 50 ft (Lmax) <sup>1</sup> | Setback on Golden Door property | Predicted Noise Level <sup>2</sup> | Increase above Ambient (est. 40 dBA) |
|---------------------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------|------------------------------------|--------------------------------------|
| Blasting                                                                                          | 94 dBA                                  | 2,000 ft                        | 62 dBA                             | +22 dB                               |
|                                                                                                   |                                         | 5,000 ft                        | 54 dBA                             | +14 dB                               |
|                                                                                                   |                                         | 10,000 ft                       | 48 dBA                             | +8 dB                                |
| Pile Driving                                                                                      | 101 dBA                                 | 2,000 ft                        | 69 dBA                             | +29 dB                               |
|                                                                                                   |                                         | 4,000 ft                        | 63 dBA                             | +23 dB                               |
| Batch Plant                                                                                       | 83 dBA                                  | 5,400 ft                        | 44 dBA                             | +4 dB                                |
| Grading<br>(Deer Springs Road)                                                                    | 85 dBA                                  | 50 ft                           | 85 dBA                             | +45 dB                               |
|                                                                                                   |                                         | 600 ft                          | 64 dBA                             | +24 dB                               |
| Compactor<br>(Deer Springs Road)                                                                  | 80 dBA                                  | 100 ft                          | 74 dBA                             | +34 dB                               |
|                                                                                                   |                                         | 600 ft                          | 59 dBA                             | +19 dB                               |
| Paver<br>(Deer Springs Road)                                                                      | 77 dBA                                  | 100 ft                          | 71 dBA                             | +31 dB                               |
|                                                                                                   |                                         | 600 ft                          | 56 dBA                             | +16 dB                               |
| Concrete Mixer Truck<br>(Deer Springs Road)                                                       | 79 dBA                                  | 100 ft                          | 73 dBA                             | +33 dB                               |
|                                                                                                   |                                         | 600 ft                          | 58 dBA                             | +18 dB                               |
| NOTES:                                                                                            |                                         |                                 |                                    |                                      |
| 1. Based on data in the Roadway Noise Construction Model issued by Federal Highway Administration |                                         |                                 |                                    |                                      |
| 2. Worst case assessment assuming direct line of sight to construction                            |                                         |                                 |                                    |                                      |

## MITIGATION MEASURES

### Traffic Noise

The study states mitigation for traffic noise is infeasible due to adverse community response but provides no assessment of potential benefits for this project, which is required by CEQA in order for the public to make informed decisions.

Noise barriers are a common and effective mitigation for traffic noise and would likely benefit NSLUs (such as the Golden Door) along project impacted roadways such as Deer Springs Rd. There are a limited number of driveways on Deer Springs Road and periodic breaks in a noise barrier for driveways would not render these barriers ineffective. Any NSLUs that would receive limited or no benefit from installing noise barriers should be clearly identified in the study and mitigation and/or alternatives proposed.

The remaining traffic noise mitigation such as reduced speed limits and other traffic calming measures may not be undesirable since they may also be considered for traffic congestion relief on already overcrowded roadways such as Deer Springs Road.

### General Construction Noise & Vibration

Except for impulsive types of activities (discussed below), the Newland study only recommends deferred analysis (for vibration) or cites “project design features” that would likely not mitigate construction noise since they are generally considered industry standard practice (such as properly maintained construction equipment with working mufflers). The Newland study also states these project design features have already been considered in the assessment and therefore cannot be proposed as mitigation.

A proper study needs to first predict anticipated noise and vibration exposure during various construction phases, identify impacted areas and develop specific mitigation measures quantitatively shown to reduce impacts below threshold of significance. For some high-noise and vibration activities (such as pile driving, jackhammer, etc.), the only feasible mitigation may be use of alternative construction methods, and this should be confirmed with mock-up testing of such activities prior to EIR approval. The Newland study fails to employ the proper methodology.

In addition, use of noise barriers to mitigate construction noise should be based on a project specific study used to evaluate feasibility and identify specific locations, heights and extents for such mitigation measures. This is essential since noise attenuation provided by a barrier varies greatly depending on barrier height and location of source, receiver and barrier and topographical parameters.

A construction noise and vibration monitoring plan should be included as a mitigation measure to ensure regulatory noise limits continue to be met throughout construction and to provide a quantifiable record in the event of complaints. This measure should also establish protocols for mitigation if regulatory noise or vibration limits are exceeded such time restrictions, use of sound barriers and possibly others. The plan should include procedures to be followed when noise and vibration limits are exceeded. This is also recommended by Caltrans guidelines for construction vibration (*Transportation and Construction Vibration Guidance Manual*, September 2013).

### Blasting Noise & Vibration

The Newland study states that blasting will be used on this project and would be the primary source of construction vibration but only proposes deferred analysis for mitigation. This is not consistent with CEQA, which requires such studies be part of the EIR process and used to develop mitigation measures for identified significant impacts.

A project specific blasting study should be included in the EIR that identifies and includes all sensitive receivers in the project vicinity that may be impacted, including the Golden Door property. Given the proximity to existing residential uses, a pilot study of limited blasting should be undertaken to develop appropriate mitigation or determine if such activities should even be allowed, as it is conceivable that alternative construction methods may be warranted to control noise and vibration levels.

The Newland study only requires blasting vibration to meet the county's limit of 1 in/sec PPV (*San Diego County Guidelines for Determining Significance, Noise, Section 4.2.C*). However, this criteria may not be stringent enough given the sensitive nature of the surrounding uses.

Blasting noise and vibration should be assessed against the existing local ambient conditions since blasting noise would be out of character in this rural area. In the absence of a specific study used to establish appropriate limits above the existing ambient, we recommend limits of 50 dB (linear) for airborne noise and 0.02 in/sec PPV for vibration levels, based on the *Transportation and Construction Vibration Guidance Manual*, issued by Caltrans September 2013.

Blasting noise and vibration monitoring should be included as discussed above for general construction activities.

Where blasting would exceed noise and vibration levels discussed above, alternative demolition methods should be used. This could include manual methods (such as saw-cutting), expansive demolition (expansive mortar), electrical rock disintegration, and possibly others.

#### Future Development

This project proposes a large mixed-use development in a primarily rural area, and over time the project may encourage further development in this area. Future development should be assessed against the current ambient conditions to avoid incrementally allowing higher and higher noise and levels at nearby NSLUs. This mitigation measure should be considered for the proposed Specific Plan for the development area.

\* \* \*

Newland Sierra  
Acoustic Review of DEIR  
4 June 2018  
Page 10 of 11

Please do not hesitate to contact our office if you have any questions.

Sincerely,



Nathan Sibon  
Associate

Reviewed By,



Chris Papadimos, INCE  
Principal

Enclosures:   Definitions of Common Acoustical Terms  
                  Curriculum Vitae – Nathan Sibon  
                  Curriculum Vitae – Chris Papadimos

### **DEFINITIONS OF COMMON ACOUSTICAL TERMS**

**Decibel, dB** – A unit describing the amplitude of sound, defined as 20 times of the logarithm of the ratio of the sound pressure measured to the reference pressure (20  $\mu$ Pa).

**A-weighted Sound Level, dBA** – The sound pressure measured using the A-weighting filter network that de-emphasizes the very low and very high frequency components of the sound spectrum in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.

**Ambient Noise** – The sound level in a given environment usually comprised of many sources in many directions near and far with no particular sound dominant. It is defined as  $L_{99}$  or the noise level exceeded 99% of the time.

**Background Noise** - The total noise from all sources other than the source of interest. It is often defined as  $L_{90}$  or the noise level exceeded 90% of the time.

**Community Noise Equivalent Level, CNEL** – The average A-weighted noise level in a 24-hour day, obtained after adding 5 dB to evening hours (7:00 pm to 10:00 pm) and 10 dB to sound levels measured in the night (between 10:00 pm and 7:00 am).

**Day/Night Noise Level,  $L_{dn}$  (or DNL)** – The average, 24-hour A-weighted noise level, obtained after adding 10 dB to levels measured at night (10:00 pm to 7:00 am).

**Integrated or Equivalent Noise Level,  $L_{eq}$**  – The energy average A-weighted noise level during the measurement period.

**Sound level meter** - An instrument that measures sound in dB. Various features are incorporated into such instrument including frequency bands, integration of sound over time and display of average, minimum, and maximum levels.

**Sound pressure level** - the ratio, expressed in decibels, of the mean-square sound pressure level to a reference mean-square sound pressure level that by convention has been selected to approximate the threshold of hearing (0.0002  $\mu$ bar)

**Frequency** – The number of times per second that the oscillation of a wave of sound or that of a vibrating body repeats itself, expressed in Hertz (Hz).

**Octave band** - The frequency range of one octave of sound frequencies. The upper limit is always twice the frequency of the lower limit. Octave bands are identified by the geometric mean frequency or center between the lower limit and the upper limit.

**NATHAN SIBON**  
**ASSOCIATE**

Mr. Sibon has been with our consulting practice since July 2014 after graduating from Columbia College Chicago with a B.S. in Acoustics. Since then, Mr. Sibon has been closely working under the direction of Mr. Papadimos and rapidly gaining practical consulting experience including all aspects of community and environmental noise and vibration.

Specifically, he has experience in establishing criteria to address local and state regulations, carrying out environmental surveys, analyzing traffic and construction impacts, developing and implementing mitigation strategies, and reviewing of environmental studies.

Mr. Sibon strives to provide meaningful, project specific solutions through clear understanding of the client's goals and early project involvement. He works on specific tasks associated with current projects either independently or under the direction of senior staff.

**PROJECT EXPERIENCE**

- 410 Noor - South San Francisco, CA - Acoustical study for proposed residential development under the departure path for San Francisco International Airport.
- Golden Gate Recreation Center - Oakland, CA - Noise remediation for rooftop mechanical equipment for community center to comply with local code.
- Hakone Gardens - Saratoga, CA - Participated in an acoustic study to address special event noise in the surrounding area for compliance with local code.
- Lagunitas Country Club - Ross, CA - Measured and assessed club noise to the surrounding residential community for environmental compliance.
- Rancho McHolland - Hemet, CA - Peer review of EIR for analyzing potential noise impacts for new gas station and carwash near existing residential neighborhoods.
- Raymond-Ticen Winery - St. Helena, CA - Measured and analyzed special event noise emissions at the winery and assessed potential impact to the project vicinity.
- Rotten Robbie - Sebastopol, CA - Participated in the review and analysis of car wash noise and evaluation of noise control options for local code compliance.
- Safari Highlands - Escondido, CA - Peer review of EIR for large-scale residential development to analyze potential noise and vibration impacts to surrounding areas.
- Safari Kid - Hayward, CA - Acoustic consulting for outdoor play area for daycare facility and develop mitigation for compliance with local code.
- St. Mary's Medical Center - San Francisco, CA - Facility mechanical equipment noise remediation to meet local code at surrounding residences.
- Suprema Meats - Oakland, CA - Participated in a noise study and peer review to assess facility potential impacts to the surrounding neighborhood.

## **CHRISTOPHER PAPADIMOS, INCE**

### ***PRINCIPAL***

CHRISTOPHER PAPADIMOS is an acoustical consultant with close to 30 years of professional experience in measuring, assessing and developing mitigation strategies for projects with acoustical and vibration requirements.

Since 1989, he has worked continuously on a large number of projects for various types of facilities involving environmental acoustics, noise and vibration control for mechanical systems, structural noise and vibration, and architectural acoustics. Projects include residential and commercial buildings, institutional and government buildings, worship and performing spaces, and transportation and industrial facilities.

Mr. Papadimos has authored numerous acoustical studies for various project types. Transportation noise and vibration studies include freeways and rail systems, road widening and improvement projects, and airport facilities. Other studies include residential, commercial and mixed use developments, and various types of industrial facilities.

Mr. Papadimos favors a practical approach of early integration of acoustical requirements into each project. He is experienced in establishing acoustical criteria, undertaking site and building surveys, developing and implementing mitigation strategies, reviewing construction methods and providing options for remedial solutions. He has participated on research projects, provided expert testimony and remains actively involved in the development of technical standards and guidelines.

### **PROFESSIONAL ENGAGEMENTS**

- Papadimos Group – Founding Principal (January 2005 to present)
- Cerami & Associates – Associate Principal (April 2004 to December 2004)
- Shen Milsom & Wilke – Associate (May 2001 to March 2004)
- Illingworth & Rodkin – Senior Consultant (January 1999 to May 2001)
- Frank Hubach Associates – Consultant (May 1995 to December 1998)
- Illingworth & Rodkin – Consultant (July 1989 to May 1995)

### **EDUCATIONAL BACKGROUND**

- University of California at Los Angeles , B. Sc. Mechanical Engineering, (1989) Magna Cum Laude, Departmental Scholar, Dean’s and Honor Lists
- Airport Noise Planning using INM Computer Modeling, Engineering Program, University of Texas at Austin, 1993

### **PROFESSIONAL SOCIETIES**

- ASHRAE – Past Chair for Technical Committee and Member
- Institute of Noise Control Engineering – Full Member
- AMCA – Voting Member for Standard Development



## **PROJECT EXPERIENCE (Partial List)**

- 410 Noor - South San Francisco, CA - Acoustical study for proposed residential development under the departure path for San Francisco International Airport.
- BART Subway Extension to SFO, Colma, CA - Noise and vibration consultant and expert witness to the Coalition of Colma Cemeteries.
- Bay Bridge Pile Demonstration Project - San Francisco, CA - Participated on environmental studies for the eastern span bridge replacement project.
- Black Dog Amphitheater - Burnsville, MN - Acoustic studies for new amphitheater to the surrounding communities
- Boot & Shoe Restaurant - Oakland, CA - Expert witness and peer review for restaurant remodel that included outdoor dining next to residential.
- Cal Memorial Stadium - Berkeley, CA - Acoustic consulting and expert witnessing for large renovation project to address community concerns.
- Community Pool - Calistoga, CA - Expert witness and analysis for new community pool project to limit noise emissions to surrounding residential areas.
- Caltrans Soundwall Studies - Participated in before and after noise studies to study the effectiveness of sound barriers under various weather conditions.
- Davies Vineyards Winery - St. Helena, CA - Provided acoustic review to address among other activities from a rooftop patio and amplified music.
- Emerystation Center - Emeryville, CA - Provided acoustic consulting services for new buildings and tenant improvement projects for code compliance.
- Foster City Aircraft Noise Exposure - Assessment of SFO aircraft noise to the City of Foster City for General Plan land use compatibility.
- Genentech Campus - South San Francisco, CA - Acoustic consulting for Hilltop Office Building 35, Employee Center, Central Plant Facility.
- Golden Gate Recreation Center - Oakland, CA - Noise remediation for rooftop mechanical equipment for community center to comply with local code.
- Hakone Gardens - Saratoga, CA - Completed acoustic study for event center to comply with local noise conditions and served as expert witness.
- Harold Smith & Sons - St Helena, CA - Completed acoustic study for materials handling and cement mixing facility that included noise control options.
- Livermore Municipal Airport - Livermore, CA - Acoustic studies to mitigate aircraft noise to nearby recently completed residential developments
- Macae Energy Center - Environmental noise studies for power generation complex in the rain forest to comply with World Bank regulations - Macae, Brazil

## **PROJECT EXPERIENCE (continued)**

- McCarran International Airport - Las Vegas, NV - Sound insulation studies for mixed-use development projects near the airport.
- Mercy Retirement and Care Center - Oakland, CA - Noise control for backup diesel generator to comply with local code.
- Oakland International Airport - Participated in sound insulation review studies for existing residential developments near the airport.
- Rancho McHolland - Hemet, CA - Peer review of EIR for analyzing potential noise impacts for new gas station and carwash near existing residential neighborhoods.
- Rotten Robbie - Sebastopol, CA - Peer review of car wash noise control options.
- Safari Highlands - Escondido, CA - Acoustic review of large-scale residential development to address environmental concerns including on wildlife.
- Safari Kid - Hayward, CA - Acoustic consulting for outdoor play area for daycare facility and develop mitigation for compliance with local code.
- St. Mary's Medical Center - San Francisco, CA - Community noise for facility mechanical equipment for surrounding residential areas.
- Stanford Hospitals and Clinics - Provided acoustic and vibration consulting services for the hospital replacement and existing hospital renovation projects.
- Stanford University - Palo Alto, CA - new construction and renovation projects including Old Chemistry, James H Clark Center, Lucas MRS Center, Crown Hall.
- Suprema Meats - Oakland, CA - Expert witness for facility noise remediation
- Sweetwater Saloon - Mill Valley, CA - Noise mitigation for nightclub expansion and renovation to limit noise emissions to surrounding areas.
- UGGPP Energy Center - San Francisco International Airport - Noise studies and attendance to energy commission hearings for new 1200 MW power plant.
- Wallingford Energy Center - Wallingford, Connecticut - 250 MW Simple Cycle Power Facility - comprehensive acoustical services.
- Warren Hall Seismic Retrofit, California State University at Hayward - Conducted noise and vibration feasibility studies for the seismic retrofit of this building.
- Westside Road Winery - Healdsburg, CA - Prepared acoustic study for facility expansion to include event center to address potential environmental impacts.
- UCSF Parnassus and Mission Bay Campuses, San Francisco, CA - Acoustic and vibration consulting for multiple new and existing research facilities.
- Valle Del Sol Master Planning - Feasibility studies for proposed large-scale mixed-use development near the Albuquerque International Airport.

**LL-25**

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# LATHAM & WATKINS<sup>LLP</sup>

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| Milan        | Washington, D.C. |

June 15, 2018

## VIA EMAIL

Ashley Smith  
Planning and Development Services  
County of San Diego  
5510 Overland Avenue, Suite 310  
San Diego, CA 92123

**Re: Newland Sierra (Log No. PDS2015-ER-15-08-001; SCH No. 2015021036, Project Numbers: PDS2015-GPA-15-001, PDS2015-SP-15-001, PDS2015-REZ-15-001, PDS2015-TM-5597, PDSXXXX-HLP-XXX) – Newland Sierra Project Inconsistency with North County MSCP**

Dear Ms. Smith:

As you are aware, we represent Golden Door Properties, LLC (“Golden Door”), a world-class resort and agricultural operation in rural Twin Oaks Valley. The Golden Door has restored farming and beekeeping, including replanting many new trees, on its property, and shares its products through a community Farm Stand and other retail operations. The Golden Door has raised many concerns with the County about the proposed Newland Sierra Project and the impacts of adding urban density the size of the City of Del Mar in our rural community.

We write today with respect to the Project’s critical inconsistencies with the draft North County Multiple Species Conservation Plan (MSCP), as a follow-up and supplemental comment to our prior correspondence, in particular our letters dated May 21, 2018, May 31, 2018, and June 13, 2018.

We recently obtained documents as a result of a request under the Freedom of Information Act. These documents show that local agency experts were silenced after Newland Sierra proponents exerted political pressure on senior agency officials. These documents also clearly highlight the concerns of expert biologists regarding the Newland Sierra project – in particular, the assumption by the County and other proponents of the project that it is a “hardline” component of the draft North County MSCP.

In particular, these expert agency biologists noted that the inclusion of the Newland project as a “hardline” in the North County MSCP may actually doom the MSCP entirely. The

LATHAM & WATKINS<sup>LLP</sup>

unraveling of the North County MSCP would be a severe blow not only to the County but to development throughout North County.

Further, the expert agency biologists' concerns point to the need for a comprehensive cumulative impacts analysis of all the General Plan amendment projects in the North County and how they impact the North County MSCP. In other words, if the County's approval of over 10,000 units of housing in the unincorporated areas cripples the conservation goals of the MSCP, then it seems reasonably likely that the federal and state wildlife agencies will not approve any MSCP at all. We urge the County to reconsider this self-destructive path and postpone consideration of the Newland project until these serious issues are resolved.

Finally, in these newly released documents, the federal agencies clearly requested updated gnatcatcher surveys, but Newland has chosen that it will not perform those surveys until next year. If that is the case, then the processing of Newland's EIR must be delayed until next year, when those surveys can be performed.

Additional detail regarding this issue and others is set forth in the enclosures.

Thank you for your time and attention to our comments. Please do not hesitate to contact us should you have any questions or comments.

Best regards,



Taiga Takahashi  
of LATHAM & WATKINS LLP

Enclosures

cc: Darin Neufeld, County Planning and Development Services  
Mark Slovick, County Planning and Development Services  
William W. Witt, Office of County Counsel  
Claudia Silva, Office of County Counsel  
Dan Silver, Endangered Habitats League  
George Courser, Sierra Club  
Stephanie Saathoff, Clay Co.  
Denise Price, Clay Co.  
Christopher Garrett, Latham & Watkins  
Kathy Van Ness, Golden Door

1. **The Newland Sierra project risks dooming the North County MSCP.** In December 2016, U.S. Fish & Wildlife staff made the following comments regarding the Newland project:

- “The Newland Sierra project fragments a large core area of habitat proposed under the North County Plan.
- Because it is unclear how the County will account for the loss of this core area, it is unclear how the project could gain approval under the draft North County Plan as we know it.
- The Wildlife Agencies could not come to agreement with the project proponent on the off-site mitigation because the acreage proposed for conservation was insufficient to offset the acreage lost to development from the Newland Sierra project within the pre-approved mitigation area or PAMA (i.e., the offsite mitigation proposed neither removed a development area from the PAMA or increased the area of preserve outside of the PAMA).
- The Newland Sierra Project as proposed results in a net loss in preserve acreage over what is anticipated for mitigation in the Draft North County Plan.
- The County did not present a logical method to make up for this loss in mitigation.
- ***Should the County Board of Supervisors approve the project without fully addressing our concerns, including our potential objection to issuance of a 4(d) permit, the Service would need to evaluate the benefits to conservation of moving forward with the North County Plan.***
- ***By approving the Newland Sierra Project and others through the 4(d) rule without addressing inconsistencies with preserve assembly, the potential exists for the 4(d) rule to undermine the very process (i.e., regional NCCP/HCP development) it was aimed at supporting.***” (See Enclosure 1 [emphasis added].)

In other words, it appears as if federal agency biologists considered the Newland project to be so fundamentally incompatible with the goals of the North County MSCP that its approval would jeopardize the North County MSCP itself.

2. **Newland must perform a comprehensive cumulative impacts analysis of all the General Plan amendment projects in the North County, in order to evaluate how the County’s potential approval of all these projects will impact the North County MSCP.** If the approval of the Newland project or others essentially precludes the establishment of the North County MSCP, then the consequences of that decision must be analyzed and disclosed to the public.

3. **Newland must ensure that surveys for fairy shrimp are done in a scientifically valid manner.** In January 2017, a federal agency biologist noted that initial surveys for fairy shrimp were inadequate and new surveys were required:

Given the amount of rain we have already had this year, there may be more ponding on site than was observed in previous years - Please consider this email our approval for you to commence wet season surveys at this location according to the accepted survey guidelines for the listed large branchiopods, dated May 31, 2015, and pursuant to the conditions of your [respective] recovery permit[s]. Be aware that these surveys missed the first rains of the season therefore the results may be inconclusive. You will want to make sure you are able to substantiate any statements in your 90-day report by providing rain gauge and/or in-field observation information to demonstrate that you are meeting protocol requirements that: "Surveyors should visit sites after initial storm events

to determine when known or potential listed large branchiopod habitat has become inundated. Appropriate habitat is considered to be inundated when it holds greater than 3 cm of standing water 24 hours after a rain event." Please note that the LA County Natural History Museum encourages deposition of all collected fairy shrimp, not only listed species.

(Enclosure 2.) The project's biological analysis should therefore not only include new surveys for fairy shrimp, but surveys that are performed at the correct time using the correct methodology. Failure to conduct the surveys in this manner renders the analysis necessarily inadequate and must be revised and recirculated for public review and comment before the project may proceed through the CEQA process.

4. **Newland must perform new surveys for California gnatcatcher.** As recently as last month, federal agency biologists recognized that new surveys needed to be done for California gnatcatcher. The risk that new surveys may require additional environmental analysis, public review, and public comment under CEQA is not a valid basis to refuse to do those surveys or postpone them until a later time.

In addition, because it is known that the Newland project requires a new interchange at I-15 and Deer Springs Road, these new surveys are necessary in order to evaluate how the different designs for the interchange (for example, the "diamond" interchange; the "diverging diamond" interchange; the "diamond interchange with roundabout intersections; as described in the "Project Study Report-Project Development Support (PSR-PDS) To Request Scope Approval of Projects-funded-by-others In San Diego County near Escondido on Interstate 15 from 0.6 Mile South to 0.6 Mile North of Deer Springs Road Overcrossing," dated August 2015 [Enclosure 3]) may affect potential habitat and the nesting pair of gnatcatchers in the vicinity of the existing interchange.

Federal agency biologists expressed substantial concern about the project's potential impacts on gnatcatchers and habitat, writing in March 2017: "From the preliminary information we have received, the project will remove occupied CSS near the I-15 corridor supporting 1 gnatcatcher pair. ... Although unoccupied CSS exists in the southern interior section of the project site, this CSS also falls within the development footprint. Thus, birds displaced from existing occupied habitat cannot be expected to disperse to nearby unoccupied habitat onsite. Likewise, CSS within the northern portion of the site is already occupied. Based on this preliminary assessment, take of the gnatcatcher pair near the I-15 corridor is likely." (Enclosure 4.)

Accordingly, the Newland project must conduct updated gnatcatcher surveys before it may continue under the CEQA process in order to assess the potential for take and to analyze and/or recommend mitigation. Failure to do so is a violation of CEQA.

5. **The failure to conduct updated gnatcatcher surveys violates the General Plan.** Failure to update the gnatcatcher surveys violate the following General Plan goals and policies, as set forth below.

#### **GOAL COS-1**

**Inter-Connected Preserve System.** A regionally managed, inter-connected preserve system that embodies the regional biological diversity of San Diego County.

#### **Policies**

**COS-1.1 Coordinated Preserve System.** Identify and develop a coordinated biological preserve system that includes Pre-Approved Mitigation Areas, Biological Resource Core Areas, wildlife corridors, and linkages to allow wildlife to travel throughout their habitat ranges.

**COS-1.2 Minimize Impacts.** Prohibit private development within established preserves. Minimize impacts within



*Gnatcatcher*

established preserves when the construction of public infrastructure is unavoidable.

**COS-1.3 Management.** Monitor, manage, and maintain the regional preserve system facilitating the survival of native species and the preservation of healthy populations of rare, threatened, or endangered species.

**COS-1.4 Collaboration with Other Jurisdictions.** Collaborate with other jurisdictions and trustee agencies to achieve well-defined common resource preservation and management goals.

**COS-1.10 Public Involvement.** Ensure an open, transparent, and inclusive decision-making process by involving the public throughout the course of planning and implementation of habitat conservation plans and resource management plans.

**COS-2.1 Protection, Restoration and Enhancement.** Protect and enhance natural wildlife habitat outside of preserves as development occurs according to the underlying land use designation. Limit the degradation of regionally important natural habitats within the Semi-Rural and Rural Lands regional categories, as well as within Village lands where appropriate.

**COS-2.2 Habitat Protection through Site Design.** Require development to be sited in the least biologically sensitive areas and minimize the loss of natural habitat through site design.

As noted, the federal agencies have requested updated surveys, but Newland has chosen that it will not perform those surveys until next year: “The Applicant is aware that updated surveys will need to be done. They can't do those this year because of their EIR process doesn't want updated surveys. So they plan on conducting updated surveys next year.” (See Enclosure 5.) If that is the case, then the processing of Newland's EIR must be delayed until next year, when those surveys can be performed. Clearly, the failure to update the gnatcatcher surveys is inconsistent with COS-1.1, 1.2, 1.3, 1.4, 2.1, and 2.2. In addition, the active attempts by lobbyists to exclude and sideline expert biologists in the Fish and Wildlife Service is inconsistent with COS-1.10. (See Enclosure 6a and 6b.) And, even though much of the Newland site is designated as “critical habitat” for the gnatcatcher by the U.S. Fish and Wildlife Service, no effort has been made to avoid this critical habitat or even avoid occupied areas of gnatcatcher habitat. The draft EIR fails to include an alternative to keep development out of designated critical habitat or occupied gnatcatcher habitat.

5. **Newland should be required to acquire adequate mitigation lands to account for the loss of PAMA.** In December 2015, expert biologists at the U.S. Fish and Wildlife Service noted that mitigation lands should be of adequate biological value: “[S]ome properties are considered of greater biological value than others ... Because the proposed Newland Sierra development will result in a loss of wildlife habitat originally identified to be part of the Draft North County MSCP preserve, acquisition of PAMA lands planned for development helps ensure that there is no net loss of PAMA acreage and that the anticipated size and configuration of the planned preserve can be achieved. ... Conservation of the Hoospack or Pankey properties, while not insignificant, will not assist in maintaining the scope of PAMA lands needed to assemble the preserve anticipated by the Draft North County MSCP.” (Enclosure 7.) Newland later claimed that the Service's requests were “financially infeasible, both in project design and acquisition of specific, additional off-site mitigation.” However, the Applicant's conclusory assertion of economic infeasibility is insufficient under CEQA. (See, e.g., *County of San Diego v. Grossmont-Cuyamaca Community College* (2006) 141 Cal.App.4th 86, 108.) Accordingly, Newland must acquire comparatively valuable land in terms of biological conservation and preservation of PAMA acreage to avoid fatally prejudicing the North County MSCP. Failure to do so without substantial evidence of “financial infeasibility” would mean that the County could not approve this project, due to the requirements of CEQA. (See, e.g., *Woodward Park Homeowners Assn., Inc. v. City of Fresno* (2007) 150 Cal.App.4th 683; *Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587, 599, 602.)

**1**

**From:** [Goebel, Karen](#)  
**To:** [Stewart, Mendel](#)  
**Cc:** [Sobiech, Scott](#); [Doreen Stadtlander](#); [Wynn, Susan](#); [Jane Hendron](#)  
**Subject:** Re: Newland Sierra request for meeting with Paul Souza  
**Date:** Thursday, January 12, 2017 12:57:05 PM  
**Attachments:** [Newland Sierra Project 12\\_9\\_2016 \(1\).docx](#)

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Here are the bullets in case you can't find them. They were already provided to Mike Fris. If you want them changed into a formal briefing paper, I guess we can do that, but it would be nice if this will suffice.

Karen

Karen Goebel  
Assistant Field Supervisor  
Carlsbad Fish and Wildlife Office  
2177 Salk Avenue, Suite 250  
Carlsbad, California 92008  
760/431-9440, ext. 296  
760/431-9624 Fax

On Thu, Jan 12, 2017 at 12:52 PM, Goebel, Karen <[karen\\_goebel@fws.gov](mailto:karen_goebel@fws.gov)> wrote:

I found the attachment. Also, I had already prepared bullets on this issue. Do we need to do more than that?

Karen

Karen Goebel  
Assistant Field Supervisor  
Carlsbad Fish and Wildlife Office  
2177 Salk Avenue, Suite 250  
Carlsbad, California 92008  
760/431-9440, ext. 296  
760/431-9624 Fax

On Thu, Jan 12, 2017 at 12:48 PM, Goebel, Karen <[karen\\_goebel@fws.gov](mailto:karen_goebel@fws.gov)> wrote:

If this is an assignment, please forward the Rita attachment.

Karen

Karen Goebel  
Assistant Field Supervisor  
Carlsbad Fish and Wildlife Office  
2177 Salk Avenue, Suite 250  
Carlsbad, California 92008  
760/431-9440, ext. 296  
760/431-9624 Fax

On Thu, Jan 12, 2017 at 12:35 PM, Stewart, Mendel <[mendel\\_stewart@fws.gov](mailto:mendel_stewart@fws.gov)> wrote:  
Karen,

They are moving forward with setting up a meeting with Paul about Newland-Sierra. I suspect they will be wanting a briefing paper on this.

<Mendel

----- Forwarded message -----

From: [steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com) <[steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com)>  
Date: Thu, Jan 12, 2017 at 12:30 PM  
Subject: Newland Sierra request for meeting with Paul Souza  
To: "Mike Fris ([Michael\\_Fris@fws.gov](mailto:Michael_Fris@fws.gov))" <[Michael\\_Fris@fws.gov](mailto:Michael_Fris@fws.gov)>  
Cc: Maya Kepner - American West Conservation <[maya@americanwestconservation.com](mailto:maya@americanwestconservation.com)>, Paul Souza <[paul\\_souza@fws.gov](mailto:paul_souza@fws.gov)>, "Byers, Sherry" <[sherry\\_byers@fws.gov](mailto:sherry_byers@fws.gov)>, "Mendel Stewart ([Mendel\\_Stewart@fws.gov](mailto:Mendel_Stewart@fws.gov))" <[Mendel\\_Stewart@fws.gov](mailto:Mendel_Stewart@fws.gov)>, Rita Brandin <[rbrandin@newlandco.com](mailto:rbrandin@newlandco.com)>, Michael McCollum <[mccollum@mccollum.com](mailto:mccollum@mccollum.com)>, "Evans, April" <[april\\_evans@fws.gov](mailto:april_evans@fws.gov)>, "[Wanda\\_Cantrell@fws.gov](mailto:Wanda_Cantrell@fws.gov)" <[Wanda\\_Cantrell@fws.gov](mailto:Wanda_Cantrell@fws.gov)>, "[steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com)" <[steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com)>

\*\*\*Maya Kepner for Steve Thompson\*\*\*

Hi Mike:

I cannot thank you enough for all the support and love my Dad has received from USFWS- particularly R8. Steve continues to make progress daily-and we anticipate he will undergo his next surgery on Jan 25<sup>th</sup>. I'm filling-in for Steve while he is recovering, and I'd like to see if we can get this meeting scheduled soon. Sounds like the only conflicts for January on our end are:

**January 9 through January 12<sup>th</sup>**

**January 16 through 18<sup>th</sup>**

Thanks for the help and leadership, Mike.

All the best,

Maya Kepner for Steve Thompson

Also- you can contact me directly at:

[maya@americanwestconservation.com](mailto:maya@americanwestconservation.com) (cc'd above)

916-600-2324

---Original Message-----

From: [steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com) [<mailto:steve@stevethompsonllc.com>]

Sent: Friday, December 9, 2016 12:08 PM

To: Michael Fris

Cc: Paul Souza; Wanda Cantrell; Sherry Byers; Mendel Stewart; Rita Brandin; Michael McCollum; April Evans

Subject: Re: Newland Sierra request for meeting with Paul Souza

Ok Mike thanks we are anxious to get this solved so we can get some important work done on the ground

Steve Thompson

916-600-5227

>

> -----Original Message-----

> From: [steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com) [<mailto:steve@stevethompsonllc.com>]

> Sent: Friday, December 09, 2016 10:51 AM

> To: Mike Fris ([Michael\\_Fris@fws.gov](mailto:Michael_Fris@fws.gov))

> Cc: Paul Souza; [Wanda\\_Cantrell@fws.gov](mailto:Wanda_Cantrell@fws.gov); Byers, Sherry; Mendel Stewart

> ([Mendel\\_Stewart@fws.gov](mailto:Mendel_Stewart@fws.gov)); Rita Brandin; Michael McCollum

> Subject: RE: Newland Sierra request for meeting with Paul Souza

>

> Mike,

>

> Sorry it has taken me so long to get back to all of you, all my fault.

> Been working really hard with Governor Brown and the water folks on

> solutions for both wildlife and people around the Delta. I have

> attached a summary file from Rita who has been working on this project

> for years and very frustrated, as it is easy to understand why. We

> need to resolve the major issues and get on with development of the property.

>

> We would like a 30 minute meeting with you and Paul to go over how we

> got to where we are and what solutions we need to work out with FWS.

> Mendel has been helpful but we believe we needs Paul's help to finish.

> A meeting as soon as possible would help all of us get on the right

> path to be successful for the landowner and the resources we all care about.

>

> Steve

> [steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com)

> 916-600-5227

>

>

>

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Mendel Stewart  
U.S. Fish and Wildlife Service  
Carlsbad Fish and Wildlife Office  
Field Supervisor  
2177 Salk Avenue, Suite 250  
Carlsbad, CA 92008  
760-431-9440

[mendel\\_stewart@fws.gov](mailto:mendel_stewart@fws.gov)

<http://www.fws.gov/carlsbad/>

Region 8 Facebook page: <https://www.facebook.com/usfwspacificsouthwest>

Region 8 Twitter page: <https://twitter.com/USFWSPacSWest>

## Newland Sierra Project

- We do not agree that the background information and history recently provided by the project proponent accurately reflects Service efforts to resolve the outstanding issues.
- We do not see value in going point by point to correct the information, rather we present our concerns with the project as presently proposed.
- The Newland Sierra project lies within the boundaries of a regional NCCP/HCP in development by the County of San Diego.
- Under the 4(d) rule, projects that need to clear coastal sage scrub, which is the primary habitat for the gnatcatcher, may move forward with County and Wildlife Agency (Department and Service) approval as long as the project does not undermine the conservation goals of the regional plan.
- The Newland Sierra project fragments a large core area of habitat proposed under the North County Plan.
- Because it is unclear how the County will account for the loss of this core area, it is unclear how the project could gain approval under the draft North County Plan as we know it.
- The Wildlife Agencies could not come to agreement with the project proponent on the off-site mitigation because the acreage proposed for conservation was insufficient to offset the acreage lost to development from the Newland Sierra project within the pre-approved mitigation area or PAMA (i.e., the offsite mitigation proposed neither removed a development area from the PAMA or increased the area of preserve outside of the PAMA).
- The Newland Sierra Project as proposed results in a net loss in preserve acreage over what is anticipated for mitigation in the Draft North County Plan.
- The County did not present a logical method to make up for this loss in mitigation.
- The Newland Sierra Project proponents are not precluded by the Service from moving forward with their proposed project design for approval by the County.
- During the draft EIR phase, the Wildlife Agencies will have the opportunity to comment on the project design, including any initial request for 4(d) concurrence.
- Because no NCCP or ESA permits have been issued for the North County Plan, these comments represent recommendations to the County.
- We believe due consideration would be given to our concerns in accordance with the signed planning agreement between the County and the Wildlife Agencies for the North County Plan, and this is the primary concern of the project proponents.
- Strong public opposition to the project is likely based on prior efforts to get Board of Supervisor approval for almost the exact same development footprint.
- Should the County Board of Supervisors approve the project without fully addressing our concerns, including our potential objection to issuance of a 4(d) permit, the Service would need to evaluate the benefits to conservation of moving forward with the North County Plan.
- These discussions would not involve the Newland Sierra Project proponents, as their project would have already been approved by the County.

- The Newland Sierra project is but one large project currently undergoing review by the County in advance of completion of the North County Plan.
- By approving the Newland Sierra Project and others through the 4(d) rule without addressing inconsistencies with preserve assembly, the potential exists for the 4(d) rule to undermine the very process (i.e., regional NCCP/HCP development) it was aimed at supporting.

**2**

**From:** [Wynn, Susan](#)  
**To:** [Brock Ortega](#)  
**Cc:** [Mayer, David@Wildlife](#); [Brian Grover](#); [Michael McCollum](#); [Rita Brandin](#); [Shanti SPL Santulli](#); [michelle.r.lynch@usace.army.mil](#); [Vipul Joshi](#); [Stacey Love \(stacey\\_love@fws.gov\)](#); [Doreen Statlander](#); [Karen Goebel](#); [Mendel Stewart](#); [Eichar, Peter \(Peter.Eichar@sdcounty.ca.gov\)](#)  
**Subject:** Re: Newland Sierra  
**Date:** Thursday, January 19, 2017 8:25:18 AM

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Thank you for your quick response - I did note that the mapped areas of ponding were in the open space - Given the amount of rain we have already had this year, there may be more ponding on site then was observed in previous years -

Please consider this email our approval for you to commence wet season surveys at this location according to the accepted survey guidelines for the listed large branchiopods, dated May 31, 2015, and pursuant to the conditions of your [respective] recovery permit[s].

Be aware that these surveys missed the first rains of the season therefore the results may be inconclusive . You will want to make sure you are able to substantiate any statements in your 90-day report by providing rain gauge and/or in-field observation information to demonstrate that you are meeting protocol requirements that: "Surveyors should visit sites after initial storm events to determine when known or potential listed large branchiopod habitat has become inundated. Appropriate habitat is considered to be inundated when it holds greater than 3 cm of standing water 24 hours after a rain event."

Please note that the LA County Natural History Museum encourages deposition of all collected fairy shrimp, not only listed species.

Please send your survey report (hard copy at minimum) to Stacey Love.

Thanks,  
Susan

Susan Wynn  
Fish and Wildlife Biologist  
2177 Salk Avenue, Suite 250  
Carlsbad, CA 92008  
(760) 431-9440 ext 216

On Wed, Jan 18, 2017 at 4:15 PM, Brock Ortega <[bortega@dudek.com](mailto:bortega@dudek.com)> wrote:

Thank you Susan for your email.

As you have probably already noted, these locations are situated within planned open space. As described in our BTR and previously provided documents, we disclose that we found a single puddle with western spadefoot toad larvae within the northwestern quarry site. Additionally, we never found any other puddled areas within the project footprint.

Please find attached a request to sample the puddles onsite that we may identify the species. We hope that we may receive quick approval given the nature of this situation. In order to address

Mr. Mayer's concerns, we will also review the puddles for western spadefoot eggs, larvae, and adults.

Thank you for your quick review and consideration.

Best,

**BROCK A. ORTEGA**  
PRINCIPAL/SENIOR WILDLIFE BIOLOGIST

**DUDEK** | *Natural Resource Management | Infrastructure Development | Regulatory*

**Compliance**

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[bortega@dudek.com](mailto:bortega@dudek.com)

[WWW.DUDEK.COM](http://WWW.DUDEK.COM)

---

**From:** Mayer, David@Wildlife [mailto:[David.Mayer@wildlife.ca.gov](mailto:David.Mayer@wildlife.ca.gov)]  
**Sent:** Wednesday, January 18, 2017 3:42 PM  
**To:** Wynn, Susan; Brian Grover; Brock Ortega; Michael McCollum; Rita Brandin; Shanti SPL Santulli; [michelle.r.lynch@usace.army.mil](mailto:michelle.r.lynch@usace.army.mil); Vipul Joshi  
**Cc:** Doreen Statdlander; Karen Goebel; Mendel Stewart; Eichar, Peter ([Peter.Eichar@sdcountry.ca.gov](mailto:Peter.Eichar@sdcountry.ca.gov))  
**Subject:** RE: Newland Sierra

It seems any pools should be investigated for spadefoot toad tadpoles as well.

David A. Mayer

Senior Environmental Scientist

South Coast Region

California Department of Fish and Wildlife

3883 Ruffin Road

San Diego, California 92123

858-467-4234

858-467-4239 (fax)

[David.Mayer@Wildlife.ca.gov](mailto:David.Mayer@Wildlife.ca.gov)

Every Californian should conserve water. Find out how at:



[SaveOurWater.com](http://SaveOurWater.com) · [Drought.CA.gov](http://Drought.CA.gov)

**From:** Wynn, Susan [[mailto:susan\\_wynn@fws.gov](mailto:susan_wynn@fws.gov)]

**Sent:** Wednesday, January 18, 2017 3:03 PM

**To:** Brian Grover; Brock Ortega; Michael McCollum; Rita Brandin; Shanti SPL Santulli; [michelle.r.lynch@usace.army.mil](mailto:michelle.r.lynch@usace.army.mil); Vipul Joshi

**Cc:** Doreen Statlander; Karen Goebel; Mendel Stewart; Mayer, David@Wildlife

**Subject:** Newland Sierra

Hello all - We received a call from a concerned citizen regarding potential vernal pools on the Newland Sierra project site. I've attached a map and a couple of the photos that were sent over - As you can see from the close up photo of one of the ponded areas, there appears to be fairy shrimp. I can not identify which species this is from a photograph - I'm guessing it is either the un-listed versatile fairy shrimp (*Branchinecta lindahli*) or the federally endangered San Diego fairy shrimp (*B. sandiegonensis*) based on what has been

observed to date in other areas, but this would need to be confirmed by a permitted biologist in the field. I do not recall any mention of potential vernal pools in the previous documents and have not had time to pull the file to check. I also do not recall whether any ponding was mapped as part of a wetland delineation for the Corps. I will continue to pass on any info I receive - given that fairy shrimp are out and there appears to be ponding on the site, we recommend that you have a permitted biologist survey the site for fairy shrimp. I am not sure which staff at the County is working on this project so please coordinate with them as appropriate.

Susan

Susan Wynn

Fish and Wildlife Biologist

2177 Salk Avenue, Suite 250

Carlsbad, CA 92008

(760) 431-9440 ext 216



# **Project Study Report-Project Development Support (PSR-PDS)**

**To**

## **Request Scope Approval of Projects-funded-by-others**

In San Diego County near Escondido on Interstate 15 from 0.6 Mile South to 0.6 Mile  
North of Deer Springs Road Overcrossing

APPROVAL RECOMMENDED:

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*RITA BRANDIN, PROJECT SPONSOR, Accepts  
Risks Identified in this PSR-PDS and Attached Risk Register*

APPROVAL RECOMMENDED:

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*ISMAEL SALAZAR, CALTRANS PROJECT MANAGER*

APPROVED:

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*TOM BOUQUIN, DISTRICT DIRECTOR DESIGN*

---

*DATE*

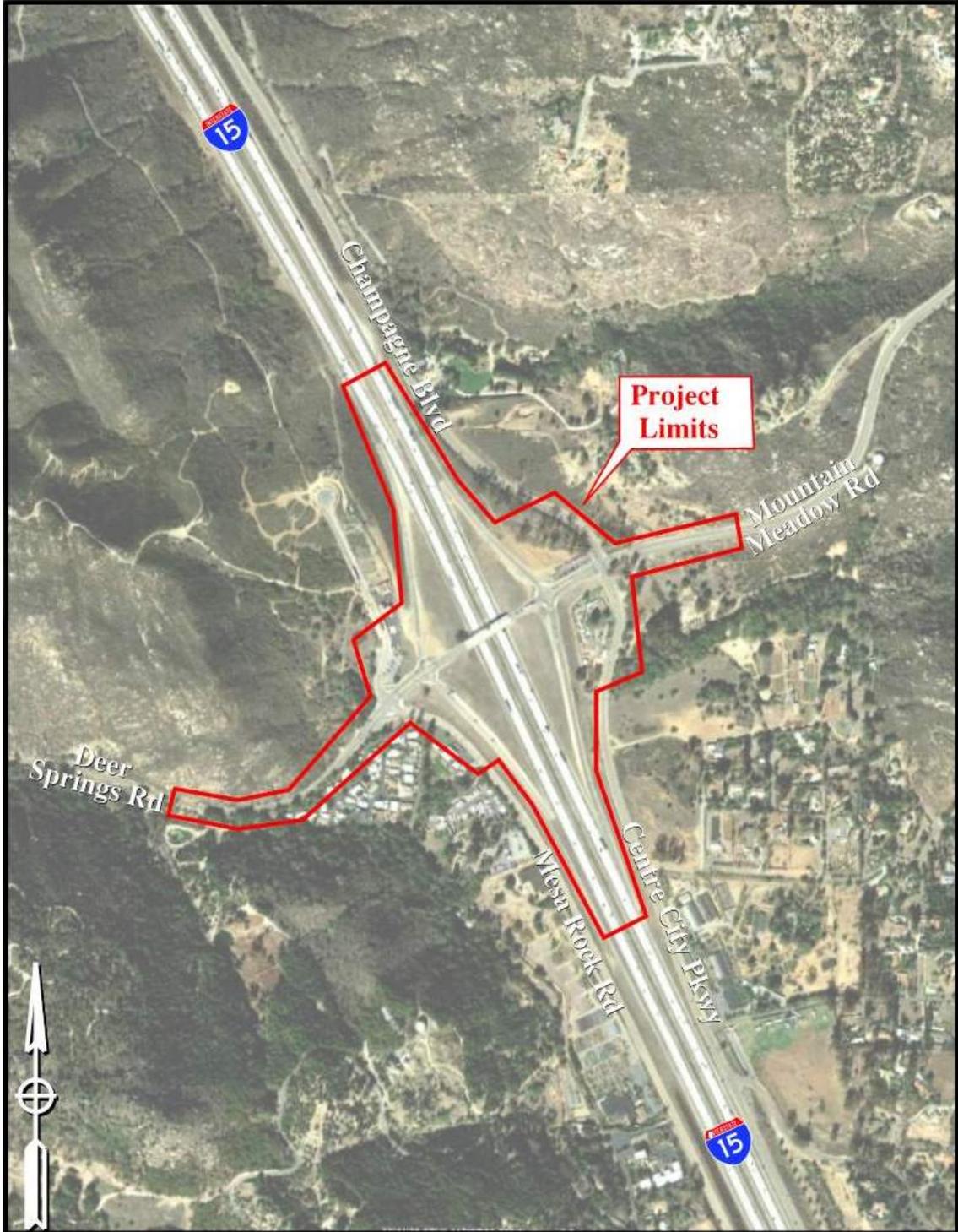
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*JOE HULL, DISTRICT DIRECTOR PPM*

---

*DATE*

## Vicinity Map



This project study report-project development support has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

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*REGISTERED CIVIL ENGINEER*

8/13/2015  
*DATE*



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## 1. INTRODUCTION

### Project Description:

The Newland Real Estate Group, LLC, in cooperation with the California Department of Transportation (Caltrans) and the County of San Diego, has initiated this Project Study Report-Project Development Support (PSR-PDS) to evaluate alternatives to increase capacity, improve mobility, and relieve congestion for the existing Interstate 15 (I-15) and Deer Springs Road interchange.

A summary of relevant project data is shown in the following table:

|                                                              |                                                                                                                             |
|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| <b>Project Limits</b>                                        | 11 – SD – 15 – PM R36.0/R37.2                                                                                               |
| <b>Number of Alternatives</b>                                | 4                                                                                                                           |
| <b>Current Capital Outlay Support Estimate for PA&amp;ED</b> | \$700,000 to \$1,000,000                                                                                                    |
| <b>Current Capital Outlay Construction Cost Range</b>        | \$13,500,000 to \$20,200,000                                                                                                |
| <b>Current Capital Outlay Right-of-Way Cost Range</b>        | \$100,000 to \$500,000                                                                                                      |
| <b>Funding Source</b>                                        | Private and other                                                                                                           |
| <b>Type of Facility</b>                                      | Freeway interchange                                                                                                         |
| <b>Number of Structures</b>                                  | 1                                                                                                                           |
| <b>Anticipated Environmental Determination or Document</b>   | Mitigated Negative Declaration (MND)/ Finding of No Significant Impact (FONSI)                                              |
| <b>Legal Description</b>                                     | In San Diego County near Escondido on Interstate 15 from 0.6 Mile South to 0.6 Mile North of Deer Springs Road Overcrossing |
| <b>Project Development Category</b>                          | 3                                                                                                                           |

The remaining capital outlay support, right-of-way, and construction components of the project are preliminary estimates and are not suitable for budgetary purposes. A project report will serve as approval of the “selected” alternative and the remaining components of the project.

Other approvals required are:

- Federal Highway Administration (FHWA)
- County of San Diego

## 2. BACKGROUND

Improvements to the existing I-15 and Deer Springs Road interchange are a requirement of the proposed Sierra Project, which is currently under environmental review with the County of San Diego Planning Department. The Sierra Project is a

proposed community subdivision on 1,985-acres located west of I-15 and north of Deer Springs Road.

Interstate 15 is a major traffic corridor that originates near downtown San Diego and continues north to the United States border with Canada. The intersecting Deer Springs Road is currently an east-west two-lane county roadway between I-15 and Twin Oaks Valley Road. It serves the local communities of Hidden Meadows and San Marcos, while also acting as a link for traffic traveling between I-15 and State Route 78. It has been determined that the congestion along State Route 78 contributes to a significant amount of traffic traveling along this link through the project limits. The existing I-15 and Deer Springs Road interchange is a diamond configuration with single-lane on and off ramps. The interchange consists of two signalized freeway ramp intersections and has two nearby signalized local roadway intersections, which include the Deer Springs Road and Mesa Rock Road intersection, and the Mountain Meadow Road and Champagne Boulevard intersection.

### 3. PURPOSE AND NEED

#### **Purpose:**

The purpose of the proposed project is to plan for the projected regional population growth and increase in traffic demands at the existing I-15 and Deer Springs Road interchange for the planning design year 2040. The project proposes to widen and reconfigure the interchange to improve traffic operations and enhance transportation choices. The objectives of the project are to:

- Support anticipated regional growth and proposed local-area projects;
- Relieve congestion by providing sufficient vehicle capacity through the interchange area;
- Manage east-west travel between local communities;
- Enhance multi-modal choices;
- Improve the existing park and ride facility to provide transit connectivity; and
- Minimize environmental impacts.

#### **Need:**

The project area is located within San Diego County near Escondido, along a segment of Interstate 15 (I-15). I-15 is a major traffic corridor that serves the local communities of Hidden Meadows and City of San Marcos, while also acting as a link for traffic travelling to and from I-15 to and from State Route (SR) 78. The intersecting Deer Springs Road is classified as a 6-Lane Prime Arterial in the County of San Diego Mobility Element and is currently built as a two-lane facility between I-15 and Twin Oaks Valley Road. Based on growth forecasts prepared by the San Diego Association of Governments, the county's unincorporated areas, which encompass the project area, are expected to see an overall population growth of approximately 25 percent between 2015 and 2050. To accommodate this growth and

future capacity needs within the corridor, the interchange will require additional capacity. Regional growth coupled with the approved site developments in the immediate vicinity will result in increased volumes through the interchange by 2040 of about 25-40%, depending on the road segment. In addition to the projected traffic demands, the I-15/Deer Springs interchange is currently experiencing severe traffic congestion. Existing deficiencies of the I-15/Deer Springs interchange are summarized below:

- Three out of four I-15/Deer Springs interchange intersections are operating near or over the design capacity during peak period traffic volumes;
- Intersection delays of up to 45 seconds;
- High volumes of single occupancy vehicle travel, necessitating improved access to carpools, vanpools, and public transportation choices via existing park and ride facilities within the project area.

#### **4. TRAFFIC ENGINEERING PERFORMANCE ASSESSMENT**

A Traffic Engineering Performance Assessment (TEPA) was prepared in support of this PSR-PDS, which is included as Attachment I. The relevant findings and recommendations are included below for each build alternative. Prior to preparing the TEPA, a traffic modeling report was completed and approved by Caltrans and the County of San Diego. During the PA&ED phase, a full traffic study will be completed to confirm the anticipated traffic volumes and operations for each of the alternatives. Refer to Section 7 below for a description of each alternative.

The existing nonstandard intersection spacing between the Mesa Rock Road intersection and the southbound I-15 ramp termini negatively impact traffic operations in this area. Considering this, the existing north leg of the Mesa Rock Road intersection, which is proposed to be used as the main entrance for the Sierra Project, has been positioned as far west as possible for each of the build alternatives. Due to geometric, socio-economic, and other environmental constraints as described in the PEAR, this intersection cannot be positioned any further west. Also, the south leg of the Mesa Rock Road intersection cannot be moved due to existing development. In addition, the southbound I-15 ramp termini have been positioned as far east as possible for each of the alternatives in order to maximize the distance between these intersections and optimize the overall traffic operations for this area.

##### ***Alternative 1***

The No Build Alternative does not improve the existing operational conditions, and it is anticipated to operate at an unacceptable Level of Service (LOS) F for the design year traffic volumes.

### ***Alternative 2***

The proposed diamond interchange alternative is anticipated to operate at an acceptable LOS D or better for the design year traffic volumes. The queuing analysis indicates that the available intersection spacing between Mesa Rock Road and the I-15 ramp termini does not accommodate the estimated queue along westbound Deer Springs Road at Mesa Rock Road during the anticipated peak hour volumes. It is anticipated that adding a northbound loop off-ramp will improve the operations of the northbound ramp intersection during the PM peak hour. It is recommended that the feasibility of adding this loop ramp should be evaluated during the PA&ED phase.

### ***Alternative 3***

The proposed diverging diamond interchange alternative is anticipated to operate at an acceptable LOS D or better for the design year traffic volumes. The queuing analysis indicates adequate spacing between intersections.

### ***Alternative 4***

The proposed roundabout interchange alternative is anticipated to operate at an acceptable LOS D or better for the design year traffic volumes. However, due to recent and pending changes to standards and software used to analyze the capacity of roundabouts, it is anticipated that further analysis of this alternative will be required during the PA&ED phase to fully assess its traffic performance per the required Intersection Control Evaluation (ICE) process. As such, the Project Development Team (PDT) determined that this alternative should remain in the PSR-PDS.

## **5. DEFICIENCIES**

The existing I-15 and Deer Springs Road interchange is currently experiencing operational problems and is operating near or over its design capacity during peak period traffic volumes. Congestion delay exists along the southbound off-ramp during the AM peak period and the northbound on-ramp during the PM peak period. This is primarily due to the congestion delay along the Route 78 corridor, which causes the traffic to take this alternative Deer Springs Road route during the high peak period traffic volumes. In addition, the existing intersection spacing adjacent to the ramp termini does not accommodate the traffic queues along Deer Springs Road. Vehicle hours of delay, average speeds, travel times, and other traffic performance measures will continue to deteriorate as growth increases in the surrounding areas.

## **6. CORRIDOR AND SYSTEM COORDINATION**

The proposed project improvements for each of the build alternatives have been compared against the 2050 Regional Transportation Plan (RTP) for San Diego.

Based on the revenue constrained plan, I-15 would be widened to include 4 toll lanes (2 northbound and 2 southbound) located within the existing I-15 median from State Route 78 to Riverside County. The proposed project improvements would not impact the implementation of the additional toll lanes. Also, the widened Deer Springs Road overcrossing would be designed to accommodate the expected I-15 freeway cross section. Based on the revenue unconstrained plan, I-15 would be widened to include the same configuration as the revenue constrained plan.

The southbound direction of I-15 is located along the Extra Legal Load Network (ELLN), which requires a minimum vertical clearance of 20 ft. The existing Deer Springs Road Overcrossing currently has less than this requirement with 17.8 ft of vertical clearance. Vehicles requiring the additional clearance currently bypass the Deer Springs Road Overcrossing by exiting the freeway via the southbound off-ramp and then re-entering via the southbound on-ramp. ELLN clearances will be addressed in the proposed project via a similar travel pattern exiting and entering the mainline.

Deer Springs Road is classified as a 6-lane prime arterial in the San Diego County Mobility Element. An option being analyzed in the traffic study assumes Deer Springs Road as a 4.1A Major Road except for the portion between Sarver Lane and Mesa Rock Road which would be built as a 2.1B Community Collector segment with a continuous turn lane between Sarver Lane and Mesa Rock Road. Under this option, fewer vehicles will utilize Deer Springs Road in this option, since the roadway cross section of Deer Springs Road will be narrower than that in the General Plan Mobility Element. The narrower cross section is also supported by SANDAG for improved pedestrian and bicycle safety. Therefore, multiple variations of Deer Springs Road will be analyzed in the Traffic Operations Report during the PA&ED phase. In coordination with the County of San Diego, the project proposes to construct a narrower configuration of Deer Springs Road compared to the County Mobility Element, which is based on the findings of this report.

Improvements to the existing I-15 and Deer Springs Road interchange are currently not identified in the Regional Transportation Improvement Program (RTIP) for San Diego or the San Diego County General Plan. However, the proposed project improvements to the interchange support the proposed Sierra Project improvements, which is a private development located west of I-15 and north of Deer Springs Road.

The County of San Diego Bicycle Transportation Plan classifies Deer Springs Road as a Priority 3 proposed Class III bikeway. Priority 3 proposed bikeways are not included in the County Circulation Element map. The County Bicycle Transportation Plan proposes to incorporate bicycle parking, bicycle racks, and lockers at both of the existing County park-and-ride lots located within the project limits. Deer Springs Road is currently not identified in the 2050 San Diego Regional Bike Plan.

The project will coordinate with the SANDAG Transportation Demand Management (TDM) program iCommute to ensure the project is aligned with any TDM elements being considered in the project area.

## 7. ALTERNATIVES

In the development of the alternatives for the PSR-PDS and as part of the Intersection Control Evaluation (ICE) process, the PDT conducted an alternatives screening process through a series of workshops. During this screening process, the PDT determined weighted evaluation criteria along with a range of potential alternatives. The weighted evaluation criteria were then used to compare and rank each of the potential alternatives. As a result of this screening process, it was decided to eliminate the single point interchange (SPI) configuration, hook ramp interchange configuration, and a 6-leg roundabout configuration from further evaluation.

Each of the build alternatives propose to expand upon the western park-and-ride lot and maintain the size of the eastern park-and-ride lot that are located within the project limits, which will include features to encourage future bicycle and pedestrian traffic. The build alternatives will also consider the potential for multi-modal transit options that would be integrated with the proposed park-and-ride lots and the adjacent ramp termini, which will provide suitable bicycle and pedestrian connectivity.

The San Diego Bicycle Transportation Plan indicates a Class III bikeway within the project limits, however, a Class II bikeway will be considered between Mesa Rock Road and Champagne Boulevard for this project due to the volume of bicycle traffic indicated by crowdsource GPS information. During the PA&ED phase, the bicycle and pedestrian facilities will be further evaluated to optimize mobility, functionality, and safety for each of the build alternatives.

There are four alternatives identified in this report, which include the No Build Alternative.

### *Alternative 1*

This alternative is the No Build Alternative. The existing I-15 and Deer Springs Road interchange would remain unchanged and no work would be provided to improve operational conditions. The No Build Alternative does not meet the goals of this project to relieve congestion and is inconsistent with the purpose and need.

### *Alternative 2*

This alternative proposes to expand upon the existing diamond interchange configuration in order to improve operational conditions (see Attachment B). This alternative will require nonstandard intersection spacing between the southbound ramp termini and the Mesa Rock Road/Deer Springs Road intersection, and between the northbound ramp termini and the Champagne Boulevard/Deer Springs Road intersection. It proposes to realign the southbound ramps further east in order to improve upon the existing nonstandard intersection spacing between the southbound ramp termini and the Mesa Rock Road/Deer Springs Road intersection. Realigning

these ramps would likely require retaining walls along the southbound off-ramp and on-ramp. It is anticipated that adding a northbound loop on-ramp or off-ramp will improve the operations of the northbound ramp intersection during the PM peak hour. It is recommended that the feasibility of adding a loop ramp should be evaluated during the PA&ED phase. This alternative also proposes to widen Deer Springs Road to meet the increased traffic demand and will require the existing Deer Springs Road Overcrossing to be widened. It proposes to maintain the existing ELLN bypass of the Deer Springs Road Overcrossing via the southbound on and off-ramps.

### ***Alternative 3***

This alternative proposes to reconfigure the existing interchange into a diverging diamond interchange (DDI) configuration in order to improve operational conditions (see Attachment B). The proposed geometry follows the informational guide published by FHWA in August of 2014, which features a conventional 25 mph design speed and a 45 degree intersection angle at the points where the two directions of traffic cross each other. This alternative also proposes to widen Deer Springs Road to meet the increased traffic demand and will require the existing Deer Springs Road Overcrossing to be widened. It proposes to maintain the existing ELLN bypass of the Deer Springs Road Overcrossing via the southbound on and off-ramps utilizing a median opening for the ELLN vehicles to cross Deer Springs Road. This median opening would include several design features to keep other traffic from using it, such as a gate located within the opening, traversable concrete curb, chevron striping along the widened ramp shoulders, landscaping to block the view of the southbound on-ramp, and the geometric alignment of the median opening. This alternative may require a design exception for nonstandard intersection spacing between the southbound ramp termini and the Mesa Rock Road/Deer Springs Road intersection, and between the northbound ramp termini and the Champagne Boulevard/Deer Springs Road intersection. It may also require a design exception for the conventional design speed of 25 mph required for DDI interchange configurations.

### ***Alternative 4***

This alternative proposes to utilize the existing diamond configuration with roundabout intersections for the southbound and northbound ramp termini and for both of the adjacent local intersections along Deer Springs Road (see Attachment B). This alternative also proposes to widen Deer Springs Road to meet the increased traffic demand and will require the existing Deer Springs Road Overcrossing to be widened. It proposes to maintain the existing ELLN bypass of the Deer Springs Road Overcrossing via the southbound on and off-ramps utilizing a roundabout that the ELLN vehicles can navigate through. This alternative will require nonstandard intersection spacing between the southbound ramp termini and the Mesa Rock Road/Deer Springs Road intersection, and between the northbound ramp termini and the Champagne Boulevard/Deer Springs Road intersection. It may also require a design exception for the conventional design speed of 25 mph required for roundabout intersections.

| Design Standards Risk Assessment |                                                                                                  |                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Alternative                      | Design Standard from Highway Design Manual Tables 82.1A & 82.1B                                  | Probability of Design Exception Approval (None, Low, Medium, High,) | Justification for Probability Rating                                                                                                                                                                                                                                                                                                                                                                 |
| 2                                | <sup>M</sup> Distance Between Ramp Intersection and Local Road Intersection                      | Low                                                                 | The nonstandard intersection spacing presents a traffic queuing issue for this alternative, while Alternative 3 and Alternative 4 do not. Although the intersection spacing is an improvement over the existing condition, it has less intersection spacing than Alternative 3. Further, the nonstandard spacing for Alternative 4 does not affect traffic operations due to its configuration type. |
| 3                                | <sup>M</sup> Distance Between Ramp Intersection and Local Road Intersection                      | High                                                                | This alternative provides the most intersection spacing of all the alternatives and does not present any traffic operation issues.                                                                                                                                                                                                                                                                   |
| 3                                | <sup>M</sup> Selection of Design Speed - Local Facilities - with Connections to State Facilities | High                                                                | The conventional design speed required for all DDI interchanges is less than the minimum speed. Therefore, this standard does not apply to or consider this type of interchange configuration. The proposed design speed would also be safer for pedestrians and bicyclists.                                                                                                                         |
| 4                                | <sup>M</sup> Distance Between Ramp Intersection and Local Road Intersection                      | High                                                                | The nonstandard intersection spacing for this alternative does not affect traffic operations due to its configuration type.                                                                                                                                                                                                                                                                          |
| 4                                | <sup>M</sup> Selection of Design Speed - Local Facilities - with Connections to State Facilities | High                                                                | The conventional design speed required for all roundabout intersections is less than the minimum speed. Therefore, this standard does not apply to or consider this type of interchange configuration. The proposed design speed would also be safer for pedestrians and bicyclists.                                                                                                                 |
| 4                                | <sup>A</sup> Median Width                                                                        | High                                                                | The minimum standard for median width is intended for facilities that may require future left turn lanes. Interchange configurations with roundabouts do not require left turn lanes or any other design feature that would require a median. Therefore, this standard does not apply to or consider this interchange configuration.                                                                 |

M = Mandatory, A = Advisory

## **8. RIGHT-OF-WAY**

Most, if not all, of the work will be located within the existing right-of-way limits. It is anticipated that some small partial property acquisitions may be required for some of the alternatives. It is anticipated that the existing freeway access control limits may require modification in order to relinquish the area necessary for the proposed park-and-ride expansion. In addition, a few temporary construction easements will be required from the various parcels adjacent to the project. For additional information, refer to the findings included in the Conceptual Cost Estimate – Right-of-Way Component, which is included as Attachment F.

### **Utilities:**

There are existing utilities located along Deer Springs Road and the local intersecting roadways, which include sewer, water, gas, electrical, and telecommunication facilities. The following utility companies or agencies have been identified as owners of the various utilities located within the project area: AT&T, County of San Diego, Cox Communications, Level 3 Communications, SDG&E, San Diego County Water Authority, Valley Center Municipal Water District, and Vallecitos Water District. Minor impacts to these facilities are anticipated and will be further evaluated during the PA&ED phase.

### **Railroad:**

There are no railroad facilities located within the project study limits.

## **9. STAKEHOLDER INVOLVEMENT**

Local agency representatives from the County of San Diego have been involved in the development of the alternatives during PDT meetings and project workshops. Coordination with representatives from the San Diego Association of Governments (SANDAG), the North County Transit District (NCTD), and the Riverside Transit Authority (RTA) has taken place to determine their involvement and to identify if any potential project features could be incorporated based on their interests. As the owner and operator of the State Highway System, Caltrans has provided independent quality assurance of this document. Future stakeholder outreach will be determined by the PDT and the opportunity for public meetings will be organized during the PA&ED phase.

## **10. ENVIRONMENTAL DETERMINATION/DOCUMENT**

In order to identify environmental issues, constraints, costs and resource needs, a Preliminary Environmental Analysis Report (PEAR) was prepared in support of this PSR-PDS, which is included as Attachment D.

The project would require the preparation of environmental documentation pursuant to the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). It is anticipated that an Initial Study (IS) with proposed Negative Declaration (ND) or Mitigated ND and a Routine Environmental Assessment with proposed Finding of No Significant Impact will be required for this project.

## 11. FUNDING

The proposed interchange project will be privately funded at some point after the County approves the proposed Sierra Development Project. As the project continues to develop, additional funding sources will be explored. Up to this point, it has been determined that this project is not eligible for Federal-aid funding and SANDAG currently does not have any planned funding for interchange improvements.

### Capital Outlay Project Estimate

|               | Range of Estimate |                | STIP Funds   |              | Other Funds  |                |
|---------------|-------------------|----------------|--------------|--------------|--------------|----------------|
|               | Construction      | Right-of-Way   | Construction | Right-of-Way | Construction | Right-of-Way   |
| Alternative 1 | \$0               | \$0            | \$0          | \$0          | \$0          | \$0            |
| Alternative 2 | \$20.2M           | \$0.1 - \$0.5M | \$0          | \$0          | \$20.2M      | \$0.1 - \$0.5M |
| Alternative 3 | \$15.8M           | \$0.1 - \$0.5M | \$0          | \$0          | \$15.8M      | \$0.1 - \$0.5M |
| Alternative 4 | \$13.5M           | \$0.1 - \$0.5M | \$0          | \$0          | \$13.5M      | \$0.1 - \$0.5M |

The level of detail available to develop these capital outlay project estimates is only accurate to within the above ranges and is useful for long-range planning purposes only. The capital outlay project estimates should not be used to program or commit capital outlay funds.

### Capital Outlay Support Estimate

Capital outlay support estimate for programming PA&ED for this project is estimated to be: \$700,000 to \$1,000,000

## 12. SCHEDULE

| Project Milestones       |      | Scheduled Delivery Date |
|--------------------------|------|-------------------------|
| BEGIN ENVIRONMENTAL      | M020 | August 2015             |
| CIRCULATE DED EXTERNALLY | M120 | April 2016              |
| PA & ED                  | M200 | January 2017            |

The anticipated funding fiscal year for construction is 2019.

**13. RISKS**

A Risk Register was completed for this project; see Attachment G.

**14. FHWA COORDINATION**

This project is considered to be a High Profile Project (HPP) in accordance with the current Federal Highway Administration (FHWA) and Department of Transportation (Caltrans) Joint Stewardship and Oversight Agreement.

FHWA “engineering and operational acceptability” must be obtained early in the PA&ED phase prior to circulation of the draft environmental document with an unsigned supplemental project study report (PSR) or an unsigned draft project report. FHWA “approval” will be given after the National Environmental Policy Act (NEPA) process is completed.

**15. PROJECT REVIEWS**

|                                                 |            |
|-------------------------------------------------|------------|
| District Maintenance _____                      | Date _____ |
| District Traffic Safety Engineer _____          | Date _____ |
| Headquarters Project Delivery Coordinator _____ | Date _____ |
| Project Manager _____                           | Date _____ |

**16. PROJECT PERSONNEL**

**CALTRANS**

Ismael Salazar ..... 619.688.6766  
Project Manager

Armando Salvador..... 619.688.3268  
Transportation Engineer

Azeb Berhane ..... 619.688.3258  
Transportation Engineer

Brian Hadley ..... 619.688.1098  
Traffic Operations/ELLN Coordinator

Bruce Berlau..... 619.688.6945  
Right-of-Way

|                                     |              |
|-------------------------------------|--------------|
| Gretchen Eichar .....               | 619.688.3106 |
| Environmental Planner               |              |
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| Planning                            |              |
| Jason Janis.....                    | 619.688.3224 |
| Traffic Engineering Analysis        |              |
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| District Design Liaison             |              |

## **PROJECT SPONSOR**

### **Newland Real Estate Group, LLC**

|                      |              |
|----------------------|--------------|
| Rita Brandin .....   | 858.875.8219 |
| Development Director |              |

## **LOCAL AGENCIES**

### **County of San Diego**

|                                  |              |
|----------------------------------|--------------|
| Everett Hauser.....              | 858.694.2412 |
| County Transportation Specialist |              |
| Nick Ortiz.....                  | 858.694.2410 |
| County Project Manager           |              |
| Richard Chin .....               | 858.694.3858 |
| County Transportation Specialist |              |

## **CONSULTANTS**

### **T.Y. Lin International**

|                             |              |
|-----------------------------|--------------|
| Clark Fernon.....           | 619.908.3307 |
| Consultant Project Manager  |              |
| Jason Fischer .....         | 619.908.3211 |
| Consultant Project Engineer |              |

**Parsons**

Stephanie Blanco ..... 909.218.3551  
 Consultant Environmental

**Linscott, Law & Greenspan, Engineers**

John Boarman..... 858.300.8800  
 Consultant Traffic Principal Ext: 236

Narasimha Prasad ..... 858.300.8800  
 Consultant Traffic Engineer Ext: 243

**The Tait Group**

David Tait ..... 916.813.1106  
 Consultant Project Facilitator

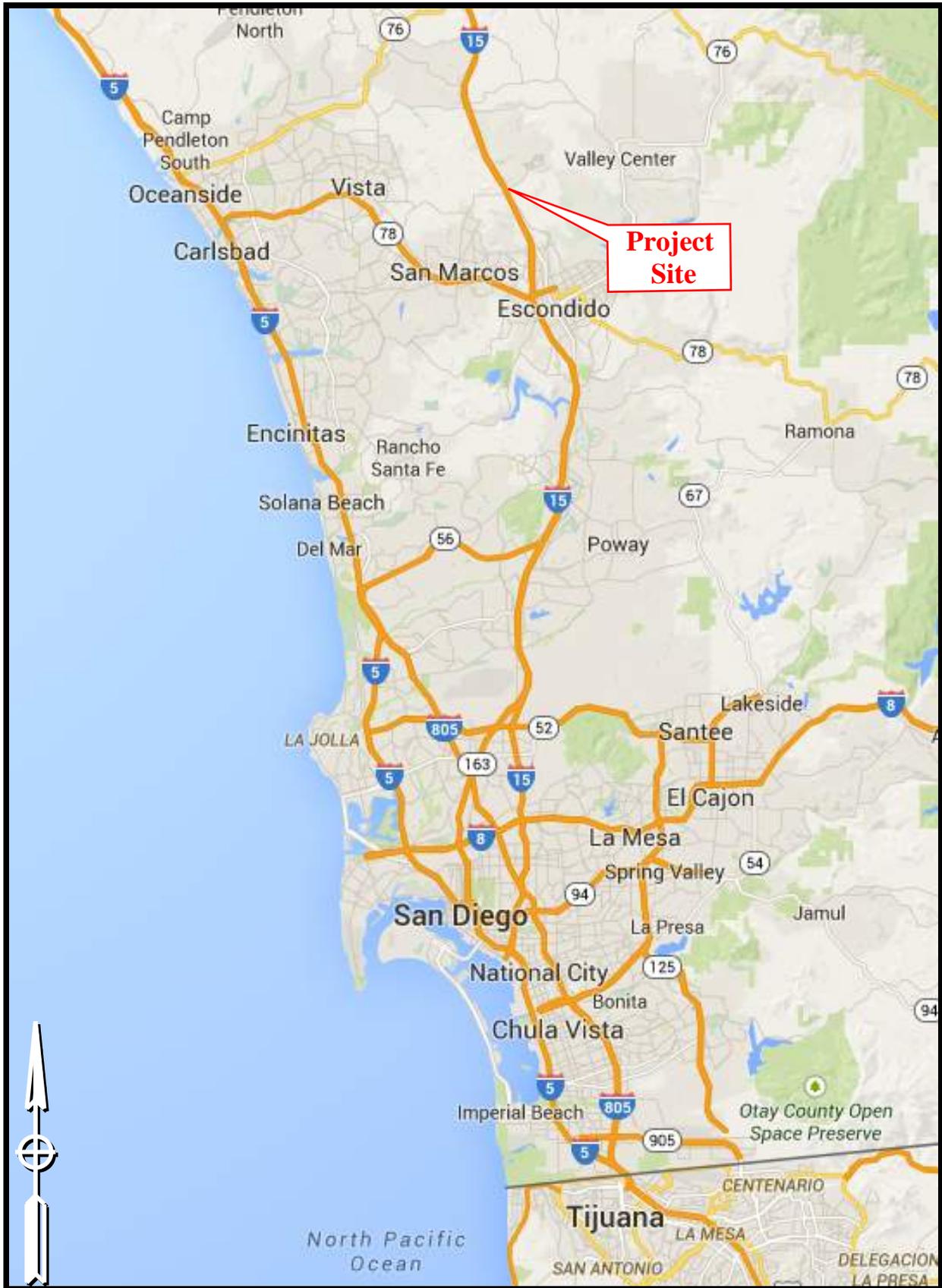
**Fusco Engineering**

Eric Armstrong..... 858.554.1500  
 Consultant Project Manager for the Sierra Project Ext: 4050

**17. ATTACHMENTS (Number of Pages)**

- A. Location and Vicinity Maps (2)
- B. Project Alternatives (3)
- C. Capital Outlay Project Estimate (9)
- D. Preliminary Environmental Analysis Report (PEAR) (28)
- E. Transportation Planning Scoping Information Sheet (9)
- F. Right-of-Way Conceptual Cost Estimate Component (3)
- G. Risk Register (2)
- H. Stormwater Documentation (67)
- I. Traffic Engineering Performance Assessment (TEPA) (16)

**ATTACHMENT A**  
LOCATION AND VICINITY MAPS



**Regional Location Map**



**Project Vicinity Map**

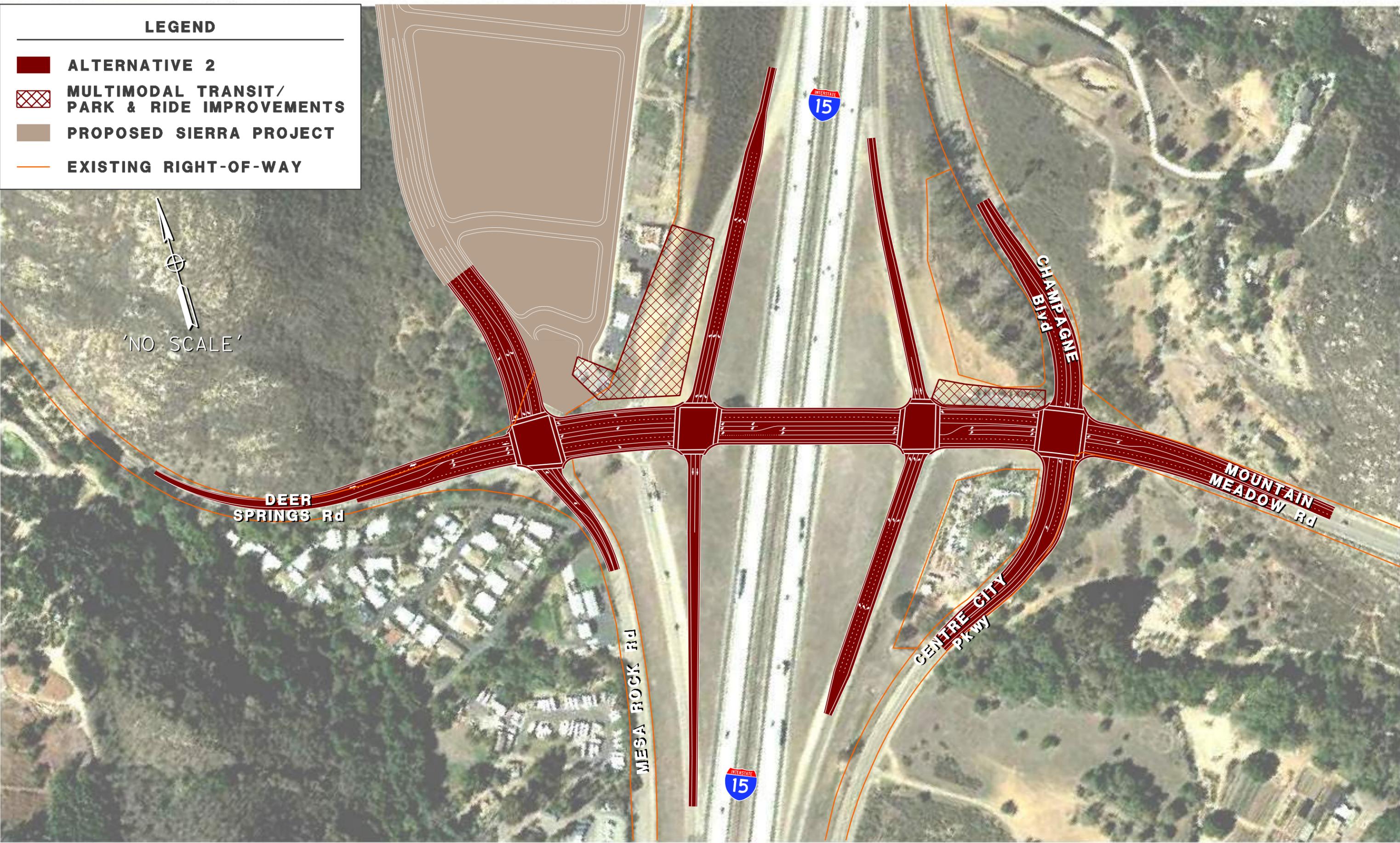
**ATTACHMENT B**  
PROJECT ALTERNATIVES

**LEGEND**

-  **ALTERNATIVE 2**
-  **MULTIMODAL TRANSIT/  
PARK & RIDE IMPROVEMENTS**
-  **PROPOSED SIERRA PROJECT**
-  **EXISTING RIGHT-OF-WAY**



'NO SCALE'



**I-15 DEER SPRINGS ROAD  
INTERCHANGE PROJECT  
EA 11-41840**

**ALTERNATIVE 2  
DIAMOND INTERCHANGE**

DATE PREPARED:

**5 / 7 / 2015**

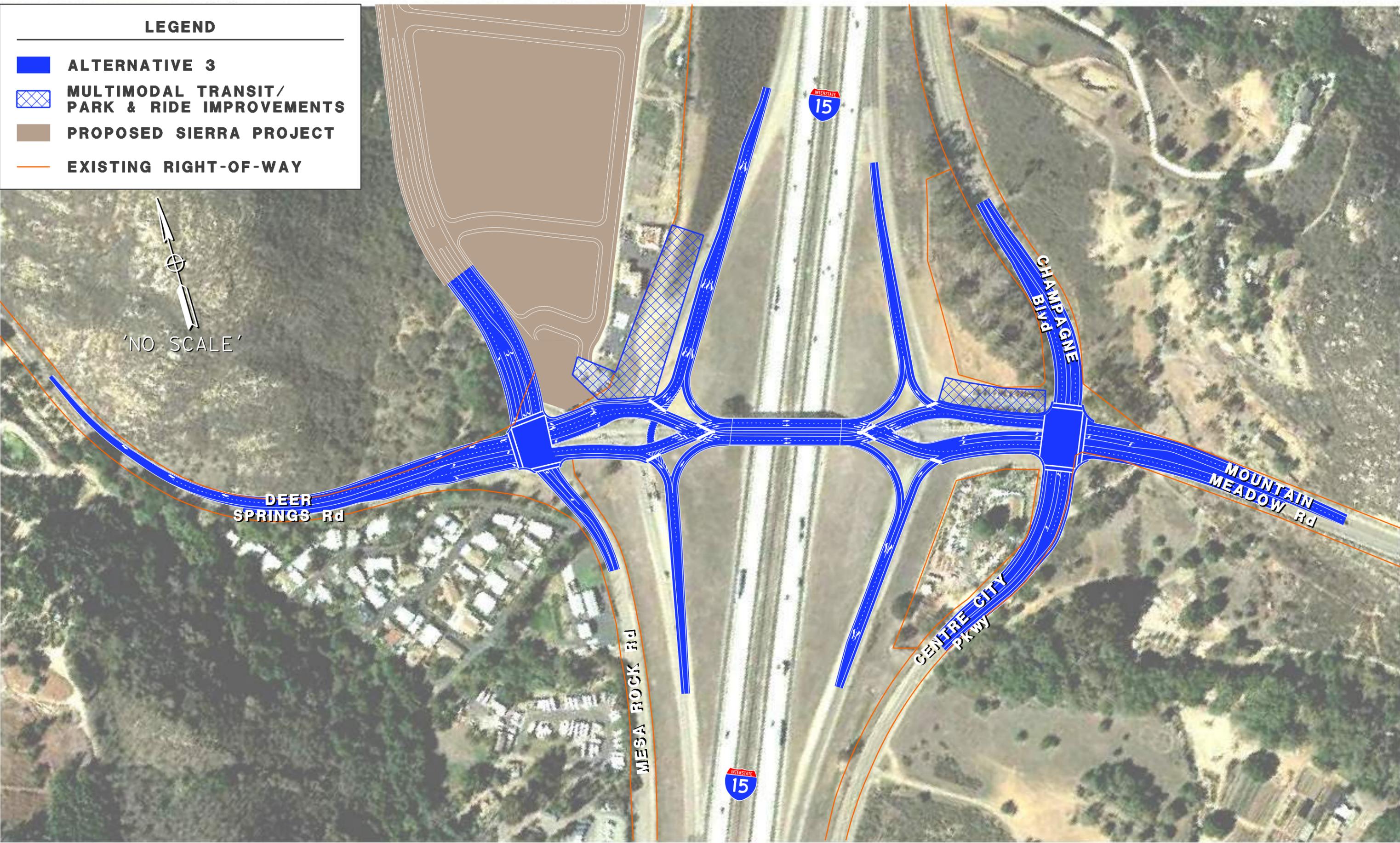
**TYLIN**INTERNATIONAL  
engineers | planners | scientists

**LEGEND**

-  **ALTERNATIVE 3**
-  **MULTIMODAL TRANSIT/  
PARK & RIDE IMPROVEMENTS**
-  **PROPOSED SIERRA PROJECT**
-  **EXISTING RIGHT-OF-WAY**



'NO SCALE'



**I-15 DEER SPRINGS ROAD  
INTERCHANGE PROJECT  
EA 11-41840**

**ALTERNATIVE 3  
DIVERGING DIAMOND INTERCHANGE**

DATE PREPARED:

**5 / 7 / 2015**

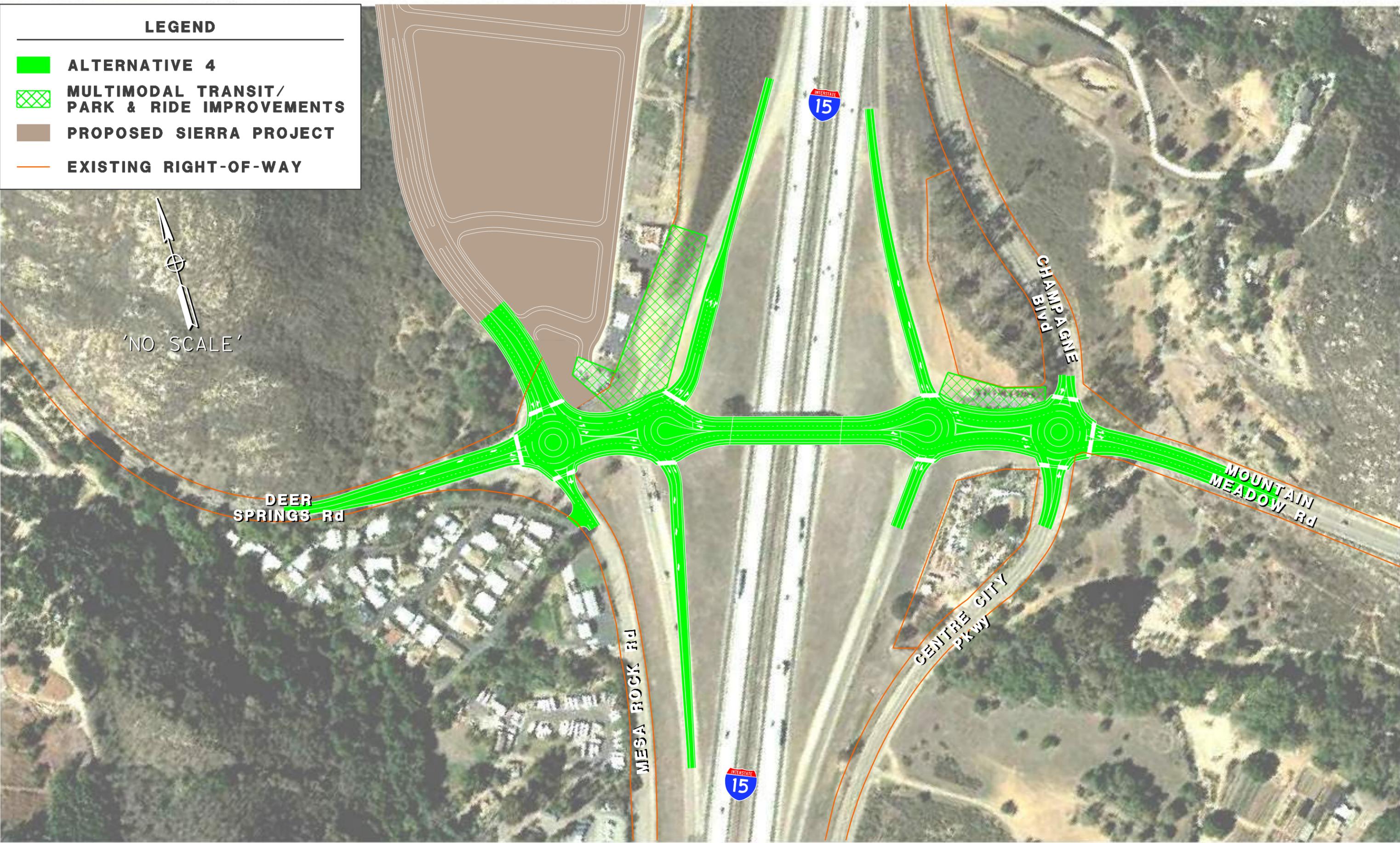
**TYLIN** INTERNATIONAL  
engineers | planners | scientists

**LEGEND**

-  **ALTERNATIVE 4**
-  **MULTIMODAL TRANSIT/  
PARK & RIDE IMPROVEMENTS**
-  **PROPOSED SIERRA PROJECT**
-  **EXISTING RIGHT-OF-WAY**



'NO SCALE'



**I-15 DEER SPRINGS ROAD  
INTERCHANGE PROJECT  
EA 11-41840**

**ALTERNATIVE 4  
DIAMOND INTERCHANGE WITH ROUNDABOUT INTERSECTIONS**

DATE PREPARED:

**5 / 7 / 2015**

**TYLIN**INTERNATIONAL  
engineers | planners | scientists

**ATTACHMENT C**  
CAPITAL OUTLAY PROJECT ESTIMATE

# Project Study Report – Project Development Support Capital Outlay Project Estimate

Dist - Co - Rte 11-SD-15  
PM R36.0/37.2  
Program Code N/A  
Project Number 11-14000093  
Month/Year August 2015

## PROJECT DESCRIPTION:

**Limits:** In San Diego County near Escondido on Interstate 15 (I-15) from 0.6 Mile South to 0.6 Mile North of Deer Springs Road Overcrossing.

**Proposed Improvement (Scope):** Reconstruct the existing I-15 and Deer Springs Road interchange.

**Alternate: 2**

## SUMMARY OF PROJECT COST ESTIMATE

|                                        |                          |
|----------------------------------------|--------------------------|
| TOTAL ROADWAY ITEMS                    | \$ <u>13,440,000</u>     |
| TOTAL STRUCTURE ITEMS                  | \$ <u>5,760,000</u>      |
| TOTAL ENVIRONMENTAL MITIGATION ITEMS   | \$ <u>650,000</u>        |
| SUBTOTAL CONSTRUCTION COSTS            | \$ <u>19,850,000</u>     |
| TOTAL RIGHT-OF-WAY ITEMS               | \$ <u>350,000</u>        |
| <br>TOTAL PROJECT CAPITAL OUTLAY COSTS | <br>\$ <u>20,200,000</u> |

I. ROADWAY ITEMS

|            | <u>Average Cost per Lane Mile</u> |   | <u>Number of Lane Miles</u> |   | <u>Total Cost</u>   |
|------------|-----------------------------------|---|-----------------------------|---|---------------------|
| Total Cost | <u>\$2,400,000</u>                | X | <u>5.6</u>                  | = | <u>\$13,440,000</u> |

Explanation:

Roadway items include costs associated with earthwork, pavement, drainage, traffic, electrical work, landscaping, and other minor items. The cost estimate includes a 20% contingency factor applied to the base cost. The cost estimate has been escalated to the fiscal year 2018 using an annual escalation factor of 3%. The fiscal year 2018 is the anticipated year for construction. Roadway items exclude costs associated with structures, environmental mitigation, and right-of-way. It also excludes costs associated with owner administration, professional engineering, environmental planning, and construction administration.

TOTAL ROADWAY ITEMS \$13,440,000

II. STRUCTURES ITEMS

|                          | Structure<br>(1)                    | Structure<br>(2)           | Structure<br>(3) |
|--------------------------|-------------------------------------|----------------------------|------------------|
| Bridge Name              | <u>Deer<br/>Springs<br/>Road OC</u> | <u>Retaining<br/>Walls</u> | _____            |
| Total Cost for Structure | <u>\$3,900,000</u>                  | <u>\$1,860,000</u>         | _____            |

Explanation:

Structures items include costs associated with widening the existing Deer Springs Road Overcrossing at I-15. Structures items include costs associated with retaining walls. The cost estimate includes a 20% contingency factor applied to the base cost. The cost estimate has been escalated to the fiscal year 2018 using an annual escalation factor of 3%. The fiscal year 2018 is the anticipated year for construction.

TOTAL STRUCTURE ITEMS \$5,760,000

III. ENVIRONMENTAL MITIGATION

|                          | <u>Quantity</u> | <u>Unit</u> | <u>Unit Price</u>  | <u>Item Cost</u>   |
|--------------------------|-----------------|-------------|--------------------|--------------------|
| Environmental Mitigation | <u>LS</u>       | <u>1</u>    | X <u>\$650,000</u> | = <u>\$650,000</u> |

Explanation:

Environmental mitigation includes costs associated with environmental surveys and monitoring, temporary erosion control, and storm water best management practices required during construction.

TOTAL ENVIRONMENTAL MITIGATION ITEMS      \$650,000

IV. RIGHT-OF-WAY ITEMS

|                                                                                 | Escalated<br>Value |
|---------------------------------------------------------------------------------|--------------------|
| A. Acquisition, including excess lands,<br>damages to remainder(s) and Goodwill | <u>\$100,000</u>   |
| B. Utility Relocation (State share)                                             | <u>\$250,000</u>   |

Anticipated Date of Right-of-Way Certification      2018  
(Date to which values are escalated)

Explanation:

Right-of-way items include costs associated with acquiring right-of-way, temporary construction easements, and anticipated utility relocations.

TOTAL RIGHT-OF-WAY ITEMS      \$350,000

# Project Study Report – Project Development Support Capital Outlay Project Estimate

Dist - Co - Rte 11-SD-15  
PM R36.0/37.2  
Program Code N/A  
Project Number 11-14000093  
Month/Year August 2015

## PROJECT DESCRIPTION:

**Limits:** In San Diego County near Escondido on Interstate 15 (I-15) from 0.6 Mile South to 0.6 Mile North of Deer Springs Road Overcrossing.

**Proposed Improvement (Scope):** Reconstruct the existing I-15 and Deer Springs Road interchange.

**Alternate: 3**

## SUMMARY OF PROJECT COST ESTIMATE

|                                        |                          |
|----------------------------------------|--------------------------|
| TOTAL ROADWAY ITEMS                    | \$ <u>11,250,000</u>     |
| TOTAL STRUCTURE ITEMS                  | \$ <u>3,550,000</u>      |
| TOTAL ENVIRONMENTAL MITIGATION ITEMS   | \$ <u>650,000</u>        |
| SUBTOTAL CONSTRUCTION COSTS            | \$ <u>15,450,000</u>     |
| TOTAL RIGHT-OF-WAY ITEMS               | \$ <u>350,000</u>        |
| <br>TOTAL PROJECT CAPITAL OUTLAY COSTS | <br>\$ <u>15,800,000</u> |

I. ROADWAY ITEMS

|            | <u>Average Cost per Lane Mile</u> |   | <u>Number of Lane Miles</u> |   | <u>Total Cost</u>   |
|------------|-----------------------------------|---|-----------------------------|---|---------------------|
| Total Cost | <u>\$2,295,000</u>                | X | <u>4.9</u>                  | = | <u>\$11,250,000</u> |

Explanation:

Roadway items include costs associated with earthwork, pavement, drainage, traffic, electrical work, landscaping, and other minor items. The cost estimate includes a 20% contingency factor applied to the base cost. The cost estimate has been escalated to the fiscal year 2018 using an annual escalation factor of 3%. The fiscal year 2018 is the anticipated year for construction. Roadway items exclude costs associated with structures, environmental mitigation, and right-of-way. It also excludes costs associated with owner administration, professional engineering, environmental planning, and construction administration.

TOTAL ROADWAY ITEMS \$11,250,000

II. STRUCTURES ITEMS

|                          | Structure<br>(1)                    | Structure<br>(2)           | Structure<br>(3) |
|--------------------------|-------------------------------------|----------------------------|------------------|
| Bridge Name              | <u>Deer<br/>Springs<br/>Road OC</u> | <u>Retaining<br/>Walls</u> | _____            |
| Total Cost for Structure | <u>\$2,100,000</u>                  | <u>\$1,450,000</u>         | _____            |

Explanation:

Structures items include costs associated with widening the existing Deer Springs Road Overcrossing at I-15. Structures items include costs associated with retaining walls. The cost estimate includes a 20% contingency factor applied to the base cost. The cost estimate has been escalated to the fiscal year 2018 using an annual escalation factor of 3%. The fiscal year 2018 is the anticipated year for construction.

TOTAL STRUCTURE ITEMS \$3,550,000

III. ENVIRONMENTAL MITIGATION

|                          | <u>Quantity</u> | <u>Unit</u> | <u>Unit Price</u>  | <u>Item Cost</u>   |
|--------------------------|-----------------|-------------|--------------------|--------------------|
| Environmental Mitigation | <u>LS</u>       | <u>1</u>    | X <u>\$650,000</u> | = <u>\$650,000</u> |

Explanation:

Environmental mitigation includes costs associated with environmental surveys and monitoring, temporary erosion control, and storm water best management practices required during construction.

TOTAL ENVIRONMENTAL MITIGATION ITEMS      \$650,000

IV. RIGHT-OF-WAY ITEMS

|                                                                                 | Escalated<br>Value |
|---------------------------------------------------------------------------------|--------------------|
| A. Acquisition, including excess lands,<br>damages to remainder(s) and Goodwill | <u>\$100,000</u>   |
| B. Utility Relocation (State share)                                             | <u>\$250,000</u>   |

Anticipated Date of Right-of-Way Certification      2018  
(Date to which values are escalated)

Explanation:

Right-of-way items include costs associated with acquiring right-of-way, temporary construction easements, and anticipated utility relocations.

TOTAL RIGHT-OF-WAY ITEMS      \$350,000

# Project Study Report – Project Development Support Capital Outlay Project Estimate

Dist - Co - Rte 11-SD-15  
PM R36.0/37.2  
Program Code N/A  
Project Number 11-14000093  
Month/Year August 2015

## PROJECT DESCRIPTION:

**Limits:** In San Diego County near Escondido on Interstate 15 (I-15) from 0.6 Mile South to 0.6 Mile North of Deer Springs Road Overcrossing.

**Proposed Improvement (Scope):** Reconstruct the existing I-15 and Deer Springs Road interchange.

**Alternate: 4**

## SUMMARY OF PROJECT COST ESTIMATE

|                                        |                          |
|----------------------------------------|--------------------------|
| TOTAL ROADWAY ITEMS                    | \$ <u>9,875,000</u>      |
| TOTAL STRUCTURE ITEMS                  | \$ <u>2,625,000</u>      |
| TOTAL ENVIRONMENTAL MITIGATION ITEMS   | \$ <u>650,000</u>        |
| SUBTOTAL CONSTRUCTION COSTS            | \$ <u>13,150,000</u>     |
| TOTAL RIGHT-OF-WAY ITEMS               | \$ <u>350,000</u>        |
| <br>TOTAL PROJECT CAPITAL OUTLAY COSTS | <br>\$ <u>13,500,000</u> |

I. ROADWAY ITEMS

|            | <u>Average Cost per Lane Mile</u> |   | <u>Number of Lane Miles</u> |   | <u>Total Cost</u>  |
|------------|-----------------------------------|---|-----------------------------|---|--------------------|
| Total Cost | <u>\$2,600,000</u>                | X | <u>3.8</u>                  | = | <u>\$9,875,000</u> |

Explanation:

Roadway items include costs associated with earthwork, pavement, drainage, traffic, electrical work, landscaping, and other minor items. The cost estimate includes a 20% contingency factor applied to the base cost. The cost estimate has been escalated to the fiscal year 2018 using an annual escalation factor of 3%. The fiscal year 2018 is the anticipated year for construction. Roadway items exclude costs associated with structures, environmental mitigation, and right-of-way. It also excludes costs associated with owner administration, professional engineering, environmental planning, and construction administration.

TOTAL ROADWAY ITEMS \$9,875,000

II. STRUCTURES ITEMS

|                          | Structure<br>(1)                    | Structure<br>(2)           | Structure<br>(3) |
|--------------------------|-------------------------------------|----------------------------|------------------|
| Bridge Name              | <u>Deer<br/>Springs<br/>Road OC</u> | <u>Retaining<br/>Walls</u> | _____            |
| Total Cost for Structure | <u>\$1,400,000</u>                  | <u>\$1,225,000</u>         | _____            |

Explanation:

Structures items include costs associated with widening the existing Deer Springs Road Overcrossing at I-15. Structures items include costs associated with retaining walls. The cost estimate includes a 20% contingency factor applied to the base cost. The cost estimate has been escalated to the fiscal year 2018 using an annual escalation factor of 3%. The fiscal year 2018 is the anticipated year for construction.

TOTAL STRUCTURE ITEMS \$2,625,000

III. ENVIRONMENTAL MITIGATION

|                          | <u>Quantity</u> | <u>Unit</u> | <u>Unit Price</u>  | <u>Item Cost</u>   |
|--------------------------|-----------------|-------------|--------------------|--------------------|
| Environmental Mitigation | <u>LS</u>       | <u>1</u>    | X <u>\$650,000</u> | = <u>\$650,000</u> |

Explanation:

Environmental mitigation includes costs associated with environmental surveys and monitoring, temporary erosion control, and storm water best management practices required during construction.

TOTAL ENVIRONMENTAL MITIGATION ITEMS      \$650,000

IV. RIGHT-OF-WAY ITEMS

|                                                                                 | Escalated<br>Value |
|---------------------------------------------------------------------------------|--------------------|
| A. Acquisition, including excess lands,<br>damages to remainder(s) and Goodwill | <u>\$100,000</u>   |
| B. Utility Relocation (State share)                                             | <u>\$250,000</u>   |

Anticipated Date of Right-of-Way Certification      2018  
(Date to which values are escalated)

Explanation:

Right-of-way items include costs associated with acquiring right-of-way, temporary construction easements, and anticipated utility relocations.

TOTAL RIGHT-OF-WAY ITEMS      \$350,000

**ATTACHMENT D**  
PRELIMINARY ENVIRONMENTAL ANALYSIS REPORT (PEAR)



# PRELIMINARY ENVIRONMENTAL ANALYSIS REPORT

## 1. Project Information

|                                                                           |              |               |                                          |                 |
|---------------------------------------------------------------------------|--------------|---------------|------------------------------------------|-----------------|
| District<br>11                                                            | County<br>SD | Route<br>I-15 | PM<br>R36.3-R37.2                        | EA<br>11-41840K |
| Project Title: Interstate 15 (I-15)/Deer Springs Road Interchange Project |              |               |                                          |                 |
| Project Manager: Ismael Salazar                                           |              |               | Phone: (619) 688-6766                    |                 |
| Project Engineer: Armando Salvador                                        |              |               | Phone: (619) 688-3268                    |                 |
| Environmental Office Chief/Manager: Olga Estrada                          |              |               | Phone: (619) 688-0229                    |                 |
| PEAR Preparer: Emily Hoyt/Stephanie Blanco (Parsons)                      |              |               | Phone: (949) 333-4546/<br>(909) 218-3551 |                 |

## 2. Project Description

### Purpose and Need

The project area is located within San Diego County, along a segment of Interstate 15 (I-15). I-15 is a major traffic corridor that serves the local community of Hidden Meadows and City of San Marcos, while also acting as a link for traffic traveling to and from I-15 to and from State Route (SR) 78. The intersecting Deer Springs Road is classified as a 6-Lane Prime Arterial in the County of San Diego Mobility Element and is currently built as a two-lane facility between I-15 and Twin Oaks Valley Road. Based on growth forecasts prepared by the San Diego Association of Governments (SANDAG), the County's unincorporated areas, which encompass the project area, are expected to see an overall population growth of approximately 25 percent between 2015 and 2050. To accommodate this growth and future capacity needs within the corridor, the interchange will require additional capacity. Regional growth, coupled with the approved site developments in the immediate vicinity, will result in increased volumes through the interchange by 2040 of approximately 25 to 40 percent, depending on the road segment. In addition to the projected traffic demands, the I-15/Deer Springs Road interchange is currently experiencing severe traffic congestion. Existing deficiencies of the I-15/Deer Springs Road interchange are summarized below:

- Three out of four I-15/Deer Springs Road interchange intersections are operating near or over design capacity during PM peak periods;
- Intersection delays of up to 45 seconds;
- High volumes of single-occupancy vehicle travel, necessitating improved access to carpools, vanpools, and public transportation choices via existing park-and-ride facilities within the project area.

The purpose of the proposed project is to plan for the projected regional population growth and increase in traffic demands on the existing I-15/Deer Springs Road interchange for the planning design year 2040. The project proposes to widen and reconfigure the interchange to improve traffic operations and enhance transportation choices. The objectives of the project are to:

- Support anticipated regional growth and proposed local-area projects;
- Relieve congestion by providing sufficient vehicle capacity through the interchange area;
- Manage east-west travel between local communities;
- Enhance multimodal choices;
- Improve the existing park-and-ride facility to provide transit connectivity; and
- Minimize environmental impacts.

### **Description of Work**

The design alternatives for the project include one No Build Alternative and three build alternatives, which include improvements to Deer Springs Road Interchange.

### **Alternatives**

#### ***Alternative 1***

This alternative is the No Build Alternative. The existing I-15 and Deer Springs Road interchange would remain unchanged and no work would be provided to improve operational conditions. The No Build Alternative does not meet the goals of this project to relieve congestion and is inconsistent with the purpose and need.

#### ***Alternative 2***

Alternative 2 proposes to expand upon the existing diamond configuration to improve operational conditions. This alternative would require nonstandard intersection spacing between the southbound ramp termini and the Mesa Rock Road/Deer Springs Road intersection and between the northbound ramp termini and the Champagne Boulevard/Deer Springs Road intersection. It proposes to realign the southbound ramps farther east to improve upon the existing nonstandard intersection spacing between the southbound ramp termini and the Mesa Rock Road/Deer Springs Road intersection. Realigning these ramps would require retaining walls along the southbound off-ramp and on-ramp. This alternative also proposes to widen Deer Springs Road to meet the increased traffic demand and would require the existing Deer Springs Road Overcrossing to be widened. It proposes to maintain the existing Extra Legal Load Network (ELLN) bypass of the Deer Springs Road Overcrossing via the southbound on- and off-ramps.

### ***Alternative 3***

Alternative 3 proposes to reconfigure the existing interchange into a diverging diamond interchange (DDI) configuration to improve operational conditions. The proposed geometry follows the informational guide published by the Federal Highway Administration (FHWA) in August 2014, which features a conventional 25-mile-per-hour (mph) design speed and a 45-degree intersection angle. This alternative also proposes to widen Deer Springs Road to meet the increased traffic demand and would require the existing Deer Springs Road Overcrossing to be widened. Alternative 3 also proposes to maintain the existing ELLN bypass of the Deer Springs Road Overcrossing via the southbound on- and off-ramps, utilizing a median opening for the ELLN vehicles to cross Deer Springs Road. This median opening would include several design features to keep other traffic from using it, such as a gate located within the opening, traversable concrete curb, chevron striping along the widened ramp shoulders, landscaping to block the view of the southbound on-ramp, and the geometric alignment of the median opening. This alternative may require nonstandard intersection spacing between the southbound ramp termini and the Mesa Rock Road/Deer Springs Road intersection and between the northbound ramp termini and the Champagne Boulevard/Deer Springs Road intersection. It may require a design exception for the conventional design speed of 25 mph required for DDI interchange configurations.

### ***Alternative 4***

Alternative 4 proposes to utilize the existing diamond configuration with roundabout intersections for the southbound and northbound ramp termini and for both of the adjacent local intersections along Deer Springs Road. This alternative also proposes to widen Deer Springs Road to meet the increased traffic demand and would require the existing Deer Springs Road Overcrossing to be widened. It proposes to maintain the existing ELLN bypass of the Deer Springs Road Overcrossing via the southbound on- and off-ramps, utilizing a roundabout through which the ELLN vehicles can navigate. This alternative would require nonstandard intersection spacing between the southbound ramp termini and the Mesa Rock Road/Deer Springs Road intersection and between the northbound ramp termini and the Champagne Boulevard/Deer Springs Road intersection. It may require a design exception for the conventional design speed of 25 mph required for roundabout intersections.

### 3. Anticipated Environmental Approval

Check the anticipated environmental determination or document for the proposed project in the table below.

| CEQA                                                                                           |                                     | NEPA                                                                            |                                     |
|------------------------------------------------------------------------------------------------|-------------------------------------|---------------------------------------------------------------------------------|-------------------------------------|
| <b>Environmental Determination</b>                                                             |                                     |                                                                                 |                                     |
| Statutory Exemption                                                                            | <input type="checkbox"/>            |                                                                                 |                                     |
| Categorical Exemption                                                                          | <input type="checkbox"/>            | Categorical Exclusion                                                           | <input type="checkbox"/>            |
| <b>Environmental Document</b>                                                                  |                                     |                                                                                 |                                     |
| Initial Study or Focused Initial Study with proposed Negative Declaration (ND) or Mitigated ND | <input checked="" type="checkbox"/> | Routine Environmental Assessment with proposed Finding of No Significant Impact | <input checked="" type="checkbox"/> |
|                                                                                                |                                     | Complex Environmental Assessment with proposed Finding of No Significant Impact | <input type="checkbox"/>            |
| Environmental Impact Report                                                                    | <input type="checkbox"/>            | Environmental Impact Statement                                                  | <input type="checkbox"/>            |
| CEQA Lead Agency (if determined):                                                              |                                     | Caltrans                                                                        |                                     |
| Estimated length of time (months) to obtain environmental approval:                            |                                     | 18 months                                                                       |                                     |
| Estimated person hours to complete identified tasks:                                           |                                     | 2,300                                                                           |                                     |

### 4. Special Environmental Considerations

Under any of the project build alternatives, there is the potential for impacts on biological resources, archaeological resources, and drainages. If any archaeological or historic resources identified within the area of potential effect (APE) are determined to be listed on or eligible for listing on the National Register of Historic Places (NRHP), then these would also be considered resources under Section 4(f). In compliance with Section 106 of the National Historic Preservation Act, a Finding of Effect (FOE) would need to be prepared to evaluate the effect of the proposed project on the eligible resource. If the proposed project results in a Finding of No Effect, then a *de minimis* finding would likely be appropriate with regard to Section 4(f). However, this will need to be further evaluated during the Project Approval/ Environmental Document (PA/ED) phase of the proposed project.

Deer Springs Creek runs through the south portion of the I-15/Deer Springs Road Interchange Project area. If temporary or permanent impacts are to occur, a Section 401 Water Quality Certification, Section 404 Nationwide Permit, and Section 1602 Streambed Alteration Agreement would be required; however, because the creek runs through a covered culvert from North Centre City Parkway south to Mesa Rock Road, impacts are not anticipated. Impacts to Deer Springs Creek will be further evaluated and documented during the PA/ED phase of the proposed project.

## **5. Anticipated Environmental Commitments**

Specific avoidance, minimization, and/or mitigation measures and commitments, and associated quantitative times and costs cannot be definitively determined at this time because the technical studies have not been initiated; however, for purposes of this Preliminary Environmental Analysis Report (PEAR), it is assumed that avoidance, minimization, and/or mitigation measures and commitments would consist of those measures that minimize project-related impacts typically used for similar transportation projects. Below is a list of environmental commitments by affected resource.

### **5.1 Community Impacts**

At this stage in project planning, partial and/or full acquisitions have not been finalized for each of the proposed build alternatives; however, all property and right-of-way (ROW) acquisitions as part of the proposed project would be conducted in accordance with California Department of Transportation (Caltrans) and FHWA policies and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. Properties would be purchased at fair market value, and relocation assistance for displaced residents would be provided. If any acquisitions are identified as necessary during the PA/ED phase, then a Relocation Impact Document (RID) would be prepared for the project. Additional community impacts will be discussed in the Community Impact Assessment (CIA) study such as; land use, potential growth, community character, transportation, environmental justice, and public involvement.

### **5.2 Section 4(f)**

The proposed project alternatives are not likely to have a direct affect on parks or historic resources eligible for the NRHP. These resources, if present, would be considered resources under Section 4(f) of the Department of Transportation Act. If it is found that project alternatives do affect historic properties eligible for the NRHP, then a determination of a deminimis impact finding or preparation of a Section 4(f) evaluation would be required.

### **5.3 Visual Impacts**

A Visual Impact Study will be prepared to evaluate visual impacts associated with the proposed project. The FHWA Visual Impact Assessment for Highway Projects guidelines will be followed to quantify the visual analysis.

### **5.4 Cultural Resources**

The proposed project alternatives may affect archaeological sites and possibly historic resources. It is anticipated that a Historic Properties Survey Report (HPSR), an Archaeological Survey Report (ASR), a Historic Resources Evaluation Report (HRER), as well as APE maps would be required for the project. An FOE report would also be required if properties that are directly impacted include resources that are found eligible for the NRHP, although this is not anticipated.

## **5.5 Water Quality Study**

The drainage channels adjacent to the interchange may be affected during construction. Coordination with the California Regional Water Quality Control Board (RWQCB) and the California Department of Fish and Wildlife (CDFW) will be required.

## **5.6 Paleontology**

A project-level Paleontological Identification Report (PIR) and Paleontological Evaluation Report (PER) would be required. Based on the findings of the report, a Paleontological Mitigation Plan (PMP) may be required. Any measures arising from the plan would need to be incorporated into the proposed project commitments.

## **5.7 Hazardous Waste/Materials**

Based on a review of the project site and a review of the State Water Resources Control Board (SWRCB) GeoTracker, hazardous waste may be present within the project limits. One leaking underground storage tank (LUST) site was identified near the Arco Gas Station between Mesa Rock Road and the I-15 southbound off-ramp. According to SWRCB GeoTracker data, this previously contaminated site has undergone cleanup, and the case is now closed. Because only one site was identified, and site cleanup has been completed, the project area is considered low risk. As part of the Phase I Environmental Site Assessment Process, an Initial Site Assessment (ISA) Checklist will be completed for further investigation during the PA/ED phase of this project.

It is assumed that the use, transport, and disposal of hazardous and potential hazardous materials used during construction would be conducted in accordance with applicable federal, state, and local requirements. Soils adjacent to paved areas in the project corridor may contain aerially deposited lead (ADL) from vehicle exhaust. An ADL survey would need to be performed during Caltrans Work Breakdown Structure (WBS) 165 phase of the proposed project according to Caltrans ADL testing guidelines. If the final construction alternative involves the acquisition of land with structures, the structures should be evaluated if lead-based paint (LBP) is suspected. Lead and other heavy metals, such as chromium, may be present in the yellow thermoplastic paint markings on the pavement. These surfacing materials should be tested for LBP prior to removal. If the final construction alternative involves the acquisition of land with structures or modification to existing bridges, the structures or bridges should be evaluated for asbestos-containing materials (ACM), if suspected, prior to demolition.

## **5.8 Air Quality**

The entire San Diego Air Basin is in a nonattainment area for ozone. Implementation of the proposed project would involve enhancements to the interchange, including improved signal timing and increased capacity, to accommodate existing and planned traffic generated in the project vicinity. Regional air quality will be addressed in terms of air quality impacts in the San Diego area. An Air Quality Study Report will be prepared to evaluate the impacts of the proposed project in accordance with Caltrans Transportation Project-Level Carbon Monoxide Protocol (December 1997). Because the project is capacity increasing, a transportation conformity determination would be required.

## **5.9 Noise**

A Noise Study in accordance with FHWA's Highway Traffic Noise Guidance and Policy and the Caltrans Traffic Noise Analysis Protocol will be prepared for this project due to sensitive receptors (mobile home park) within the impact area. In addition, an early coordination meeting will be requested to determine if the project would result in predicted traffic noise levels that approach or exceed the noise abatement criteria or if the predicted traffic noise levels would approach or substantially exceed existing noise levels.

## **5.10 Biology Study**

The interchange project is located within the North County Multiple-Species Conservation Plan (MSCP) and would be subject to the guidelines specific to the County's plan. Additionally, federally listed threatened or endangered species (including candidate species) or their critical or sensitive habitat may exist within the project area; however, further study will be required to determine if the project would adversely affect said species or their critical or sensitive habitat. At a minimum, a Natural Environment Study and potentially a Biological Assessment will be required to be prepared. Coordination with USFWS and CDFW will be required.

## **5.11 Wetlands Study**

Although the project area appears devoid of wetland resources, further study will be required to determine if wetlands actually occur within the project boundary and to quantify the project-related impacts on wetlands. A wetland delineation will be conducted. Coordination with, U.S. Fish and Wildlife Service (USFWS), and U.S. Army Corps of Engineers (USACE) may be required. Coordination with the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (CDFW) may also be required.

## **5.12 Traffic**

The proposed project would result in improved traffic flow through the project corridor and the improved interchanges; however, changes in traffic patterns and flow could result in potential impacts to local arterials that could require mitigation. Potential street, lane, and ramp closures may result in adverse temporary impacts on traffic during construction. Implementation of a Traffic Management Plan (TMP) during construction would be required and would include measures to address construction period traffic impacts.

## **6. *Permits and Approvals***

All construction activities within the Caltrans ROW must conform to the requirements of the National Pollutant Discharge Elimination System (NPDES) Stormwater Permit, Order No. 99-06-DWQ, NPDES No. CAS 000003, in addition to the responsibilities specified in the Stormwater Management Plan. The proposed project must also conform to the requirements of the General NPDES Permit for Construction Activities, Order No. 2009-

0009-DWQ, NPDES No. CAS 00002, and any subsequent general permits in effect at the time of project activity.

It is anticipated that if the proposed project impacts waters or wetlands, the following permits may be required:

- Water Quality Certification under Clean Water Act (CWA) Section 401 through the RWQCB;
- Nationwide Permit 14 under CWA Section 404 through USACE; and
- Streambed Alteration Agreement under Fish and Game Code 1602.

## **7. *Level of Effort: Risks and Assumptions***

The proposed project poses several risks pertaining to hazardous waste, biological resources, cultural resources, and the nearby community. As previously discussed, a decontaminated LUST site is located adjacent to the project area. It is assumed that if hazardous material is present onsite, it may require removal and disposal pursuant to federal or state law whether it is disturbed by the project or not.

While no sensitive habitats appear to be present in the project area and there does not appear to be any potential for special-status plants to occur, critical habitat for the federally threatened California gnatcatcher (CAGN) has been identified approximately 0.25 mile northeast of the project limits. CAGN is known to frequent areas with dense coastal sage scrub (CSS) vegetation. Within gore areas of the project limits, existing native CSS cover was observed on a field study conducted in 2014. Given the proximity to CAGN critical habitat and a history of CSS within the project area, focused, protocol-level CAGN surveys conducted by a federal 10(a)(1)(A) permitted biologist are recommended. The surveys would only be required in CSS areas within and adjacent to areas to be impacted by the proposed project. Surveys would determine the distribution and abundance of CAGN within the project site, which could potentially pose a risk to the project.

No bats, swift or swallow nests were observed on the existing bridge. If nesting or roosting activities are identified, avoidance and/or minimization measures would be required. The specifics of these measures would depend on the species and number of individuals.

It is known that Native Americans previously occupied areas near the I-15/Deer Springs Road Interchange Project location. As with many other projects that require excavation activities in southern California, there is the possibility of encountering potentially significant archaeological resources within the project area depending on the depth of construction for the project. The same risk also applies to paleontological resources; however, there is generally higher potential to uncover archaeological artifacts compared to paleontological specimens in this region.

Based on current designs of the proposed I-15/Deer Springs Road Interchange Project, there is slight risk that the project alignment would require additional ROW that could potentially result in community impacts.

## **8. PEAR Technical Summaries**

### **8.1 Land Use**

According to the San Diego County General Plan Land Use Map and Zoning Map, the project area is zoned commercial and office, residential mobile home, agriculture, and rural residential. Future land uses in the project area are guided by the County's General Plan and zoning ordinance. This area of the county is not built out, with many undeveloped parcels. For lands that are still vacant/undeveloped, a large percentage, including those near the proposed interchange, already have entitlements that are approved and in place. One development project within the immediate vicinity of the interchange is the Sierra-Newland Development Project. This is a proposed community subdivision on 1,985 acres currently undergoing environmental review with the County of San Diego Planning Department.

Within the project area, Deer Springs Road is primarily identified as a Collector Road, transitioning to a Major Road just southwest of Mesa Rock Road. The proposed project would be compatible with the County of San Diego's General Plan Mobility Element, which identifies Deer Springs Road as needing capacity improvements. Deer Springs Road is presently a 2 lane facility; however, per the County's current Mobility Element, Deer Springs Road classified as the following: from San Marcos City Limits to I-15 NB Ramp, Deer Springs Road is designated as a 6 lane prime arterial with a capacity of 50,000 ADT; and from I-15 NB ramp to Centre City Parkway, Deer Springs Road will be widened to be either 4 or 6 lanes depending on the traffic volumes for the specified design year and input from the County. The I-15/Deer Springs Interchange Project is consistent with these descriptions.

### **8.2 Section 4(f)**

It is not expected that any of the project alternatives would directly affect parks or historic sites eligible for or listed on the NRHP. No parks have been identified within the project area. However, if a significant archaeological site is found, as determined by Caltrans in consultation with the State Historic Preservation Officer (SHPO), appropriate Native American tribe, and the Advisory Council on Historic Preservation (ACHP), it may be NRHP eligible. If NRHP-eligible properties or resources are present in the project area, then they would be considered resources under Section 4(f) of the Department of Transportation Act; however, for the proposed project alternative, a *de minimis* impact finding will likely be determined. If it is found that the finalized project alternatives do adversely affect historic resources eligible for the NRHP, then preparation of a Section 4(f) evaluation would be required.

### **8.3 Growth**

The area immediately surrounding the project area includes existing residential, commercial, and industrial properties, as well as recreational open space. The area served

by the existing interchange is primarily residential with open space that has yet to be developed. The proposed project is not anticipated to appreciably affect the rate, type, or amount of growth that has already been accounted for in the City of Escondido, City of San Marcos, and San Diego County general plan documents. It is anticipated that following implementation of the proposed project, the pattern and rate of the population and housing growth would be consistent with rates projected in existing plans for the area.

#### **8.4 Farmlands/Timberlands**

The proposed project would not be located in an area that includes any farmlands that are designated by the California Department of Conservation (DOC) as prime farmland or farmland of local or state importance; however, DOC-classified unique farmland may temporarily and/or permanently be impacted by the proposed project. The proposed project would have no direct impacts to lands protected under the California Land Conservation Act of 1965, commonly known as the Williamson Act.

Directly north of the interchange and southwest of the interchange are some general use agricultural lands that may be impacted by construction activities. The northern agricultural land is the most likely to be impacted by construction activities, while the southwestern agricultural lands may be indirectly impacted. Indirect impacts would result from cumulative impacts due to changes in regional development patterns and growth-related changes. Indirect impacts to farmlands/timberlands would be further assessed in the Community Impact Assessment. Additional reconnaissance surveys need to be conducted to further analyze these resources.

#### **8.5 Community Impacts**

An existing mobile home park is located off of Deer Springs Road and Mesa Rock Road. Permanent impacts to this community would be minimal; however, a Community Impact Assessment (CIA) will need to be prepared to adequately assess impacts to the community cohesion and character.

Currently, no residential or commercial ROW impacts are anticipated. Because adequate ROW is present at the interchange, impacts to properties outside Caltrans ROW would be avoided to the extent feasible. If any partial or full acquisitions are required for the project, they will be thoroughly documented and assessed in the PA/ED phase. If any acquisitions are identified as necessary in a later project phase, then a RIS would be prepared for the project. Additional community impacts will be discussed in the Community Impact Assessment study such as; land use, potential growth, community character, transportation, and public involvement.

#### **8.6 Visual/Aesthetics**

The interchange project is within the County of San Diego's I-15 Corridor Subregional Plan and its Scenic Preservation Guidelines. In accordance with the plan, the project will protect and enhance scenic resources within the project area to the extent feasible.

Each of the proposed build alternatives could potentially affect the views of residences and businesses located adjacent to the project area, particularly related to the construction of improved structures, which could modify or obstruct views of sensitive viewers. The proposed project could also result in increased shading and increased glare from additional lighting, if incorporated into the project. In addition, removal of trees and vegetation may be necessary to construct the proposed project. A Visual Impact Assessment (VIA), in accordance with the FHWA Visual Impact for Highway Projects guidance, will be required. The VIA should address the aesthetic treatment of the new interchange structure and walls, vegetation removal, soundwalls, and measures to address impacts on sensitive viewer groups.

## **8.7 Cultural Resources**

Cultural resource identification, analysis, and subsequent reports will be conducted in compliance with the Amended Section 106 Programmatic Agreement (PA) in compliance with Section 106 of the National Historic Preservation Act (NHPA), as it pertains to the administration of the Federal-Aid Highway Program in California executed January 1, 2014. Potential historic properties will be identified and evaluated for inclusion in the NRHP as required by 36 Code of Federal Regulations (CFR) Part 800 and the regulations implementing Section 106 of the NHPA of 1966, as amended.

Preliminary research from a literature and records database search at the South Coast Information Center has revealed that there are cultural resources located in the project vicinity. This search covered both published and unpublished materials on previous researches and projects within the project vicinity as part of the scoping process. Native Americans may have previously occupied this area. There were nine recorded sites within a half mile radius of the project APE, with three sites recorded partially within the project APE. The majority of these sites were located on the eastern portion of the project APE. After reviewing the site reports and relevant literature, it was revealed that much of these sites were destroyed from previous construction projects. However, there is potential for encountering surface or buried archaeological artifacts during construction of the proposed project alternatives. If any of these cultural resources are encountered, or are deemed to be a CEQA historical resource, then the resource would require evaluation under Section 106, and an Archaeological Evaluation Report would be required.

It is also known that the area may contain remnants of historic trails and roads. Given the size and scope of the project, a pedestrian field survey by a qualified archaeologist will need to be conducted for the project area. This is done in order to assess whether or not the recorded sites still exist, and to discern if there are additional archaeological or historic resources in the project area. Based on the results of the survey and the completed ASR, monitoring during construction by a qualified archaeologist is recommended. If the widening of Deer Springs Road impacts an archaeological site that is potentially eligible for the NRHP, then a more detailed analysis will need to be conducted by a professionally qualified archaeologist. Depending on the results of the analysis, a memorandum of Understanding (MOU), and/or an Archaeological Data Recovery (Phase III) may become required.

Additionally, coordination with the Native American Heritage Commission (NAHC) would identify tribal representatives in the area and request a record of any known sacred grounds. As part of this outreach and consultation effort, interested parties such as historical societies, local historians and tribal representatives shall be contacted in order to ask if they have any known concerns or information beyond any archaeological properties that could affect the alternatives, cost, schedule, or viability of the proposed project alternatives.

An HPSR and APE maps would also be required for the proposed project. The literature and records search revealed a few historic buildings that were in a dilapidated state as of 2000. Subsequent research suggests that these buildings no longer exist.

Additionally, a survey will need to be conducted by an architectural historian as part of an evaluation of buildings or structures for the HRER that would be required. At this stage in the project proposal, no properties are expected to be impacted.

If any historic or archaeological resources within or adjacent to the APE are determined to be listed on or eligible for listing on the NRHP, then these would also be considered resources under Section 4(f). There may be additional cultural resources that meet the 50-year threshold and are not exempt under the Section 106 Programmatic Agreement; however, this would have to be determined when more detailed studies are conducted for the proposed project.

In accordance with Section 106 PA of the National Historic Preservation Act, a FOE would need to be prepared to evaluate the effect of the proposed project on the NRHP eligible resource, should any exist in the APE. If the proposed project results in a Finding of No Adverse Effect, then a *de minimus* finding would likely be appropriate with regard to Section 4(f). Based on the proposed build alternatives, no historic resources are anticipated to be impacted. However, the need for a Section 4(f) evaluation related to cultural resources, and the level of Section 4(f) evaluation, will be addressed during the PA/ED phase of the proposed project.

## **8.8 Water Quality and Stormwater Runoff**

Two drainages were observed within the project vicinity: Deer Springs Creek and South Fork Moosa Canyon Creek. Only Deer Springs Creek has the potential to be impacted because it flows through the southern portion of the project area; however, because the creek runs through a covered culvert from North Centre City Parkway south to Mesa Rock Road, water quality impacts are not anticipated. The second drainage is located on the northeast quadrant of I-15 and appears to be underground at Champagne Boulevard; it would most likely not be impacted by any construction activities or operation of the completed project. Both drainages are shown on the Environmental Constraints Map in Appendix E, Report Figures. Impacts to Deer Springs Creek and South Fork Moosa Canyon Creek will be further evaluated and documented in a Water Quality Study during the PA/ED phase of the proposed project.

Under the build alternatives, grading activities associated with construction could result in temporary soil erosion. Implementation of Best Management Practices (BMPs) would minimize erosion of exposed soils and the resulting movement of sediment into the storm drain system and downstream water bodies. During construction, the contractor would be required to implement several temporary site BMPs to limit soil erosion, implement water conservation practices, and maintain water quality. The construction site BMP strategy for the proposed project would consist of soil stabilization and sediment control devices.

The proposed project may require a Storm Water Pollution Prevention Plan (SWPPP) because the disturbed soil area could possibly be more than 1 acre. The proposed project alternatives may require a USACE 404 permit and an RWQCB 401 Water Quality Certification.

## **8.9 Geology, Soils, Seismic, and Topography**

Southern California is a seismically active region with numerous faults of various types and the potential for earthquakes of Richter scale magnitude. In San Diego County, where the proposed project lies, the San Jacinto Fault, which is California's second most active fault, after the San Andreas Fault, runs through northeast San Diego County. The Rose Canyon Fault is another major fault in San Diego County that runs through the downtown portion of San Diego County through La Jolla. A geotechnical investigation should be conducted during the PA/ED phase.

## **8.10 Paleontology**

Southern California has been a valuable resource for paleontological finds. There is the possibility of encountering paleontological resources within the project area, depending on the depth of construction for the project. A PIR and PER will need to be prepared for this project by a qualified paleontologist. Part of these reports will include a review of relevant published and unpublished geologic reports and paleontological locality records from the San Diego Natural History Museums. Geologic formations and paleontological deposits have a direct relationship with each other and should be considered jointly as part of the initial scoping process. The United States Geological Survey map for the project area was reviewed to gain information on geologic formations in the project area. Type Qoa covers most of the interchange which is old alluvial flood plain deposits from the late-to-middle Pleistocene epoch (6 – 11.5 million years ago). It consists of gravel, sand, silt, and clay. The other formation which covers the other large portion of the project is Kjd, Granodiorite of Jesmond Dean of the mid-Cretaceous epoch (95 – 115 million years ago). It consists of fine-grained, black and dark-gray granodiorite.

Additionally, coordination with other interested parties, such as museums, universities and knowledgeable individuals, should be undertaken as part of this effort. Given the size and scope of the project, a pedestrian survey of the project area should be conducted to identify any surface paleontological artifacts, fossils or specimen and geologic formations.

The depths of the excavations for the project have not yet been established , and intensive studies into the paleontological sensitivity of the region have not been conducted. Based on the findings of the PIR and PER reports, a PMP and construction monitoring maybe required.

### **8.11 Hazardous Waste/Materials**

As previously discussed, because only one hazardous waste cleanup site was identified adjacent to the I-15/Deer Springs Road interchange, the project area is considered low risk. An ISA Checklist and Phase I Environmental Site Assessment will be completed for further investigation during the PA/ED phase of this project.

Furthermore, the use, transport, and disposal of hazardous and potentially hazardous materials used during construction would be conducted in accordance with applicable federal, state, and local requirements.

### **8.12 Air Quality**

An Air Quality Study Report (AQSR) will be prepared to evaluate the impacts of the proposed project. The AQSR will address transportation conformity and project-level air quality impacts.

As previously stated, the entire San Diego Air Basin is in a nonattainment area for ozone. Regional air quality will be addressed in terms of air quality impacts in the San Diego area. It is anticipated that the proposed project would accommodate anticipated increases in vehicle traffic but would serve existing and planned land uses and developments. It is anticipated that the proposed project would reduce future congestion and improve traffic flow in the project area; therefore, it would potentially yield air quality benefits to the region. However, due to the capacity increasing elements associated with the proposed project, it is subject to Transportation Conformity. The project will be presented to TCWG in order to obtain concurrence that the project is in conformity with the air quality regulations. Following TCWG's recommendation, an Air Quality Conformity Report (AQCR) will be prepared. The AQCR will evaluate, among other items, regional emissions, project-level carbon monoxide and particulate matter emissions, mobile source air toxics emissions, naturally occurring asbestos, and construction emissions.

It is expected that operation results would improve area traffic congestion and therefore have a beneficial effect on air quality. It is possible that construction-related activities could produce air quality emissions. Possible mitigation measures for construction-related air quality effects, such as dust control measures, will be addressed in the AQSR.

### **8.13 Noise and Vibration**

The proposed project could temporarily increase noise levels as a result of construction activities. There are currently no soundwalls along the residential area along the southeastern portion of the interchange. The proposed project would most likely need to provide sound abatement for the sensitive receptors living adjacent to the interchange. A Noise Study Report (NSR) would be required to measure the noise impacts on nearby residences and other noise-sensitive land uses. Determination of the need for and the

placement of new soundwalls would be made during the PA/ED phase of the project based on the NSR. The Noise Abatement Decision Report (NADR) compiles information from the NSR, other relevant environmental studies, and the design considerations into a single, comprehensive document before public review of the proposed project. The final determination regarding the incorporation of any soundwalls would be based on the findings of the NSR and NADR and any input received from the public during the environmental document availability period.

#### **8.14 Biological Environment**

Non-Native Grasslands, Southern Mixed Chaparral, Coast Live Oak Woodland, Southern Coast Live Oak Riparian Forest, Chamise Chaparral, oak trees, and eucalyptus trees surround the interchange. The Non-Native Grassland, Southern Coast Live Oak Riparian Forest, Southern Mixed Chaparral, and the eucalyptus trees have the most potential to be impacted by the proposed build alternatives. The impact areas are along the west side of Deer Springs Road; just south of the road are mature oak trees and Deer Springs Creek. South Fork Moosa Canyon Creek is on the east side of I-15, at the intersection of Champagne Boulevard and Mountain Meadow Road, as well as mature eucalyptus trees north and south of Mountain Meadow Road. If there is construction work outside of the existing ROW, then these trees may be impacted. At this stage in the project, it is not expected that work outside of the existing ROW will be necessary.

Within gore areas, existing native CSS cover was observed on a field study conducted in 2014; however, it currently appears to be disturbed, non-native grasslands with sporadic CSS species based on a field survey completed in January and February 2015. Further field studies need to be conducted to verify these areas. No habitats of concern appear to be present in the project area, and there does not appear to be any potential for special-status plants to occur.

The interchange appears to be located within the Northern County MSCP. Based on the USFWS Critical Habitat Mapping database, there is no designated critical habitat for the CAGN within or immediately adjacent to the interchange area; however, designated habitat for CAGN has been identified approximately 0.25 mile northeast of the edge of the project area. Given the proximity to CAGN critical habitat and a history of CSS within the project area, then a habitat assessment for CAGN should be completed for the project. If habitat is found in the project area, then a focused, protocol-level CAGN surveys should be conducted by a federal 10(a)(1)(A) permitted biologist in accordance with 1997 Coastal California Gnatcatcher Presence/Absence Survey Guidelines published by USFWS. Surveys would determine the distribution and abundance of CAGN within the project site. The survey does not have to include the entire Biological Study Area (BSA,) but only CSS areas within and adjacent to areas to be impacted by the project.

No swift or swallows nests were observed on the existing bridge. Bats were not observed utilizing the structure either. Additional biological field studies will be conducted to verify these preliminary findings.

A Natural Environment Study will be prepared to accurately assess impacts to those resources and to identify appropriate mitigation and monitoring measures to minimize impacts.

### **8.15 Context-Sensitive Solutions**

Caltrans uses context-sensitive solutions as its approach to plan, design, construct, maintain, and operate its transportation system. Context-sensitive solutions use innovative and inclusive approaches that integrate and balance community, aesthetic, historic, and environmental values with transportation safety, maintenance, and performance goals. The plans are reached through a collaborative, interdisciplinary approach involving all stakeholders. As the project progresses through the design phase (PA/ED), context-sensitive solutions would be implemented through coordination among the Project Development Team, as appropriate. Any public outreach should also include the topic of context-sensitive solutions so that the community can provide input with regard to how the project will fit into the community. Community groups that would be contacted for public participation include, but are not limited to, Twin Oaks Valley Community Sponsor Group, and the I-15 Design Review Board. Some solutions that may apply to the project would be the incorporation of avoidance/minimization measures related to any identified cultural resources and surface or other treatments of any soundwalls or retaining walls that are required.

## **9. Summary Statement for PSR or PSR-PDS**

The anticipated document for compliance with the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) is a joint Initial Study (IS)/Environmental Analysis (EA) leading to a Mitigated Negative Declaration (MND). Caltrans will act as the Lead Agency for CEQA and, as of July 1, 2007, Caltrans has been assigned the responsibility for the environmental review, consultation, and any other action required in accordance with applicable federal laws pursuant to 23 United States Code (U.S.C.) 327, thereby making Caltrans the lead agency for NEPA as well. Under NEPA, the appropriate documentation will be a Finding of No Significant Impact (FONSI). The MND/FONSI timeline could require approximately 18 months from the start of the environmental studies to approval of the environmental document.

The potential impacts of the proposed project are summarized below.

A CIA will be prepared to assess any impacts to the adjacent mobile home park and/or nearby businesses.

Depending on the alternative that is selected, the proposed project may result in partial acquisitions of residential and/or commercial properties. A Draft and Final RID would be required to address any relocations that occur as a result of the project.

General use agricultural land may be impacted directly to the north of the project vicinity if construction exceeds the existing ROW in that area. Mitigation and/or avoidance and minimization measures will need to be developed if any impacts are anticipated to this resource.

Excavations could potentially encounter paleontological resources. A project-level PIR and PER will be required. Based on the report findings, a PMP may also be required.

The proposed build alternatives could impact cultural resources. An HPSR and an ASR will be required. An HRER will be required to assess properties of historic significance within the project vicinity. Coordination with the NAHC and individual tribal representatives will be necessary.

If impacts to Deer Springs Creek occur, the proposed project will require the following permits: a Water Quality Certification under CWA Section 401 through the RWQCB; a Nationwide Permit 14 or Individual Permit under CWA Section 404 through USACE, depending on the extent of impact on federal Waters (Waters of the United States); and a Streambed Alteration Agreement under Fish and Game Code 1602.

The proposed project will require a Water Quality Report to analyze the potential impacts of the project on the aquatic environment. The project will require an SWPPP because the disturbed soil area could exceed 1 acre. Although temporary and permanent BMPs related to water quality should be implemented, future detailed site investigations would determine additional BMPs to be recommended as permanent treatment BMPs.

ADL studies will need to be conducted on the unpaved areas along the roadway, and studies may also be required for the structures targeted for demolition that could possibly contain LBP and/or ACM.

The proposed project is intended to reduce congestion and vehicle delay times, and it would also increase capacity. An AQSR will be required to assess the potential for the project to result in impacts to air quality during construction and operation. In addition, a quantitative analysis of greenhouse gas emissions will be required.

The proposed build alternatives will require an NSR to measure the noise impacts on nearby residences and other noise-sensitive land uses. Soundwalls may be required.

The proposed project alternatives will require a Natural Environment Study (Minimal Impacts) to evaluate impacts on biological resources and to identify avoidance, minimization, and/or mitigation measures. Bats may be present under the existing bridge, and birds protected by the federal Migratory Bird Treaty Act and similar provisions under Department of Fish and Game code may be present. Additionally, the eucalyptus and oak trees found in the project vicinity may be impacted if construction exceeds the current ROW. Mitigation and/or avoidance measures will need to be developed in case any of these biological resources are impacted.

A decontaminated LUST site is located adjacent to the proposed project area. An ISA Checklist will be required for further investigation.

## **10. Disclaimer**

The PEAR provides an initial environmental evaluation of a project before it is programmed. While it anticipates the environmental constraints that may affect project

design, cost, schedule, and delivery, it is not an environmental determination or document. Based on the project description provided in the Project Study Report (PSR), the PEAR estimates the scope, schedule, and costs associated with the subsequent environmental compliance process and it documents the assumptions used to develop those estimates. The text briefly outlines the issues and assumptions. Project scope changes made after the PEAR will affect assumption and cost.

Project scope changes made after this PEAR is prepared may affect level of environmental approval, cost and schedule. Please note that the information provided is preliminary and based on cursory examination. All impacts and associated mitigation should be considered as estimates until the project areas are thoroughly surveyed by specialists. The cost estimates (which only include preparation hours) and conclusions in the PEAR are approximate and are based on cursory analyses of probable effects. A reevaluation of the PEAR will be needed for changes in project scope or alternatives, or in environmental laws, regulations, or guidelines.

11. List of Preparers

|                                                                      |                 |
|----------------------------------------------------------------------|-----------------|
| <b>Cultural Resources specialist:</b><br>Monica Corpuz               | Date: 6/18/2015 |
| <b>Biologist:</b><br>Arianne Preite                                  | Date: 6/23/2015 |
| <b>Community Impacts specialist:</b><br>Emily Hoyt                   | Date: 6/24/2015 |
| <b>Noise and Vibration specialist:</b><br>Areg Gharabegian           | Date: 4/27/2015 |
| <b>Air Quality specialist:</b><br>Bruce Campbell                     | Date: 4/27/2015 |
| <b>Paleontology specialist/liaison:</b><br>Monica Corpuz             | Date: 6/18/2015 |
| <b>Water Quality specialist:</b><br>Chris Hinds                      | Date: 4/27/2015 |
| <b>Hydrology and Floodplain specialist:</b><br>Portia Gonzalez, P.E. | Date: 4/27/2015 |
| <b>Hazardous Waste/Materials specialist:</b><br>Shala Craig          | Date: 4/27/2015 |
| <b>Visual/Aesthetics specialist:</b><br>Jeff Lormand                 | Date: 4/27/2015 |
| <b>Energy and Climate Change specialist:</b><br>James Santos         | Date: 4/27/2015 |
| <b>PEAR Preparer:</b><br>Emily Hoyt/Stephanie Blanco                 | Date: 7/30/2015 |

**12. Review and Approval**

I confirm that environmental cost, scope, and schedule have been satisfactorily completed and that the PEAR meets all Caltrans requirements.

\_\_\_\_\_  
Environmental Branch Chief

\_\_\_\_\_  
Date:

\_\_\_\_\_  
Project Manager

\_\_\_\_\_  
Date:

**REQUIRED ATTACHMENTS:**

Attachment A: PEAR Environmental Studies Checklist

Attachment B: Schedule (Gantt Chart)

Attachment C: PEAR Environmental Commitments Cost Estimate (Standard PSR)

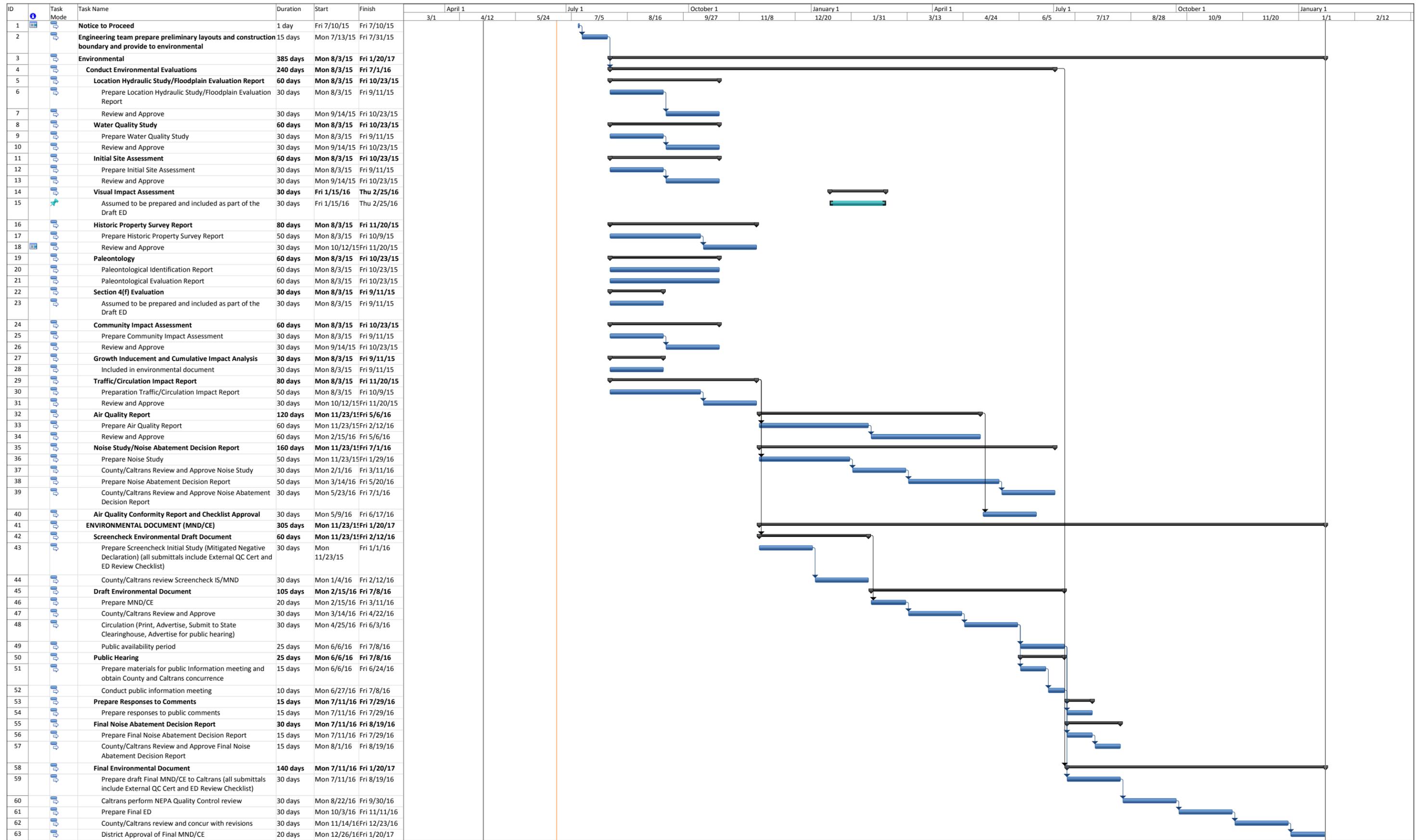
**Attachment A:  
PEAR Environmental Studies Checklist**

| <b>Environmental Studies for PA&amp;ED Checklist</b> |                                     |                                     |                                     |                |              |
|------------------------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|----------------|--------------|
|                                                      | Not anticipated                     | Memo to file                        | Report required                     | Risk*<br>L M H | Comments     |
| Land Use                                             | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       | Part of CIA  |
| Growth                                               | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       | Part of CIA  |
| Farmlands/Timberlands                                | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       | Part of CIA  |
| Community Impacts                                    | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       | Part of CIA  |
| Community Character and Cohesion                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       | Part of CIA  |
| Relocations                                          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       | Part of CIA  |
| Environmental Justice                                | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       | Part of CIA  |
| Utilities/Emergency Services                         | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <u>L</u>       | Part of CIA  |
| Visual/Aesthetics                                    | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>M</u>       |              |
| Cultural Resources:                                  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>M</u>       |              |
| Archaeological Survey Report                         | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       |              |
| Historic Resources Evaluation Report                 | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>M</u>       |              |
| Historic Property Survey Report                      | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       |              |
| Historic Resource Compliance Report                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |              |
| Section 106 / PRC 5024 & 5024.5                      | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       | Part of HPSR |
| Native American Coordination                         | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       | Part of HPSR |
| Finding of Effect                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |              |
| Data Recovery Plan                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |              |
| Memorandum of Agreement                              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |              |
| Other: APE Maps and ESA Action Plan                  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       | Part of HPSR |
| Hydrology and Floodplain                             | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       |              |
| Water Quality and Stormwater Runoff                  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       |              |
| Geology, Soils, Seismic and Topography               | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       |              |
| Paleontology                                         | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       |              |
| PER                                                  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       |              |
| PMP                                                  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       |              |
| Hazardous Waste/Materials:                           | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       |              |
| ISA (Additional)                                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       |              |
| PSI                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |              |
| Other:                                               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |              |
| Air Quality                                          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       |              |
| Noise and Vibration                                  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>M</u>       |              |
| Energy and Climate Change                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <u>L</u>       | Part of ED   |
| Biological Environment                               | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       |              |
| Natural Environment Study                            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       | NES (MI)     |
| Section 7:                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |              |

## Environmental Studies for PA&ED Checklist

|                                               | Not anticipated                     | Memo to file                        | Report required                     | Risk*<br>L M H | Comments    |
|-----------------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|----------------|-------------|
| Formal                                        | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| Informal                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| No effect                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| Section 10                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| USFWS Consultation                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| NMFS Consultation                             | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| Species of Concern (CNPS, USFS, BLM, S, F)    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| Wetlands & Other Waters/Delineation           | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       | JD Report   |
| 404(b)(1) Alternatives Analysis               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| Invasive Species                              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <u>L</u>       | Part of NES |
| Wild & Scenic River Consistency               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| Coastal Management Plan                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| HMMP                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| DFG Consistency Determination                 | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| 2081                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| Other:                                        | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| Cumulative Impacts                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <u>L</u>       | Part of ED  |
| Context Sensitive Solutions                   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <u>L</u>       | Part of ED  |
| Section 4(f) Evaluation                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <u>L</u>       | Part of ED  |
| <b>Permits:</b>                               |                                     |                                     |                                     |                |             |
| 401 Certification Coordination                | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>M</u>       |             |
| 404 Permit Coordination, IP, NWP, or LOP      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>M</u>       |             |
| 1602 Agreement Coordination                   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>M</u>       |             |
| Local Coastal Development Permit Coordination | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| State Coastal Development Permit Coordination | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| NPDES Coordination                            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       |             |
| US Coast Guard (Section 10)                   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| TRPA                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| BCDC                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |

**Attachment B:  
Schedule (Gantt Chart)**



Project: I-15\_Deer Springs\_06241  
 Date: Wed 6/24/15

Task Split

Milestone

Summary

Project Summary

External Tasks

External Milestone

Inactive Task

Inactive Milestone

Inactive Summary

Manual Task

Duration-only

Manual Summary Rollup

Manual Summary

Start-only

Finish-only

Deadline

Progress

**Attachment C:**  
**PEAR Environmental Commitments Cost Estimate (Standard PSR)**

## ALTERNATIVES 2, 3, AND 4

### *PART 1. PROJECT INFORMATION*

|                                                                                                                                         |                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| 11 – SD – 15 – PM R36.3-R37.2                                                                                                           | EA: 11-41840K                   |
| Project Description:<br>The build alternatives include improvements to the Interstate 15 to the north of Deer Springs Road Interchange. |                                 |
| Form completed by (Name/District Office):<br>District 11                                                                                |                                 |
| Project Manager:<br>Ismael Salazar                                                                                                      | Phone Number:<br>(619) 688-6766 |
| Date: 6/25/2014                                                                                                                         |                                 |

### *PART 2. PERMITS AND AGREEMENTS*

|                                                                                      | Permits and Agreements<br>(\$\$) |
|--------------------------------------------------------------------------------------|----------------------------------|
| Fish and Game 1602 Agreement                                                         | \$4,912.25                       |
| Coastal Development Permit                                                           |                                  |
| State Lands Agreement                                                                |                                  |
| Section 401 Water Quality Certification                                              | \$1,500                          |
| Section 404 Permit – Nationwide (U.S. Army Corps)                                    | N/A                              |
| Section 404 Permit – Individual (U.S. Army Corps)                                    | N/A                              |
| Section 10 Navigable Waters Permit (U.S. Army Corps)                                 |                                  |
| Section 9 Permit (U.S. Coast Guard)                                                  |                                  |
| Other:                                                                               |                                  |
| California Department of Fish and Wildlife CEQA<br>Environmental Document Filing Fee | \$2,210                          |
| County Clerk Processing Fee                                                          | \$50                             |
|                                                                                      |                                  |
|                                                                                      |                                  |
| Total (enter zeros if no cost)                                                       | \$8,672.25                       |

### *PART 3. ENVIRONMENTAL COMMITMENTS FOR PERMANENT IMPACTS*

| <b>Environmental Commitments – Alternatives 2, 3, and 4</b>               |                             |                                                                                                 |
|---------------------------------------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------------------|
|                                                                           | Estimated Cost in \$1,000's | Notes                                                                                           |
| Hazardous Waste                                                           | \$150 – 175                 |                                                                                                 |
| Archaeological resources                                                  | \$75 – 100                  |                                                                                                 |
| Biological resources                                                      |                             |                                                                                                 |
| <ul style="list-style-type: none"> <li>• ESA fencing</li> </ul>           | \$50 – 100                  | ESA fencing for CSS                                                                             |
| <ul style="list-style-type: none"> <li>• Biological Monitoring</li> </ul> | \$100 – 125                 | Biological monitoring for CAGN, bats, nesting birds, and other species within the project area. |
| Paleontology                                                              | \$90-100                    | Paleontological                                                                                 |

|                                |             |                                                     |
|--------------------------------|-------------|-----------------------------------------------------|
|                                |             | Management Plan, and processing of two discoveries. |
| Noise                          | \$390-400   | Noise abatement (i.e. soundwalls)                   |
| Total (enter zeros if no cost) | \$855-1,000 |                                                     |

**ATTACHMENT E**  
**TRANSPORTATION PLANNING SCOPING INFORMATION SHEET**

# Transportation Planning Scoping Information Sheet

## PROJECT INFORMATION

| District No.                                                                                                                                                                                                                                                      | County    | Route | Post Miles  | Project ID No/<br>Expenditure Authorization |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------|-------------|---------------------------------------------|
| 11                                                                                                                                                                                                                                                                | San Diego | 15    | R36.0/R37.2 | PN 11-140000093/<br>EA 11-41840K            |
| <b>Project Name and Description :</b><br>The I-15/Deer Springs Road Interchange project proposes to evaluate alternatives to increase capacity, improve mobility, and relieve congestion for the existing Interstate 15 (I-15) and Deer Springs Road interchange. |           |       |             |                                             |

**Prepared by:**

|                                              |                     |                  |                             |
|----------------------------------------------|---------------------|------------------|-----------------------------|
| District Information Sheet Point of Contact* | Name: Jason Fischer | Functional Unit: | Consultant Project Engineer |
|----------------------------------------------|---------------------|------------------|-----------------------------|

\* The District Information Sheet Point of Contact is responsible for completing Project Information, PDT Team and Stakeholder Information, and coordinating the completion of project-related information with the Transportation Planning Stakeholders. Upon completion, provides the Transportation Planning PDT Representative and Project Manager with a copy of the Information Sheet.

| Project Development Team (PDT) Information   |                |              |
|----------------------------------------------|----------------|--------------|
| Title                                        | Name           | Phone Number |
| Project Manager                              | Clark Fernon   | 619.692.1920 |
| Project Engineer                             | Jason Fischer  | 619.692.1920 |
| Transportation Planning PDT Representative** | Ismael Salazar | 619.688.6766 |

| Transportation Planning Stakeholder Information             |             |              |
|-------------------------------------------------------------|-------------|--------------|
| Title                                                       | Name        | Phone Number |
| Regional Planner                                            | TBD         |              |
| System Planner                                              | TBD         |              |
| Local Development-Intergovernmental Review (LD-IGR) Planner | TBD         |              |
| Community Planner                                           | TBD         |              |
| Goods Movement Planner                                      | TBD         |              |
| Transit Planner                                             | TBD         |              |
| Bicycle and Pedestrian Coordinator                          | Seth Cutter | 619.688.2597 |
| Park and Ride Coordinator                                   | Mike Roy    | 619.688.6489 |
| Native American Liaison                                     | TBD         |              |
| Other Coordinators:                                         | TBD         |              |

|                                                                                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Project Purpose and Need**</b></p> <p><u>Purpose:</u><br/>                     The purpose of the proposed project is to plan for the projected regional population growth and increase in traffic demands on the existing I-15 and Deer Springs Road interchange for the planning design year 2040.</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

The project proposes to widen and reconfigure the interchange to improve traffic operations and enhance transportation choices. The objectives of the project are to:

- Support anticipated regional growth and proposed local-area projects;
- Relieve congestion by providing sufficient vehicle capacity through the interchange area;
- Manage east-west travel between local communities;
- Enhance multi-modal choices;
- Improve the existing park and ride facility to provide transit connectivity; and
- Minimize environmental impacts.

Need:

The project area is located within San Diego County near Escondido, along a segment of Interstate 15 (I-15). I-15 is a major traffic corridor that serves the local communities of Hidden Meadows and San Marcos, while also acting as a link for traffic travelling to/from I-15 to/from SR 78. The intersecting Deer Springs Road is classified as a 6-Lane Prime Arterial in the County of San Diego Mobility Element and is currently built as a two-lane facility between I-15 and Twin Oaks Valley Road. Based on growth forecasts prepared by the San Diego Association of Governments, the county’s unincorporated areas, which encompass the project area, are expected to see an overall population growth of approximately 25 percent between 2015 and 2050. To accommodate this growth and future capacity needs within the corridor, the interchange will require additional capacity. Regional growth coupled with the approved site developments in the immediate vicinity will result in increased volumes through the interchange by 2040 of about 25-40%, depending on the road segment. In addition to the projected traffic demands, the I-15/Deer Springs interchange is currently experiencing severe traffic congestion. Existing deficiencies of the I-15/Deer Springs interchange are summarized below:

- Three out of four I-15/Deer Springs interchange intersections are operating near or over the design capacity during peak period traffic volumes;
- Intersection delays of up to 45 seconds;
- High volumes of single occupancy vehicle travel, necessitating improved access to carpools, vanpools, and public transportation choices via existing park and ride facilities within the project area.

\*\* The Transportation Planning PDT Representative is responsible for providing the PDT with the system-wide and corridor level deficiencies identified by Transportation Planning. The PDT uses the information provided by Transportation Planning to develop the purpose and need with contributions from other Caltrans functional units and external stakeholders at the initiation of the PID and is refined throughout the PID process. As the project moves past the project initiation stage and more data becomes available, the purpose and need is refined. For additional information on purpose and need see: [www.dot.ca.gov/hq/env/emo/purpose\\_need.htm](http://www.dot.ca.gov/hq/env/emo/purpose_need.htm)

**1. Project Funding:**

|   |                                                                                                                                                                                                                                                                                                  |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | List all known and potential funding sources and percent splits: (ie. State Transportation Improvement Program (STIP)/State Highway Operations and Protection Program (SHOPP)/Transportation Enhancement (TE)/Environmental Enhancement and Mitigation (EEM)/Safe Routes to School (SR2S)/etc.). |
|   | This project will be privately funded along with any additional funding sources identified during the development of the project.                                                                                                                                                                |
| b | Is this a measure project? Yes ___ /No <input checked="" type="checkbox"/> . If yes, name and describe the measure.                                                                                                                                                                              |

**2. Regional Planning:**

|   |                                                                                                                                                                                            |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | Name of and contact information for Metropolitan Planning Organization (MPO) or Regional Transportation Planning Agency (RTPA).                                                            |
|   | San Diego Association of Governments (SANDAG)<br>Sarah Strand<br>Regional Planner<br>401 B Street, Suite 800<br>San Diego, CA 92101<br>619.595.5609<br>Sarah.strand@sandag.org             |
| b | Name of and contact information for local jurisdiction (City or County)                                                                                                                    |
|   | County of San Diego<br>Nick Ortiz<br>County Project Manager<br>858.694.2410<br>francisco.ortiz@sdcounty.ca.gov                                                                             |
| c | Provide the page number and project description as identified in the Regional Transportation Plan (RTP) and the date of adoption, or provide an explanation if not in RTP.                 |
|   | This project is a condition required by the County of San Diego for an adjacent subdivision project, which is proposed by a private developer. Therefore, it is not identified in the RTP. |
| d | Provide nexus between the RTP objectives and the project to establish the basis for the project purpose and need.                                                                          |
|   | N/A                                                                                                                                                                                        |
| e | Is the project located in an area susceptible to sea-level rise?                                                                                                                           |
|   | No                                                                                                                                                                                         |
| f | Name of Air Quality Management District (AQMD)                                                                                                                                             |
|   | San Diego County Air Pollution Control District (SDAPCD)                                                                                                                                   |
| g | If the project is located in a federal non-attainment or attainment-maintenance area is the project:                                                                                       |
|   | • Regionally Significant? (per 40 (Code of Federal Regulations (CFR) 93.101) Y <input checked="" type="checkbox"/> /N__                                                                    |
|   | • Exempt from conformity? (per 40 CFR 93.126 and 93.128) Y__/N <input checked="" type="checkbox"/>                                                                                         |
|   | • Exempt from regional analysis? (per 40 CFR 93.127) Y__/N <input checked="" type="checkbox"/>                                                                                             |
|   | • Not exempt from conformity (must meet all requirements)? Y <input checked="" type="checkbox"/> /N__                                                                                      |

### 3. Native American Consultation and Coordination:

|   |                                                                                                                                                                                                                                                                                                          |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | If project is within or near an Indian Reservation or Rancheria? If so, provide the name of Tribe.                                                                                                                                                                                                       |
|   | No                                                                                                                                                                                                                                                                                                       |
| b | Has/have the Tribal Government(s) been consulted? Y__/N <input checked="" type="checkbox"/> . If no, why not?                                                                                                                                                                                            |
|   |                                                                                                                                                                                                                                                                                                          |
| c | If the project requires Caltrans to use right-of-way on trust or allotted lands, this information needs to be included as soon as possible as a key topic in the consultation with the Tribe(s). Has the Tribe been consulted on this topic? Y__/N <input checked="" type="checkbox"/> . If no, why not? |
|   |                                                                                                                                                                                                                                                                                                          |
| d | Has the Bureau of Indian Affairs (BIA) been notified? Y__/N <input checked="" type="checkbox"/>                                                                                                                                                                                                          |
|   |                                                                                                                                                                                                                                                                                                          |
| e | Have all applicable Tribal laws, ordinances and regulations [Tribal Employment Rights Ordinances (TERO), etc.] been reviewed for required contract language and coordination?                                                                                                                            |
|   | N/A                                                                                                                                                                                                                                                                                                      |
| f | If the Tribe has a TERO, is there a related Memorandum of Understanding between the District and the Tribe?                                                                                                                                                                                              |
|   |                                                                                                                                                                                                                                                                                                          |

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| g | Has the area surrounding the project been checked for prehistoric, archeological, cultural, spiritual, or ceremonial sites, or areas of potentially high sensitivity? If such areas exist, has the Tribe, Native American Heritage Commission or other applicable persons or entities been consulted?<br>Cultural work has been on-going for the Sierra Project and sites have been identified. The NAHC has been consulted for those sites. A database search is currently being completed for the I15/Deer Springs interchange project. |
| h | If a Native American monitor is required for this project, will this cost be reflected in cost estimates?<br>Yes                                                                                                                                                                                                                                                                                                                                                                                                                          |
| i | In the event of project redesign, will the changes impact a Native American community as described above in d, e, or h?<br>No                                                                                                                                                                                                                                                                                                                                                                                                             |

#### 4. System Planning:

|   |                                                                                                                                                                                                                                                                                                                                                                                             |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | Is the project consistent with the DSMP? Y__/N✓. If yes document approval date. If no, explain.<br>This project is not listed or associated to any of the projects listed in the DSMP.                                                                                                                                                                                                      |
| b | Is the project identified in the TSDP? Y__/N✓? If yes, document approval date____. If no, explain.<br>N/A – District 11 TSDP listed as “not available” on Caltrans Website                                                                                                                                                                                                                  |
| c | Is the project identified in the TCR/RCR or CSMP? Y__/N✓. If yes, document approval date____. If no, explain. Is the project consistent with the future route concept? Y__/N✓. If no, explain.<br>The project is not identified by the TCR or the CSMP. However, it is consistent with the future route concept.                                                                            |
| d | Provide the Concept Level of Service (LOS) through project area.<br>LOS D                                                                                                                                                                                                                                                                                                                   |
| e | Provide the Concept Facility – include the number of lanes. Does the Concept Facility include High Occupancy Vehicle lanes? Y__/N✓.<br>12 total lanes – 4 general purpose lanes and 2 toll lanes in each direction.                                                                                                                                                                         |
| f | Provide the Ultimate Transportation Corridor (UTC) – include the number of lanes. Does the UTC include High Occupancy Vehicle Lanes? Y__/N✓.<br>12 total lanes – 4 general purpose lanes and 2 toll lanes in each direction.                                                                                                                                                                |
| g | Describe the physical characteristics of the corridor through the project area (i.e. flat, rolling or mountainous terrain...)<br>Rolling Terrain                                                                                                                                                                                                                                            |
| h | Is the highway in an urban or rural area? Urban ✓/Rural____. Provide Functional Classification.<br>I-15 – Interstate Freeway<br>Deer Springs Road – Local County Arterial                                                                                                                                                                                                                   |
| i | Is facility a freeway, expressway or conventional highway?<br>Yes, I-15 is an Interstate Freeway.                                                                                                                                                                                                                                                                                           |
| j | Provide Route Designations: (i.e. Interregional Transportation Strategic Plan (ITSP) High Emphasis or Focus Route, Surface Transportation Assistance Act (STAA) Route, Scenic Route...)<br>Interstate-15 is a Surface Transportation Assistance Act (STAA) Route; I-15 is also part of the Interregional Road System as stated in the ITSP.                                                 |
| k | Describe the land uses adjacent to project limits (i.e. agricultural, industrial...)<br>Residential, Commercial, and Agricultural                                                                                                                                                                                                                                                           |
| l | Describe any park and ride facility needs identified in the TCR/CSMP, local plans, and RTP.<br>Park and Ride Lot #33 is located at the I-15 and Deer Springs Rd intersection and has 28 spaces.<br>Park and Ride Lot #34 is located at the I-15 and Mountain Meadows Dr intersection and has 41 spaces.<br>The project proposes to expand lot #33 and maintain the existing size of lot #34 |

|   |                                                                                                                                                                                                                                                               |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| m | Describe the Forecasted 10 and 20-year Vehicle Miles Traveled (VMT), Annual Average Daily Traffic (AADT), and Peak Hour truck data in the TCR. Include the source and year of Forecast, and names and types of traffic and travel demand analysis tools used. |
|   | N/A                                                                                                                                                                                                                                                           |
| n | Has analysis on Daily Vehicle Hours of Delay (DVHD) from the Highway Congestion Monitoring Program (HICOMP) been completed and included? Y__/N__.                                                                                                             |
|   | N/A                                                                                                                                                                                                                                                           |

### 5. Local Development – Intergovernmental Review (LD-IGR) :

List LD-IGR projects that may directly or indirectly impact the proposed Caltrans project or that the proposed Caltrans project may impact. (Attach additional project information if needed.)

| LD-IGR Project Information |                                                                                                                                                                                                                        | Project                                                                                                                                                                                                                              |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a                          | County-Route-Postmile & Distance to Development.                                                                                                                                                                       | SD – 15 – PM – R36.4 – Directly adjacent to development                                                                                                                                                                              |
| b                          | Development name, type, and size.                                                                                                                                                                                      | Sierra Project, Community Subdivision, 1,985 acres                                                                                                                                                                                   |
| c                          | Local agency and/or private sponsor, and contact information.                                                                                                                                                          | Private Sponsor<br>Rita G. Brandin<br>Senior Vice President, Development Director<br>9820 Towne Center Drive, Suite 100<br>San Diego, CA 92121<br>858.875.8219<br><a href="mailto:rbrandin@newlandco.com">rbrandin@newlandco.com</a> |
| d                          | California Environmental Quality Act (CEQA) status and Implementation Date.                                                                                                                                            | Sierra Project currently in EIR process with the County. CEQA document for the interchange project will be completed in the PA/ED phase.                                                                                             |
| e                          | If project includes federal funding, National Environmental Policy Act (NEPA) status.                                                                                                                                  | N/A                                                                                                                                                                                                                                  |
| f                          | All vehicular and non-vehicular unmitigated impacts and planned mitigation measures including Transportation Demand Management (TDM) and Transportation System Management (TSM) that would affect Caltrans facilities. | Identified in Draft Traffic Operations Report                                                                                                                                                                                        |
| g                          | Approved mitigation measures and implementing party.                                                                                                                                                                   | N/A                                                                                                                                                                                                                                  |
| h                          | Value of constructed mitigation and/or amount of funds provided.                                                                                                                                                       | N/A                                                                                                                                                                                                                                  |
| i                          | Encroachment Permit, Transportation Permit, Traffic Management Plan, or California Transportation Commission (CTC) Access approvals needed.                                                                            | N/A                                                                                                                                                                                                                                  |
| j                          | Describe relationship to Regional Blueprint, General Plans, or County Congestion Management Plans.                                                                                                                     | The Project is processing a General Plan amendment with the County of San Diego.                                                                                                                                                     |
| k                          | Inclusion in a Regional Transportation Plan Sustainable Community Strategy or                                                                                                                                          | N/A                                                                                                                                                                                                                                  |

|   |                                                    |     |
|---|----------------------------------------------------|-----|
|   | Alternative Planning Strategy?                     |     |
| 1 | Regional or local mitigation fee program in place? | Yes |

**6. Community Planning:**

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| INITIAL PID INFORMATION |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
| a                       | Has lead agency staff worked with any neighborhood/community groups in the area of the proposed improvements? Y✓/N__. If yes, summarize the process and its results including any commitments made to the community. If no, why not?                                                                                                                                                                                                                                               |  |
|                         | Representatives from the surrounding local agencies have been included in the PDT.                                                                                                                                                                                                                                                                                                                                                                                                 |  |
| b                       | Are any active/completed/proposed Environmental Justice (EJ) or Community-Based Transportation (CBTP) Planning Grants in the project area? Y__/N✓. If yes, summarize the project, its location, and whether/how it may interact with the proposed project.                                                                                                                                                                                                                         |  |
| c                       | Describe any community participation plans for this PID including how recommendations will be incorporated and/or addressed. Has a context sensitive solutions (CSS) approach been applied? Y✓/N__                                                                                                                                                                                                                                                                                 |  |
|                         | The community has not been involved at this time. Further coordination will occur at the PA/ED phase.                                                                                                                                                                                                                                                                                                                                                                              |  |
| FINAL PID INFORMATION   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |
| d                       | How will the proposed transportation improvements impact the local community? Is the project likely to create or exacerbate existing environmental or other issues, including public health and safety, air quality, water quality, noise, environmental justice or social equity? Y__/N✓. Describe issues, concerns, and recommendations (from sources including neighborhood/community groups) and what measures will be taken to reduce existing or potential negative effects. |  |
| e                       | Does this highway serve as a main street? Y__/N✓. If yes, what main street functions and features need to be protected or preserved?                                                                                                                                                                                                                                                                                                                                               |  |

**7. Freight Planning:**

|                         |                                                                                                                                                                                                                                                                                                                     |  |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| INITIAL PID INFORMATION |                                                                                                                                                                                                                                                                                                                     |  |
| a                       | Identify all modal and intermodal facilities that may affect or be affected by the project.                                                                                                                                                                                                                         |  |
|                         | Interstate 15                                                                                                                                                                                                                                                                                                       |  |
| FINAL PID INFORMATION   |                                                                                                                                                                                                                                                                                                                     |  |
| b                       | Describe how the design of this project could facilitate or impede Goods Movement and relieve choke points both locally and statewide through grade separations, lane separations, or other measures (e.g., special features to accommodate truck traffic and at-grade railroad crossings).                         |  |
|                         | The purpose of this project is to alleviate traffic congestion in the vicinity of the I-15/Deer Springs Road Interchange. By improving traffic operations, the project would help facilitate goods movement.                                                                                                        |  |
| c                       | Describe how the project integrates and interconnects with other modes (rail, maritime, air, etc.). Do possibilities exist for an intermodal facility or other features to improve long-distance hauling, farm-to-market transportation and/or accessibility between warehouses, storage facilities, and terminals? |  |
|                         | It does not impact any existing intermodal facilities. No future intermodal facilities are planned with this project.                                                                                                                                                                                               |  |
| d                       | Is the project located in a high priority goods movement area, included in the Goods Movement Action Plan (GMAP) or on a Global Gateways Development Program (GGDP) route? Y✓/N__. If yes, describe.                                                                                                                |  |
|                         | I-15 is a Major International Trade Highway Route.                                                                                                                                                                                                                                                                  |  |
| e                       | Is the project on a current and/or projected high truck volume route [e.g., Average Annual Daily Truck Traffic (AADTT) of 5 axle trucks is greater than 3000]? Yes✓/N__. If yes, describe how the project                                                                                                           |  |

|   |                                                                                                                                                                                                                                                                         |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | addresses this demand.<br>The project does not impact I-15. The purpose of this project is to alleviate traffic congestion in the vicinity of the I-15/Deer Springs Road Interchange. By improving traffic operations, the project would help facilitate truck traffic. |
| f | If the project is located near an airport, seaport, or railroad depot, describe how circulation (including truck parking) needs are addressed.<br>N/A                                                                                                                   |
| g | Describe any other freight issues.<br>N/A                                                                                                                                                                                                                               |

**8. Transit (bus, light rail, commuter rail, intercity rail, high speed rail):**

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | INITIAL PID INFORMATION                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| a | List all local transit providers that operate within the corridor.<br>North County Transit District (NCTD) and San Diego Metropolitan Transit System (SDMTS)                                                                                                                                                                                                                                                                                             |
| b | Have transit agencies been contacted for possible project coordination? Y <input checked="" type="checkbox"/> /N___. If no, why not?                                                                                                                                                                                                                                                                                                                     |
| c | Describe existing transit services and transit features (bus stops, train crossings, and transit lines) within the corridor.<br>Existing transit service in the project area is NCTD Breeze bus route 389 that operates every 2 hours each day of the week between Pala Casino and the Escondido Transit Center.                                                                                                                                         |
| d | Describe transit facility needs identified in short- and long-range transit plans and RTP. Describe how these future plans affect the corridor.<br>The SANDAG Draft 2050 RTP proposes the “Temecula (peak only) Extension of Escondido to Downtown Rapid” transit service, the High Speed Rail alignment along the I-15 corridor, and “Safe Routes to Transit at new transit stations” in its 2050 Revenue Constrained Transit Network (RTP Figure A.3). |
|   | FINAL PID INFORMATION                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| e | Describe how the proposed project integrates transit and addresses impacts to transit services and transit facilities.<br>The proposed design alternatives provide room to expand the existing park-and-ride to allow for future inclusion of multi-modal transit options.                                                                                                                                                                               |
| f | Have transit alternatives and improvement features been considered in this project? Y <input checked="" type="checkbox"/> /N___. If yes, describe. If no, why not?<br>The project proposes to integrate potential multi-modal transit options into the project design.                                                                                                                                                                                   |

**9. Bicycle:**

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | INITIAL PID INFORMATION                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| a | Does the facility provide for bicyclist safety and mobility needs? If no, please explain.<br>Yes, the project proposes to incorporate the features listed in the County Bicycle Transportation Plan and also proposes to incorporate bikeways along Deer Springs Rd between Mesa Rock Rd and Champagne Blvd that provide safe connectivity to the surrounding features of the project, such as the adjacent park-and-ride lots and local street intersections. |
| b | Are any improvements for bicyclist safety and mobility proposed for this facility by any local agencies or included in bicycle master plans? If yes, describe (including location, time frame, funding, etc.).<br>Yes, per the County Bicycle Transportation Plan, the project proposes bicycle parking, racks, and lockers at both of the existing park-and-ride lots.                                                                                        |
| c | Are there any external bicycle advocacy groups and bicycle advisory committees that should be included in the project stakeholder list? If so, provide contact information.<br>Yes, the San Diego County Bicycle Coalition and the North County Cycle Club:                                                                                                                                                                                                    |

|   |                                                                                                                                                                                                                                                                |
|---|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | <p>San Diego County Bicycle Coalition<br/>858-487-6063<br/><a href="mailto:info@sdbikecoalition.org">info@sdbikecoalition.org</a></p> <p>North County Cycle Club<br/><a href="mailto:admin@northcountycycleclub.com">admin@northcountycycleclub.com</a></p>    |
|   | FINAL PID INFORMATION                                                                                                                                                                                                                                          |
| d | <p>Will bicycle travel deficiencies be corrected? How or why not?</p> <p>N/A</p>                                                                                                                                                                               |
| e | <p>How will this project affect local agency plans for bicycle safety and mobility improvements?</p> <p>It proposes to incorporate all planned bicycle improvements (per Section 9.b. above).</p>                                                              |
| f | <p>If the project is the construction of a new freeway or modification to an existing freeway, will it sever or destroy existing provisions for bicycle travel? If yes, describe how bicycle travel provisions will be included in this project.</p> <p>No</p> |

**10. Pedestrian including Americans with Disabilities Act (ADA):**

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | INITIAL PID INFORMATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| a | <p>Does this facility provide for pedestrian safety and mobility needs? If so, describe pedestrian facilities. Do continuous and well-maintained sidewalks exist? Are pedestrians forced to walk in the roadway at any locations due to lack of adequate pedestrian facilities? Please explain.</p> <p>There is currently no existing sidewalk within the project limits. The proposed project improvements include 6' ADA accessible sidewalks on each side of Deer Springs Road between Mesa Rock Rd and Champagne Blvd. In addition, crosswalks are proposed to allow access for these intersecting streets.</p> |
| b | <p>Are pedestrian crossings located at reasonable intervals?</p> <p>Yes</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| c | <p>Are all pedestrian facilities within the corridor ADA accessible and in compliance with Federal and State ADA laws and regulations?</p> <p>Yes</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|   | FINAL PID INFORMATION                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| d | <p>Will pedestrian travel deficiencies be corrected? How or why not?</p> <p>Yes, per Section 10.b. above.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| e | <p>How will this project affect local agency plans for pedestrian safety and mobility improvements?</p> <p>The proposed facilities meet the current local agency plans, and will coordinate with local agency during the design.</p>                                                                                                                                                                                                                                                                                                                                                                                |
| f | <p>If the project is the construction of a new freeway or modification to an existing freeway, will it sever or destroy existing provisions for pedestrian travel? If yes, describe how pedestrian travel provisions will be included in this project.</p> <p>No</p>                                                                                                                                                                                                                                                                                                                                                |
| g | <p>Are there any external pedestrian advocacy groups and advisory committees that should be included in the project stakeholder list? If so, provide contact information.</p> <p>No</p>                                                                                                                                                                                                                                                                                                                                                                                                                             |
| h | <p>Have ADA barriers as noted in the District's ADA Transition Plan been identified within the project limits? If not included in the project, provide justification and indicate whether District Design coordinator approval was obtained.</p> <p>N/A</p>                                                                                                                                                                                                                                                                                                                                                         |

**11. Equestrian:**

|  |                         |
|--|-------------------------|
|  | INITIAL PID INFORMATION |
|--|-------------------------|

|                       |                                                                                                                                                                          |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a                     | If this corridor accommodates equestrian traffic, describe any project features that are being considered to improve safety for equestrian and vehicular traffic?<br>N/A |
| FINAL PID INFORMATION |                                                                                                                                                                          |
| b                     | Have features that accommodate equestrian traffic been identified? If so, are they included a part of this project? Describe. If no, why not?<br>N/A                     |

**12. Intelligent Transportation Systems (ITS):**

|                         |                                                                                                                                                                                                                                                                                                                                   |
|-------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| INITIAL PID INFORMATION |                                                                                                                                                                                                                                                                                                                                   |
| a                       | Have ITS features such as closed-circuit television cameras, signal timing, multi-jurisdictional or multimodal system coordination been considered in the project? Y <input checked="" type="checkbox"/> /N <input type="checkbox"/> . If yes, describe. If no, explain.<br>All traffic signals will be connected or coordinated. |
| FINAL PID INFORMATION   |                                                                                                                                                                                                                                                                                                                                   |
| b                       | Have ITS features been identified? If so, are they included a part of this project? Describe. If no, why not?<br>Yes, the traffic signals located along Deer Springs Road.                                                                                                                                                        |

**ATTACHMENT F**  
RIGHT-OF-WAY CONCEPTUAL COST ESTIMATE COMPONENT

**CONCEPTUAL COST ESTIMATE REQUEST – RIGHT OF WAY COMPONENT**

To: Caltrans District 11  
RIGHT OF WAY

Date: August 2015

ATTN: Ismael Salazar

11-SD-15-R36.0/R37.2  
Project ID 11-14000093  
EA 11-41840K

From: Jason Fischer

The above-referenced project will require a(n) Original/Updated Conceptual Cost Estimate for the Right of Way Component by February 2016.

**Project Information**

Type and description of the project.

Project Setting:  Urban  Rural Current Land Use: Commercial, Residential, and Agricultural

Project Schedule: PID Date August 2015 PA&ED Date August 2016 RWC Date July 2018

Number of Alternatives to be Studied 4 Environmental Document Type MND/CE

Environment Mitigation Parcels/Credits Anticipated:  Yes  No  Unknown

Environmental Permits: Number 404, 401, 1602 Permits Needed Prior to PA&ED None

Permits to Enter for Environmental/Engineering Studies Yes

Number of Public Meetings Anticipated 2 Controversial:  Yes  No  Unknown

**Right of Way Requirements**

Additional R/W: Number of Parcels 6 Total Additional Area 33,000 Sq Ft

Number of Easements 10 Total Easement Area 25,000 Sq Ft

Access Points/Control:  No Anticipated Change  Change is Anticipated

Identify Change in Access: Potential relinquishment along existing SB I-15 off-ramp

Utilities:  None  Minor  Major Types of Utility facilities: Telecommunications, Water, Gas, Electrical and Sewer

Potholing Needed Number N/A

Railroad: Identify Rail Companies in the Vicinity of the Project: N/A

List Possible RR Needs (e.g. 'Flagging'): N/A

No Rail Companies in the Vicinity of the Project

Existing Facilities:  No Relinquishments/Vacations  Relinquishments  Vacations

Proposed Facilities:  No Relinquishments  Relinquishments

# CONCEPTUAL COST ESTIMATE – RIGHT OF WAY COMPONENT

To: Ismael Salazar

Date: August 2015

From: Jason Fischer

11-SD-15-R36.0/R37.2  
 11-14000093  
 11-41840K  
 Project Description

A Field Review was conducted  Yes  No

## Scope of the Right of Way

Provide a general description of the right of way including the location attributes.

Right of Way Required  Yes  No

Number of Parcels  1-10  11-25  26-50  51-100  >100

Urban  Rural

Land Area: Fee 33,000 Sq Ft Easement 25,000 Sq Ft

Displaced Persons/Businesses  Yes  No

Demolition/Clearance  Yes  No

Railroad Involvement  Yes  No

Utility Involvements  Yes  No 10 Number of Utilities in area

## Cost Estimates

|               |                                                        |                                                   |
|---------------|--------------------------------------------------------|---------------------------------------------------|
| Support Costs | <input type="checkbox"/> \$0-\$25,000                  | <input type="checkbox"/> \$500,001-\$1,000,000    |
|               | <input checked="" type="checkbox"/> \$25,001-\$100,000 | <input type="checkbox"/> \$1,000,001-\$5,000,000  |
|               | <input type="checkbox"/> \$100,001-\$250,000           | <input type="checkbox"/> \$5,000,001-\$10,000,000 |
|               | <input type="checkbox"/> \$250,001-\$500,000           | <input type="checkbox"/> > \$10,000,000           |

|               |                                                         |                                                     |
|---------------|---------------------------------------------------------|-----------------------------------------------------|
| Capital Costs | <input type="checkbox"/> \$0-\$100,000                  | <input type="checkbox"/> \$5,000,001-\$15,000,000   |
|               | <input checked="" type="checkbox"/> \$100,001-\$500,000 | <input type="checkbox"/> \$15,000,001-\$50,000,000  |
|               | <input type="checkbox"/> \$500,001-\$1,000,000          | <input type="checkbox"/> \$50,000,001-\$100,000,000 |
|               | <input type="checkbox"/> \$1,000,001-\$5,000,000        | <input type="checkbox"/> >\$100,000,000             |

## Schedule

Right of Way will require 12 months to deliver a Right of Way Certification #1 from Final R/W Maps. This estimate is based on a Right of Way Certification date of July 2018.

**Areas of Concern**

Provide a description of areas in close proximity to the project footprint that are likely to result in complex right of way issues if impacted (i.e. junkyards, cemeteries, utility towers, etc.).

If impacted, the existing Deer Springs Oak Mobile Home Estates located south of Deer Springs Road and west of I-15 that could potentially result in complex right-of-way issues. However, none of the proposed build alternatives are expected to impact this area.

**Assumptions and Limiting Conditions**

Provide a description of assumptions and limiting conditions.

Capital costs were based on a square foot estimate of the land area required and the Automated Valuation Model (AVM) of the adjacent parcels.

**ATTACHMENT G**  
**RISK REGISTER**

| LEVEL 2 - RISK REGISTER |      |        |                | Project Name: I-15/Deer Springs Rd Interchange                                                                                                           |                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                          | DIST- EA        | 11-41840K   | Project Manager | Ismael Salazar |            |               |          |                                                                                                                                                                                                                                                                                                     |                                    |           |
|-------------------------|------|--------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------|-----------------|----------------|------------|---------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|-----------|
| Risk Identification     |      |        |                |                                                                                                                                                          |                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                          | Risk Assessment |             |                 |                |            | Risk Response |          |                                                                                                                                                                                                                                                                                                     |                                    |           |
| Status                  | ID # | Type   | Category       | Title                                                                                                                                                    | Risk Statement                                                                                                                                                                                                                                               | Current status/assumptions                                                                                                                                                                                                                                                                               | Probability     | Cost Impact | Cost Score      | Time Impact    | Time Score | Rationale     | Strategy | Response Actions                                                                                                                                                                                                                                                                                    | Risk Owner                         | Updated   |
| Active                  | 1    | Threat | Environmental  | Environmental analysis incomplete                                                                                                                        | Design could require modification as a result of identifying additional environmental impacts.                                                                                                                                                               | At this stage of the design, there is limited information related to the project footprint, which makes it difficult to determine potential impacts to adjacent environmental resources. If encroachment occurs, opportunities to reduce encroachment should be explored, which could affect the design. | 3-Moderate      | 4 -Moderate | 12              | 4 -Moderate    | 12         |               | Accept   | Prior to completion of the technical studies, a more detailed design will be provided.<br><br>Complete environmental studies in the PA&ED phase.                                                                                                                                                    | Environmental                      | 8/10/2015 |
| Active                  | 2    | Threat | Environmental  | New information after Environmental Document is completed may require re-evaluation or a new document (i.e. utility relocation beyond document coverage) | Delay in RTL and construction due to additional environmental documentation and processing                                                                                                                                                                   | The environmental review process is expected to identify all potential environmental impacts and define appropriate mitigation.                                                                                                                                                                          | 1-Very Low      | 4 -Moderate | 4               | 4 -Moderate    | 4          |               | Accept   | Prior to project approval, the project team will work together to identify design elements that would require a re-evaluation or new document.                                                                                                                                                      | Environmental                      | 8/10/2015 |
| Active                  | 3    | Threat | Environmental  | Design changes require modification to the project footprint. Subsequently, additional environmental analysis may be required.                           | Environmental studies could require modification as a result of design changes.                                                                                                                                                                              | At this stage of the design, there is limited information available to determine all of the design parameters.                                                                                                                                                                                           | 3-Moderate      | 4 -Moderate | 12              | 4 -Moderate    | 12         |               | Accept   | Prior to completion of the technical studies, a more detailed design will be provided.                                                                                                                                                                                                              | Environmental / Design             | 8/10/2015 |
| Active                  | 4    | Threat | ROW            | Landowners unwilling to sell                                                                                                                             | Difficult property acquisitions could warrant eminent domain, which could delay the project schedule.                                                                                                                                                        | Only a small number/amount of property acquisitions are expected to be required for the project.                                                                                                                                                                                                         | 2-Low           | 2 -Low      | 4               | 4 -Moderate    | 8          |               | Mitigate | Identify right-of-way needs and determine the number of impacted parcels as early as possible.                                                                                                                                                                                                      | Project Management / R/W           | 8/10/2015 |
| Active                  | 5    | Threat | Environmental  | Local communities pose objections                                                                                                                        | Local communities object to project related elements.                                                                                                                                                                                                        | Project is not expected to adversely impact the local communities.                                                                                                                                                                                                                                       | 3-Moderate      | 2 -Low      | 6               | 4 -Moderate    | 12         |               | Avoid    | Avoid design features that could adversely impact the local communities.<br><br>If necessary, provide public outreach to communicate project benefits and impacts to the community.                                                                                                                 | Project Management / Environmental | 8/10/2015 |
| Active                  | 6    | Threat | Design         | Stakeholders request late changes or have unreasonably high expectations                                                                                 | Design could change and delays could occur as a result of additional stakeholder requirements or late requests.                                                                                                                                              | All known stakeholders have been involved in the early phases of project development.                                                                                                                                                                                                                    | 1-Very Low      | 2 -Low      | 2               | 4 -Moderate    | 4          |               | Mitigate | During PA&ED, the project will complete a stakeholder analysis and then develop a stakeholder requirements register.<br><br>The project team will include all known stakeholders at the early phases of the project, which include Caltrans, San Diego County, FHWA, and Newland Real Estate group. | Project Management / Design        | 8/10/2015 |
| Active                  | 7    | Threat | ROW            | Threat of lawsuits                                                                                                                                       | Project may be viewed by others as having adverse impacts. Opposition to the project could cause delays to the schedule or hinder the approval of what could be the most viable alternative.                                                                 | Project is not expected to cause adverse impacts.                                                                                                                                                                                                                                                        | 3-Moderate      | 4 -Moderate | 12              | 4 -Moderate    | 12         |               | Avoid    | Avoid design features that could cause adverse impacts.<br><br>If necessary, provide public outreach to communicate project benefits.                                                                                                                                                               | Project Management / R/W           | 8/10/2015 |
| Active                  | 8    | Threat | Organizational | Reviewing agency requires longer than expected review time                                                                                               | As a result of the need to receive approval from multiple reviewing agencies (County of San Diego and Caltrans), the possibility of project delays during approval could occur which would result in an increased project schedule.                          | It is not expected that lengthy delays will occur.                                                                                                                                                                                                                                                       | 3-Moderate      | 2 -Low      | 6               | 4 -Moderate    | 12         |               | Mitigate | During the approval process, the team will investigate processing times of the agencies to ensure timely responses and the efficient transfer of information.                                                                                                                                       | Project Management                 | 8/10/2015 |
| Active                  | 9    | Threat | Construction   | Construction or pile driving noise and vibration impacting adjacent businesses or residents                                                              | As a result of construction activities, the need to provide additional environmental mitigation may occur, which would lead to additional project costs and schedule delays.                                                                                 | Due to piles being included in the structure design, specifications will be included to limit construction noise.                                                                                                                                                                                        | 3-Moderate      | 4 -Moderate | 12              | 4 -Moderate    | 12         |               | Mitigate | Indicate on the plans and in the specifications to require the contractor to use construction methods or time windows that reduce the noise and vibration impacts to the surrounding communities.                                                                                                   | Office Engineer                    | 8/10/2015 |
| Active                  | 10   | Threat | Design         | Unexpected geotechnical or groundwater issues                                                                                                            | As a result of the structures that are required, and since no preliminary geotechnical work has been completed, the presence of unexpected subsurface conditions may occur which would lead to more complex structure designs and higher construction costs. | Geotechnical investigations will occur in the PA&ED phase.                                                                                                                                                                                                                                               | 2-Low           | 2 -Low      | 4               | 2 -Low         | 4          |               | Accept   | A Geotechnical Design Report and Structures Foundation Report will be prepared in the PA&ED phase to better define the subsurface conditions.                                                                                                                                                       | Design                             | 8/10/2015 |

|        |    |        |                |                                                                                                                                          |                                                                                                                                                                                                   |                                                                                                                           |            |             |    |             |    |  |          |                                                                                                                                                                                                                             |                          |           |
|--------|----|--------|----------------|------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|------------|-------------|----|-------------|----|--|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-----------|
| Active | 11 | Threat | Design         | New or revised design standard                                                                                                           | Standards are always changing and the introduction of new requirements could lead to additional construction costs and potential ROW impacts.                                                     | The project team is continually monitoring the design standards.                                                          | 3-Moderate | 2 -Low      | 6  | 2 -Low      | 6  |  | Accept   | The project will be required to comply with the latest design standards.                                                                                                                                                    | Design                   | 8/10/2015 |
| Active | 12 | Threat | DES            | Hazardous materials in existing structure or surrounding soil; lead paint, contaminated soil, asbestos pipe, asbestos bearings and shims | As a result of the project impacting existing structures and surrounding soil, discovery of hazardous waste may occur. If not appropriately identified, it could cause delay to project schedule. | Hazardous material investigations will occur in the PA&ED phase.                                                          | 3-Moderate | 2 -Low      | 6  | 2 -Low      | 6  |  | Mitigate | An Initial Site Assessment will be completed during PA&ED to identify hazardous materials located within the project limits. If structure takes are likely then the specific buildings will be surveyed during PA&ED phase. | Environmental / Design   | 8/10/2015 |
| Active | 13 | Threat | DES            | Unforeseen aesthetic requirements                                                                                                        | As a result of a change in aesthetic requirements, delays to the project schedule could occur.                                                                                                    | Aesthetic requirements are expected to be identified during the PA&ED phase.                                              | 2-Low      | 2 -Low      | 4  | 2 -Low      | 4  |  | Accept   | Coordinate with the appropriate stakeholders aesthetic requirements during the PA&ED phase. Once identified, aesthetic requirements will be incorporated into the project.                                                  | Environmental / Design   | 8/10/2015 |
| Active | 14 | Threat | ROW            | Utility relocation requires more time than planned                                                                                       | Due to the potential impacts to utilities, delays in ROW clearance may occur delaying the project schedule.                                                                                       | Utility conflicts and relocation requirements are expected to be determined before any delays to the project would occur. | 3-Moderate | 4 -Moderate | 12 | 4 -Moderate | 12 |  | Mitigate | The project team will work with the utility companies to ensure delays do not occur.                                                                                                                                        | Design / R/W             | 8/10/2015 |
| Active | 15 | Threat | ROW            | Resolving objections to Right of Way appraisal takes more time and/or money                                                              | Right-of-way appraisals may cause delays to the project schedule.                                                                                                                                 | Right-of-way acquisitions are expected to begin early enough to avoid delays to the project schedule.                     | 2-Low      | 2 -Low      | 4  | 4 -Moderate | 8  |  | Mitigate | Begin right-of-way acquisitions early enough to help avoid potential delays to the project schedule.                                                                                                                        | Project Management / R/W | 8/10/2015 |
| Active | 16 | Threat | ROW            | Seasonal requirements during utility relocation                                                                                          | Some utilities may be limited to being relocated during certain times of the year.                                                                                                                | Limited utility impacts are expected. Subsequently, seasonal requirements are not expected.                               | 2-Low      | 2 -Low      | 4  | 4 -Moderate | 8  |  | Accept   | Seasonal requirements will be identified during the PA&ED phase.                                                                                                                                                            | Environmental / R/W      | 8/10/2015 |
| Active | 17 | Threat | Organizational | Internal "red tape" causes delay getting approvals, decisions                                                                            | Due to processing guidelines, schedule delays could occur.                                                                                                                                        | It is not expected that lengthy delays will occur.                                                                        | 3-Moderate | 2 -Low      | 6  | 4 -Moderate | 12 |  | Accept   | Investigate in advance of and conform to all Caltrans and County requirements.                                                                                                                                              | Project Management       | 8/10/2015 |
| Active | 18 | Threat | Organizational | Functional units not available, overloaded                                                                                               | Due to agency workload, delays in project schedule could occur.                                                                                                                                   | Project schedule will be provided at the beginning of the PA&ED phase.                                                    | 3-Moderate | 2 -Low      | 6  | 4 -Moderate | 12 |  | Mitigate | Coordinate anticipated submittal dates to help functional units schedule adequate resources. A workload agreement will be coordinated prior to the completion of the schedule.                                              | Project Management       | 8/10/2015 |

**ATTACHMENT H**  
**STORMWATER DOCUMENTATION**

# APPENDIX E

Submitted 8-06-2015 (PSR-PDS)

## I-15 / Deer Springs Interchange Long Form - Storm Water Data Report



|                         |                                         |
|-------------------------|-----------------------------------------|
| Dist-County-Route:      | 11-SD-015                               |
| Post Mile Limits:       | PM R36.0/R37.2                          |
| Project Type:           | Interchange Reconfiguration             |
| Project ID (or EA):     | 11-14000093 (11-41840K)                 |
| Program Identification: | -                                       |
| Phase:                  | <input checked="" type="checkbox"/> PID |
|                         | <input type="checkbox"/> PA/ED          |
|                         | <input type="checkbox"/> PS&E           |

Regional Water Quality Control Board(s): San Diego RWCQB Region 9

Is the Project required to consider Treatment BMPs? Yes  No   
 If yes, can Treatment BMPs be incorporated into the project? Yes  No

If No, a Technical Data Report must be submitted to the RWQCB at least 30 days prior to the projects RTL date. List RTL Date: \_\_\_\_\_

Total Disturbed Soil Area: 30 ACRES Risk Level: 2  
 Estimated: Construction Start Date: May 2018 Construction Completion Date: April 2020  
 Notification of Construction (NOC) Date to be submitted: January 2018

Erosivity Waiver Yes  Date: \_\_\_\_\_ No   
 Notification of ADL reuse (if Yes, provide date) Yes  Date: \_\_\_\_\_ No   
 Separate Dewatering Permit (if yes, permit number) Yes  Permit # \_\_\_\_\_ No

*This Report has been prepared under the direction of the following Licensed Person. The Licensed Person attests to the technical information contained herein and the date upon which recommendations, conclusions, and decisions are based. Professional Engineer or Landscape Architect stamp required at PS&E.*

Paul Kosinski 8/6/2015  
 Paul Kosinski, Registered Project Engineer/Landscape Architect Date

I have reviewed the stormwater quality design issues and find this report to be complete, current and accurate:

\_\_\_\_\_  
Ismael Salazar, Project Manager Date

\_\_\_\_\_  
Terry Kloepfer, Designated Maintenance Representative Date

\_\_\_\_\_  
Tim Mann, Acting Landscape Architect Representative Date

[Stamp Required for PS&E only]

\_\_\_\_\_  
Carl Savage, District SW Coordinator Date

## STORM WATER DATA INFORMATION

### 1. Project Description

- *Clearly describe the type of project and major engineering features.*

The project proposes to widen Deer Springs Road from west of Mesa Rock Road to east of Centre City Parkway/Champagne Boulevard. The widening will require improvements to or replacement of the existing Deer Spring Road Bridge Overcrossing. In addition, improvements to intersections and freeway access ramps will also be required. The proposed project is located at the existing Interstate 15 (I-15)/Deer Springs Road Interchange between Mesa Rock Road and Champagne Boulevard.

The purpose of the Deer Springs Road Interchange modifications is to alleviate existing traffic congestion and improve interchange traffic operations to meet 2040 forecasted traffic demands. The improvements to Deer Springs Road and the I-15/Deer Springs Road Interchange are off-line improvements required to implement the Sierra Project. The Sierra Project is a proposed master-planned community project integrating residential, commercial, recreational, and open space land uses, on 1,985-acres located west of I-15 and north of Deer Springs Road. Currently Deer Springs Road is a two lane facility and the on and off ramps for the I-15 interchange are single lanes. The interchange and adjacent intersections are currently over capacity. With forecasted regional growth including the addition of the Sierra Project, improvements will be needed to reduce the congestion in the area.

- *Quantify total disturbed soil area and describe how it was calculated. It should be noted that projects that preserve, upkeep, and restore roadway structures do not need to include these activities within the calculation for DSA.*

The total disturbed soil area of the project has been estimated to be approximately 30 acres for each build alternative. This value is based on potential areas of exposed, erodible soil within the project limits that result from the construction of grading and roadways.

- *Quantify the existing impervious surface, and the impervious surface area after the project is completed.*

There are 12 acres of existing impervious surface within the project limits. The proposed project would add between 1.5 acres to 4.5 acres, depending on which alternative, of impervious surface for a total impervious area of 13.5 to 16.5 acres.

- *Identify all urban MS4 areas within the project limits.*

The project is located in Hidden Meadows, an unincorporated community of San Diego County. Within the project limits, the San Diego County operates under an MS4 permit that includes storm drain inlets, concrete ditches, natural dirt ditches, and Deer Springs Creek which crosses the I-15 south of Deer Springs Road Interchange, through a 10-foot by 5-foot Reinforced Concrete Box (RCB).

### 2. Site Data and Storm Water Quality Design Issues (refer to Checklists SW-1, SW-2, and SW-3)

*Project Engineer (PE) should confer with District/Regional Storm Water Coordinator, Landscape Architecture, Maintenance, Hydraulics, Construction and Environmental Units to define design issues.*

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Provide a narrative that contains pertinent information from source documents identified on SW-1 (e.g. Preliminary Geotechnical Report [PGR]) and a summary of the answers to the questions in SW-2 and SW-3. Use the bullets listed below as examples of information that should be described in the narrative. Note, not all of the information listed is available at each phase of a project (document status of availability, as appropriate). Information to be included will depend on the nature of the project and the site conditions.

- Identify Receiving Water Bodies (including the Hydrologic Area or sub-area [name and/or number]) and distance from the project's outfalls

Storm water runoff from the project site discharges into Deer Springs Creek through a system of inlets, culverts, natural channels and concrete channels. Deer Springs Creek flows south and westerly to San Marcos Creek which joins into Batiquitos Lagoon and ultimately discharges into the Pacific Ocean.

The San Diego Regional Water Quality Control Board (SDRWQCB) Region 9 has jurisdiction within the project limits. The project discharges into the SDRWQCB hydrologic unit 904.5, known as the San Marcos Hydrologic Area comprised of three Hydrologic Sub-Areas: Twin Oaks 904.53, Richland 904.52, and Batiquitos 904.51. The San Marcos Hydrologic Area is one of seven hydrologic areas within the Carlsbad Hydrologic Unit, see Figure 2.1.

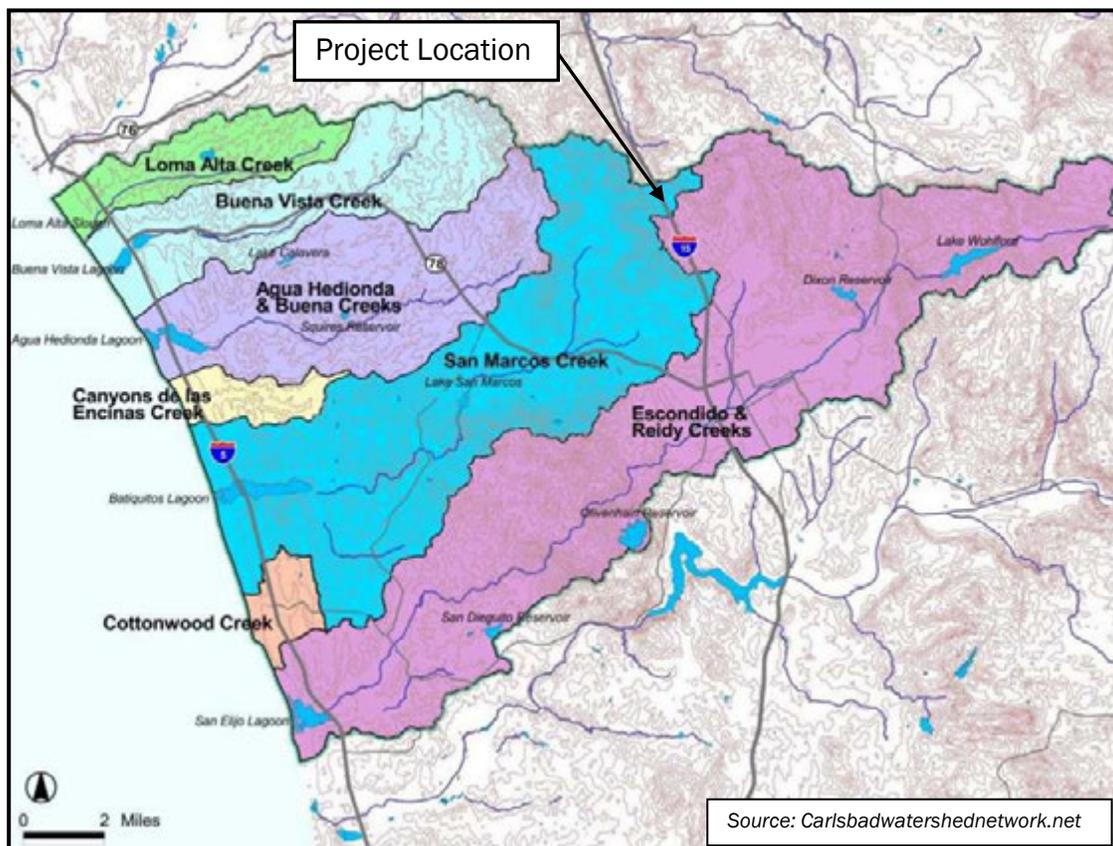


Figure 2.1: Carlsbad Hydrologic Unit

- Identify if any of the Receiving Water Bodies are on the 303(d) list / describe Pollutants of Concern

The San Marcos Creek is an impaired water body on the 303(d) list. Since the California Department of Transportation (Caltrans) must meet requirements set forth

under the National Pollutant Discharge Elimination System (NPDES) Permit mandated by the Federal Clean Water Act for discharge of storm water runoff to the Pacific Ocean, this project will need to be designed in conformance with NPDES requirements. The pollutants listed for San Marcos Creek on the 303(d) list are DDE (Dichlorodiphenyldichloroethylene), Phosphorus, Sediment Toxicity, and Selenium.

- Phosphorus can over stimulate the growth of aquatic plants to the detriment of other aquatic life and to some beneficial uses of the receiving water. Sources of phosphorous that may be present in highway runoff include tree leaves, surfactants, emulsifiers, and natural sources such as mineralized soil organic matter.
- DDE is a chemical similar to DDT (dichloro-diphenyl-trichloroethane), which was a pesticide once use widely to control insects in agriculture and insects that carry disease such as malaria. It was banned in the US in 1972 due to damage to wildlife. DDE has no commercial use.
- According to the California Coastal Commission, phosphorus, DDE, and sediment toxicity result primarily from urban runoff/storm sewers. The project will be mitigated by the use of Construction Site Best Management Practices (BMPs) and Permanent Treatment BMPs to prevent and minimize the discharge of pollutants contained in storm water runoff to the affected waterbodies.

The potential pollutant sources within the project right-of-way to be treated consist primarily of highway runoff. These items for the most part include total suspended solids (TSS) and total dissolved solids (TDS), specifically sediment resulting from erosion, but also including particulate and dissolved metals from the wearing of brake pads and the combustion products of fossil fuels as well as grease and oil from automobiles. The Targeted Design Constituent (TDC) for the receiving water is Phosphorus. The Permanent Treatment BMPs proposed for load reduction of the projects pollutants will address treatment for Phosphorus along with the anticipated pollutants expected in the project vicinity: TSS, TDS, Dissolved metals, grease and oil.

- *Identify if 401 certification is required*

A 401 certification will not be required because the project does not discharge to navigable waters.

- *Identify any Drinking Water Reservoirs and/or Recharge Facilities within project limit*

There are no known drinking water reservoirs and/or recharge facilities located with the project limits.

- *Describe RWQCB special requirements/concerns, including TMDLs or effluent limits*

The SDRWQCB developed a Water Quality Control Plan for the entire San Diego Basin. The plan identifies the beneficial uses of all water bodies within the region in order to determine the water quality objectives necessary to protect those uses. The beneficial uses of inland surface waters defined for the receiving waters within the Twin Oaks Hydrologic Sub-Area are as follows:

- Agricultural Supply (AGR) – Water for farming, horticulture, or ranching
- Water Contact Recreation (REC1) – Water for recreational activities involving body contact with water

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- Non-contact Water Recreation (REC2) – Water for recreational activities not involving body contact with water
- Warm Freshwater Habitat (WARM) – Water that supports aquatic ecosystems
- Wildlife Habitat (WILD) – Water that supports terrestrial ecosystems

The beneficial uses defined for groundwater within the Twin Oaks Hydrologic Sub-Area are as follows:

- Municipal and Domestic Supply (MUN) – Water for community, military, or individual water supply systems
- Agricultural Supply (AGR) – Water for farming, horticulture, or ranching
- Industrial Service Supply (PRO) – Water for industrial activities that do not depend primarily on water quality

NPDES permit Order (2012-0011-DWQ) was adopted by State Water Resources Control Board (SWRCB) effective as of July 1, 2013 and subsequently, On May 20, 2014, the SWRCB, adopted amendments to the Caltrans Statewide Stormwater Permit. Attachment IV was amended to incorporate specific requirements for 84 Total Maximum Daily Loads (TMDLs).

Attachment IV to the Caltrans NPDES permit outlines a methodology for prioritizing stream segments included in TMDLs in which Caltrans is subject to. The permit establishes BMP implementation requirements, evaluated in terms of compliance units. Caltrans is expected to achieve 1650 compliance units per year through the implementation of retrofit BMPs, cooperative implementation, and post construction treatment beyond permit requirements. This prioritization list is currently in development.

- *Describe local agency requirements/concerns*

The project area does not have any High Risk Areas such as municipal or domestic water supply reservoirs or ground water percolation facilities.

- *Describe project design considerations (climate, soil, topography, geology, groundwater, right-of-way requirements, slope stabilization, etc.)*

- The Caltrans March 2003 *Construction Site Best Management Practices (BMPs) Manual*, Table 2-1 designates the rainy season dates for Region 11 (San Diego County) from October 1 through May 1, but due to the minimal amount of rain received yearly in the southern California region, there are no construction work exclusion dates or seasonal construction restrictions required by state or local regulatory agencies.
- The *Caltrans Water Quality Planning Tool* calculates the annual rainfall in the project area as 18.61 inches.
- Based on the soil HSG Classification, Group B (*County of San Diego Hydrology Manual Appendix A*) within the project vicinity, it is estimated that the existing typical infiltration rates are <0.3 in/hr (*Caltrans Storm Water Quality Handbook Project Planning and Design Guide* pg. B-14).
- Rainfall intensity information for the project location will be obtained from NOAA.



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- More detailed information on the geology in the area will be added to this report upon the completion of the Geotechnical Design Report.
- The site exhibits variable topography from hilly and rugged ridges, peaks, and mesas to gently rolling valleys. Given the orientation of the cut slopes, stabilization is not needed. Fill slopes will be constructed at a ratio of 4:1 (H:V) and cut slopes at a ratio of 2:1 (H:V).
- Elevations within the project limits vary between 942 and 1057-feet above mean sea level (NAVD 88). Improvements within the project area will minimally impact the topographic and ground surface relief features.
- Right-of-way impacts for the project involve acquisition of temporary construction easements, permanent easements, and partial takes near state right-of-way or on private property.
- The local land use within the project area and adjacent areas consist primarily of undeveloped private land.
- There is no dry weather flow from Caltrans right of way present on the existing project area.

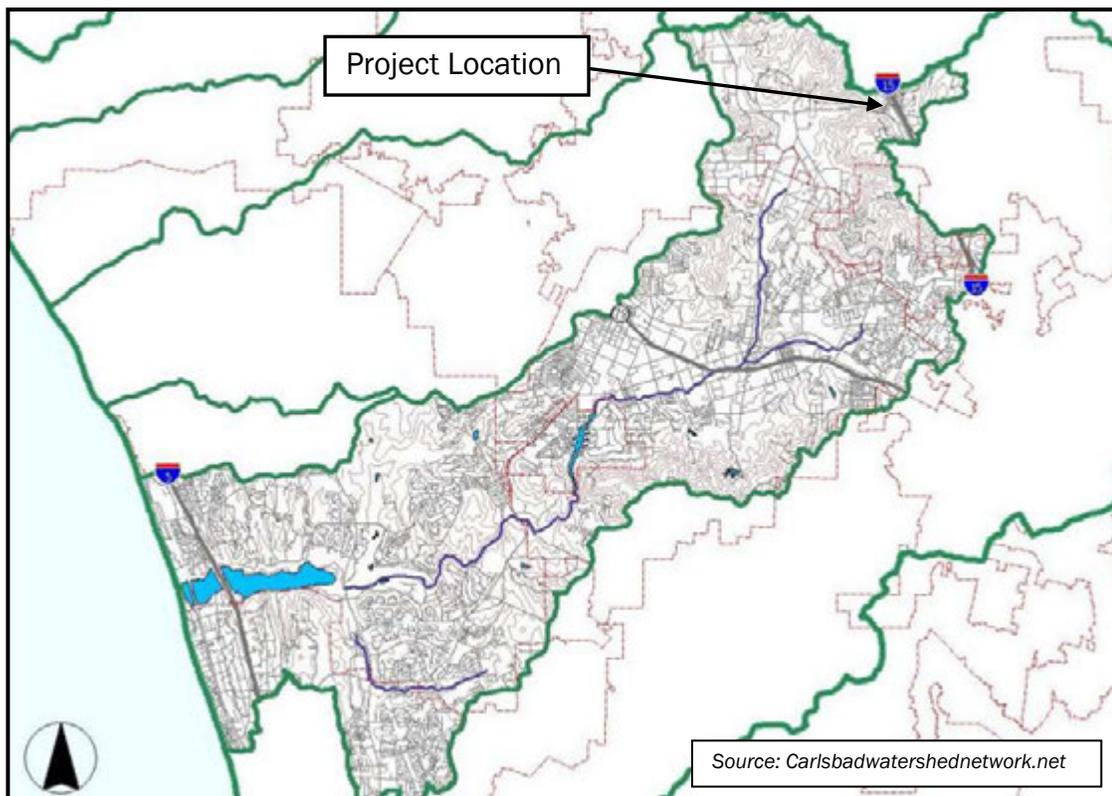


Figure 2.2: San Marcos Hydrologic Area Topography

- *Describe project risk level determination and identify project risk level*

The Risk Level (RL) for this project was determined using the Caltrans Project Risk Determination Guidance. Of the 3 levels established by the Construction General Permit (CGP), this project has a Risk Level of 2. The RL is calculated in two parts: 1) Project Sediment Risk (SR), and 2) Receiving Water Risk (RWR). For this project, SR is

Medium and RWR is high. The Risk determination Worksheet is provided in Attachment C.

- *Identify if project involves reuse of soil containing Aerially Deposited Lead (ADL)*

There are no known contaminated or hazardous soils within project limits at this time.

- *Identify Right-of-way costs for BMPs*

Construction and Maintenance of BMPs would be within the right-of-way limits and no additional right-of-way is required. Adequate funding, including supplemental funds, will be set aside for storm-water pollution control during construction.

- *Describe measures for avoiding or reducing potential stormwater impacts*

For project areas exceeding 1-acre in disturbed soil area, NPDES guidelines necessitate the development of a Storm Water Pollution Prevention Program (SWPPP) by the contractor prior to construction to establish project-specific permanent and temporary BMPs. During the design phase, Water Pollution Control Plans will be prepared to determine the minimum control requirements to be included in the SWPPP.

Within the graded regions along the freeway, runoff will be collected by biofiltration swales or detention basins prior to discharging into Deer Springs Creek.

Standard erosion control practices will be implemented to minimize soil erosion following construction activities. Typical measures utilized during construction include applications of fiber rolls for slope stability and sediment control, temporary construction entrances to prevent sediment tracking on paved surfaces, temporary drainage inlet protection, temporary concrete washouts for concrete spoils, street sweeping, contour grading, temporary check dams and temporary hydraulic mulch or soil binders/tackifiers.

Permanent erosion and sedimentation control features may include but will not be limited to the following: hydroseeding of steeper cut slopes, permanent fiber rolls, erosion control blankets, rip-rap, and improvement of drainage facilities to handle excess runoff.

The project alignment will be chosen to minimize impacts on receiving waters by limiting cut and fill slopes, minimizing disturbance of vegetation, and avoiding formations difficult to re-stabilize. Cut and fill slopes will be made as flat as feasible, and concentrated flows shall be collected in stabilized drains and channels. Benches are not required on slopes 2:1 (H:V) or flatter and the proposed slopes are not large enough to warrant the need of benches. Slopes will be vegetated, rounded or shaped to reduce concentrated flows and will be collected in stabilized drains and channels. Maintenance pullouts are recommended adjacent to the interchange ramps to provide Maintenance and Operations personnel safe access. In addition, native, drought-tolerant plant species may be recommended to minimize landscaping maintenance requirements.

Runoff from painted materials can cause a decrease in water quality. For this reason, the proposed improvements will limit the use of paint in architectural treatment. Textures will be used where appropriate to minimize the usage of paint and other related chemicals that may potentially contribute to storm water pollution.

The modifications to the interchange ramps will require additional drainage crossovers, inlets and outlets. If the proposed conditions are found to increase

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existing flow velocities, mitigation through the use of outlet velocity dissipation or bioswale devices will be implemented. These BMPs will also be utilized as permanent storm water pollution controls early in the construction process to provide additional protection.

- *Identify any existing Treatment BMPs within the project limits and their association with the project*  
The project site currently contains no existing Treatment BMPs.

### **3. Regional Water Quality Control Board Agreements**

*The District/Regional NPDES coordinator will furnish information and language for this part of the Checklist.*

- *Summarize any key negotiated understandings or agreements with RWQCB pertaining to this project. This would include any discussions relating to 401 Certifications, Waste Discharge Requirements, Rainfall Erosivity Waiver, or other required permits/certifications.*

This project does not require any negotiated understandings or agreements with RWQCB at this time.

This project conforms to NPDES-Caltrans Statewide Permit (Order No. 2012-001-DWQ) (NPDES No.CAS000003) and General Construction Permit (Order No. 2012-0006-DWQ) (NPDES CAS000002) apply to this project. The project owner will file a Notice of Intent (NOI) with the State Regional Water Quality Control Board at least 30 days prior to start of construction.

- *Document any specific meeting dates and contact names that reference the negotiated understandings and/or agreements. (Communication with the RWQCB is coordinated through the District/Regional NPDES Storm Water Coordinator.)*

To date no meetings have been held with the San Diego RWQCB to discuss this project and no agreements have been made.

### **4. Proposed Design Pollution Prevention BMPs to be used on the Project.**

*Summarize responses to Checklist DPP-1, Parts 1-5 in a short narrative. Use the sub-headings shown below for the type of information that should be described in the narrative. Note, not all of the bulleted information listed is required or available at each phase of a project. Information to be included will depend on the nature of the project and the site conditions. To comply with the CGP (II.D), sediment yield and site stabilization be described in the permanent erosion control strategy, such that the site will not pose any additional risk than pre-construction conditions.*

*Summarize any qualitative benefits of Design Pollution Prevention BMPs including reducing the release of pollutants to downstream waters, increased detention time to allow for infiltration, reduced discharges (volumetric flow rates), and ancillary filtration and infiltration within vegetated conveyances and surfaces, as described in Section 2.4.1.*

*Develop an estimate of quantities and costs for the erosion control/revegetation portion of the Design Pollution Prevention BMPs as part of the Storm Water BMP Cost Summary; include right-of-way costs if additional right-of-way is needed for erosion control. Complete for each phase of the project.*

#### **Downstream Effects Related to Potentially Increased Flow, Checklist DPP-1, Parts 1 and 2**

- *Identify any increase to velocity or volume of downstream flow*
- *Describe Existing vs. Post Construction Conditions*
- *Describe channel condition and design (e.g., will the project discharge to unlined channels)*

- *Describe potential for increased sediment loading*
- *Identify hydraulic changes that may affect downstream channel stability. (realignment, encroachment, etc.)*

The project may increase the velocity of flow within the project limits, but should have a negligible effect on downstream flow. During the construction phase of the project, conveyance systems will lead to biofiltration swales, or outlet velocity dissipation devices, which will minimize sediment discharges and will prevent an increase in peak flows discharged to receiving water bodies. All transitions between outlets and channels will be smooth to reduce turbulence and scour. Roadway runoff shall be treated and controlled to the maximum extent practical. The project will not encroach, cross, realign, or cause any other hydraulic changes to Deer Springs Creek that may affect downstream channel stability.

### Slope/Surface Protection Systems, Checklist DPP-1, Parts 1 and 3

- *Describe cut and fill requirements*
- *Describe existing and proposed slope conditions*
- *Describe the permanent erosion control strategy (plants, soils, mulch, blankets, establishment periods, etc.)*
- *Use Erosion Prediction Procedure to validate erosion control design (attach RUSLE2 Output as applicable)*
- *When required, provide date of approval of the Erosion Control Plan by Landscape Architecture and Maintenance*
- *Summarize any hard surfaces (rock blankets, paving)*

Conventional cut and fill grading techniques will be used to produce the proposed grades. Both cut and fill slopes will be constructed 2:1 of flatter and be less than 15 feet high. The existing slopes are both stable and vegetated with rounded shapes to reduce concentrated flow.

The existing slopes within the area are stable; however, during construction soil stabilization BMPs will be utilized to prevent soil particles from detaching and becoming suspended in storm water and non-storm water runoff.

These BMPs may include the following:

- The preservation of existing vegetation where required and when feasible;
- The implementation of temporary soil stabilization measures at regular intervals throughout the rainy season;
- The stabilization of non-active areas within 14 days of cessation of construction activities during the rainy season;
- The application of erosion control seeding or check dams for concentrated flow paths; and
- The application of permanent erosion control to remaining disturbed soil areas at the completion of the construction phase. Soil stabilization will involve the installation of uniform vegetative cover, fiber matrices, erosion control blankets, and/or fiber rolls.

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The aforementioned BMPs will be deployed in a sequence to follow the progress of grading and construction. As the locations of soil disturbance change, erosion controls will be adjusted accordingly to control storm water runoff at the downgrade perimeter.

Move-in/move-out (temporary and permanent erosion control) for the project shall include moving onto the project when an area is ready to receive temporary erosion control, setting up required personnel and equipment for the application of erosion control materials and moving out all personnel and equipment when erosion control in that area is completed.

Existing vegetation within the project limits consists primarily of desert brush. The soil type within the project limits range from loamy-sand, to areas of silt or clay. A Landscaping Design shall be developed and approved by the District Landscape Architect. The BMP vegetative surface area will feature native plants. Seed mixtures, mulch, tackifier, and fertilizer recommended by the District Landscape Architect will be utilized.

Hard surface protection (slope paving, rock slope protection) will be constructed beneath the bridge abutments where vegetation does not provide adequate erosion protection. In addition, hard surface BMPs are planned at the gore points within the interchanges for maintenance and safety purposes.

The total BMP area will be determined during the design stage of the project.

### Concentrated Flow Conveyance Systems, Checklist DPP-1, Parts 1 and 4

- *Briefly describe the Concentrated Conveyance Systems to be implemented for this project*

The exact locations and sizes of the drainage system components have not yet been determined. However, the project Drainage Report shall contain designs with the following general features:

- Surface runoff will be conveyed via curb and gutter, to inlets. Flared end sections and riprap material are proposed at the outlets of the storm drains to reduce the flow velocities of the discharged storm water.
- Bridge runoff will be collected in a bridge drainage system and conveyed to proposed treatment BMPs.

It shall be the intent of the drainage design to prevent increases to existing flow velocities through the use of grading, energy dissipaters, and bio-swales. The drainage report shall include an analysis of flows at the outlets of the project to determine impacts. Offsite drainage patterns will be maintained and onsite drainage patterns will be designed to closely mimic existing drainage patterns.

### Preservation of Existing Vegetation, Checklist DPP-1, Parts 1 and 5

- *Describe area(s) of clearing and grubbing identified and defined in the contract plans*

Clearing and grubbing will be performed on all areas located within the cut/fill. Clearing and grubbing limits will not be identified at this phase.

- *Describe area(s) that will be placed off-limits to the contractor, if applicable (e.g., ESA areas)*

Areas to be placed off-limits to the contractor have not been identified at this time. Locations will be shown on plans.

- Consider project changes to increase preservation or preserve/avoid critical areas such as floodplains, wetlands, problem soils, and steep slopes.

Preservation areas will not be identified at this project phase. Locations identified on project drawings will be fenced during construction.

## 5. Proposed Permanent Treatment BMPs to be used on the Project

Summarize responses to Checklist T-1, Parts 1-10 in a short narrative. Use the bullets listed below as examples of information that should be described in the narrative. Note, not all of the information listed is required or available at each phase of a project. Information to be included will depend on the nature of the project and the site conditions.

Develop an estimate of quantities and costs for the proposed Treatment BMPs as part of the Storm Water BMP Cost Summary; include additional right-of-way costs if needed for these BMPs. Complete for each phase of the project.

***This section of the SWDR should be used to develop the Technical Report required by the SWMP for projects that must consider Treatment BMPs, but are not able to incorporate them due to siting constraints. At PS&E stage, if the project must consider Treatment BMPs but is not able to incorporate them, document the date of the submittal of the Technical Report to the appropriate RWQCB.***

### Treatment BMP Strategy, Checklist T-1

- List the Targeted Design Constituent(s), if any.

The TDC for the project is phosphorous.

- List what percentage of the WQV (or WQF depending upon device) will be treated. If less than 100%, describe justification.

The goal of the project will be to treat 100% of the WQV/WQF. A more accurate number will be obtained at the design phase.

- Describe the Treatment BMP strategy for the watershed(s) within the project limits.

Phosphorus has been identified the first priority design pollutant for the proposed project due to the concentrations of phosphorus in the receiving waters of San Marcos Creek. The project will also address the anticipated pollutants expected in the project vicinity: TSS, TDS, Dissolved metals, grease and oil. Mitigation for short and long-term impacts to water quality is proposed through incorporating biofiltration swales, detention basins or Austin Sand Filters. Biofiltration swales and detention basins have a low to medium removal effectiveness for Sediment and Nutrient targeted constituents and are also considered sufficient treatment for Metals and Pathogens, per Caltrans Stormwater BMP website. Austin Sand Filters primarily remove TSS, dissolved metals, litter, and are effective at removing phosphorus, per *BMP Retrofit Pilot Program, FINAL REPORT*, January 2004.

The preliminary locations identified that could house a treatment BMP feature are in the southeast and southwest quadrants of the interchange. These BMPs should intercept and treat rainfall runoff from the roadway and assist in achieving future TMDL requirements. The biofiltration swales could potentially be placed on the shoulders of the ramps.

### Biofiltration Swales/Strips, Checklist T-1, Parts 1 and 2

- Are Biofiltration Swales/Strips incorporated into project? If not, explain reason why not feasible. If yes, list number of Biofiltration Swales and Strips, location(s), approximate dimensions of device, and total WQF treated.

Biofiltration BMPs are a potential Treatment BMP.

- *Quantify Tributary Area*

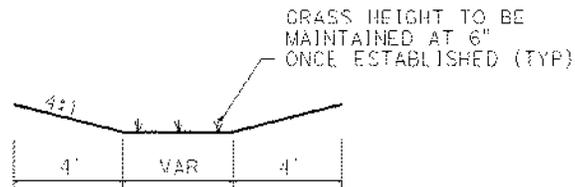
Tributary areas will not be determined at this project phase.

Biofiltration BMPs are linear channels that are lined with vegetation for the purpose of storm water conveyance and treatment. Biofiltration swales are designed to reduce the velocity of storm water runoff at the water quality event and remove particulate pollutants. These swales provide moderate to low treatment efficiencies for particulate and dissolved metals, grease and oil, and Total Suspended Solids (TSS). Most of the proposed biofiltration swales will follow existing and proposed roadway slopes, with some additional excavation required. They will also be designed to minimize flow depth, minimize flow velocity, maximize length, and eliminate standing water. The scour velocity for the type of soil will not exceed 4.0-feet per second per Table B-1 Summary of Biofiltration Strips and Swales Siting and Design Factors, of the Caltrans PPDG, July 2010.

Although the overall pavement area will increase, proposed biofiltration swales and grading modifications will reduce the increased flow rates to minimize additional storm water runoff to the Deer Springs Creek. These discharges will be treated through settling, infiltration and biofiltration as they pass slowly through the flat, vegetated, trapezoidal channel and into an inlet with apron.

Biofiltration swales require maintenance responsibilities including:

- Periodic sediment removal
- Trash, debris and vegetation removal
- Vegetation Management
- Animal/Vector control
- Removal of standing water
- Erosion and structural maintenance



**Figure 5.1: Biofiltration Swale Cross-Section**

The cross-section of the swales will be trapezoidal with a minimum top width of 12-feet, minimum depth of 1-foot and side slopes of 4:1 or flatter. The swales will be designed for both the water quality storm and the 25-year storm. For the water quality storm, the runoff shall have a minimum hydraulic residence time of 5 minutes, maximum flow velocity of 1-foot per second and maximum depth of 3-inches. For the 25-year storm, the storm water runoff shall have a maximum flow velocity of 4-feet per second, maximum depth of 1-foot, and a minimum freeboard of 6-inches below the edge of shoulder flow line. Swale grass heights will be maintained around 6-inches once established.

### Dry Weather Diversion, Checklist T-1, Parts 1 and 3

- *Are Dry Weather Diversions incorporated into project? If not, explain reason why not feasible. If yes, list number of Dry Weather Diversions, location(s), and total flow rate diverted.*

- Describe persistent dry weather flows
- Describe proximity to sanitary sewer
- Document Publicly Owned Treatment Works (POTW) and local health agencies acceptance
- Identify need for existing sanitary sewer pipeline upgrade

Dry weather flow is not an issue within the project area. Dry weather diversion devices will not be incorporated into the proposed design.

#### **Infiltration Devices – Checklist T-1, Parts 1 and 4**

- Are Infiltration Devices incorporated into project? If not, explain reason why not feasible (e.g. threat to local groundwater quality, etc.). If yes, list number of Infiltration Devices, location(s), and total WQV treated.
- Quantify approximate tributary area of impervious surface per Infiltration Device
- Calculate Water Quality Volume (WQV) treated per Treatment Infiltration Device
- Document soil type , HSG, and permeability
- Document groundwater depth
- Identify infiltration rate
- Discuss Geotechnical Integrity

An infiltration basin is a device designed to remove pollutants from surface discharges by capturing the Water Quality Volume (WQV) and infiltrating it directly to the soil rather than discharging to receiving waters. An infiltration basin could be used depending on the height of the water table and the permeability of soil. These findings will be reported in the Geotechnical Design Report and then it can be concluded whether an infiltration basin would be an adequate BMP.

#### **Detention Devices, Checklist T-1, Parts 1 and 5**

- Are Detention Devices incorporated into project? If not, explain reason why not feasible. If yes, list number of Detention Devices, location(s), and total WQV treated.
- Quantify approximate tributary area of impervious surface per Treatment Detention Basin
- Calculate WQV treated per Treatment Detention Basin
- Discuss Geotechnical Integrity
- Document groundwater depth
- Discuss hydraulic head sufficiency

A detention basin is a permanent device formed by excavating and/or constructing an embankment so that runoff from the water quality design storm is temporarily detained under quiescent conditions, allowing sediment and particulates to settle out before the runoff is discharged. The design flows throughout the project limits will be influenced by the following parameters: pavement area changes, storm water conveyance extensions or modifications, and grading modifications.

The design of any detention basin will use the guidance provided in the Caltrans PPDG.

#### **Gross Solids Removal Devices (GSRDs), Checklist T-1, Parts 1 and 6**

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- *Are GSRDs incorporated into project? If not, explain reason why not feasible or required. If yes, list number of GSRDs, location(s), and total tributary area treated.*
- *Is receiving water on a 303(d) list for trash or have Total Maximum Daily Loads (TMDLs) for trash been established?*
- *Calculate Tributary Area for each GSRD*
- *Estimate volume of each GSRD device*
- *Identify peak design flow*

Since the project site has no TMDL for trash or litter, GSRDs have not been proposed for the project improvements.

### Traction Sand Traps, Checklist T-1, Parts 1 and 7

- *Are Traction Sand Traps incorporated into project? If not, explain reason why not feasible or required. If yes, list number of Traction Sand Traps, location(s).*
- *Is Traction Sand or an abrasive applied to roadway more than twice per year?*
- *Estimate volume of traction sand applied (S) (ft<sup>3</sup>/yr)*
- *Estimate impact from highway sweeping, snow-blowing operations, or accumulation from other sources*
- *Discuss Traction Sand Trap cleaning frequency and Maintenance operational needs such as pullouts*

Traction sand is not regularly applied within the project limits; therefore there are no Traction Sand Trap Devices within the project limits.

### Media Filters, Checklist T-1, Parts 1 and 8

- *Are Media Filters incorporated into project? If not, explain reason why not feasible. If yes, list number of Media Filters, location(s), and total WQV treated.*
- *Identify type of Media Filter incorporated: Full Sedimentation Austin Sand Filter, Partial Sedimentation Austin Sand Filter or Delaware Sand Filter*
- *If an Austin Sand Filter is incorporated into project, identify if earthen configuration or lined*
- *Is pretreatment provided to capture sediment and litter?*
- *Quantify approximate tributary area of impervious surface per Media Filter*
- *Identify Water Quality Volume (WQV) treated per Media Filter*
- *Identify depth to groundwater*
- *Discuss local vector agency issues*

Media Filters remove fine sediment, particulate-associated pollutants, and sometimes dissolved pollutants. The normal configuration of such a device consists of an initial sedimentation basin or vault followed by a filtering vault that is lined with a media. Media Filters have been considered for the project location because they would treat for all the target pollutants. Media Filters have the potential to create a permanent pool of standing water where mosquito breeding is likely to occur and they are not preferred by vector control authorities. The filter material would require changing every three to five years along with standard detention basin maintenance. The construction costs are approximately three times that of a comparable sized detention basin. However, even with the increased construction and maintenance costs; media filters are being considered because, the TDC



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for San Marcos Creek is Phosphorus and these treatment BMPs are more effective at reducing this pollutant load than other viable options.

### Multi-Chambered Treatment Trains (MCTTs), Checklist T-1, Parts 1 and 9

- *Are MCTTs incorporated into project? If not, explain reason why not feasible. If yes, list number of MCTTs, location(s), and total WQV treated.*
- *Quantify approximate tributary area of impervious surface per MCTT*
- *Identify Water Quality Volume (WQV) treated per MCTT*
- *Discuss local vector agency issues*

Multi-chamber treatment trains use three treatment mechanisms in three different chambers. These include a catch basin with a sump, a sedimentation chamber with tube settlers and sorbet pads, and a filtering chamber lined with media. Similarly to Media Filters, MCTTs have the potential to create vector control issues, require excessive underground storage requirements, and additional maintenance. Therefore, MCTTs are not considered feasible for this project.

### Wet Basins, Checklist T-1, Parts 1 and 10

- *Are Wet Basins incorporated into project? If not, explain reason why not feasible. If yes, list number of Wet Basins, location(s), and total WQV treated.*
- *Quantify approximate tributary area of impervious surface per Wet Basin*
- *Identify Water Quality Volume (WQV) treated per Wet Basin*
- *Identify soil type and permeability*
- *Document groundwater depth*

Wet basins (constructed wetlands) are permanent pools of water designed to mimic naturally occurring wetlands. The main distinction between construction and natural wetlands is that constructed wetlands are placed in upland areas and are not subject to wetland protection regulations. Wet basins are not practical BMP devices because they should only be considered when the site is located where the visual aesthetics of the permanent pool is a considered a benefit (e.g. roadside rest area or vista point). In addition, wet basins require a steady source of water to maintain a permanent pool and the flows from the project site are intermittent. Wet Basins are not a feasible BMP for the project.

## **6. Proposed Temporary Construction Site BMPs to be used on Project**

*Summarize the selected Construction Site BMPs in a Short Narrative. The narrative should also include any pertinent details from the strategy used for the implementation of Construction Site BMPs (e.g. specific project conditions, construction operations, etc.) and monitoring. It is understood that the level of detail discussed will be different at each phase of the project. Include a brief summary to how the BMPs were estimated.*

- *Identify those Construction Site BMPs that have been designated as separate Bid Line Items.*
- *Identify those Construction Site BMPs incorporated as a lump sum in the Construction Site Management Item.*
- *Identify project risk level. If Risk Level 2 or 3, then identify planned monitoring locations and activities.*
- *Identify if dewatering will be required during the construction of the project. Describe circumstances. (i.e. will a separate dewatering permit be needed?)*

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- *Identify if active treatment systems (ATS) will be used for the site, or portions thereof.*
- *Document the coordination effort to get concurrence with Construction regarding the Construction Site BMP strategy and associated quantities (provide names of staff and date of meeting(s)). Attach a copy of the Construction Site BMP Consideration Form to the SWDR at PS&E.*
- *Develop an estimate of quantities and costs (for internal Caltrans use only) for Construction Site BMPs and monitoring as a part of the Storm Water BMP Cost Summary. Complete for each phase of the project.*

Construction Site BMPs will not be evaluated at this project phase. Proposed temporary construction site BMPs will be designed with coordination from the construction representative.

### **7. Maintenance BMPs (Drain Inlet Stenciling)**

*Briefly describe locations where drain inlet stenciling is required, such as within cities, towns, and communities with populations of 10,000 or more, or within designated MS4 areas. Include any specific stencil types and names of contacts that recommended stencil types or locations.*

All storm water draining into the underground pipe system is eventually discharged to the Pacific Ocean. The County of San Diego and Caltrans have endeavored to inform the public concerning the importance of preventing hazardous or poisonous materials from entering the storm water system. The County and Caltrans may use annotation on drainage inlets with stenciling stating “No Dumping – This Drains to Ocean.” Stenciling should be used on the County streets where dumping will impact Deer Springs Creek, or in other areas recommended by the responsible agency. In addition, Caltrans Maintenance will “number” the drainage inlets, and amend the drainage inlet inventory for the District.

#### Attachments:

- A. Vicinity Map
- B. Evaluation Documentation Form (EDF)
- C. Risk Level Determination Documentation
- D. Checklist SW-1, Site Data Sources
- E. Checklist SW-2, Storm Water Quality Issues Summary
- F. Checklist SW-3, Measures for Avoiding or Reducing Potential Storm Water BMPs
- G. Checklists DPP-1, Parts 1–5 (Design Pollution Prevention BMPs)
- H. Checklists T-1, Parts 1, 2, 4, 5 & 8 (Treatment BMPs)
- I. 303(d) List of Receiving Waters
- J. Water Quality Standard Inventory Database
- K. BMP Cost: Project Planning Cost Estimate (PPCE)

#### Attachments Required at PS&E:

- Construction Site BMP Consideration Form
- SWDR Attachment for SMARTS Input
- RUSLE2 Summary Sheet, as applicable
- Treatment BMP Summary Spreadsheets

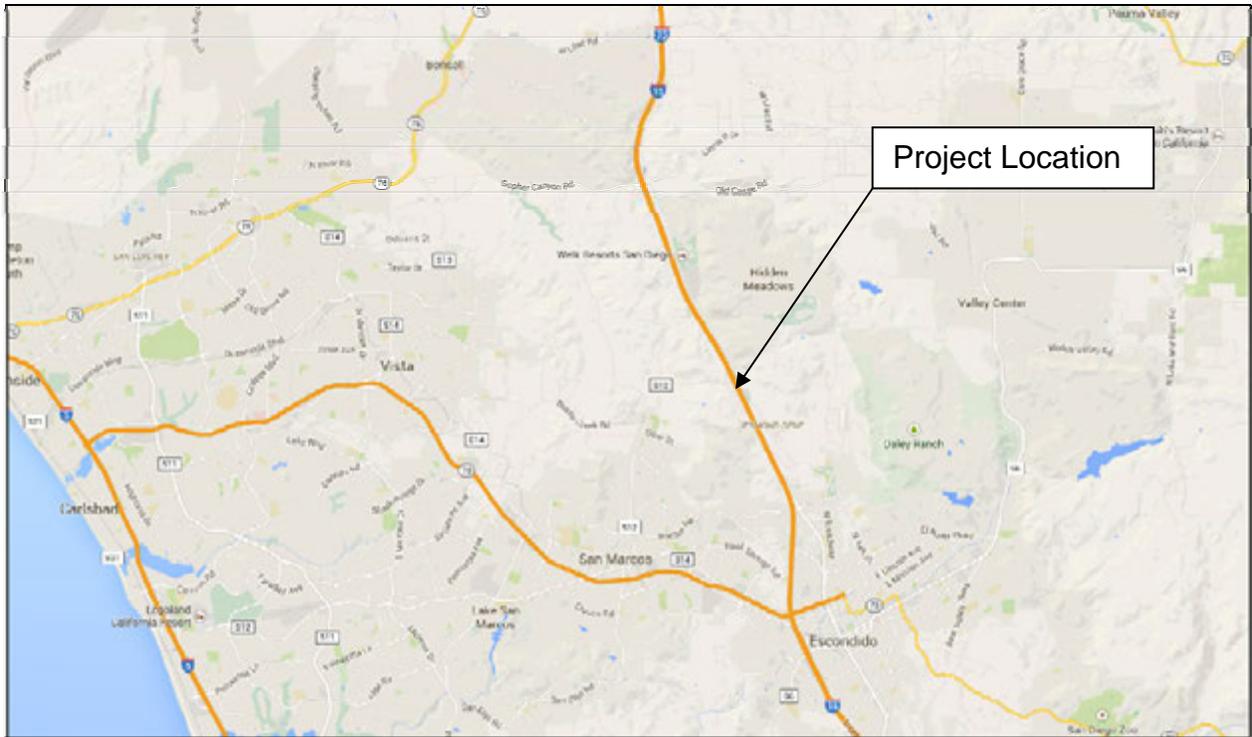
- Quantities for Construction Site BMPs
- Rainfall Erosivity Waiver, if applicable
- Storm Water BMP Cost Summary
- Preliminary Engineer's Cost Estimate (PECE) for PS&E project phase
- Plans showing BMP Deployment
- Pertinent Correspondence with RWQCB *(if requested or recommended by District/Regional NPDES Storm Water Coordinator or Designated Reviewer)*
- Checklists CS-1, Parts 1–6 (Construction Site BMPs)
- Calculations and cross sections related to BMPs *(if requested by District/Regional Design Storm Water Coordinator)*
- Section 13 2010 or (07-340 or 07-345 for 2006) *(if requested or recommended by District/Regional Design Storm Water Coordinator)*
- Conceptual Drainage Map or Drainage Plans, if available *(if requested by District/Regional Design Storm Water Coordinator for review)*



# Attachment A

## Vicinity Map





Vicinity Map

## Attachment B

### Evaluation Documentation Form (EDF)



## Evaluation Documentation Form

DATE: 8/06/2015

Project ID ( or EA): 11-14000093 (11-41840K)

| NO. | CRITERIA                                                                                                                                                                                          | YES<br>✓ | NO<br>✓ | SUPPLEMENTAL INFORMATION FOR<br>EVALUATION                                                                                                                                                                                                                                 |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.  | Begin Project Evaluation regarding requirement for consideration of Treatment BMPs                                                                                                                | ✓        |         | See Figure 4-1, Project Evaluation Process for Consideration of Permanent Treatment BMPs. Go to 2                                                                                                                                                                          |
| 2.  | Is this an emergency project?                                                                                                                                                                     |          | ✓       | If <b>Yes</b> , go to 10.<br>If <b>No</b> , continue to 3.                                                                                                                                                                                                                 |
| 3.  | Have TMDLs or other Pollution Control Requirements been established for surface waters within the project limits?<br>Information provided in the water quality assessment or equivalent document. |          | ✓       | If <b>Yes</b> , contact the District/Regional NPDES Coordinator to discuss the Department's obligations under the TMDL (if Applicable) or Pollution Control Requirements, go to 9 or 4.<br><br>_____ (Dist./Reg. SW Coordinator initials)<br>If <b>No</b> , continue to 4. |
| 4.  | Is the project located within an area of a local MS4 Permittee?                                                                                                                                   | ✓        |         | If <b>Yes</b> , <u>County of San Diego</u> , go to 5.<br>If <b>No</b> , document in SWDR go to 5.                                                                                                                                                                          |
| 5.  | Is the project directly or indirectly discharging to surface waters?                                                                                                                              | ✓        |         | If <b>Yes</b> , continue to 6.<br>If <b>No</b> , go to 10.                                                                                                                                                                                                                 |
| 6.  | Is it a new facility or major reconstruction?                                                                                                                                                     | ✓        |         | If <b>Yes</b> , continue to 8.<br>If <b>No</b> , go to 7.                                                                                                                                                                                                                  |
| 7.  | Will there be a change in line/grade or hydraulic capacity?                                                                                                                                       |          |         | If <b>Yes</b> , continue to 8.<br>If <b>No</b> , go to 10.                                                                                                                                                                                                                 |
| 8.  | Does the project result in a <u>net increase of one acre or more of new impervious surface</u> ?                                                                                                  | ✓        |         | If <b>Yes</b> , continue to 9.<br>If <b>No</b> , go to 10.<br><br><u>1.5-4.5 AC (Net Increase New Impervious Surface)</u>                                                                                                                                                  |
| 9.  | Project is required to consider approved Treatment BMPs.                                                                                                                                          | ✓        |         | See Sections 2.4 and either Section 5.5 or 6.5 for BMP Evaluation and Selection Process. Complete Checklist T-1 in this Appendix E.                                                                                                                                        |
| 10. | Project is not required to consider Treatment BMPs.<br><u>RS</u> (Dist./Reg. Design SW Coord. Initials)<br><u>PK</u> (Project Engineer Initials)<br><u>8/6/15</u> (Date)                          |          |         | Document for Project Files by completing this form, and attaching it to the SWDR.                                                                                                                                                                                          |

1 See Figure 4-1, Project Evaluation Process for Consideration of Permanent Treatment BMPs

# Attachment C

## Risk Determination



| Sediment Risk Factor Worksheet                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | Entry         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------|
| <b>A) R Factor</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |               |
| <p>Analyses of data indicated that when factors other than rainfall are held constant, soil loss is directly proportional to a rainfall factor composed of total storm kinetic energy (E) times the maximum 30-min intensity (I30) (Wischmeier and Smith, 1958). The numerical value of R is the average annual sum of EI30 for storm events during a rainfall record of at least 22 years. "Isoerodent" maps were developed based on R values calculated for more than 1000 locations in the Western U.S. Refer to the link below to determine the R factor for the project site.</p> <p><a href="http://water.epa.gov/polwaste/npdes/stormwater/Rainfall-Erosivity-Factor-Calculator.cfm">http://water.epa.gov/polwaste/npdes/stormwater/Rainfall-Erosivity-Factor-Calculator.cfm</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |               |
| <b>R Factor Value</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | 73.95         |
| <b>B) K Factor (weighted average, by area, for all site soils)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |               |
| <p>The soil-erodibility factor K represents: (1) susceptibility of soil or surface material to erosion, (2) transportability of the sediment, and (3) the amount and rate of runoff given a particular rainfall input, as measured under a standard condition. Fine-textured soils that are high in clay have low K values (about 0.05 to 0.15) because the particles are resistant to detachment. Coarse-textured soils, such as sandy soils, also have low K values (about 0.05 to 0.2) because of high infiltration resulting in low runoff even though these particles are easily detached. Medium-textured soils, such as a silt loam, have moderate K values (about 0.25 to 0.45) because they are moderately susceptible to particle detachment and they produce runoff at moderate rates. Soils having a high silt content are especially susceptible to erosion and have high K values, which can exceed 0.45 and can be as large as 0.65. Silt-size particles are easily detached and tend to crust, producing high rates and large volumes of runoff. Use Site-specific data must be submitted.</p> <p><a href="ftp://swrcb2a.waterboards.ca.gov/pub/swrcb/dwq/cgp/Risk/RUSLE/RUSLE_K_Factor/">ftp://swrcb2a.waterboards.ca.gov/pub/swrcb/dwq/cgp/Risk/RUSLE/RUSLE_K_Factor/</a></p> |  |               |
| <b>K Factor Value</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | 0.2           |
| <b>C) LS Factor (weighted average, by area, for all slopes)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |               |
| <p>The effect of topography on erosion is accounted for by the LS factor, which combines the effects of a hillslope-length factor, L, and a hillslope-gradient factor, S. Generally speaking, as hillslope length and/or hillslope gradient increase, soil loss increases. As hillslope length increases, total soil loss and soil loss per unit area increase due to the progressive accumulation of runoff in the downslope direction. As the hillslope gradient increases, the velocity and erosivity of runoff increases. Use the LS table located in separate tab of this spreadsheet to determine LS factors. Estimate the weighted LS for the site prior to construction.</p> <p><a href="tp://swrcb2a.waterboards.ca.gov/pub/swrcb/dwq/cgp/Risk/RUSLE/RUSLE_LS_Factor/">tp://swrcb2a.waterboards.ca.gov/pub/swrcb/dwq/cgp/Risk/RUSLE/RUSLE_LS_Factor/</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                           |  |               |
| <b>LS Factor Value</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | 4.59          |
| <b>Watershed Erosion Estimate (=RxKxLS) in tons/acre</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | 67.8861       |
| <b>Site Sediment Risk Factor</b><br>Low Sediment Risk: < 15 tons/acre<br>Medium Sediment Risk: >=15 and <75 tons/acre<br>High Sediment Risk: >= 75 tons/acre                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  | <b>Medium</b> |



**Water: Stormwater**

You are here: [Water](#) » [Pollution Prevention & Control](#) » [Permitting \(NPDES\)](#) » [Stormwater](#) » LEW Results

## LEW Results

### Rainfall Erosivity Factor Calculator for Small Construction Sites

#### Facility Information

|             |            |
|-------------|------------|
| Start Date: | 05/01/2018 |
| End Date:   | 5/1/2020   |
| Latitude:   | 33.197     |
| Longitude:  | -117.125   |

#### Erosivity Index Calculator Results

AN EROSIIVITY INDEX VALUE OF **73.95** HAS BEEN DETERMINED FOR THE CONSTRUCTION PERIOD OF **05/01/2018 - 5/1/2020**.

A rainfall erosivity factor of 5.0 or greater has been calculated for your site and period of construction. **You do NOT qualify for a waiver from NPDES permitting requirements.**

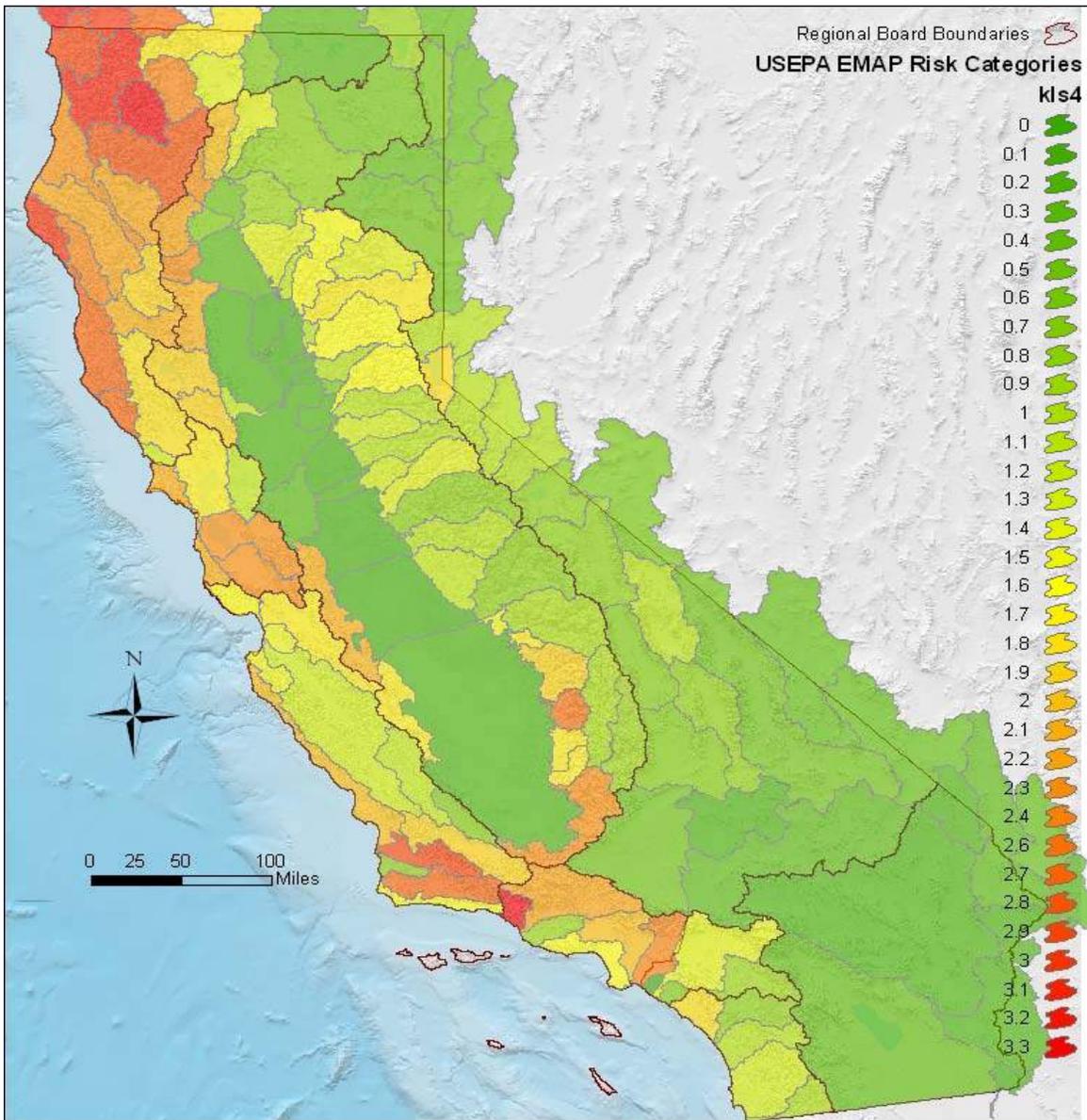
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Last updated on Monday, July 28, 2014

## Risk Level Determination

For the GIS Map Method, the R factor for the project is calculated using the online calculator at (see cell to right). The product of K and LS are shown on the figure below. To determine soil loss in tons per acre, multiply the R factor times the value for K times LS from the map.

<http://cfpub.epa.gov/npdes/stormwater/LEW/lewCalculator.cfm>



# Rish Level Determination

| Sheet<br>Flow<br>Length<br>(ft) | Average Watershed Slope (%) |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |       |       |
|---------------------------------|-----------------------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
|                                 | 0.2                         | 0.5  | 1.0  | 2.0  | 3.0  | 4.0  | 5.0  | 6.0  | 8.0  | 10.0 | 12.0 | 14.0  | 16.0  | 20.0  | 25.0  | 30.0  | 40.0  | 50.0  | 60.0  |
| <3                              | 0.05                        | 0.07 | 0.09 | 0.13 | 0.17 | 0.20 | 0.23 | 0.26 | 0.32 | 0.35 | 0.36 | 0.38  | 0.39  | 0.41  | 0.45  | 0.48  | 0.53  | 0.58  | 0.63  |
| 6                               | 0.05                        | 0.07 | 0.09 | 0.13 | 0.17 | 0.20 | 0.23 | 0.26 | 0.32 | 0.37 | 0.41 | 0.45  | 0.49  | 0.56  | 0.64  | 0.72  | 0.85  | 0.97  | 1.07  |
| 9                               | 0.05                        | 0.07 | 0.09 | 0.13 | 0.17 | 0.20 | 0.23 | 0.26 | 0.32 | 0.38 | 0.45 | 0.51  | 0.56  | 0.67  | 0.80  | 0.91  | 1.13  | 1.31  | 1.47  |
| 12                              | 0.05                        | 0.07 | 0.09 | 0.13 | 0.17 | 0.20 | 0.23 | 0.26 | 0.32 | 0.39 | 0.47 | 0.55  | 0.62  | 0.76  | 0.93  | 1.08  | 1.37  | 1.62  | 1.84  |
| 15                              | 0.05                        | 0.07 | 0.09 | 0.13 | 0.17 | 0.20 | 0.23 | 0.26 | 0.32 | 0.40 | 0.49 | 0.58  | 0.67  | 0.84  | 1.04  | 1.24  | 1.59  | 1.91  | 2.19  |
| 25                              | 0.05                        | 0.07 | 0.10 | 0.16 | 0.21 | 0.26 | 0.31 | 0.36 | 0.45 | 0.57 | 0.71 | 0.85  | 0.98  | 1.24  | 1.56  | 1.86  | 2.41  | 2.91  | 3.36  |
| 50                              | 0.05                        | 0.08 | 0.13 | 0.21 | 0.30 | 0.38 | 0.46 | 0.54 | 0.70 | 0.91 | 1.15 | 1.40  | 1.64  | 2.10  | 2.67  | 3.22  | 4.24  | 5.16  | 5.97  |
| 75                              | 0.05                        | 0.08 | 0.14 | 0.25 | 0.36 | 0.47 | 0.58 | 0.69 | 0.91 | 1.20 | 1.54 | 1.87  | 2.21  | 2.86  | 3.67  | 4.44  | 5.89  | 7.20  | 8.37  |
| 100                             | 0.05                        | 0.09 | 0.15 | 0.28 | 0.41 | 0.55 | 0.68 | 0.82 | 1.10 | 1.46 | 1.88 | 2.31  | 2.73  | 3.57  | 4.59  | 5.58  | 7.44  | 9.13  | 10.63 |
| 150                             | 0.05                        | 0.09 | 0.17 | 0.33 | 0.50 | 0.68 | 0.86 | 1.05 | 1.43 | 1.92 | 2.51 | 3.09  | 3.68  | 4.85  | 6.30  | 7.70  | 10.35 | 12.75 | 14.89 |
| 200                             | 0.06                        | 0.10 | 0.18 | 0.37 | 0.57 | 0.79 | 1.02 | 1.25 | 1.72 | 2.34 | 3.07 | 3.81  | 4.56  | 6.04  | 7.88  | 9.67  | 13.07 | 16.16 | 18.92 |
| 250                             | 0.06                        | 0.10 | 0.19 | 0.40 | 0.64 | 0.89 | 1.16 | 1.43 | 1.99 | 2.72 | 3.60 | 4.48  | 5.37  | 7.16  | 9.38  | 11.55 | 15.67 | 19.42 | 22.78 |
| 300                             | 0.06                        | 0.10 | 0.20 | 0.43 | 0.69 | 0.98 | 1.28 | 1.60 | 2.24 | 3.09 | 4.09 | 5.11  | 6.15  | 8.23  | 10.81 | 13.35 | 18.17 | 22.57 | 26.51 |
| 400                             | 0.06                        | 0.11 | 0.22 | 0.48 | 0.80 | 1.14 | 1.51 | 1.90 | 2.70 | 3.75 | 5.01 | 6.30  | 7.60  | 10.24 | 13.53 | 16.77 | 22.95 | 28.60 | 33.67 |
| 600                             | 0.06                        | 0.12 | 0.24 | 0.56 | 0.96 | 1.42 | 1.91 | 2.43 | 3.52 | 4.95 | 6.67 | 8.45  | 10.26 | 13.94 | 18.57 | 23.14 | 31.89 | 39.95 | 47.18 |
| 800                             | 0.06                        | 0.12 | 0.26 | 0.63 | 1.10 | 1.65 | 2.25 | 2.89 | 4.24 | 6.03 | 8.17 | 10.40 | 12.69 | 17.35 | 23.24 | 29.07 | 40.29 | 50.63 | 59.93 |
| 1000                            | 0.06                        | 0.13 | 0.27 | 0.69 | 1.23 | 1.86 | 2.55 | 3.30 | 4.91 | 7.02 | 9.57 | 12.23 | 14.96 | 20.57 | 27.66 | 34.71 | 48.29 | 60.84 | 72.15 |

LS Factors for Construction Sites. *Table from Renard et. al., 1997.*

| Receiving Water (RW) Risk Factor Worksheet                                                                                                                                                                                        | Entry      | Score       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------|
| <b>A. Watershed Characteristics</b>                                                                                                                                                                                               | yes/no     |             |
| A.1. Does the disturbed area discharge (either directly or indirectly) to a <b>303(d)-listed waterbody impaired by sediment</b> ? For help with impaired waterbodies please check the attached worksheet or visit the link below: | <b>Yes</b> | <b>High</b> |
| <a href="#">2006 Approved Sediment-impaired WBs Worksheet</a>                                                                                                                                                                     |            |             |
| <a href="http://www.waterboards.ca.gov/water_issues/programs/tmdl/303d_lists2006_epa.shtml">http://www.waterboards.ca.gov/water_issues/programs/tmdl/303d_lists2006_epa.shtml</a>                                                 |            |             |
| <b><u>OR</u></b>                                                                                                                                                                                                                  |            |             |
| A.2. Does the disturbed area discharge to a waterbody with designated beneficial uses of SPAWN & COLD & MIGRATORY?                                                                                                                |            |             |
| <a href="http://www.ice.ucdavis.edu/geowbs/asp/wbquse.asp">http://www.ice.ucdavis.edu/geowbs/asp/wbquse.asp</a>                                                                                                                   |            |             |

|                      |      | Sediment Risk |         |         |
|----------------------|------|---------------|---------|---------|
|                      |      | Low           | Medium  | High    |
| Receiving Water Risk | Low  | Level 1       | Level 2 |         |
|                      | High | Level 2       |         | Level 3 |

Project Sediment Risk: **Medium**  
Project RW Risk: **High**  
Project Combined Risk: **Level 2**

## Attachment D

### Checklist SW-1, Site Data Sources



|                                          |                                                    |                                     |
|------------------------------------------|----------------------------------------------------|-------------------------------------|
| <b>Checklist SW-1, Site Data Sources</b> |                                                    |                                     |
| Prepared by: <u>Paul Kosinski</u>        | Date: <u>May 15, 2015</u>                          | District-Co-Route: <u>11-SD-015</u> |
| PM : <u>R36.0/R37.2</u>                  | Project ID (or EA): <u>11-14000093 (11-41840K)</u> | RWQCB: <u>9</u>                     |

Information for the following data categories should be obtained, reviewed and referenced as necessary throughout the project planning phase. Collect any available documents pertaining to the category and list them and reference your data source. For specific examples of documents within these categories, refer to Section 5.5 of this document. Example categories have been listed below; add additional categories, as needed. Summarize pertinent information in Section 2 of the SWDR.

| DATA CATEGORY/SOURCES                                                                                                                                                                                                                                                                                                                                                                                                                                     | Date                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| <b>Topographic</b>                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                        |
| <ul style="list-style-type: none"> <li>• US Topo Quadrangles<br/><a href="http://nationalmap.gov/ustopo/">http://nationalmap.gov/ustopo/</a></li> <li>•</li> <li>•</li> </ul>                                                                                                                                                                                                                                                                             | April 2015                             |
| <b>Hydraulic</b>                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                        |
| <ul style="list-style-type: none"> <li>• Caltrans Highway Design Manual</li> <li>•</li> <li>•</li> </ul>                                                                                                                                                                                                                                                                                                                                                  | March 2014                             |
| <b>Soils</b>                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                        |
| <ul style="list-style-type: none"> <li>• United States Department of Agriculture<br/><a href="http://www.nrcs.usda.gov/wps/portal/nrcs/site/national/home/">http://www.nrcs.usda.gov/wps/portal/nrcs/site/national/home/</a></li> <li>•</li> <li>•</li> </ul>                                                                                                                                                                                             | April 2015                             |
| <b>Climatic</b>                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |
| <ul style="list-style-type: none"> <li>• National Weather Service Rainfall<br/><a href="http://www.wrh.noaa.gov/sgx/obs/rainobs.php?wfo=sgx">http://www.wrh.noaa.gov/sgx/obs/rainobs.php?wfo=sgx</a></li> <li>• Water Quality Planning Tool, CSU Sacramento Website,<br/><a href="https://www.owp.csus.edu/">https://www.owp.csus.edu/</a></li> <li>•</li> </ul>                                                                                          | April 2015<br>April 2015               |
| <b>Water Quality</b>                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                        |
| <ul style="list-style-type: none"> <li>• Clean Water Act Section 303(d) List/ SWRCB, Website</li> <li>• Caltrans Stormwater Quality Manuals and Handbooks<br/><a href="http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm">http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm</a></li> <li>• San Diego Watershed Resources<br/><a href="http://www.projectcleanwater.org/index.php">http://www.projectcleanwater.org/index.php</a></li> </ul> | April 2015<br>April 2015<br>April 2015 |
| <b>Other Data Categories</b>                                                                                                                                                                                                                                                                                                                                                                                                                              |                                        |
| <ul style="list-style-type: none"> <li>•</li> <li>•</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                            |                                        |

## Attachment E

Checklist SW-2, Storm Water Quality Issues Summary



**Checklist SW-2, Storm Water Quality Issues Summary**

Prepared by: Paul Kosinski Date: May 15, 2015 District-Co-Route: 11-SD-015

PM : R36.0/R37.2 Project ID (or EA): 11-1400093 (11-41840K) RWQCB: 9

The following questions provide a guide to collecting critical information relevant to project stormwater quality issues. Complete responses to applicable questions, consulting other Caltrans functional units (Environmental, Landscape Architecture, Maintenance, etc.) and the District/Regional Storm Water Coordinator as necessary. Summarize pertinent responses in Section 2 of the SWDR.

- |                                                                                                                                                                                                                                                  |                                              |                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-----------------------------|
| 1. Determine the receiving waters that may be affected by the project throughout the project life cycle (i.e., construction, maintenance and operation).                                                                                         | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 2. For the project limits, list the 303(d) impaired receiving water bodies and their constituents of concern.                                                                                                                                    | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 3. Determine if there are any municipal or domestic water supply reservoirs or groundwater percolation facilities within the project limits. Consider appropriate spill contamination and spill prevention control measures for these new areas. | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 4. Determine the RWQCB special requirements, including TMDLs, effluent limits, etc.                                                                                                                                                              | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 5. Determine regulatory agencies seasonal construction and construction exclusion dates or restrictions required by federal, state, or local agencies.                                                                                           | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 6. Determine if a 401 certification will be required.                                                                                                                                                                                            | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 7. List rainy season dates.                                                                                                                                                                                                                      | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 8. Determine the general climate of the project area. Identify annual rainfall and rainfall intensity curves.                                                                                                                                    | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 9. If considering Treatment BMPs, determine the soil classification, permeability, erodibility, and depth to groundwater.                                                                                                                        | <input type="checkbox"/> Complete            | <input type="checkbox"/> NA |
| 10. Determine contaminated soils within the project area.                                                                                                                                                                                        | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 11. Determine the total disturbed soil area of the project.                                                                                                                                                                                      | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 12. Describe the topography of the project site.                                                                                                                                                                                                 | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 13. List any areas outside of the Caltrans right-of-way that will be included in the project (e.g. contractor's staging yard, work from barges, easements for staging, etc.).                                                                    | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 14. Determine if additional right-of-way acquisition or easements and right-of-entry will be required for design, construction and maintenance of BMPs. If so, how much?                                                                         | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 15. Determine if a right-of-way certification is required.                                                                                                                                                                                       | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 16. Determine the estimated unit costs for right-of-way should it be needed for Treatment BMPs, stabilized conveyance systems, lay-back slopes, or interception ditches.                                                                         | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 17. Determine if project area has any slope stabilization concerns.                                                                                                                                                                              | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 18. Describe the local land use within the project area and adjacent areas.                                                                                                                                                                      | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 19. Evaluate the presence of dry weather flow.                                                                                                                                                                                                   | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |

## Attachment F

### Checklist SW-3, Measures for Avoiding or Reducing Potential Storm Water BMPs



**Checklist SW-3, Measures for Avoiding or Reducing Potential Storm Water Impacts**

Prepared by: Paul Kosinski Date: May 15, 2015 District-Co-Route: 11-SD-015

PM : R36.0/R37.2 Project ID (or EA): 11-14000093 (11-41840K) RWQCB: 9

The PE must confer with other functional units, such as Landscape Architecture, Hydraulics, Environmental, Materials, Construction and Maintenance, as needed to assess these issues. Summarize pertinent responses in Section 2 of the SWDR.

Options for avoiding or reducing potential impacts during project planning include the following:

- |                                                                                                                                                                                                                                                                                     |                                         |                                        |                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|----------------------------------------|----------------------------------------|
| 1. Can the project be relocated or realigned to avoid/reduce impacts to receiving waters or to increase the preservation of critical (or problematic) areas such as floodplains, steep slopes, wetlands, and areas with erosive or unstable soil conditions?                        | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No | <input type="checkbox"/> NA            |
| 2. Can structures and bridges be designed or located to reduce work in live streams and minimize construction impacts?                                                                                                                                                              | <input type="checkbox"/> Yes            | <input type="checkbox"/> No            | <input checked="" type="checkbox"/> NA |
| 3. Can any of the following methods be utilized to minimize erosion from slopes:                                                                                                                                                                                                    |                                         |                                        |                                        |
| a. Disturbing existing slopes only when necessary?                                                                                                                                                                                                                                  | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | <input type="checkbox"/> NA            |
| b. Minimizing cut and fill areas to reduce slope lengths?                                                                                                                                                                                                                           | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | <input type="checkbox"/> NA            |
| c. Incorporating retaining walls to reduce steepness of slopes or to shorten slopes?                                                                                                                                                                                                | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | <input type="checkbox"/> NA            |
| d. Acquiring right-of-way easements (such as grading easements) to reduce steepness of slopes?                                                                                                                                                                                      | <input type="checkbox"/> Yes            | <input type="checkbox"/> No            | <input checked="" type="checkbox"/> NA |
| e. Avoiding soils or formations that will be particularly difficult to re-stabilize?                                                                                                                                                                                                | <input type="checkbox"/> Yes            | <input type="checkbox"/> No            | <input checked="" type="checkbox"/> NA |
| f. Providing cut and fill slopes flat enough to allow re-vegetation and limit erosion to pre-construction rates?                                                                                                                                                                    | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | <input type="checkbox"/> NA            |
| g. Providing benches or terraces on high cut and fill slopes to reduce concentration of flows?                                                                                                                                                                                      | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No | <input type="checkbox"/> NA            |
| h. Rounding and shaping slopes to reduce concentrated flow?                                                                                                                                                                                                                         | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | <input type="checkbox"/> NA            |
| i. Collecting concentrated flows in stabilized drains and channels?                                                                                                                                                                                                                 | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | <input type="checkbox"/> NA            |
| 4. Does the project design allow for the ease of maintaining all BMPs?                                                                                                                                                                                                              | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |                                        |
| 5. Can the project be scheduled or phased to minimize soil-disturbing work during the rainy season?                                                                                                                                                                                 | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |                                        |
| 6. Can permanent storm water pollution controls such as paved slopes, vegetated slopes, basins, and conveyance systems be installed early in the construction process to provide additional protection and to possibly utilize them in addressing construction storm water impacts? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | <input type="checkbox"/> NA            |

## Attachment G

Checklist DPP-1, Parts 1-5  
(Design Pollution Prevention BMPs)



|                                         |                                                    |                                     |
|-----------------------------------------|----------------------------------------------------|-------------------------------------|
| <b>Design Pollution Prevention BMPs</b> |                                                    |                                     |
| <b>Checklist DPP-1, Part 1</b>          |                                                    |                                     |
| Prepared by: <u>Paul Kosinski</u>       | Date: <u>May 15, 2015</u>                          | District-Co-Route: <u>11-SD-015</u> |
| PM : <u>R36.0/R37.2</u>                 | Project ID (or EA): <u>11-14000093 (11-41840K)</u> | RWQCB: <u>9</u>                     |

**Consideration of Design Pollution Prevention BMPs**

**Consideration of Downstream Effects Related to Potentially Increased Flow [to streams or channels]**

- Will project increase velocity or volume of downstream flow?  Yes  No  NA
- Will the project discharge to unlined channels?  Yes  No  NA
- Will project increase potential sediment load of downstream flow?  Yes  No  NA
- Will project encroach, cross, realign, or cause other hydraulic changes to a stream that may affect downstream channel stability?  Yes  No  NA

If Yes was answered to any of the above questions, consider **Downstream Effects Related to Potentially Increased Flow**, complete the DPP-1, Part 2 checklist.

**Slope/Surface Protection Systems**

- Will project create new slopes or modify existing slopes?  Yes  No  NA

If Yes was answered to the above question, consider **Slope/Surface Protection Systems**, complete the DPP-1, Part 3 checklist.

**Concentrated Flow Conveyance Systems**

- Will the project create or modify ditches, dikes, berms, or swales?  Yes  No  NA
- Will project create new slopes or modify existing slopes?  Yes  No  NA
- Will it be necessary to direct or intercept surface runoff?  Yes  No  NA
- Will cross drains be modified?  Yes  No  NA

If Yes was answered to any of the above questions, consider **Concentrated Flow Conveyance Systems**; complete the DPP-1, Part 4 checklist.

**Preservation of Existing Vegetation**

It is the goal of the Storm Water Program to maximize the protection of desirable existing vegetation to provide erosion and sediment control benefits on all projects.  Complete

Consider **Preservation of Existing Vegetation**, complete the DPP-1, Part 5 checklist.

**Design Pollution Prevention BMPs****Checklist DPP-1, Part 2**Prepared by: Paul Kosinski Date: May 15, 2015 District-Co-Route: 11-SD-015PM : R36.0/R37.2 Project ID (or EA): 11-14000093 (11-41840K) RWQCB: 9**Downstream Effects Related to Potentially Increased Flow**

1. Review total paved area and reduce to the maximum extent practicable.  Complete
2. Review channel lining materials and design for stream bank erosion control.  Complete
  - (a) See Chapters 860 and 870 of the HDM.  Complete
  - (b) Consider channel erosion control measures within the project limits as well as downstream. Consider scour velocity.  Complete
3. Include, where appropriate, energy dissipation devices at culvert outlets.  Complete
4. Ensure all transitions between culvert outlets/headwalls/wingwalls and channels are smooth to reduce turbulence and scour.  Complete
5. Include, if appropriate, peak flow attenuation basins or devices to reduce peak discharges.
6. Calculate the water quality volume infiltrated by DPP BMPs within the project limits. Include the percentage of the water quality volume for each BMP and subwatershed, as appropriate, for site conditions. These calculations will be used later in the T-1 checklist.  Complete

|                                         |                                                    |                                     |
|-----------------------------------------|----------------------------------------------------|-------------------------------------|
| <b>Design Pollution Prevention BMPs</b> |                                                    |                                     |
| <b>Checklist DPP-1, Part 3</b>          |                                                    |                                     |
| Prepared by: <u>Paul Kosinski</u>       | Date: <u>May 15, 2015</u>                          | District-Co-Route: <u>11-SD-015</u> |
| PM : <u>R36.0/R37.2</u>                 | Project ID (or EA): <u>11-14000093 (11-41840K)</u> | RWQCB: <u>9</u>                     |

**Slope / Surface Protection Systems**

1. What are the proposed areas of cut and fill? (attach plan or map)  Complete
2. Were benches or terraces provided on high cut and fill slopes to reduce concentration of flows?  Yes  No
3. Were slopes rounded and/or shaped to reduce concentrated flow?  Yes  No
4. Were concentrated flows collected in stabilized drains or channels?  Yes  No
5. Are new or disturbed slopes > 4:1 horizontal:vertical (h:v)?  Yes  No  
 If Yes, District Landscape Architect must prepare or approve an erosion control plan, at the District’s discretion.
6. Are new or disturbed slopes > 2:1 (h:v)?  Yes  No  
 If Yes, Geotechnical Services must prepare a Geotechnical Design Report, and the District Landscape Architect should prepare or approve an erosion control plan. Concurrence must be obtained from the District Maintenance Storm Water Coordinator for slopes steeper than 2:1 (h:v).
7. Estimate the net new impervious area that will result from this project. 4.0 acres  Complete

**VEGETATED SURFACES**

1. Identify existing vegetation.  Complete
2. Evaluate site to determine soil types, appropriate vegetation and planting strategies.  Complete
3. How long will it take for permanent vegetation to establish?  Complete
4. Minimize overland and concentrated flow depths and velocities.  Complete

**HARD SURFACES**

1. Are hard surfaces required?  Yes  No  
 If Yes, document purpose (safety, maintenance, soil stabilization, etc.), types, and general locations of the installations.  Complete
- Review appropriate SSPs for Vegetated Surface and Hard Surface Protection Systems.  Complete

## Design Pollution Prevention BMPs

### Checklist DPP-1, Part 4

Prepared by: Paul Kosinski Date: May 15, 2015 District-Co-Route: 11-SD-015

PM : R36.0/R37.2 Project ID (or EA): 11-14000093 (11-41840K) RWQCB: 9

#### Concentrated Flow Conveyance Systems

##### Ditches, Berms, Dikes and Swales

1. Consider Ditches, Berms, Dikes, and Swales as per Topics 813, 834.3, and 835, and Chapter 860 of the HDM.  Complete
2. Evaluate risks due to erosion, overtopping, flow backups or washout.  Complete
3. Consider outlet protection where localized scour is anticipated.  Complete
4. Examine the site for run-on from off-site sources.  Complete
5. Consider channel lining when velocities exceed scour velocity for soil.  Complete

##### Overside Drains

1. Consider downdrains, as per Index 834.4 of the HDM.  Complete
2. Consider paved spillways for side slopes flatter than 4:1 h:v.  Complete

##### Flared Culvert End Sections

1. Consider flared end sections on culvert inlets and outlets as per Chapter 827 of the HDM.  Complete

##### Outlet Protection/Velocity Dissipation Devices

1. Consider outlet protection/velocity dissipation devices at outlets, including cross drains, as per Chapters 827 and 870 of the HDM.  Complete

Review appropriate SSPs for Concentrated Flow Conveyance Systems.  Complete

|                                         |                                                    |                                     |
|-----------------------------------------|----------------------------------------------------|-------------------------------------|
| <b>Design Pollution Prevention BMPs</b> |                                                    |                                     |
| <b>Checklist DPP-1, Part 5</b>          |                                                    |                                     |
| Prepared by: <u>Paul Kosinski</u>       | Date: <u>May 15, 2015</u>                          | District-Co-Route: <u>11-SD-015</u> |
| PM : <u>R36.0/R37.2</u>                 | Project ID (or EA): <u>11-14000093 (11-41840K)</u> | RWQCB: <u>9</u>                     |

**Preservation of Existing Vegetation**

1. Review Preservation of Property, (Clearing and Grubbing) to reduce clearing and grubbing and maximize preservation of existing vegetation.  Complete
  
2. Has all vegetation to be retained been coordinated with Environmental, and identified and defined in the contract plans?  Yes  No
  
3. Have steps been taken to minimize disturbed areas, such as locating temporary roadways to avoid stands of trees and shrubs and to follow existing contours to reduce cutting and filling?  Complete
  
4. Have impacts to preserved vegetation been considered while work is occurring in disturbed areas?  Yes  No
  
5. Are all areas to be preserved delineated on the plans?  Yes  No

## Attachment H

Checklist T-1, Parts 1, 2, 4, 5, 8  
(Treatment BMPs)



|                                   |                                                    |                                     |
|-----------------------------------|----------------------------------------------------|-------------------------------------|
| <b>Treatment BMPs</b>             |                                                    |                                     |
| <b>Checklist T-1, Part 1</b>      |                                                    |                                     |
| Prepared by: <u>Paul Kosinski</u> | Date: <u>May 15, 2015</u>                          | District-Co-Route: <u>11-SD-015</u> |
| PM : <u>R36.0/R37.2</u>           | Project ID (or EA): <u>11-14000093 (11-41840K)</u> | RWQCB: <u>9</u>                     |

**Consideration of Treatment BMPs**

This checklist is used for projects that require the consideration of Approved Treatment BMPs, as determined from the process described in Section 4 (Project Treatment Consideration) and the Evaluation Documentation Form (EDF). This checklist will be used to determine which Treatment BMPs should be considered for each watershed and sub-watershed within the project. Supplemental data will be needed to verify siting and design applicability for final incorporation into a project.

**Complete this checklist for each phase of the project, when considering Treatment BMPs. Use the responses to the questions as the basis when developing the narrative in Section 5 of the Storm Water Data Report to document that Treatment BMPs have been appropriately considered.**

**Answer all questions, unless otherwise directed. Questions 14 through 16 should be answered after all subwatershed (drainages) are considered using this checklist.**

1. Is the project in a watershed with prescriptive TMDL treatment BMP requirements in an adopted TMDL implementation plan or does the project have a dual purpose facility requirement (e.g. flood control and water quality treatment or Design Pollution Prevention BMPs that provide infiltration and treatment)?  Yes  No

If Yes, consult the District/Regional Storm Water Coordinator to determine whether the T-1 checklist should be used to propose alternative BMPs because the prescribed BMPs may not be feasible or other BMPs may be more cost-effective. Special documentation and regulatory response may be necessary.

2. Dry Weather Flow Diversion
- (a) Are dry weather flows generated by Caltrans anticipated to be persistent?  Yes  No
- (b) Is a sanitary sewer located on or near the site?  Yes  No

If Yes to both 2 (a) and (b), continue to (c). If No to either, skip to question 3.

- (c) Is connection to the sanitary sewer possible without extraordinary plumbing, features or construction practices?  Yes  No
- (d) Is the domestic wastewater treatment authority willing to accept flow?  Yes  No

If Yes was answered to all of these questions consider **Dry Weather Flow Diversion**, complete and attach **Part 3** of this checklist.

3. Is the receiving water on the 303(d) list for litter/trash or has a TMDL been issued for litter/trash?  Yes  No

If Yes, consider **Gross Solids Removal Devices (GSRDs)**. Complete and attach **Part 6** of this checklist. Note: Infiltration Devices, Detention Devices, Media Filters, MCTTs, and Wet Basins also can capture litter. Before considering GSRDs for stand-alone installation or in sequence with other BMPs, consult with District/Regional NPDES Storm Water Coordinator to determine whether Infiltration Devices, Detention Devices, Media Filters, MCTTs, and Wet Basins should be considered instead of GSRDs to meet litter/trash TMDL.

4. Is the project located in an area (e.g., mountain regions) where traction sand is applied more than twice a year? Yes No

If Yes, consider **Traction Sand Traps**. Complete and attach **Part 7** of this checklist.

5. Maximizing Biofiltration Strips and Swales

Objectives:

- 1) Quantify infiltration from biofiltration alone
- 2) Identify highly infiltrating biofiltration (i.e. > 90%) and skip further BMP consideration.
- 3) Identify whether amendments can substantially improve infiltration.

- (a) Have biofiltration strips and swales been designed for runoff from all project areas, including sheet flow and concentrated flow conveyance? If no, document justification in Section 5 of the SWDR. Yes No

(b) Based on existing site conditions, estimate what percentage of the WQV<sup>1</sup> can be infiltrated. When calculating the WQV, use a drawdown time appropriate for the site conditions..

- < 20%
  - 20 % - 50%
  - 50% - 90%
  - > 90%
- Complete

- (c) Is infiltration greater than 90 percent? If Yes, skip to question 13. Yes No
- If No, Continue to 5 (d).

---

<sup>1</sup> A complete methodology for determining WQV infiltration is available at: <http://www.dot.ca.gov/hq/oppd/stormwtr/index.htm>

(d) Can the infiltration ranking in question 5(b) above be increased by using soil amendments? Yes No

If Yes, consider including soil amendments (increasing the infiltration ranking of strips and swales shows performance comparable to other BMPs). Record the new infiltration estimate below. If No, continue to 5 (e).

- \_\_\_ < 20% (skip to 6)
- \_\_\_ 20 % - 50% (skip to 6)
- \_\_\_ 50% - 90% (skip to 6)
- \_\_\_ >90% Complete

(e) Is infiltration greater than 90 percent? If Yes, skip to question 13. If No, continue to 5 (f). Yes No

(f) Is infiltration greater than 50 percent and is biofiltration preferred? If yes to both, skip to question 13. Yes No

**6. Biofiltration in Rural Areas**

Is the project in a rural area (outside of urban areas that is covered under an NPDES Municipal Stormwater Permit<sup>2</sup>)? If Yes, proceed to question 13. Yes No

**7. Estimating Infiltration for BMP Combinations**

Objectives:

- 1) Identify high-infiltration biofiltration or biofiltration and infiltration BMP combinations and skip further BMP consideration.
- 2) If high infiltration is infeasible, then identify the infiltration level of all feasible BMP combinations for use in the subsequent BMP selection matrices.

(a) Has concentrated infiltration (i.e., via earthen basins) been prohibited? Consult your District/Regional Storm Water Coordinator and/or environmental documents. Yes No

If No, continue to 7 (b); if Yes, skip to question 8 and do not consider earthen basin-type BMPs

<sup>2</sup> See pages 39 and 40 of the Fact Sheets for the CGP.  
[http://www.waterboards.ca.gov/water\\_issues/programs/stormwater/docs/constpermits/wqo\\_2009\\_0009\\_factsheet.pdf](http://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/constpermits/wqo_2009_0009_factsheet.pdf)

(b) Can the infiltration ranking be increased by infiltrating the un-infiltrated remaining WQV from question 5, with an infiltration BMP<sup>1</sup>? If yes, record the new infiltration estimate below. If no, proceed to 7(c).  Yes  No

- \_\_\_ < 20% (do not consider this BMP combination)
- \_\_\_ 20% - 50%
- \_\_\_ 50% - 90%
- \_\_\_ >90%

Is at least 90 percent infiltration estimated? If Yes, proceed to 13. If No, proceed to 7(c).  Yes  No

(c) Assess infiltration of biofiltration combined with an approved earthen BMP. This assessment will be used in subsequent BMP selection matrices.

Earthen Detention Basin

- \_\_\_ < 20%  Complete
- \_\_\_ 20% - 50%
- \_\_\_ > 50%

Continue to Question 8

**8. Identifying BMPs based on the Target Design Constituents**

(a) Does the project discharge to a 303(d) impaired water body or a water body that has a TMDL adopted? If “No,” use Matrix A to select BMPs, consider designing to treat 100% of the WQV, then skip to question 12.  Yes  No

If Yes, is the identified pollutant(s) considered a Targeted Design Constituent (TDC) (check all that apply below)?

- |                                                |                                                                           |
|------------------------------------------------|---------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> sediments  | <input type="checkbox"/> copper (dissolved or total)                      |
| <input checked="" type="checkbox"/> phosphorus | <input type="checkbox"/> lead (dissolved or total)                        |
| <input type="checkbox"/> nitrogen              | <input type="checkbox"/> zinc (dissolved or total)                        |
|                                                | <input type="checkbox"/> general metals (dissolved or total) <sup>2</sup> |

(b) Treating Sediment. Is sediment a TDC? If Yes, use Matrix A to select BMPs, then skip to question 12. Otherwise, proceed to question 9.  Yes  No

<sup>1</sup> Assess the combined infiltration of the WQV by both biofiltration and infiltration BMPs. As site constraints allow, size the infiltration BMP up to the un-infiltrated WQV remaining after the biofiltration BMP.

<sup>2</sup> General metals is a designation used by Regional Water Boards when specific metals have not yet been identified as causing the impairment.

| <b>BMP Selection Matrix A: General Purpose Pollutant Removal</b>                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                               |                                                                                                                         |                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Consider approaches to treat the remaining WQV with combinations of the BMPs in this table. The PE should select at least one BMP for the project; preference is for Tier 1 BMPs, followed by Tier 2 BMPs when Tier 1 BMPs are not feasible. Within each Tier, BMP selection will be determined by the site-specific determination of feasibility (Section 2.4.2.1). BMPs are chosen based on the infiltration category determined in question 7. BMPs in other categories should be ignored.</p> |                                                                                                               |                                                                                                                         |                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | BMP ranking for infiltration category:                                                                        |                                                                                                                         |                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Infiltration < 20%                                                                                            | Infiltration 20% - 50%                                                                                                  | Infiltration > 50%                                                                                                                             |
| Tier 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Strip: HRT > 5<br>Austin filter (concrete)<br>Austin filter (earthen)<br>Delaware filter<br>MCTT<br>Wet basin | Austin filter (earthen)<br>Detention (unlined)<br>Infiltration basins*<br>Infiltration trenches*<br>Biofiltration Strip | Austin filter (earthen)<br>Detention (unlined)<br>Infiltration basins*<br>Infiltration trenches*<br>Biofiltration Strip<br>Biofiltration Swale |
| Tier 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Strip: HRT < 5<br>Biofiltration Swale<br>Detention (unlined)                                                  | Austin filter (concrete)<br>Delaware filter<br>Biofiltration Swale<br>MCTT<br>Wet basin                                 | Austin filter (concrete)<br>Delaware filter<br>MCTT<br>Wet basin                                                                               |
| HRT = hydraulic residence time (min)<br><br>*Infiltration BMPs that infiltrate the water quality volume were considered previously, so only undersized infiltration BMPs or hybrid designs are considered where infiltration is less than 90% of the water quality volume.                                                                                                                                                                                                                           |                                                                                                               |                                                                                                                         |                                                                                                                                                |

9. Treating both Metals and Nutrients.

Is copper, lead, zinc, or general metals AND nitrogen or phosphorous a TDC? If Yes, use Matrix D to select BMPs, then skip to question 12. Otherwise, proceed to question 10. Yes No

10. Treating Only Metals.

Are copper, lead, zinc, or general metals listed TDCs? If Yes, use Matrix B below to select BMPs, and skip to question 12. Otherwise, proceed to question 11. Yes No

| <b>BMP Selection Matrix B: Any metal is the TDC, but not nitrogen or phosphorous</b>                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                             |                                                                                                                       |                                                                                                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Consider approaches to treat the remaining WQV with combinations of the BMPs in this table. The PE should select at least one BMP for the project; preference is for Tier 1 BMPs, followed by Tier 2 BMPs when Tier 1 BMPs are not feasible. Within each Tier, BMP selection will be determined by the site-specific determination of feasibility (Section 2.4.2.1). BMPs are chosen based on the infiltration category determined in question 7. BMPs in other categories should be ignored.</p> |                                                                                             |                                                                                                                       |                                                                                                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | BMP ranking for infiltration category:                                                      |                                                                                                                       |                                                                                                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Infiltration < 20%                                                                          | Infiltration 20% - 50%                                                                                                | Infiltration > 50%                                                                                                                                                  |
| Tier 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | MCTT<br>Wet basin<br>Austin filter (earthen)<br>Austin filter (concrete)<br>Delaware filter | Austin filter (earthen)<br>Detention (unlined)<br>Infiltration basins*<br>Infiltration trenches*<br>MCTT<br>Wet basin | Austin filter (earthen)<br>Detention (unlined)<br>Infiltration basins*<br>Infiltration trenches*<br>MCTT<br>Biofiltration Strip<br>Biofiltration Swale<br>Wet basin |
| Tier 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Strip: HRT > 5<br>Strip: HRT < 5<br>Biofiltration Swale<br>Detention (unlined)              | Austin filter (concrete)<br>Delaware filter<br>Biofiltration Strip<br>Biofiltration Swale                             | Austin filter (concrete)<br>Delaware filter                                                                                                                         |
| HRT = hydraulic residence time (min)<br>*Infiltration BMPs that infiltrate the water quality volume were considered previously, so only undersized infiltration BMPs or hybrid designs are considered where infiltration is less than 90% of the water quality volume.                                                                                                                                                                                                                               |                                                                                             |                                                                                                                       |                                                                                                                                                                     |

11. Treating Only Nutrients.

Are nitrogen and/or phosphorus listed TDCs? If “Yes,” use Matrix C to select BMPs. If “No”, please check your answer to 8(a). At this point one of the matrices Yes No should have been used for BMP selection for the TDC in question, unless no BMPs are feasible.

| <b>BMP Selection Matrix C: Phosphorous and / or nitrogen is the TDC, but no metals are the TDC</b>                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                |                                                                                                        |                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Consider approaches to treat the remaining WQV with combinations of the BMPs in this table. The PE should select at least one BMP for the project; preference is for Tier 1 BMPs, followed by Tier 2 BMPs when Tier 1 BMPs are not feasible. Within each Tier, BMP selection will be determined by the site-specific determination of feasibility (Section 2.4.2.1). BMPs are chosen based on the infiltration category determined in question 7. BMPs in other categories should be ignored.</p> |                                                                                |                                                                                                        |                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | BMP ranking for infiltration category:                                         |                                                                                                        |                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Infiltration < 20%                                                             | Infiltration 20% - 50%                                                                                 | Infiltration > 50%                                                                                                                             |
| Tier 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Austin filter (earthen)<br>Austin filter (concrete)<br>Delaware filter**       | Austin filter (earthen)<br>Detention (unlined)<br>Infiltration basins*<br>Infiltration trenches*       | Austin filter (earthen)<br>Detention (unlined)<br>Infiltration basins*<br>Infiltration trenches*<br>Biofiltration Strip<br>Biofiltration Swale |
| Tier 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Wet basin<br>Biofiltration Strip<br>Biofiltration Swale<br>Detention (unlined) | Austin filter (concrete)<br>Delaware filter<br>Biofiltration Strip<br>Biofiltration Swale<br>Wet basin | Austin filter (concrete)<br>Delaware filter<br>Wet basin                                                                                       |
| <p>* Infiltration BMPs that infiltrate the water quality volume were considered previously, so only undersized infiltration BMPs or hybrid designs are considered where infiltration is less than 90% of the water quality volume.</p>                                                                                                                                                                                                                                                               |                                                                                |                                                                                                        |                                                                                                                                                |
| <p>** Delaware filters would be ranked in Tier 2 if the TDC is nitrogen only, as opposed to phosphorous only or both nitrogen and phosphorous.</p>                                                                                                                                                                                                                                                                                                                                                   |                                                                                |                                                                                                        |                                                                                                                                                |

| <b>BMP Selection Matrix D: Any metal, plus phosphorous and / or nitrogen are the TDCs</b>                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                        |                                                                                                                    |                                                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Consider approaches to treat the remaining WQV with combinations of the BMPs in this table. The PE should select at least one BMP for the project; preference is for Tier 1 BMPs, followed by Tier 2 BMPs when Tier 1 BMPs are not feasible. Within each Tier, BMP selection will be determined by the site-specific determination of feasibility (Section 2.4.2.1). BMPs are chosen based on the infiltration category determined in question 7. BMPs in other categories should be ignored.</p> |                                                                                        |                                                                                                                    |                                                                                                                                                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | BMP ranking for infiltration category:                                                 |                                                                                                                    |                                                                                                                                                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Infiltration < 20%                                                                     | Infiltration 20% - 50%                                                                                             | Infiltration > 50%                                                                                                                                               |
| Tier 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Wet basin*<br>Austin filter (earthen)<br>Austin filter (concrete)<br>Delaware filter** | Wet basin*<br>Austin filter (earthen)<br>Detention (unlined)<br>Infiltration basins***<br>Infiltration trenches*** | Wet basin*<br>Austin filter (earthen)<br>Detention (unlined)<br>Infiltration basins***<br>Infiltration trenches***<br>Biofiltration Strip<br>Biofiltration Swale |
| Tier 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Biofiltration Strip<br>Biofiltration Swale<br>Detention (unlined)                      | Austin filter (concrete)<br>Delaware filter<br>Biofiltration Strip<br>Biofiltration Swale                          | Austin filter (concrete)<br>Delaware filter                                                                                                                      |
| * The wet basin should only be considered for phosphorus                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                        |                                                                                                                    |                                                                                                                                                                  |
| ** In cases where earthen BMPs can infiltrate, Delaware filters are ranked in Tier 2 if the TDC is nitrogen only, but they are Tier 1 for phosphorous only or both nitrogen and phosphorous.                                                                                                                                                                                                                                                                                                         |                                                                                        |                                                                                                                    |                                                                                                                                                                  |
| *** Infiltration BMPs that infiltrate the water quality volume were considered previously, so only undersized infiltration BMPs or hybrid designs are considered where infiltration is less than 90% of the water quality volume.                                                                                                                                                                                                                                                                    |                                                                                        |                                                                                                                    |                                                                                                                                                                  |

12. Does the project discharge to a 303(d) waterbody that is listed for mercury or low dissolved oxygen? Yes No

If Yes, contact the District/Regional NPDES Storm Water Coordinator to determine if standing water in a Delaware filter, wet basin, or MCTT would be a risk to downstream water quality.

13. After completing the above, identify and attach the checklists shown below for every Treatment BMP under consideration. (use one checklist every time the BMP is considered for a different drainage within the project) Complete

- Biofiltration Strips and Biofiltration Swales: Checklist T-1, Part 2
- Dry Weather Diversion: Checklist T-1, Part 3
- Infiltration Devices: Checklist T-1, Part 4
- Detention Devices: Checklist T-1, Part 5
- GSRDs: Checklist T-1, Part 6
- Traction Sand Traps: Checklist T-1, Part 7
- Media Filter [Austin Sand Filter and Delaware Filter]: Checklist T-1, Part 8
- Multi-Chambered Treatment Train: Checklist T-1, Part 9
- Wet Basins: Checklist T-1, Part 10

14. Estimate what percentage of the net WQV (for all new impervious surfaces within the project) or WQF (depending upon the Treatment BMP selected) will be treated by the preferred Treatment BMP(s): 100 %\* Complete

15. Estimate what percentage of the net WQV (for all new impervious surfaces within the project) that will be infiltrated by the preferred treatment BMP(s): \_\_\_\_\_ %\*\* Complete

16. Prepare cost estimate, including right-of-way, and site specific determination of feasibility (Section 2.4.2.1) for selected Treatment BMPs and include as supplemental information for SWDR approval. Complete

\*Note: The amount of treatment should be calculated for each BMP and each subwatershed, unless all BMPs within a project are the same. Document in SWDR.

\*\*Note: The Water Quality Volume infiltrated should be documented for the entire project and also for each subwatershed. Document in SWDR.

|                                   |                                                    |                                     |
|-----------------------------------|----------------------------------------------------|-------------------------------------|
| <b>Treatment BMPs</b>             |                                                    |                                     |
| <b>Checklist T-1, Part 2</b>      |                                                    |                                     |
| Prepared by: <u>Paul Kosinski</u> | Date: <u>May 15, 2015</u>                          | District-Co-Route: <u>11-SD-015</u> |
| PM : <u>R36.0/R37.2</u>           | Project ID (or EA): <u>11-14000093 (11-41840K)</u> | RWQCB: <u>9</u>                     |

**Biofiltration Swales / Biofiltration Strips**

**Feasibility**

1. Do the climate and site conditions allow vegetation to be established?  Yes  No
2. Are flow velocities from a peak drainage facility design event < 4 fps (i.e. low enough to prevent scour of the vegetated biofiltration swale as per HDM Table 873.3E)?  Yes  No  
 If “No” to either question above, Biofiltration Swales and Biofiltration Strips are not feasible.
3. Are Biofiltration Swales proposed at sites where known contaminated soils or groundwater plumes exist?  Yes  No  
 If “Yes”, consult with District/Regional NPDES Coordinator about how to proceed.
4. Does adequate area exist within the right-of-way to place Biofiltration device(s)?  Yes  No  
 If “Yes”, continue to Design Elements section. If “No”, continue to Question 5.
5. If adequate area does not exist within right-of-way, can suitable, additional right-of-way be acquired to site Biofiltration devices and how much right-of-way would be needed to treat WQF? \_\_\_\_\_ acres  Yes  No  
 If “Yes”, continue to Design Elements section. If “No”, continue to Question 6.
6. If adequate area cannot be obtained, document in Section 5 of the SWDR that the inability to obtain adequate area prevents the incorporation of these Treatment BMPs into the project.  Complete

**Design Elements**

\* **Required** Design Element – A “Yes” response to these questions is required to further the consideration of this BMP into the project design. Document a “No” response in Section 5 of the SWDR to describe why this Treatment BMP cannot be included into the project design.

\*\* **Recommended** Design Element – A “Yes” response is preferred for these questions, but not required for incorporation into a project design.

1. Has the District Landscape Architect provided vegetation mixes appropriate for climate and location? \*  Yes  No

- 
- 2. Can the biofiltration swale be designed as a conveyance system under any expected flows > the WQF event, as per HDM Chapter 800? \* (e.g. freeboard, minimum slope, etc.) Yes No
  
  - 3. Can the biofiltration swale be designed as a water quality treatment device under the WQF while meeting the required HRT, depth, and velocity criteria? (Reference Appendix B, Section B.2.3.1)\* Yes No
  
  - 4. Is the maximum length of a biofiltration strip  $\leq$  100 ft? Strips > 100 ft. may still be considered as long as potential erosion issues have been addressed.\*\* Yes No
  
  - 5. Has the minimum width (perpendicular to flow) of the invert of the biofiltration swale received the concurrence of Maintenance? \* Yes No
  
  - 6. Can biofiltration swales be located in natural or low cut sections to reduce maintenance problems caused by animals burrowing through the berm of the swale? \*\* Yes No
  
  - 7. Has the infiltration rate of the bio-filtration device been calculated and maximized through amendments where appropriate. \*\* Yes No
  
  - 8. Have Biofiltration Systems been considered for locations upstream of other Treatment BMPs, as part of a treatment train? \*\* Yes No

|                                   |                                                    |                                     |
|-----------------------------------|----------------------------------------------------|-------------------------------------|
| <b>Treatment BMPs</b>             |                                                    |                                     |
| <b>Checklist T-1, Part 4</b>      |                                                    |                                     |
| Prepared by: <u>Paul Kosinski</u> | Date: <u>May 15, 2015</u>                          | District-Co-Route: <u>11-SD-015</u> |
| PM : <u>R36.0/R37.2</u>           | Project ID (or EA): <u>11-14000093 (11-41840K)</u> | RWQCB: <u>9</u>                     |

***Infiltration Devices***

***Feasibility***

1. Does local Basin Plan or other local ordinance provide influent limits on quality of water that can be infiltrated, and would infiltration pose a threat to groundwater quality?  Yes  No
2. Does infiltration at the site compromise the integrity of any slopes in the area?  Yes  No
3. Per survey data or U.S. Geological Survey (USGS) Quad Map, are existing slopes at the proposed device site >15%?  Yes  No
4. At the invert, does the soil type classify as NRCS Hydrologic Soil Group (HSG) D, or does the soil have an infiltration rate < 0.5 inches/hr? For Design Pollution Prevention BMPs, can the soil be amended to provide an adequate infiltration rate and void space.  Yes  No
5. Is site located over a previously identified contaminated groundwater plume?  Yes  No

If "Yes" to any question above, Infiltration Devices are not feasible; stop here and consider other approved Treatment BMPs.

6. (a) Does site have groundwater within 10 ft of basin invert?  Yes  No
- (b) Does site investigation indicate that the infiltration rate is significantly greater than 2.5 inches/hr?  Yes  No

If "Yes" to either part of Question 6, the RWQCB must be consulted, and the RWQCB must conclude that the groundwater quality will not be compromised, before approving the site for infiltration.

7. Does adequate area exist within the right-of-way to place Infiltration Device(s)? If "Yes", continue to Design Elements sections. If "No", continue to Question 8.  Yes  No
8. If adequate area does not exist within right-of-way, can suitable, additional right-of-way be acquired to site Infiltration Devices and how much right-of-way would be needed to treat WQV? \_\_\_\_\_ acres  Yes  No  
 If Yes, continue to Design Elements section.  
 If No, continue to Question 9.
9. If adequate area cannot be obtained, document in Section 5 of the SWDR that the inability to obtain adequate area prevents the incorporation of this Treatment BMP into the project.  Complete

**Design Elements – Infiltration Basin**

\* **Required** Design Element – A “Yes” response to these questions is required to further the consideration of this BMP into the project design. Document a “No” response in Section 5 of the SWDR to describe why this Treatment BMP cannot be included into the project design.

\*\* **Recommended** Design Element – A “Yes” response is preferred for these questions, but not required for incorporation into a project design.

- 1. Has a detailed investigation been conducted, including subsurface soil investigation, in-hole conductivity testing and groundwater elevation determination? (This report must be completed for PS&E level design.) \* Yes No
- 2. Has an overflow spillway with scour protection been provided? \* Yes No
- 3. Is the Infiltration Basin size sufficient to capture the WQV while maintaining a 40-48 hour drawdown time? If the BMP is used in series with a biofiltration device, then does the total upstream infiltration plus the Infiltration Basin volume at least equal the WQV. \* Yes No
- 4. Can access be placed to the invert of the Infiltration Basin? \* Yes No
- 5. Can the Infiltration Basin accommodate the freeboard above the overflow event elevation (reference Appendix B.1.3.1)? \* Yes No
- 6. Can the Infiltration Basin be designed with interior side slopes no steeper than 4:1 (h:v) (may be 3:1 [h:v] with approval by District Maintenance)? \* Yes No
- 7. Can vegetation be established in the Infiltration Basin? \*\* Yes No
- 8. Can diversion be designed, constructed, and maintained to bypass flows exceeding the WQV? \*\* Yes No
- 9. Can a gravity-fed Maintenance Drain be placed? \*\* Yes No

**Design Elements – Infiltration Trench**

- 1. Has a detailed investigation been conducted, including subsurface soil investigation, in-hole conductivity testing and groundwater elevation determination? (This report must be completed for PS&E level design.) \* Yes No
- 2. Is the surrounding soil within Hydrologic Soil Groups (HSG) Types A or B? \*\* Yes No
- 3. Since this BMP is used in series with a pretreatment (see No. 7 below), then does the total upstream infiltration by the pretreatment plus the void space volume of the Infiltration Trench at least equal the WQV, while maintaining a drawdown time of  $\leq 72$  hours? \*\* Yes No
- 4. Is the depth of the Infiltration Trench  $\leq 13$  ft? \* Yes No
- 5. Can an observation well be placed in the trench? \*\* Yes No
- 6. Can access be provided to the Infiltration Trench? \* Yes No
- 7. Can pretreatment be provided to capture sediment in the runoff (such as using vegetation)? \* Yes No
- 8. Can flow diversion be designed, constructed, and maintained to bypass flows exceeding the Water Quality event? \*\* Yes No

9. Can a perimeter curb or similar device be provided (to limit wheel loads upon the trench)? \*\*  Yes  No

### **Design Elements and Feasibility – Infiltration-DPP BMPs**

\* **Required** Design Element – (see definition above)

\*\* **Recommended** Design Element – (see definition above)

1. Has a detailed soil investigation been conducted, to assure stability of the slope? \*\*  Yes  No
2. Does the soil have adequate infiltration rates or can the soil be amended to increase its infiltrating properties? \*\*  Yes  No
3. Are flow velocities from a peak drainage facility design event < 4 fps (i.e. low enough to prevent scour or erosion of DPP (swale or conveyance) as per HDM Table 873.3E)? Or has the BMP been designed to prevent scour or erosion for higher velocities (e.g. rock lined ditch). \*  Yes  No



|                                   |                                                    |                                     |
|-----------------------------------|----------------------------------------------------|-------------------------------------|
| <b>Treatment BMPs</b>             |                                                    |                                     |
| <b>Checklist T-1, Part 5</b>      |                                                    |                                     |
| Prepared by: <u>Paul Kosinski</u> | Date: <u>May 15, 2015</u>                          | District-Co-Route: <u>11-SD-015</u> |
| PM : <u>R36.0/R37.2</u>           | Project ID (or EA): <u>11-14000093 (11-41840K)</u> | RWQCB: <u>9</u>                     |

**Detention Devices**

**Feasibility**

1. Is there sufficient head to prevent objectionable backwater conditions in the upstream drainage systems?  Yes  No
  
2. 2a) Is the volume of the Detention Device equal to at least the WQV? (Note: the WQV must be  $\geq 4,356 \text{ ft}^3$  [0.1 acre-feet]). If the BMP is used in series with a biofiltration device, then does the total upstream infiltration plus the Detention Device volume at least equal the WQV?.  Yes  No

Only answer (b) if the Detention Device is being used also to capture traction sand.

2b) Is the total volume of the Detention Device at least equal to the WQV plus the anticipated volume of traction sand, while maintaining a minimum 12 inch freeboard (1 ft)?  Yes  No
  
3. Is basin invert  $\geq 10$  ft above seasonally high groundwater or can it be designed with an impermeable liner? (Note: If an impermeable liner is used, the seasonally high groundwater elevation must not encroach within 12 inches of the invert.)  Yes  No
  
- If No to any question above, then Detention Devices are not feasible.
  
4. Does adequate area exist within the right-of-way to place Detention Device(s)?  Yes  No

If Yes, continue to the Design Elements section. If No, continue to Question 5.
  
5. If adequate area does not exist within right-of-way, can suitable, additional right-of-way be acquired to site Detention Device(s) and how much right-of way would be needed to treat WQV? \_\_\_\_\_ acres  Yes  No

If Yes, continue to the Design Elements section. If No, continue to Question 6.
  
6. If adequate area cannot be obtained, document in Section 5 of the SWDR that the inability to obtain adequate area prevents the incorporation of this Treatment BMP into the project.  Complete

**Design Elements**

\* **Required** Design Element – A “Yes” response to these questions is required to further the consideration of this BMP into the project design. Document a “No” response in Section 5 of the SWDR to describe why this Treatment BMP cannot be included into the project design.

\*\* **Recommended** Design Element – A “Yes” response is preferred for these questions, but not required for incorporation into a project design.

1. Has the geotechnical integrity of the site been evaluated to determine potential impacts to surrounding slopes due to incidental infiltration? If incidental infiltration through the invert of an unlined Detention Device is a concern, consider using an impermeable liner. \* Yes No
2. Has the location of the Detention Device been evaluated for any effects to the adjacent roadway and subgrade? \* Yes No
3. Can a minimum freeboard of 12 inches be provided above the overflow event elevation? \* Yes No
4. Is an overflow outlet provided? \* Yes No
5. Is the drawdown time of the Detention Device within 24 to 72 hours? \* Yes No
6. Is the basin outlet designed to minimize clogging (minimum outlet orifice diameter of 0.5 inches)? \* Yes No
7. Are the inlet and outlet structures designed to prevent scour and re-suspension of settled materials, and to enhance quiescent conditions? \* Yes No
8. Can vegetation be established in an earthen basin at the invert and on the side slopes for erosion control and to minimize re-suspension? Note: Detention Basins may be lined, in which case no vegetation would be required for lined areas.\* Yes No
9. Has sufficient access for Maintenance been provided? \* Yes No
10. Is the side slope 4:1 (h:v) or flatter for interior slopes? \*\* Yes No  
(Note: Side slopes up to 3:1 (h:v) allowed with approval by District Maintenance.)
11. If significant sediment is expected from nearby slopes, can the Detention Device be designed with additional volume equal to the expected annual loading? \*\* Yes No
12. Is flow path as long as possible ( $\geq$  2:1 length to width ratio at WQV elevation is recommended)? \*\* Yes No

|                                   |                                                    |                                     |  |
|-----------------------------------|----------------------------------------------------|-------------------------------------|--|
| <b>Treatment BMPs</b>             |                                                    |                                     |  |
| <b>Checklist T-1, Part 8</b>      |                                                    |                                     |  |
| Prepared by: <u>Paul Kosinski</u> | Date: <u>May 15, 2015</u>                          | District-Co-Route: <u>11-SD-015</u> |  |
| PM : <u>R36.0/R37.2</u>           | Project ID (or EA): <u>11-14000093 (11-41840K)</u> | RWQCB: <u>9</u>                     |  |

**Media Filters**

Caltrans has approved two types of Media Filter: Austin Sand Filters and Delaware Filters. Austin Sand filters are typically designed for larger drainage areas, while Delaware Filters are typically designed for smaller drainage areas. The Austin Sand Filter is constructed with an open top and may have a concrete or earthen invert, while the Delaware is always constructed as a vault. See Appendix B, Media Filters, for a further description of Media Filters.

**Feasibility – Austin Sand Filter**

1. Is the volume of the Austin Sand Filter equal to at least the WQV using a 24 hour drawdown? (Note: the WQV must be  $\geq 4,356 \text{ ft}^3$  [0.1 acre-feet])  Yes  No
2. Is there sufficient hydraulic head to operate the device (minimum 3 ft between the inflow and outflow chambers)?  Yes  No
3. If initial chamber has an earthen bottom, is initial chamber invert  $\geq 3$  ft above seasonally high groundwater?  Yes  No
4. If a vault is used for either chamber, is the level of the concrete base of the vault above seasonally high groundwater or is a special design provided?  
If No to any question above, then an Austin Sand Filter is not feasible.  Yes  No
5. Does adequate area exist within the right-of-way to place an Austin Sand Filter(s)?  Yes  No  
If Yes, continue to Design Elements sections. If No, continue to Question 6.
6. If adequate area does not exist within right-of-way, can suitable, additional right-of-way be acquired to site the device and how much right-of way would be needed to treat WQV? \_\_\_\_\_ acres  Yes  No  
If Yes, continue to the Design Elements section.  
If No, continue to Question 7.
7. If adequate area cannot be obtained, document in Section 5 of the SWDR that the inability to obtain adequate area prevents the incorporation of this Treatment BMP into the project.  Complete  
  
If an Austin Sand Filter meets these feasibility requirements, continue to the Design Elements – Austin Sand Filter below.

**Feasibility- Delaware Filter**

- 1. Is the volume of the Delaware Filter equal to at least the WQV using a 48 hour drawdown? (Note: the WQV must be  $\geq 4,356 \text{ ft}^3$  [0.1 acre-feet], consult with District/Regional Design Storm Water Coordinator if a lesser volume is under consideration.) Yes No
- 2. Is there sufficient hydraulic head to operate the device (minimum 3 ft between the inflow and outflow chambers)? Yes No
- 3. Would a permanent pool of water be allowed by the local vector control agency? Confirm that check valves and vector proof lid as shown on standard detail sheets will be allowed, is used. Yes No

If No to any question, then a Delaware Filter is not feasible

- 4. Does adequate area exist within the right-of-way to place a Delaware Filter(s)? If Yes, continue to Design Elements sections. If No, continue to Question 5. Yes No
- 5. If adequate area does not exist within right-of-way, can suitable, additional right-of-way be acquired to site the device and how much right-of way would be needed to treat WQV? \_\_\_\_\_ acres Yes No  
If Yes, continue to the Design Elements section. If No, continue to Question 6.
- 6. If adequate area cannot be obtained, document in Section 5 of the SWDR that the inability to obtain adequate area prevents the incorporation of this Treatment BMP into the project. Complete
- 7. Does the project discharge to a waterbody that has been placed on the 303-d list or has had a TMDL adopted for bacteria, mercury, sulfides, or low dissolved oxygen? Yes No

If yes, contact the Regional/District NPDES Storm Water Coordinator to determine if standing water in this treatment BMP would be a risk to downstream water quality. If standing water is a potential issue, consider use of another treatment BMP.

If a Delaware Filter is still under consideration, continue to the Design Elements – Delaware Filter section.

**Design Elements – Austin Sand Filter**

\* **Required** Design Element – A “Yes” response to these questions is required to further the consideration of this BMP into the project design. Document a “No” response in Section 5 of the SWDR to describe why this Treatment BMP cannot be included into the project design.

\*\* **Recommended** Design Element – A “Yes” response is preferred for these questions, but not required for incorporation into a project design.

- |                                                                                                                                                          |                              |                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-----------------------------|
| 1. Is the drawdown time of the 2 <sup>nd</sup> chamber 24 hours? *                                                                                       | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 2. Is access for Maintenance vehicles provided to the Austin Sand Filter? *                                                                              | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 3. Is a bypass/overflow provided for storms > WQV? *                                                                                                     | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 4. Is the flow path length to width ratio for the sedimentation chamber of the “full” Austin Sand Filter $\geq 2:1$ ? **                                 | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 5. Can pretreatment be provided to capture sediment and litter in the runoff (such as using vegetation)? **                                              | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 6. Can the Austin Sand Filter be placed using an earthen configuration? **<br>If No, go to Question 9.                                                   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 7. Is the Austin Sand Filter invert separated from the seasonally high groundwater table by $\geq 10$ ft)? *<br>If No, design with an impermeable liner. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 8. Are side slopes of the earthen chamber 3:1 (h:v) or flatter? *                                                                                        | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 9. Is maximum depth $\leq 13$ ft below ground surface? *                                                                                                 | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 10. Can the Austin Sand Filter be placed in an offline configuration? **                                                                                 | <input type="checkbox"/> Yes | <input type="checkbox"/> No |



**Design Elements – Delaware Filter**

\* **Required** Design Element – A “Yes” response to these questions is required to further the consideration of this BMP into the project design. Document a “No” response in Section 5 of the SWDR to describe why this Treatment BMP cannot be included into the project design.

\*\* **Recommended** Design Element – A “Yes” response is preferred for these questions, but not required for incorporation into a project design.

- |                                                                                                             |                              |                             |
|-------------------------------------------------------------------------------------------------------------|------------------------------|-----------------------------|
| 1. Is the drawdown time of the 2 <sup>nd</sup> chamber between 40 and 48 hours, typically 40-45 hrs? *      | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 2. Is access for Maintenance vehicles provided to the Delaware Filter? *                                    | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 3. Is a bypass/overflow provided for storms > WQV? **                                                       | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 4. Can pretreatment be provided to capture sediment and litter in the runoff (such as using vegetation)? ** | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 5. Is maximum depth ≤ 13 ft below ground surface? *                                                         | <input type="checkbox"/> Yes | <input type="checkbox"/> No |

# Attachment I

## 303(d) List of Receiving Waters



**2010 California 303(d) List of Water Quality Limited Segments\***

Water quality limited segments requiring a TMDL(5A), being addressed by TMDL(5B), and/or being addressed by an action other than TMDL(5C).

| REGION | WATER BODY NAME  | WATER BODY TYPE  | INTEGRATED REPORT CATEGORY | CALWATER WATERSHED | POLLUTANT                              | POLLUTANT CATEGORY | FINAL LISTING DECISION                              | TMDL REQUIREMENT STATUS** | EXPECTED TMDL COMPLETION DATE*** | POTENTIAL SOURCES         |
|--------|------------------|------------------|----------------------------|--------------------|----------------------------------------|--------------------|-----------------------------------------------------|---------------------------|----------------------------------|---------------------------|
| 9      | San Marcos Creek | River & Stream   | 5                          | 90451000           | DDE (Dichlorodiphenyldichloroethylene) | Pesticides         | List on 303(d) list (TMDL required list)            | 5A                        | 2019                             | Source Unknown            |
| 9      | San Marcos Creek | River & Stream   | 5                          | 90451000           | Phosphorus                             | Nutrients          | List on 303(d) list (TMDL required list)            | 5A                        | 2019                             | Unknown Nonpoint Source   |
| 9      | San Marcos Creek | River & Stream   | 5                          | 90451000           | Phosphorus                             | Nutrients          | List on 303(d) list (TMDL required list)            | 5A                        | 2019                             | Source Unknown            |
| 9      | San Marcos Creek | River & Stream   | 5                          | 90451000           | Phosphorus                             | Nutrients          | List on 303(d) list (TMDL required list)            | 5A                        | 2019                             | Urban Runoff/Storm Sewers |
| 9      | San Marcos Creek | River & Stream   | 5                          | 90451000           | Phosphorus                             | Nutrients          | List on 303(d) list (TMDL required list)            | 5A                        | 2019                             | Unknown Point Source      |
| 9      | San Marcos Creek | River & Stream   | 5                          | 90451000           | Sediment Toxicity                      | Toxicity           | Do Not Delist from 303(d) list (TMDL required list) | 5A                        | 2019                             | Unknown Point Source      |
| 9      | San Marcos Creek | River & Stream   | 5                          | 90451000           | Sediment Toxicity                      | Toxicity           | Do Not Delist from 303(d) list (TMDL required list) | 5A                        | 2019                             | Urban Runoff/Storm Sewers |
| 9      | San Marcos Creek | River & Stream   | 5                          | 90451000           | Sediment Toxicity                      | Toxicity           | Do Not Delist from 303(d) list (TMDL required list) | 5A                        | 2019                             | Unknown Nonpoint Source   |
| 9      | San Marcos Creek | River & Stream   | 5                          | 90451000           | Selenium                               | Metals/Metalloids  | List on 303(d) list (TMDL required list)            | 5A                        | 2021                             | Source Unknown            |
| 9      | San Marcos Lake  | Lake & Reservoir | 5                          | 90452000           | Ammonia as Nitrogen                    | Nutrients          | List on 303(d) list (TMDL required list)            | 5A                        | 2019                             | Unknown Point Source      |
| 9      | San Marcos Lake  | Lake & Reservoir | 5                          | 90452000           | Ammonia as Nitrogen                    | Nutrients          | List on 303(d) list (TMDL required list)            | 5A                        | 2019                             | Urban Runoff/Storm Sewers |
| 9      | San Marcos Lake  | Lake & Reservoir | 5                          | 90452000           | Ammonia as Nitrogen                    | Nutrients          | List on 303(d) list (TMDL required list)            | 5A                        | 2019                             | Unknown Nonpoint Source   |
| 9      | San Marcos Lake  | Lake & Reservoir | 5                          | 90452000           | Nutrients                              | Nutrients          | List on 303(d) list (TMDL required list)            | 5A                        | 2019                             | Urban Runoff/Storm Sewers |
| 9      | San Marcos Lake  | Lake & Reservoir | 5                          | 90452000           | Nutrients                              | Nutrients          | List on 303(d) list (TMDL required list)            | 5A                        | 2019                             | Unknown Nonpoint Source   |
| 9      | San Marcos Lake  | Lake & Reservoir | 5                          | 90452000           | Nutrients                              | Nutrients          | List on 303(d) list (TMDL required list)            | 5A                        | 2019                             | Unknown Point Source      |

## Attachment J

### Water Quality Standard Inventory Database (San Marcos Creek)



CALIFORNIA DEPARTMENT OF  
**TRANSPORTATION**

[Caltrans](#) > [DEA](#) > [Stormwater](#) > **Water Quality Planning Tool**

## San Marcos Creek

### Watershed Specific Water Quality Objectives

**Waterbody Reach Beneficial Use Constituent Limit Units Details Reference Comments**

#### Numeric Water Quality Objectives

| Beneficial Use          | Constituent      | Limit | Units | Details | Reference                                     | Comments |
|-------------------------|------------------|-------|-------|---------|-----------------------------------------------|----------|
| Agricultural Supply     | Boron            | 0.75  | mg/L  | -       | Quality Criteria for Water, 1986 - Gold Book. |          |
| Warm Freshwater Habitat | Dissolved Oxygen | -5    | mg/L  | -       |                                               |          |

#### Ammonia Water Quality Objectives

| Beneficial Use               | Constituent  | pH | Temperature | Duration | Concentration | Units | Details | Reference |
|------------------------------|--------------|----|-------------|----------|---------------|-------|---------|-----------|
| Agricultural Supply          | Ammonia as N | -  | -           | -        | 0.025         | mg/L  | -       |           |
| Water Contact Recreation     | Ammonia as N | -  | -           | -        | 0.025         | mg/L  | -       |           |
| Non-Contact Water Recreation | Ammonia as N | -  | -           | -        | 0.025         | mg/L  | -       |           |
| Warm Freshwater Habitat      | Ammonia as N | -  | -           | -        | 0.025         | mg/L  | -       |           |
| Wildlife Habitat             | Ammonia as N | -  | -           | -        | 0.025         | mg/L  | -       |           |

#### Bacteria Water Quality Objectives

| Beneficial Use               | Constituent    | Limit | Units            | Details                            | Reference | Comments                                                                                 |
|------------------------------|----------------|-------|------------------|------------------------------------|-----------|------------------------------------------------------------------------------------------|
| Water Contact Recreation     | Fecal Coliform | 400   | Count per 100 ml | Log Mean-10% of Samples for 30 day |           | Log mean value. Based on more than 10 percent of total samples during any 30-day period. |
| Water Contact Recreation     | Fecal Coliform | 200   | Count per 100 ml | Log Mean-5 Samples for 30 day      |           | Log mean value. Based on a minimum of not less than five samples for any 30-day period.  |
| Non-Contact Water Recreation | Fecal Coliform | 4000  | Count per 100 ml | Average-10% of Samples for 30 day  |           | Average value. Based on more than 10 percent of total samples during any 30-day period.  |
| Non-Contact Water Recreation | Fecal Coliform | 2000  | Count per 100 ml | Average-for 30 day                 |           | Average value. Based on samples for a 30-day period.                                     |

#### Narrative Water Quality Objectives

| Constituent               | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Biostimulatory Substances | Inland surface waters, bays and estuaries and coastal lagoon waters shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent that such growths cause nuisance or adversely affect beneficial uses.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Color                     | Waters shall be free of coloration that causes nuisance or adversely affects beneficial uses. The natural color of fish, shellfish or other resources in inland surface waters, coastal lagoon or bay and estuary shall not be impaired.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Dissolved Oxygen          | The dissolved oxygen concentration in ocean waters shall not at any time be depressed more than 10 percent from that which occurs naturally, as the result of the discharge of oxygen demanding waste materials.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Floating Material         | Waters shall not contain floating material, including solids, liquids, foams, and scum in concentrations which cause nuisance or adversely affect beneficial uses.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Oil and Grease            | Waters shall not contain oils, greases, waxes, or other materials in concentrations which result in a visible film or coating on the surface of the water or on objects in the water, or which cause nuisance or which otherwise adversely affect beneficial uses.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| pH                        | The pH value shall not be changed at any time more than 0.2 pH units from that which occurs naturally. Changes in normal ambient pH levels shall not exceed 0.2 units in waters with designated marine (MAR), or estuarine (EST), or saline (SAL) beneficial uses. Changes in normal ambient pH levels shall not exceed 0.5 units in fresh waters with designated cold freshwater habitat (COLD) or warm freshwater habitat (WARM) beneficial uses. In bays and estuaries the pH shall not be depressed below 7.0 nor raised above 9.0. In inland surface waters the pH shall not be depressed below 6.5 nor raised above 8.5.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Radioactivity             | Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life nor that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal or aquatic life.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Sediment                  | The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Suspended Solids          | Waters shall not contain suspended and settleable solids in concentrations of solids that cause nuisance or adversely affect beneficial uses.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Taste and Odor            | Waters shall not contain taste or odor producing substances at concentrations which cause a nuisance or adversely affect beneficial uses. The natural taste and odor of fish, shellfish or other Regional water resources used for human consumption shall not be impaired in inland surface waters and bays and estuaries.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Temperature               | The natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Board that such alteration in temperature does not adversely affect beneficial uses. At no time or place shall the temperature of any COLD water be increased more than 5F above the natural receiving water temperature.<br>All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, bioassays of appropriate duration, or other appropriate methods as specified by the Regional Board. The survival of aquatic life in surface waters subjected to a waste discharge or other controllable water quality factors, shall not be less than that for the same water body in areas unaffected by the waste discharge or, when necessary, for other control water that is consistent with requirements specified in US EPA, State Water Resources Control Board. |
| Toxicity                  | As a minimum, compliance with this objective as stated in the previous sentence shall be evaluated with a 96-hour acute bioassay. In addition, effluent limits based upon acute bioassays of effluents will be prescribed where appropriate, additional numerical receiving water objectives for specific toxicants will be established as sufficient data become available, and source control of toxic substances will be encouraged.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Turbidity                 | Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

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## Attachment K

BMP Cost: Project Planning Cost Estimate (PPCE)



Storm Water BMP Cost Summary - PID Phase Only  
THIS INFORMATION IS FOR CALTRANS INTERNAL USE ONLY

|                     |                                      |
|---------------------|--------------------------------------|
| Project Name:       | I-15 / DEER SPRINGS ROAD INTERCHANGE |
| District:           | 11                                   |
| County:             | San Diego                            |
| Route:              | 15                                   |
| Postmile Limits:    | PM R36.0/R37.2                       |
| Project ID (or EA): | 11-14000093 (11-41840K)              |

**1.0 Design Pollution Prevention BMPs**

| BMP Quantity | Unit Cost |          |           |
|--------------|-----------|----------|-----------|
| 1            | \$120,000 | SUBTOTAL | \$120,000 |

**2.0 Treatment BMPs**

| Miles of Pavement | \$100,000 per Mile |          |           |
|-------------------|--------------------|----------|-----------|
| 1.8               | \$180,000          | SUBTOTAL | \$324,000 |

**3.0 Prepare SWPPP**

| Total Construction Cost | Cost per Table F-6 |          |          |
|-------------------------|--------------------|----------|----------|
| \$20,200,000            | \$11,400           | SUBTOTAL | \$11,400 |

RQM Value (if SWPPP is required):

\$5,400

**4.0 Construction Site BMPs**

| Total Construction Cost | x.x% per Table F-3 |          |           |
|-------------------------|--------------------|----------|-----------|
| \$20,200,000            | 2.00%              | SUBTOTAL | \$404,000 |

**4.0 Stormwater Monitoring**

| Project Risk Level | SWM Cost-PPDG Appendix F* |          |          |
|--------------------|---------------------------|----------|----------|
| 2                  | \$26,400                  | SUBTOTAL | \$52,800 |

|                                        |                  |
|----------------------------------------|------------------|
| <b>TOTAL COST FOR STORM WATER BMPs</b> | <b>\$912,200</b> |
|----------------------------------------|------------------|

\*SWM Cost = M x {[Days<sup>0.5</sup> x \$1000] + \$2000 (1 + 0.1 (Months/12))}  
where M=1; Days<sup>0.5</sup> = 24; and Months = 24

**ATTACHMENT I**  
**TRAFFIC ENGINEERING PERFORMANCE ASSESSMENT**

TRAFFIC ENGINEERING PERFORMANCE ASSESSMENT  
**I-15 AT DEER SPRINGS ROAD INTERCHANGE**  
San Diego County, California  
June 25<sup>th</sup>, 2015

LLG Ref. 3-14-2316

*Prepared by:*  
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TRAFFIC ENGINEERING PERFORMANCE ASSESSMENT  
I-15 AT DEER SPRINGS ROAD INTERCHANGE

San Diego County, California  
June 25<sup>th</sup>, 2015

## 1.0 INTRODUCTION

This report contains traffic information in support of the Project Study Report (PSR) prepared for the I-15 / Deer Springs Road interchange project in the County of San Diego. This Traffic Engineering Performance Assessment (TEPA) is prepared in accordance with Caltrans guidelines and presents our preliminary traffic engineering findings and provides recommendations for future analysis of the interchange alternatives. Existing traffic data was collected at the four study area intersections and segments. Freeway and ramp traffic volumes were obtained from Caltrans' California Freeway Performance Measurement System (PeMS). Analysis of existing and future conditions was performed for several interchange alternatives and is presented in this report.

The objective of the PSR is to determine the preliminary geometric design and operational characteristics for the redesigned I-15 / Deer Springs Road interchange. The information in the PSR will result in preliminary alternatives for the improvement of the I-15 / Deer Springs Road interchange that will relieve traffic congestion around the interchange and the ramps in the long-term.



## 2.0 PROJECT DESCRIPTION

The I-15/Deer Springs Road interchange serves as a primary access to the interstate highway system for the Hidden Meadows and Twin Oaks Valley communities.

### 2.1 Network Options

The following two Network Options were analyzed in the PSR:

- *Option A* assumes Deer Springs Road to be a 4.1A Major Road between I-15 SB Ramps and Twin Oaks Valley Road, except between Sarver Lane and Mesa Rock Road, where it is assumed as a 2.1A Community Collector section with a continuous turn lane.
- *Option B* assumes Deer Springs Road as a 6.1 Prime Arterial per the San Diego County Mobility Element.

*Figure 2-1* depicts the two network options.

In addition to the above options, volumes are forecasted without the eastward extension of Mountain Meadow Road (Mirar De Valle Road) to Valley Center Road, since this connection is speculative.

### 2.2 Intersection Control Evaluation (ICE) Process

In the development of the alternatives for the PSR-PDS and as part of the Intersection Control Evaluation (ICE) process, the Project Development Team (PDT) conducted an alternatives screening process through a series of workshops. During this screening process, the PDT determined weighted evaluation criteria along with a range of potential alternatives. The weighted evaluation criteria were then used to compare and rank each of the potential alternatives. As a result of this screening process, it was decided to eliminate the single point interchange (SPI), hook ramp interchange, 6-leg roundabout, along with various loop ramp alternatives from further evaluation.

### 2.3 Interchange Alternatives

#### 2.3.1 *Alternative 1 – No Build*

In this alternative, the existing interchange configuration and intersection geometry is assumed and no improvements are included.

*Figure 2-2* depicts the Existing interchange configuration and intersection geometry and indicates the intersections studied in this document.

#### 2.3.2 *Alternative 2 – Diamond*

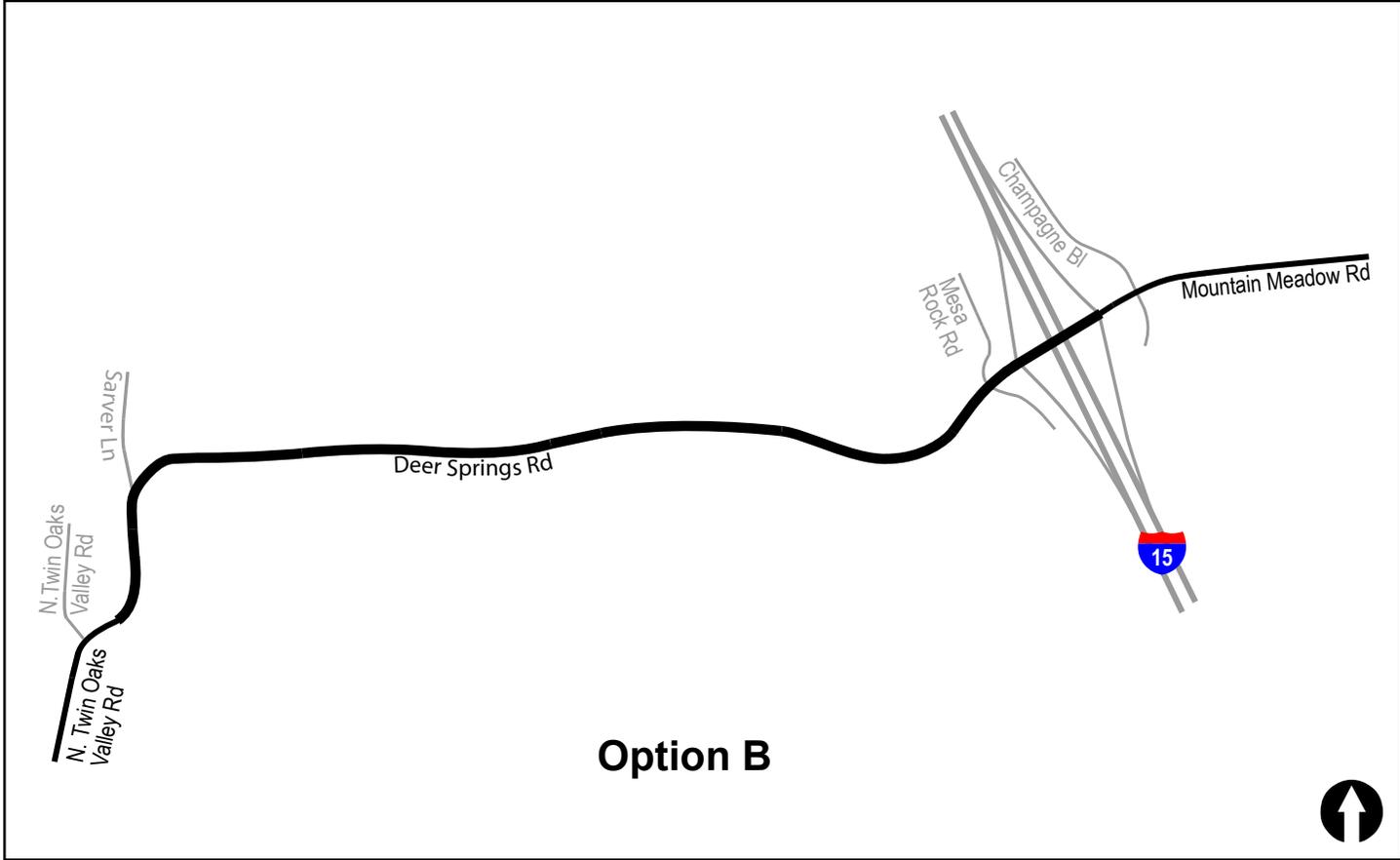
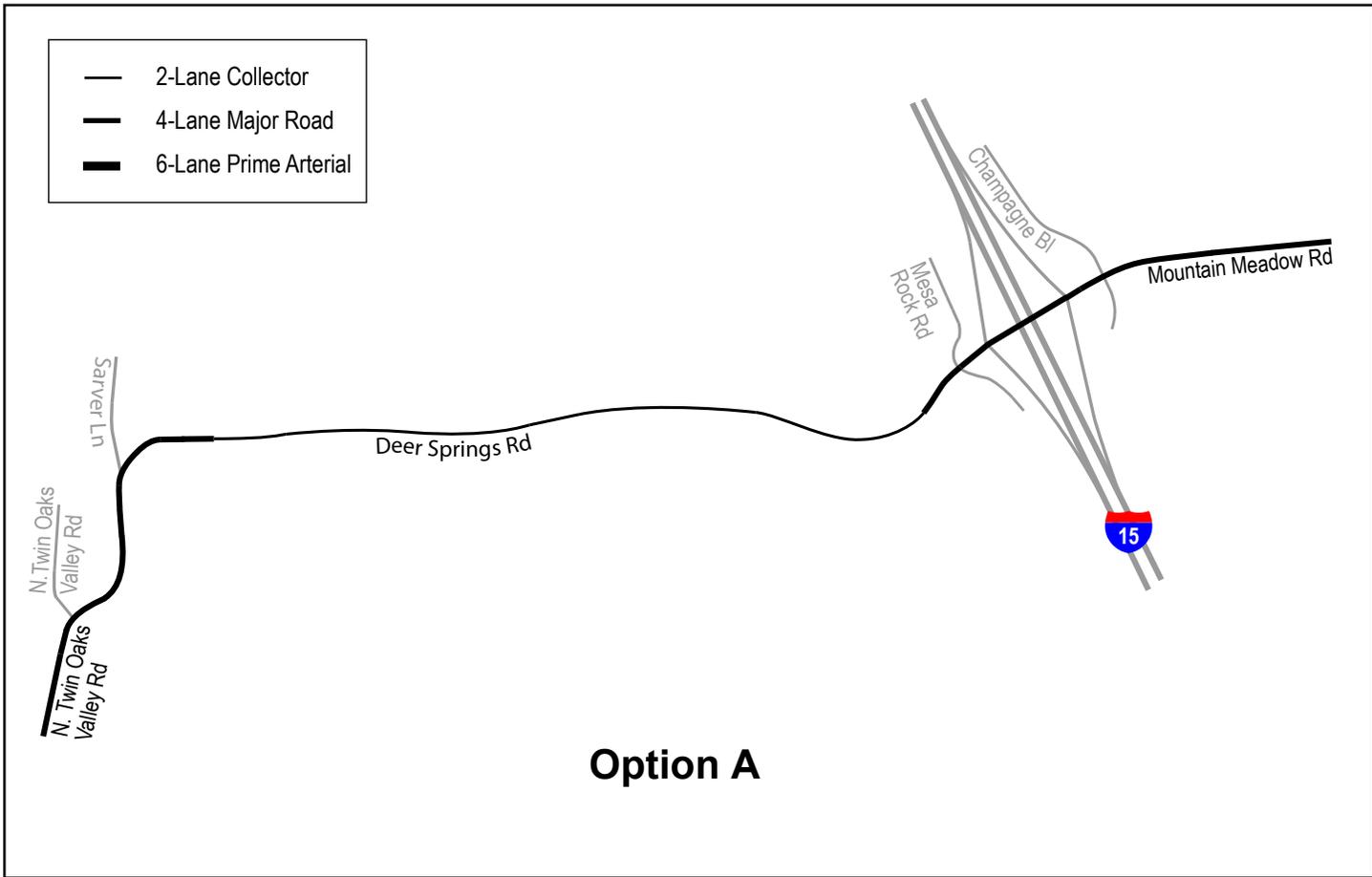
In this alternate, the existing interchange configuration is assumed with improved geometry at each of the intersections such as dual left-turn lanes and additional through lane(s) at the two ramp intersections. It is proposed to relocate the I-15 SB ramps further east to increase intersection spacing between the SB ramps and Mesa Rock Road.

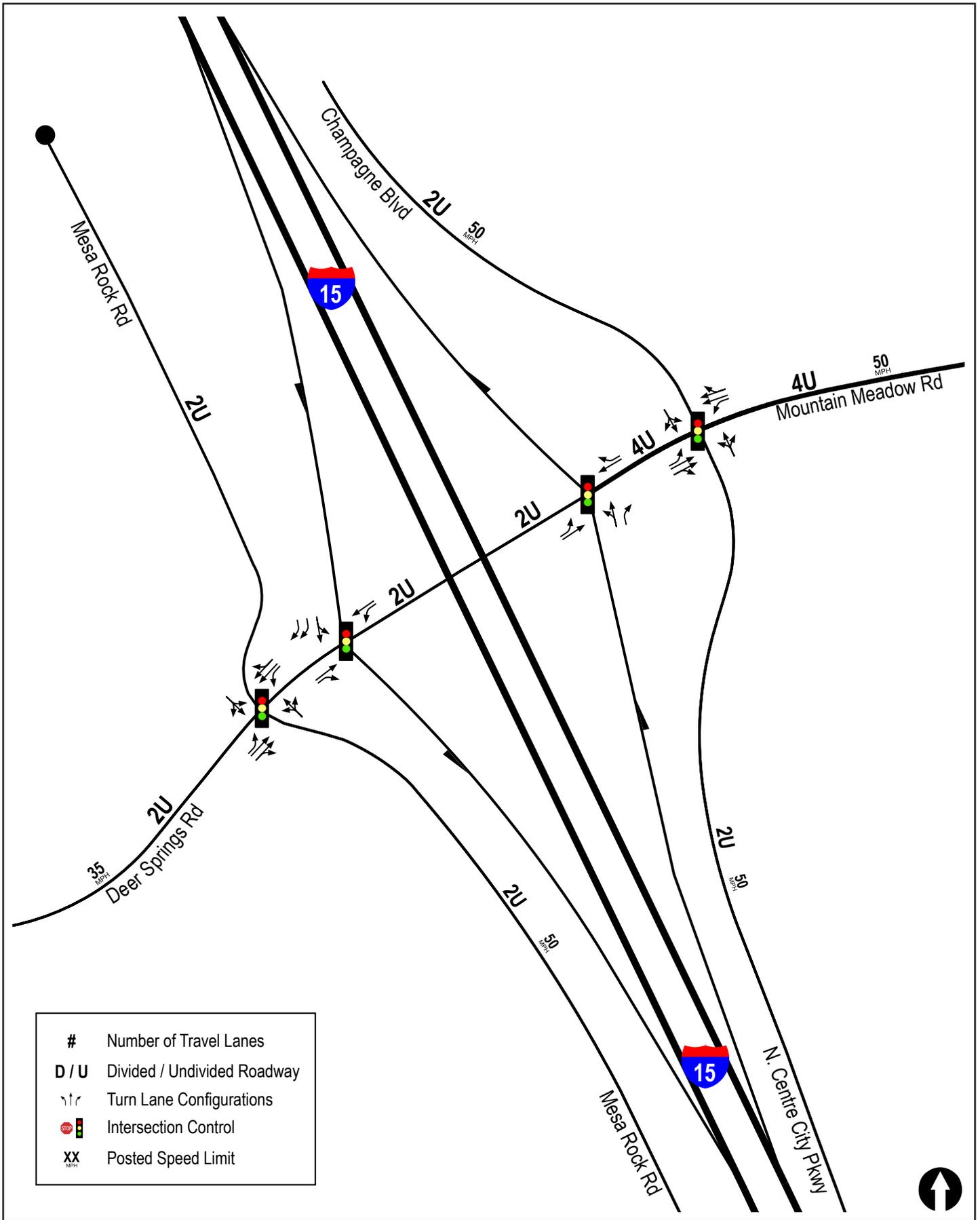
### 2.3.3 *Alternative 3 – Diverging Diamond Interchange (DDI)*

In this alternative, a *diverging diamond interchange* (DDI) configuration is assumed. The adjacent intersections at the frontage roads are signalized.

### 2.3.4 *Alternative 4 – Four-Roundabouts Interchange*

In this alternative, roundabouts are assumed at each of the ramp intersections and the frontage road intersections at Deer Springs Road.





|           |                             |
|-----------|-----------------------------|
| #         | Number of Travel Lanes      |
| D / U     | Divided / Undivided Roadway |
| ↶ ↷       | Turn Lane Configurations    |
| 🚦         | Intersection Control        |
| XX<br>MPH | Posted Speed Limit          |

Figure 2-2

### Existing Roadway and Intersection Geometry

I-15 AT DEER SPRINGS ROAD INTERCHANGE

### 3.0 EXISTING CONDITIONS

This section discusses the existing conditions in the study area. Existing conditions traffic volume data was obtained from the *Final Traffic Volumes Report I-15/Deer Springs Road Interchange*, San Diego, California, April 21<sup>st</sup>, 2015. The data was assembled from the Caltrans' California Freeway Performance Measurement System (PeMS) for the freeway segments. AM / PM peak hour and daily segment volume counts were conducted on January 21, 2014.

Average Daily Traffic (ADT) volumes for existing conditions are summarized in **Table 3-1**.

TABLE 3-1  
EXISTING SEGMENT VOLUMES

| Street Segment                       | ADT <sup>a</sup> |
|--------------------------------------|------------------|
| <b>I-15 Mainline</b>                 |                  |
| Gopher Canyon Rd to Deer Springs Rd  | 127,900          |
| Deer Springs Rd to Centre City Pkwy  | 124,200          |
| <b>Deer Springs Road</b>             |                  |
| Sarver Lane to Mesa Rock Road        | 17,000           |
| Mesa Rock Road to I-15 SB Ramps      | 20,000           |
| I-15 SB Ramps to I-15 NB Ramps       | 15,600           |
| I-15 NB Ramps to Champagne Boulevard | 11,200           |
| <b>Mountain Meadow Road</b>          |                  |
| East of Champagne Blvd               | 7,900            |

**Footnote:**

a. ADT – Average Daily Traffic Volumes

### 3.1 Existing Intersection Operations

**Table 3-2** summarizes the existing peak hour intersection operations at the study area intersections. As seen in **Table 3-2**, all study area intersections are calculated to currently operate at LOS D or better, except the Deer Springs Road / I-15 NB Ramps intersection, which is calculated to operate at LOS E during the PM peak hour.

However, though the calculated existing intersection operations are acceptable, during the AM peak hour, the westbound queues extend from Mesa Rock Road several hundred feet eastward, east of the southbound ramps intersection and during the PM peak hour, the eastbound queues extend from the southbound ramps intersection several hundred feet westward, west of Mesa Rock Road.

**TABLE 3-2  
EXISTING INTERSECTION OPERATIONS**

| <b>Intersection</b>                 | <b>Control Type</b> | <b>Peak Hour</b> | <b>Delay<sup>a</sup></b> | <b>LOS<sup>b</sup></b> |
|-------------------------------------|---------------------|------------------|--------------------------|------------------------|
| 1. Deer Springs Rd / Champagne Blvd | Signal              | AM               | 11.3                     | B                      |
|                                     |                     | PM               | 11.4                     | B                      |
| 2. Deer Springs Rd / I-15 NB Ramps  | Signal              | AM               | 24.0                     | C                      |
|                                     |                     | PM               | <b>66.0</b>              | <b>E</b>               |
| 3. Deer Springs Rd / I-15 SB Ramps  | Signal              | AM               | 35.1                     | D                      |
|                                     |                     | PM               | 31.7                     | C                      |
| 4. Deer Springs Rd / Mesa Rock Rd   | Signal              | AM               | 18.6                     | B                      |
|                                     |                     | PM               | 18.3                     | B                      |

**Footnotes:**

- a. Average delay expressed in seconds per vehicle.
- b. Level of Service

| <b>Signalized</b> |            | <b>Unsignalized</b> |            |
|-------------------|------------|---------------------|------------|
| <b>Delay</b>      | <b>LOS</b> | <b>Delay</b>        | <b>LOS</b> |
| 0.0 < 10.0        | A          | 0.0 < 10.0          | A          |
| 10.1 to 20.0      | B          | 10.1 to 15.0        | B          |
| 20.1 to 35.0      | C          | 15.1 to 25.0        | C          |
| 35.1 to 55.0      | D          | 25.1 to 35.0        | D          |
| 55.1 to 80.0      | E          | 35.1 to 50.0        | E          |
| > 80.1            | F          | > 50.1              | F          |

## 4.0 SUMMARY OF PRELIMINARY FINDINGS & RECOMMENDATIONS

### 4.1 Assessment Approach, Data Sources and Major Assumptions

#### 4.1.1 *Forecasted Traffic Volumes & Conditions*

Future traffic volume data was obtained from the *Final Traffic Volumes Report I-15/Deer Springs Road Interchange*, San Diego, California, April 21<sup>st</sup>, 2015. Long-term analysis is based on SANDAG Series 12 Year 2035 model. Therefore, LLG obtained Year 2035 with Sierra Project model runs for *Options A and B*, these models included the *Mountain Meadow Road connection*. Year 2040 volumes were forecasted using a three-step process.

#### Step 1 – Year 2035 Volume Forecast

LLG worked with SANDAG staff to enter project land uses into the Year 2035 model. Project land uses for each of the 7 neighborhoods were input into the model exactly as proposed. The model runs for all Options used the same project land use inputs. The network assumptions for Options A and B were inputted accordingly for each model run while keeping the land use constant. The Year 2035 with Sierra Project volumes were obtained from each model run.

#### Step 2 – Growing Year 2035 Volumes to Year 2040

In Step 2, a Select Zone Assignment for the project-only trips was conducted. The project-only trips assigned to the street system were then removed from the Year 2035 With Sierra Project ADT to arrive at Year 2035 Without Sierra Project traffic volumes. This was done so Sierra would not have the growth factor applied to them.

#### Step 3 – Year 2040 Volumes

Growth factors were developed for each segment and five years of growth was added to each segment. The Sierra Project traffic was then added back in to obtain the Year 2040 with Sierra Project traffic. These steps are described in detail in the following section.

A model without the eastward connection of Mountain Meadow Road towards Valley Center Road was run. The volumes from the “with” and “without” Mountain Meadow Road connection were compared and a relationship (percentage change) between the two was developed for each segment. These percentage changes were applied to the ADT volumes, to obtain the *Option A without Mountain Meadow Road Connection* volumes. The AM / PM peak hour volumes were forecast as described above for *Option A*.

Average Daily Traffic (ADT) volumes (without the eastward connection of Mountain Meadow Road for Option A and Option B are summarized in **Table 4-1**.

#### 4.1.2 *Methodology / Analysis Software*

Peak hour intersection analysis was conducted for the four study area intersections for all project alternatives. The Synchro analysis software was used to conduct the peak hour intersection analysis. The following section summarizes the results of this analysis.

TABLE 4-1  
SEGMENT VOLUMES

| Street Segment                      | Existing | Year 2040 |          |
|-------------------------------------|----------|-----------|----------|
|                                     |          | Option A  | Option B |
| <b>I-15 Mainline</b>                |          |           |          |
| Gopher Canyon Rd to Deer Springs Rd | 127,900  | 178,840   | 180,090  |
| Deer Springs Rd to Centre City Pkwy | 124,200  | 180,370   | 185,690  |
| <b>Deer Springs Road</b>            |          |           |          |
| Sarver Lane to Mesa Rock Road       | 17,000   | 24,620    | 34,950   |
| Mesa Rock Road to I-15 SB Ramps     | 20,000   | 36,010    | 38,510   |
| I-15 SB Ramps to I-15 NB Ramps      | 15,600   | 26,100    | 29,330   |
| I-15 to Champagne Boulevard         | 11,200   | 22,750    | 27,650   |
| <b>Mountain Meadow Road</b>         |          |           |          |
| East of Champagne Blvd              | 7,900    | 14,560    | 15,530   |

#### 4.1.3 Preliminary Assessment Findings

The existing nonstandard intersection spacing between the Mesa Rock Road intersection and the southbound I-15 ramp termini negatively impacts traffic operations in this area. Considering this, the existing north leg of the Mesa Rock Road intersection, which is proposed to be used as the main entrance for the Sierra Project, has been positioned as far west as possible for each of the build alternatives. Due to geometric, socio economic, and other environmental constraints as described in the PEAR, this intersection cannot be positioned any further west. The south leg of Mesa Rock Road cannot be moved due to existing development. In addition, the southbound I-15 ramp termini have been positioned as far east as possible for each of the alternatives in order to maximize the distance between these intersections and optimize the overall traffic operations for this area.

#### Alternative 1 – No Build

Option B volumes are used in the *No Build* analysis since that corresponds to the County Mobility Element. **Table 4-1** summarizes the *No Build* intersection analysis. As seen in *Table 4-1* two intersections are calculated to operate at LOS E/F or worse conditions.

In the *No-Build* alternative, though the calculated intersection operations are acceptable, as in the case of the existing condition, during the AM peak hour, the westbound queues extend from Mesa Rock Road several hundred feet eastward, east of the southbound ramps intersection and during the PM peak hour, the eastbound queues extend from the southbound ramps intersection several hundred feet westward, west of Mesa Rock Road.

## Alternative 2 – Diamond Alternative

**Table 4-2** summarizes the *Diamond* intersection analysis. As seen in *Table 4-2* all intersections are calculated to operate at LOS D or better.

Though the calculated intersection operations are acceptable, as in the case of the *No-Build* condition, during the AM peak hour, the westbound queues extend from Mesa Rock Road several hundred feet eastward, east of the southbound ramps intersection and during the PM peak hour, the eastbound queues extend from the southbound ramps intersection several hundred feet westward, west of Mesa Rock Road.

## Alternative 3 – Diverging Diamond Alternative

**Table 4-2** summarizes the *Diverging Diamond* intersection analysis. As seen in *Table 4-2* all intersections are calculated to operate at LOS D or better.

In this alternative, though the calculated intersection operations are acceptable, as in the case of the Alternative 2, during the AM peak hour, the westbound queues extend from Mesa Rock Road several hundred feet eastward, east of the southbound ramps intersection and during the PM peak hour, the eastbound queues extend from the southbound ramps intersection several hundred feet westward, west of Mesa Rock Road.

## Alternative 4 – Four Roundabouts Alternative

Based on the future forecasted volumes, two-lane roundabouts are not expected to operate at acceptable levels of service in the long-term. Therefore, a preliminary “sensitivity” analysis was conducted to determine the period up to which a system of two lane roundabouts would operate at LOS D or better. This analysis indicated that both with Option A and Option B traffic, the system of two-lane roundabouts are calculated to operate at LOS E or worse prior to Year 2040. Another analysis was conducted to determine if a system of 3/2-lane roundabouts would operate at LOS D or better for a few years. This alternative was calculated to operate at LOS D or better for 5 years or less from installation.

The analysis of a *4-Roundabout* alternative is not finalized. The 4-roundabouts could be analyzed as a network using the VisSim or Corsim softwares in the PR&ED phase. It is possible that the roundabouts would operate more efficiently when analyzed as a network. Since standards and software used to analyze the capacity of roundabouts are evolving, further analysis of this alternative will be required during the PA&ED phase to fully assess its traffic performance per the required Intersection Control Evaluation (ICE) process. As such, the PDT determined that this alternative should remain in the PSR-PDS.

**TABLE 4-1**  
**INTERSECTION OPERATIONS: ALTERNATIVE 1 – NO BUILD**

| <b>Intersection</b>                 | <b>Control Type</b> | <b>Peak Hour</b> | <b>Delay<sup>a</sup></b> | <b>LOS<sup>b</sup></b> |
|-------------------------------------|---------------------|------------------|--------------------------|------------------------|
| 1. Deer Springs Rd / Champagne Blvd | Signal              | AM               | 27.7                     | C                      |
|                                     |                     | PM               | 31.8                     | C                      |
| 2. Deer Springs Rd / I-15 NB Ramps  | Signal              | AM               | <b>55.7</b>              | <b>E</b>               |
|                                     |                     | PM               | <b>236.0</b>             | <b>F</b>               |
| 3. Deer Springs Rd / I-15 SB Ramps  | Signal              | AM               | <b>62.2</b>              | <b>E</b>               |
|                                     |                     | PM               | <b>161.8</b>             | <b>F</b>               |
| 4. Deer Springs Rd / Mesa Rock Rd   | Signal              | AM               | 38.0                     | D                      |
|                                     |                     | PM               | 30.4                     | C                      |

**Footnotes:**

- a. Average delay expressed in seconds per vehicle.
- b. Level of Service

| <b>Signalized</b> |            |
|-------------------|------------|
| <b>Delay</b>      | <b>LOS</b> |
| 0.0 < 10.0        | A          |
| 10.1 to 20.0      | B          |
| 20.1 to 35.0      | C          |
| 35.1 to 55.0      | D          |
| 55.1 to 80.0      | E          |
| > 80.1            | F          |

TABLE 4-2  
INTERSECTION OPERATIONS

| Intersection                             | Control Type | Peak Hour | OPTION A           |                  | OPTION B |     |
|------------------------------------------|--------------|-----------|--------------------|------------------|----------|-----|
|                                          |              |           | Delay <sup>a</sup> | LOS <sup>b</sup> | Delay    | LOS |
| <b>Alternative 2 – Diamond</b>           |              |           |                    |                  |          |     |
| 1. Deer Springs Rd / Champagne Blvd      | Signal       | AM        | 47.5               | D                | 49.7     | D   |
|                                          |              | PM        | 38.4               | D                | 39.3     | D   |
| 2. Springs Rd / I-15 NB Ramps            | Signal       | AM        | 35.0               | C                | 35.6     | D   |
|                                          |              | PM        | 51.6               | D                | 50.7     | D   |
| 3. Deer Springs Rd / I-15 SB Ramps       | Signal       | AM        | 42.7               | D                | 42.1     | D   |
|                                          |              | PM        | 25.0               | C                | 29.5     | C   |
| 4. Deer Springs Rd / Mesa Rock Rd        | Signal       | AM        | 29.9               | C                | 23.8     | C   |
|                                          |              | PM        | 48.3               | D                | 35.9     | D   |
| <b>Alternative 3 – Diverging Diamond</b> |              |           |                    |                  |          |     |
| 1. Deer Springs Rd / Champagne Blvd      | Signal       | AM        | 43.3               | D                | 36.9     | D   |
|                                          |              | PM        | 47.1               | D                | 42.2     | D   |
| 2. Deer Springs Rd / I-15 NB Ramps       | Signal       | AM        | 31.4               | C                | 14.1     | B   |
|                                          |              | PM        | 34.2               | C                | 49.7     | D   |
| 3. Deer Springs Rd / I-15 SB Ramps       | Signal       | AM        | 16.6               | B                | 8.5      | A   |
|                                          |              | PM        | 22.2               | C                | 21.8     | C   |
| 4. Deer Springs Rd / Mesa Rock Rd        | Signal       | AM        | 25.3               | C                | 28.9     | C   |
|                                          |              | PM        | 22.6               | C                | 23.7     | C   |

**Footnotes:**

- a. Average delay expressed in seconds per vehicle.
- b. Level of Service

| Signalized   |     |
|--------------|-----|
| Delay        | LOS |
| 0.0 < 10.0   | A   |
| 10.1 to 20.0 | B   |
| 20.1 to 35.0 | C   |
| 35.1 to 55.0 | D   |
| 55.1 to 80.0 | E   |
| > 80.1       | F   |

## 5.0 SCOPE OF FUTURE TRAFFIC ENGINEERING STUDIES, ACTIVITIES, AND TASKS

Further operational analyses listed below will be conducted:

- Freeway mainline segments
- ILV analysis of the ramp intersections
- Ramp merge
- Ramp diverge

The following will be evaluated / developed:

- Vehicular, pedestrian and bicycle safety for each of the alternatives
- Electrical systems including type, service, hardware, software
- A traffic management plan for the work zone during construction



**From:** [Goebel, Karen](#)  
**To:** [Michael McCollum](#)  
**Cc:** [Fris, Michael](#); [Mendel Stewart](#); [Lynch, Michelle R CIV USARMY CESPL \(US\)](#); [Mark Wardlaw](#); [Ed Pert](#)  
**Bcc:** [susan\\_wynn@fws.gov](mailto:susan_wynn@fws.gov)  
**Subject:** Newland Sierra Project 4(d) vs Section 7 vs Section 10  
**Date:** Thursday, March 16, 2017 1:14:39 PM

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Hi Mike,

In follow-up to our discussion on Friday, Mike Fris asked me to provide some additional information concerning the need for a take exemption for gnatcatchers for the Newland Sierra project. I have copied the Department and the County on this email so that they are informed about this discussion. We have had these same discussions with the project proponents at meetings where the Department and County were present so the information should not be new to them. I am also copying the Corps of Engineers (Corps) since they may be involved through the section 7 consultation process.

As we discussed, there are 3 processes allowed under the Act for the Service to grant take exemptions: through section 7 consultations where a Federal nexus exists, through section 10 permits, and for threatened species only (e.g., gnatcatcher), special 4(d) rules.

All of these avenues are available to the project proponents for the Newland Sierra project because 1) a Federal nexus exists under section 7 with the Corps, 2) an individual section 10 permit could be pursued in advance of the North County regional planning effort, which is still underway, or 3) the project proponent could apply through the County for a habitat loss permit (HLP) consistent with the special 4(d) rule, State NCCP process and conservation guidelines, and the County's ordinance implementing the 4(d) process within the County.

This is to confirm that only one process is required to grant the take exemption such that no HLP permit would be required if a take exemption was granted through either the section 7 or section 10 process. For the benefit of the Department and County, this statement is confirmed in the special 4(d) rule on page 65090 and in Attachment F of the County's ordinance, which have been forwarded to the Department and County by separate email.

You have asked for clarification regarding how the Service would address the coastal sage scrub (CSS) impacts of the project on gnatcatcher if the Corps initiated section 7 consultation with us. We attempt to address this question here, though we have not yet seen the Corps' final scope of analysis for areas under their jurisdiction nor have we determined whether our scope of analysis may differ. I also do not believe that the Corps has initiated consultation with us for the Newland Sierra project.

For discussion purposes only, let's assume the Service will include all CSS within our scope of analysis. I assume this may be logical in this instance because CSS is the primary habitat of gnatcatchers and we will need to evaluate the impact of both the loss and conservation of CSS due to the project on individual gnatcatchers (i.e., will there be take?) and determine how these impacts affect overall gnatcatcher survival and recovery at the species level, as is required when making our jeopardy/no jeopardy determination.

From the preliminary information we have received, the project will remove occupied CSS near the I-15 corridor supporting 1 gnatcatcher pair. I am not quite sure how much of this pair's territory will be affected without specific project information; but for this purpose, let's assume the loss represents the majority, if not all, of the CSS within this pair's territory.

Although unoccupied CSS exists in the southern interior section of the project site, this CSS also falls within the development footprint. Thus, birds displaced from existing occupied habitat cannot be expected to disperse to nearby unoccupied habitat onsite. Likewise, CSS within the northern portion of the site is already occupied. Based on this preliminary assessment, take of the gnatcatcher pair near the I-15 corridor is likely.

In making our jeopardy/no jeopardy determination, impacts to 1 pair of gnatcatchers and loss of the onsite CSS will be measured against conservation of the CSS in the northern portion of the site and any offsite conservation required as mitigation through the CEQA process. Thus, under this scenario, we will have addressed all of the onsite habitat, whether lost or conserved; the unoccupied CSS onsite, though no take is anticipated specifically from removal of unoccupied CSS; and any offsite habitat offered as mitigation in support of recovery of the species.

We should also clarify that the Service does not take a position as to which path you take (section 7 vs. HCP vs. 4(d)/HLP). We are simply clarifying options for you. Issuance of a non-jeopardy biological opinion should not be viewed as Service support for the project (or lack of support). We have expressed concern to the County about the overall project design's fragmentation of a core habitat area. We have also requested clarification on how the County will assemble a North County

preserve that relies on conservation of 75 percent of the Pre-Approved Mitigation Area when large projects, such as Newland Sierra and others, are not required to individually meet this conservation goal. Our understanding is that the County views these issues as resolvable and plans to address them in future iterations of the conservation design. Nevertheless, these are regional conservation planning issues that have not yet been resolved and which may be highlighted during the CEQA review process for this project.

Hope this helps, and you can call me if you have questions. I will be teleworking (760-415-2802) this afternoon up until 4:00 pm. After that, I am off to Seattle through Monday of next week.

Sincerely,

Karen

Karen Goebel  
Assistant Field Supervisor  
Carlsbad Fish and Wildlife Office  
2177 Salk Avenue, Suite 250  
Carlsbad, California 92008  
760/431-9440, ext. 296  
760/431-9624 Fax



**From:** [Zack, Winston S CIV CPMS \(US\)](#)  
**To:** [Stadtlander, Doreen](#)  
**Cc:** [susan\\_wynn](#); [Lynch, Michelle R CIV USARMY CESPL \(US\)](#); [Dahl, Kyle J CIV USARMY CESPL \(US\)](#)  
**Subject:** RE: [Non-DoD Source] Re: [EXTERNAL] Newland Sierra - Corps-Service-Applicant meeting  
**Date:** Thursday, May 3, 2018 1:35:57 PM

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The Applicant is aware that updated surveys will need to be done. They can't do those this year because of their EIR process doesn't want updated surveys. So they plan on conducting updated surveys next year.

The main point of this requested meeting is to identify Scope and what the Corps' Action Area will be for future consultation. The other part of the meeting would be related to what, if any, other non-Corps areas of the project site may/may not need to be consulted on. There are probably other questions the Applicant (and team) want to get clarified, but I can't think of what those would be right now.

Thanks!

-----Original Message-----

From: Stadtlander, Doreen [[mailto:doreen\\_stadtlander@fws.gov](mailto:doreen_stadtlander@fws.gov)]  
Sent: Thursday, May 3, 2018 1:18 PM  
To: Zack, Winston S CIV CPMS (US) <Winston.S.Zack@usace.army.mil>  
Cc: susan\_wynn <susan\_wynn@fws.gov>; Lynch, Michelle R CIV USARMY CESPL (US) <Michelle.R.Lynch@usace.army.mil>; Dahl, Kyle J CIV USARMY CESPL (US) <Kyle.J.Dahl@usace.army.mil>  
Subject: [Non-DoD Source] Re: [EXTERNAL] Newland Sierra - Corps-Service-Applicant meeting

Hi Winston,

My understanding is that the Corps had previously met with the project applicant and recommended that the CAGN surveys be updated. Have you received the results?

Doreen

On Thu, May 3, 2018 at 11:00 AM, Zack, Winston S CIV CPMS (US) <Winston.S.Zack@usace.army.mil> <<mailto:Winston.S.Zack@usace.army.mil>> > wrote:

Susan and Doreen,

Could you please provide me with some dates/times we could set up a meeting for the Newland Sierra Project?

I recall you wanted to have an Agency (Corps & Service) meeting before we meet with the Applicant. So, potentially we could have back-to-back meetings on the same day? Food for thought.

Thank you,

Winston S. Zack  
Regulatory Project Manager, Archaeologist, M.S., RPA  
U.S. Army Corps of Engineers Regulatory Division  
5900 La Place Court, Suite 100  
Carlsbad, CA 92008  
Office Phone: (760) 602-4838

winston.s.zack@usace.army.mil <<mailto:winston.s.zack@usace.army.mil>>

--

Doreen Stadtlander  
Division Chief  
Carlsbad Fish and Wildlife Office  
2177 Salk Avenue, Suite 250  
Carlsbad, CA 92008  
(760) 431-9440, ext. 223

**6a**

**From:** [Goebel, Karen](#)  
**To:** [Statlander, Doreen](#); [Wynn, Susan](#); [Carol Roberts](#); [Jon Avery](#); [Woulfe, MaryBeth](#); [Jane Hendron](#)  
**Subject:** Fwd: Permitting issue  
**Date:** Tuesday, April 18, 2017 2:06:43 PM  
**Attachments:** [San Diego Issue Brief 4\\_18\\_2017.docx](#)

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Just FYI. This meeting will be with Paul and Mike next week as a result of the Matrix meeting in D.C. Bullet assignment was prepared by Dan and edited by me. See attached.

Jane, copying you because this is a congressional meeting. Did you ever see the matrix? If not, I can forward to you. It would be good for you to be aware of these issues since they seem to be causing the RO to engage a lot, and I don't know how that translates into potential hot topics or not.

Karen

Karen Goebel  
Assistant Field Supervisor  
Carlsbad Fish and Wildlife Office  
2177 Salk Avenue, Suite 250  
Carlsbad, California 92008  
760/431-9440, ext. 296  
760/431-9624 Fax

----- Forwarded message -----

**From:** Cox, Dan <[dan\\_cox@fws.gov](mailto:dan_cox@fws.gov)>  
**Date:** Mon, Apr 17, 2017 at 3:55 PM  
**Subject:** Re: Permitting issue  
**To:** "Stewart, Mendel" <[mendel\\_stewart@fws.gov](mailto:mendel_stewart@fws.gov)>, Karen Goebel <[Karen\\_Goebel@fws.gov](mailto:Karen_Goebel@fws.gov)>  
**Cc:** Michael Fris <[michael\\_fris@fws.gov](mailto:michael_fris@fws.gov)>, Michael Senn <[michael\\_senn@fws.gov](mailto:michael_senn@fws.gov)>

Mendel and Karen,

looks like we will need to talk and maybe come up with some quick bullets on where we are on our list of projects... do you want to take the first stab at this or would you like me to?

I don't have any more information than what's is in this email chain, but my guess is we should be ready to talk about:

- Santee
- North County Plan
- Newland
- Eagle issues and village 13/14

I will call you tomorrow and we can discuss.

thanks  
dan

On Mon, Apr 17, 2017 at 12:47 PM, Michael Fris <[michael\\_fris@fws.gov](mailto:michael_fris@fws.gov)> wrote:  
See below. Let's check in on status of our various projects before then.

Sent from my iPhone

Begin forwarded message:

**From:** "Rische, Robert" <[Robert.Rische@mail.house.gov](mailto:Robert.Rische@mail.house.gov)>  
**Date:** April 17, 2017 at 12:30:58 PM PDT  
**To:** 'Paul Souza' <[paul\\_souza@fws.gov](mailto:paul_souza@fws.gov)>  
**Cc:** Michael Fris <[Michael\\_Fris@fws.gov](mailto:Michael_Fris@fws.gov)>, "[michael\\_senn@fws.gov](mailto:michael_senn@fws.gov)" <[michael\\_senn@fws.gov](mailto:michael_senn@fws.gov)>, Dan Cox <[Dan\\_Cox@fws.gov](mailto:Dan_Cox@fws.gov)>, "[wanda\\_cantrell@fws.gov](mailto:wanda_cantrell@fws.gov)" <[wanda\\_cantrell@fws.gov](mailto:wanda_cantrell@fws.gov)>, "[amedee\\_brickey@fws.gov](mailto:amedee_brickey@fws.gov)" <[amedee\\_brickey@fws.gov](mailto:amedee_brickey@fws.gov)>  
**Subject:** RE: Permitting issue

Next Monday (4/24) at 3:00 will work for me. Just to clarify, are you DC-based and can meet in person or would this be a call? Either works for me, just wanted to clarify.

Thanks,

Robert

---

**From:** Paul Souza [[mailto:paul\\_souza@fws.gov](mailto:paul_souza@fws.gov)]  
**Sent:** Monday, April 17, 2017 3:03 PM  
**To:** Rische, Robert  
**Cc:** Michael Fris; [michael\\_senn@fws.gov](mailto:michael_senn@fws.gov); Dan Cox; [wanda\\_cantrell@fws.gov](mailto:wanda_cantrell@fws.gov); [amedee\\_brickey@fws.gov](mailto:amedee_brickey@fws.gov)  
**Subject:** Re: Permitting issue

Thanks for the note, Robert. I'd be happy to meet with you anytime.

Just took a quick look at the calendar . . . Would early next week work? How about Monday, April 24 at 3:00 pm EST or Tuesday, April 25 at 2:00 pm EST? If you'd prefer a different time, just say the word.

Looking forward to the conversation . . .

Sincerely,

Paul Souza

Regional Director

Pacific Southwest

U.S. Fish and Wildlife Service

2800 Cottage Way, Suite W-2606

Sacramento, CA 95825

916-414-6469

916-208-2457 Cell

<https://www.fws.gov/cno>

On Apr 17, 2017, at 2:13 PM, Rische, Robert  
<[Robert.Rische@mail.house.gov](mailto:Robert.Rische@mail.house.gov)> wrote:

Good afternoon,

My name is Robert Rische and I'm counsel to Congressman Issa in his D.C. office. We recently met with James Whalen and Jeff O'Connor, representing development industries who conveyed they were having difficulty obtaining permits from the U.S. Fish & Wildlife Service with respect to developments in and around our congressional district.

They mentioned they had been in contact with your agency, so I wanted to touch base with you. Would you be available for a call later this week or early next week to discuss further?

Thanks,

Robert

Robert Rische

Counsel

Office of Congressman Darrell Issa (CA-49)

2269 Rayburn House Office Building

Washington, D.C. 20515

202-225-3906

[robert.rische@mail.house.gov](mailto:robert.rische@mail.house.gov)

[<image001.png>](#) [<image002.png>](#)

[<image003.png>](#) [<image004.png>](#)

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Dan Cox  
US Fish and Wildlife Service  
Section 10 (HCP) Coordinator

2800 Cottage Way W2606  
Sacramento, Ca 95825  
(916) 414-6539  
[dan\\_cox@fws.gov](mailto:dan_cox@fws.gov)

- **City of Santee- new HCP (Subarea Plan under the MSCP)**
  - **Summary of the project:** We are working with the City of Santee on their draft Subarea Plan. The Subarea Plan will focus on the biggest development project proposed within the City, the Fanita Ranch project.
  - **Status:** Working through the process to negotiate their Subarea Plan. CFWO discussed a new reserve design with the City, waiting for a response.
  - **Concerns:** The developer felt like they had a hard line agreement from 20 years ago. Hard line agreements go into effect at permit issuance when take is authorized. No permit has yet been issued for the City's Subarea Plan, and species' status and needs have changed in the area, which is why we have proposed changes from the design that was identified in the former hardline agreement.
  - **Next steps:** Waiting to hear back from the City on CFWO's proposed reserve design.
  
- **North County Plan- new HCP**
  - **Summary of the project:** We have been working with San Diego County to develop their North County Plan.
  - **Status:** Meetings with the County occur about 2 times per month; the plan is still being drafted. County gave CFWO a preliminary draft plan in early April, which is under review by CFWO.
  - **Concerns:** Working with new County staff that are inexperienced in developing HCPs. County wants draft plan out to the public in September; CFWO feels like this is an ambitious schedule due to outstanding issues (e.g., new conservation analysis not yet discussed or understood, funding, working through golden eagle issues.)
  - **Next steps:** CFWO commenting on sections of their preliminary plan by April 30<sup>th</sup>
  
- **Newland Sierra Development- new development project**
  - **Summary of the project:** New development project proposed within the draft North County Plan.
  - **Status:** CFWO has been in discussions with the developer to explain their regulatory options for take authorization, including a section 7 consultation or take authorization through the existing gnatcatcher 4d rule. Developer purchased land that they propose to meet mitigation needs.
  - **Concerns:** The proposed mitigation was purchased without input from the Wildlife Agencies (CFWO and CDFW) and does not address our concerns expressed for impacts to the overall reserve design of the North County Plan.
  - **Next steps:** Section 7 seems to be a viable option to pursue for take authorization.
  
- **San Diego MSCP and Eagle Issues with Village 14- within existing HCP**
  - **Summary of the project:** Development within the San Diego MSCP. Golden eagle take was not authorized in this area in the MSCP, but the latest science indicates that take may occur from the development.
  - **Status:** CEQA has been initiated (Notice of Preparation) by the County of San Diego for the proposed development project. Environmental groups are talking with the developer about options to alleviate the situation. FWS (RO and CFWO) is working through the biological and regulatory questions associated with the proposed development project.
  - **Concerns:** There are limited solutions that work for the developer and for golden eagles. Maintaining partnerships with the County, developers, and environmental groups has been challenging as they have opposite views on resolution.

- **Next steps:** CFWO is meeting on May 4<sup>th</sup> with San Diego County to discuss eagle issues.
- **San Diego MSCP and Quino/Eagle Issues with Village 13- within existing HCP**
  - **Summary of the project:** CFWO is working with San Diego County to figure out how to adjust their project and or the MSCP to address take of quino checkerspot butterfly. Quino is not a covered species under the MSCP.
  - **Status:** Working with the County to balance quino checkerspot butterfly and golden eagle conservation needs with developer needs. The County is considering amending the MSCP to include quino or developing a new HCP for quino only.
  - **Concerns:** Quino locations are all over the proposed development footprint so take cannot be avoided; need to find the right balance between development and conservation needs.
  - **Next steps:** CFWO is proposing a solution that will hopefully work for the developer and for conservation of quino checkerspot butterfly. The potential solution involves a reserve design change that will also help to address concerns about golden eagles.
- **Ramona Grasslands Preserve- recreation**
  - **Summary of the project:** The desire for increased public access within land purchased with Federal grant funding increases risks to golden eagle conservation, which was a primary purpose of the grant funding.
  - **Status:** CFWO is working with the County to try and find a balance between recreational access and conservation of golden eagles. Since the land was acquired, a docent led trail program during the limited non-breeding season for resident golden eagles (September 1 – December 1) has been used as a compromise. The County is now pushing for the trail to be open for 3 months without usage control.
  - **Concerns:** Potential abandonment of an active golden eagle territory due to recreation in an area that was purchased for the conservation of golden eagles and other raptors.
  - **Next steps:** Continue to work with the County to find a balance for both parties.

**From:** [Stadtlander, Doreen](#)  
**To:** [Susan Wynn](#)  
**Subject:** Fwd: FW: [EXTERNAL] RE: Checking In  
**Date:** Tuesday, April 3, 2018 8:54:47 AM

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see email chain..

----- Forwarded message -----

**From:** **Stewart, Mendel** <[mendel\\_stewart@fws.gov](mailto:mendel_stewart@fws.gov)>  
**Date:** Mon, Apr 2, 2018 at 5:34 PM  
**Subject:** Fwd: FW: [EXTERNAL] RE: Checking In  
**To:** "Roberts, Carol" <[carol\\_a\\_roberts@fws.gov](mailto:carol_a_roberts@fws.gov)>  
**Cc:** "Sobiech, Scott" <[scott\\_sobiech@fws.gov](mailto:scott_sobiech@fws.gov)>, Karen Goebel <[karen\\_goebel@fws.gov](mailto:karen_goebel@fws.gov)>, Doreen Stadtlander <[doreen\\_stadtlander@fws.gov](mailto:doreen_stadtlander@fws.gov)>

Carol,

Please provide any input you have to Doreen so we can provide an update to the Regional office by COB on Tuesday.

Thank you <Mendel

----- Forwarded message -----

**From:** **Michael Fris** <[michael\\_fris@fws.gov](mailto:michael_fris@fws.gov)>  
**Date:** Mon, Apr 2, 2018 at 11:59 AM  
**Subject:** FW: [EXTERNAL] RE: Checking In  
**To:** Mendel Stewart <[mendel\\_stewart@fws.gov](mailto:mendel_stewart@fws.gov)>, Dan Cox <[Dan\\_Cox@fws.gov](mailto:Dan_Cox@fws.gov)>

Mendel, Dan: See comments by Jim W below. I'm gonna ask Dan to help put together a paragraph on status of each of these. I don't think we need to rebut or correct him, but just clear the air on where we are with each. Shouldn't be that hard. Dan: I can sit with you today and outline them. I can be on the phone early tomorrow to walk through them with both of you, and be able to walk through status of each of these, do any necessary clarifications or course corrections, and move forward

**From:** Evans, April [mailto:[april\\_evans@fws.gov](mailto:april_evans@fws.gov)]  
**Sent:** Friday, March 30, 2018 12:35 PM  
**To:** Holzworth, Jody  
**Cc:** Michael Fris; Wanda Cantrell  
**Subject:** Re: [EXTERNAL] RE: Checking In

Both are scheduled. 8-9 pre-brief and 9-10 call with Jim Whalen.

*April Evans,*

*U.S. Fish and Wildlife Service*

*Secretary to the Assistant Regional Director*

*Ecological Services*

*Region 8*

*(916) 414-6516*

*(916) 414-6462 FAX*

On Fri, Mar 30, 2018 at 10:39 AM, Holzworth, Jody <[jody\\_holzworth@fws.gov](mailto:jody_holzworth@fws.gov)> wrote:

Mike,

Please make Paul's asks here next week's priority, including an updated briefing paper by COB Tuesday. Let me know how I can help.

April, please schedule a pre-brief on San Diego HCP issues for Wednesday morning that includes Mike, Paul and myself. Then, please schedule a time to visit with Jim Whalen after the first Wednesday meeting, if possible. Paul plans to call into both of these meetings while on vacation (he is on EST so mornings are best). It would be good if we can get these scheduled today.

Mike, you'll want to let Wanda know who else will be joining us from your team and Carlsbad on Monday.

Thank you!

--Jody

----- Forwarded message -----

From: **Paul Souza** <[paul\\_souza@fws.gov](mailto:paul_souza@fws.gov)>

Date: Thu, Mar 29, 2018 at 4:34 PM

Subject: Fwd: [EXTERNAL] RE: Checking In  
To: Michael Fris <[Michael\\_Fris@fws.gov](mailto:Michael_Fris@fws.gov)>  
Cc: [jody\\_holzworth@fws.gov](mailto:jody_holzworth@fws.gov)

Mike,

As we discussed, I'm going to need a briefing on the status of these projects (see below) . . . Your RO team can lead the briefing and Carlsbad can join the pre-brief. Probably Wednesday morning and I'd like a written briefing paper the day before. Jim implies there may be other issues coming, too. I'm going to see if we schedule the meeting with Jim and his colleagues right after. **Jim specifically said he did not want Carlsbad in that meeting.**

Let's see how far we can get on each of these issues. I'd like you and your team to be able to clearly define the sticking points on the remaining issues. **Please see if we can get them thinking about fair solutions that are workable for the developers.** I've found it difficult to separate the key issues from the less important issues in some of the briefings with Carlsbad. Not sure who should be the key voice on the phone from that office . . . Use your good judgment.

Many thanks,

Paul Souza  
Regional Director  
Pacific Southwest  
U.S. Fish and Wildlife Service  
[2800 Cottage Way, Suite W-2606](https://www.fws.gov/cno)  
Sacramento, CA 95825  
916-414-6469  
916-208-2457 Cell  
<https://www.fws.gov/cno>

Begin forwarded message:

**From:** James Whalen <[james@jwhalen.net](mailto:james@jwhalen.net)>  
**Date:** March 29, 2018 at 7:18:01 PM EDT  
**To:** Paul Souza <[paul\\_souza@fws.gov](mailto:paul_souza@fws.gov)>  
**Subject:** [EXTERNAL] RE: Checking In

Hi Paul—thanks for getting back to me. You are right, we are planning on sending you what we are looking for, but it has been taking longer than I'd hoped. I'll get it asap. I had been hoping to do something this week with you so as not to bother you on vacation next week, but Dudek isn't quite done yet. Here

is where we stand:

### Low-Hanging Fruit

*Warner Springs Ranch*—we brought you material February 12, 2016, on the benefits of proceeding with a “mega-preserve” of 100,000 acres in the Henshaw Valley over a year ago, but nothing has happened (because there is no development “threat”?). This has the potential to really help on golden eagle and other apex species, not to mention Quino and about three other listed species. We need a champion from your office who will make this a priority. The request to you is to help make this conservation effort happen by assigning one of the best Carlsbad FWS people to this, Jonathan Snyder, who gets things done.

*Newland Sierra*—Rita Brandin and I met with you on December 18, 2017, and you said a Section 7 for the gnatcatcher was the simplest path forward. We took this direction. The Newland team has submitted its 404 application, and the Corps said they will ask for a meeting with the FWS. We requested that Mike Fris be personally involved to ensure there are no jeopardy issues. We request that this process be completed under your oversight to ensure it is satisfactorily completed.

### Tougher Calls

*Otay Ranch Village 14*—material in support of the Land Exchange was given to your office on June 26, 2017. Since then, despite having a compelling argument for a superior project with the land exchange, and spending \$2MM to do it as directed by FWS, there has been no movement. We tried in good faith, but have run out of time, so the current project is proceeding to approval. The County is issuing findings that will resolve the Baldwin letter issues. FWS is trying to require a MSCP major boundary adjustment rather than allowing the findings permitted under the County's Biological Mitigation ordinance. Because we anticipate objection from FWS, our request is to allow the County to proceed with the BMO findings without objection from FWS.

*Fanita Ranch*—Jeff O'Connor and I met with you on August 21, 2017, and shared three footprints, two of which were acceptable to the FWS. The third, which is the project proposed today, is clearly superior to the other two on its face, but was rejected by the Carlsbad FWS. The documentation that supports Home Fed's assertion that their proposal is superior is almost done. The request is to support the inclusion of the Home Fed footprint in the incipient Santee MSCP Subarea Plan.

Village 13—Stephen Haase and I met with you on June 21, 2017, and came back with your admonition to document the adequate mitigation of Quino impacts in a revised footprint called Alternative H. We also met twice more to no avail with Carlsbad. We have nearly completed the requested documentation. Based upon expert analysis, it is clear a key element necessary for survival of the species is conservation and management. Alternative H implements this strategy by restoring and enhancing unoccupied Quino habitat onsite and providing additional funding for on-going management. (Note that FWS/SD Zoo efforts to breed and transplant captive Quino larvae have borne fruit with the recent, second year of successful emergence of adults.) We believe the foregoing meets your requirements to support the modified Alternative H through the Section 7 process, and request your leadership and oversight.

It would be good to discuss on the phone. I am loath to disrupt your hard-earned vacation, so you tell me what works, time-wise. Thanks so much again, JimW

James E. Whalen

President

J. Whalen Associates, Inc.

[1660 Hotel Circle North, Suite 725](#)

[San Diego, CA 92108](#)

Phone: 619-683-5544

Email: [james@jwhalen.net](mailto:james@jwhalen.net)

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**From:** Paul Souza <[paul\\_souza@fws.gov](mailto:paul_souza@fws.gov)>

**Sent:** Thursday, March 29, 2018 1:50 PM

**To:** James Whalen <[james@jwhalen.net](mailto:james@jwhalen.net)>

**Subject:** Checking In

Jim,

Thanks for the conversation last week. I thought you were going to send me a follow up note with the issues you'd like to cover next week. Just want to be sure we're prepared and can schedule it.

Many thanks and talk with you soon . . .

Paul Souza  
Regional Director  
Pacific Southwest  
U.S. Fish and Wildlife Service  
[2800 Cottage Way, Suite W-2606](#)  
Sacramento, CA 95825  
916-414-6469  
916-208-2457 Cell  
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**Jody Holzworth**  
**Deputy Regional Director**  
**U.S. Fish & Wildlife Service**  
**Sacramento, CA**  
**(916) 414-6619**

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Mendel Stewart  
U.S. Fish and Wildlife Service  
Carlsbad Fish and Wildlife Office  
Field Supervisor  
[2177 Salk Avenue, Suite 250](#)  
[Carlsbad, CA 92008](#)

760-431-9440 x211 office  
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Region 8 Facebook page: <https://www.facebook.com/usfwspacificsouthwest>

Region 8 Twitter page: <https://twitter.com/USFWSPacSWest>

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Doreen Stadlander  
Division Chief  
Carlsbad Fish and Wildlife Office  
2177 Salk Avenue, Suite 250  
Carlsbad, CA 92008  
(760) 431-9440, ext. 223

**6b**

**From:** [Wynn, Susan](#)  
**To:** [Williams, Carol@Wildlife](#); [Sevrens, Gail@Wildlife](#); [David Mayer](#)  
**Cc:** [Doreen Statdlander](#); [Karen Goebel](#)  
**Subject:** Newland Sierra  
**Date:** Wednesday, August 2, 2017 9:58:30 AM  
**Attachments:** [15B0150-17CPA0166 Newland Sierra DEIR comments.docx](#)

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Hi Carol et al - Thanks for taking the lead on this letter - Carol did an amazing job. Unfortunately, we are not going to be able to go joint with you on it- I had started to make a few edits - you can use or delete as you see fit, I also removed any reference to us.

If you have any questions, please give Karen a call.

Susan

Susan Wynn  
Fish and Wildlife Biologist  
2177 Salk Avenue, Suite 250  
Carlsbad, CA 92008  
(760) 431-9440 ext 216



U.S. Fish and Wildlife Service  
Carlsbad Fish and Wildlife Office  
2177 Salk Avenue, Suite 250  
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760 431-9440  
FAX 760 431-9624



California Department of Fish and Wildlife  
South Coast Region  
3883 Ruffin Road  
San Diego, California 92123  
858 467-4201  
FAX 858 467-4299

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In Reply Refer To:  
[FWS/CDFW 15B0150 17CPA0166](#)

Ms. Ashley Smith  
County of San Diego  
Department of Planning and Development Services  
5510 Overland Avenue, Suite 310  
San Diego, California 92123

Subject: Comments on the Draft Environmental Impact Report, General Plan Amendment, Specific Plan, Rezone, Tentative Map, and Draft Habitat Loss Permit for the proposed Newland Sierra Project, County of San Diego, California (Log No. PDS2015-ER-15-08-001; SCH No. 2015021036. Project Numbers: PDS2015-GPA-15-001, PDS2015-SP-15-001, PDS2015-REZ-15-001, PDS2015-TM-5597)

Dear Ms. Smith:

The Department of Fish and Wildlife (Department) ~~and the U.S. Fish and Wildlife Service (Service), collectively referred to as the Wildlife Agencies, have~~ reviewed the Draft Environmental Impact Report (DEIR), General Plan Amendment, Specific Plan, Rezone, Tentative Map, and Draft Habitat Loss Permit (HLP) for the proposed Newland Sierra Project (Project) received on June 15, 2017. The comments provided in this letter are based on information in the documents provided; associated reference materials including Dudek's December 11, 2013 Memorandum; Megan Jennings' April 2017 Merriam Mountains Wildlife Connectivity Review; multiple meetings and discussions with San Diego County (County) staff and representatives of the Project applicant; our knowledge of sensitive and declining plant and animal species and vegetation communities in the County; and our participation in regional conservation planning, including working with the County, various consultants, and stakeholders involved with the County's draft North County Multiple Species Conservation Program (NC-MSCP) planning effort.

~~The primary concern and mandate of the Service is the protection of public fish and wildlife resources and their habitats. The Service has legal responsibility for the welfare of migratory birds, anadromous fish, and endangered animals and plants occurring in the United States. The Service is also responsible for administering the Federal Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 *et seq.*), including habitat conservation plans (HCP) developed under section 10(a)(1) of the Act.~~ The Department is a Trustee Agency and a responsible Agency pursuant to the California Environmental Quality Act (CEQA), Sections 15386 and 15381, respectively. The Department is responsible for the conservation, protection, and management of the State's biological resources, including rare, threatened, and endangered plant and animal

species, pursuant to the California Endangered Species Act (CESA) and other sections of the Fish and Game Code, and administers the Natural Community Conservation Planning (NCCP) program. The County has signed a Planning Agreement with the Department and the Service for the development of the draft NC-MSCP, and this NCCP/Habitat Conservation Plan (HCP) is currently in development for unincorporated lands in north San Diego County.

The Project site consists of 51 parcels totaling approximately 1,985 acres located west of Interstate 15, north of Deer Springs Road, and east of Twin Oaks Valley Road within the Twin Oaks Valley and Hidden Meadows communities of the North County Metropolitan Subregional Plan area (southern portion) and the Bonsall Community Planning area (northern portion) of the unincorporated San Diego County (County). The Project would include the development of 2,135 dwelling units, 81,000 square feet of general commercial uses, a six-acre school site, approximately 36 acres of parks, and 1,202 acres of biological open space. Overall, the master-planned community would consist of seven planning areas focused around a town center located off of Deer Springs Road in the southeastern corner of the site and include an extensive trail system including: 6.9 miles of multi-use pathways along the main road; 8.9 miles of internal pathways and trails within neighborhoods; 2 miles of multi-purpose trails through the open space area; and, 1.5 miles of secondary trails through the open space area. Access to the Project site would be provided by two main access points along Deer Springs Road, with an additional access point provided at Camino Mayor off of Twin Oaks Valley Road.

The Project site is located within the northern portion of the Merriam Mountains range, a narrow 8.5-mile-long chain of low mountains generally running north-south with a variety of east-west trending ridgelines and scattered peaks. The property is primarily undeveloped with on-site topography composed mostly of hills and valleys dominated by rock (granodiorite) outcroppings, moderate to steeply sloping terrain, and elevations ranging from approximately 660 feet above mean sea level (AMSL) near the northwestern end to approximately 1,750 feet AMSL in the west-central portion of the Project site. Various dirt roads and trails that provide access to each parcel and service roads for existing water infrastructure traverse the Project site. An abandoned quarry is located in the northwest portion of the Project site and an abandoned private landing strip is located in the north-central portion. Surrounding land uses to the north, west, and south of the Project site include large-lot, single-family residential development, agricultural uses and conserved open space.

The Project site is also located within [a core habitat area within the Pre-Approved Mitigation Area \(PAMA\) of the draft NC-MSCP, specifically the Gopher Canyon – Twin Oaks Planning Unit](#). Merriam Mountains represents one of only ~~two~~ ~~three~~ remaining large blocks of natural habitat in the PAMA west of Interstate 15. Vegetation on the Project site consists predominately of southern mixed chaparral, with interspersed patches of Diegan coastal sage scrub, live oak woodlands, and southern willow scrub. The South Fork of Moosa Canyon also runs from the northern to northeastern area of the Project site. In addition, the habitat evaluation maps of the draft NC-MSCP indicate that habitats on and adjacent to the Project site are “moderate”, “high”, and “very high” habitat quality. Areas to the north, south, east, and west of the site are also identified as PAMA in the draft NC-MSCP.

**Commented [WS1]:** IF we are restricted to referencing the 2009 plan, then it is in the San Marcos-Merriam Mountains Core and this project is shown as a hardline – going back to this draft does not make sense to me at this point in the process – so keeping it generic

**Commented [WS2]:** See Megan Jennings write up

The proposed Project would permanently impact 776.6 acres on-site, including 54.5 acres of coastal scrub, 666.9 acres of chaparral, 6.5 acres of coast live oak woodland, 15.3 acres of riparian habitat, and 15.3 acres of non-native grassland. Permanent impacts off-site would range from 70.5-73.2 total acres and include impacts to coastal scrub, chaparral, oak woodland, riparian habitats, and non-native grassland. The applicant proposes to mitigate these impacts through the designation of 1,209.1 acres of on-site biological open space and the purchase of an additional 211.8 acres off-site. On-site impacts would also permanently impact the federally threatened coastal California gnatcatcher (*Polioptila californica californica*, gnatcatcher). The applicant proposes to mitigate impacts to coastal scrub and gnatcatcher through the County's HLP process. In addition to permanent impacts, the Project will temporarily impact 8.7-9.2 total acres on-site and 1.29 total acres off-site. The applicant proposes to restore the temporarily impacted areas within designated open space via the development and implementation of a Revegetation Plan.

We offer the following comments and recommendations to assist in avoiding, minimizing, and adequately mitigating Project-related impacts to biological resources, and to ensure that the Project is consistent with the HLP process, Federal and State endangered species laws/regulations, and ongoing regional habitat conservation planning efforts:

1. The DEIR analyzes eleven alternatives to the proposed Project, including an Existing General Plan Alternative. Under this alternative, the Project site would be developed under existing General Plan land use designations of Village, Semi-Rural, and Rural Lands. According to the Land Use Element of the County's General Plan, approximately 19.6 acres of the existing property are designated Semi-Rural 10 (SR10), which allows one dwelling unit per 10 gross acres on land with slopes of less than 25 percent, and one dwelling unit per 20 gross acres on land with slopes greater than 25 percent. Approximately 1,907 acres of the existing property is designated Rural Lands 20 (RL20), which allows one dwelling unit per 20 gross acres. Approximately 4.64 acres are designated General Commercial (C-1), which allows a maximum intensity of 0.70 floor area ratio in areas designated as Village. Approximately 53.64 acres are designated Office Professional (C-2), which allows a maximum intensity of 0.80 floor area ratio in areas designated as Village.

The DEIR concludes that this alternative would allow approximately 99 single-family residential dwelling units and 2,008,116 square feet of office professional and commercial space with associated roadways, leach fields for septic systems, and Fuel Modification Zones (FMZs), and would decrease open space by approximately 273 acres in comparison to the proposed Project. According to our understanding of the County's Conservation Subdivision Ordinance, which requires 75% avoidance of resources on lands zoned SR 10, and 80% avoidance on lands zoned RL 20, this conclusion is incorrect. It is our understanding that the zoning allowances are only applied to the acreage that remains after the avoidance criteria have been met. This would result in the development of approximately 20 homes on lands zoned SR10 and RL20, and the avoidance and protection of approximately 1,539 acres of open space on those lands, a

330-acre increase from the proposed Project. The Conservation Subdivision Ordinance also contains specific requirements that relate to the design of the open space on site. According to the County's "Rural Subdivision Design and Processing Guidelines", Projects subject to the Conservation Subdivision Ordinance are required to:

- A. Conserve the largest blocks possible of fragmented and interconnected open space;
- B. Avoid creating slivers of open space or fingers of open space that extend in and around development and provide the lowest amount of interface between open space and development – referred to as maximizing the surface area to perimeter ratio;
- C. Create the maximum amount of connectivity between on and off-site resource areas;
- D. Maintain patterns of diversity within the landscape such as multiple habitat types, varying topography, agriculture, etc; and,
- E. Preserve particularly unique and/or sensitive resources in the core of open space areas or such that they are sufficiently buffered to achieve the same practical effect.

[These requirements are consistent with the preserve design principles outlined in the Planning Agreement, the NCCP Conservation Guidelines, and the NCCP Act of 2003.](#)

The avoided lands shall be protected with an easement dedicated to the County or a conservancy approved by the Director of County PDS. Under the application of the Conservation Subdivision Ordinance as described above, the Existing General Plan Alternative would maximize on-site open space and lead to the most biologically sound preserve design alternative. If our understanding is correct, although we have not yet seen the resulting project footprint, it is very possible that we would recommend the adoption of this alternative.

2. The DEIR also analyzes three alternatives recommended by the [Department and the U.S. Fish and Wildlife Service \(Wildlife Agencies\)](#) in ~~our response letters~~[response](#) to the Notice of Preparation (NOP) for the DEIR. [These alternatives would minimize project impacts to the draft PAMA, provide for a large, contiguous block of open space in the eastern and northern portion of the property thereby contributing to assemblage of the San Marcos-Merriam Mountains Core Area, and maintain connectivity between on and offsite areas designated as draft PAMA and to other conservation efforts outside the NCMSCP planning area. Retaining a core block of habitat onsite as well as connectivity for wildlife throughout the Project site is a primary concern of ours. There are very few areas remaining in the NC-MSCP that support blocks of native vegetation that are greater than 500 acres. In addition, a](#)As discussed in Megan Jennings' Merriam Mountains Wildlife Connectivity Review, the proposed Project site's location within the Merriam Mountains serves as a critical stepping-stone between north-south [coastal sage scrub habitat](#) patches along the I-15. The proposed Project location is also important for east-west movement between the Merriam Mountains and the San Marcos Mountains. Given the importance

of the Project's ~~location~~ for wildlife habitat and connectivity, the Wildlife Agencies ~~continue to recommended-recommend selection of a three-scaled-back alternatives~~ that would minimize Project impacts to the PAMA in the draft NC-MSCP and preserve a large core block of habitat; ~~provide for a large, continuous block of open space in the eastern and northern portion of the Site; and maintain connectivity between on- and off-site areas designated as draft PAMA and other conservation efforts outside the NC-MSCP planning area.~~

Under CDFW/USFWS Land Use Planning Alternative A – one of the three Wildlife Agency recommended alternatives - the Town Center, Terraces, and Hillside planning areas, along with associated access roadways, parks, and other improvements, would be removed and replaced with open space. The remainder of the planning areas (Valley, Mesa, Knoll, and Summit) would remain as proposed under the Project. The DEIR concludes that this alternative is the Environmentally Superior Alternative, with the exception of the No Project (No Build) Alternative. In the event that the Existing General Plan Alternative is not adopted, given the wildlife habitat and connectivity benefits discussed above, we would also support the adoption of this alternative.

3. The proposed Project is requesting an amendment to the County's Resource Protection Ordinance (RPO) to allow impacts to RPO wetlands and wetland-buffers. The RPO defines wetlands as lands that have one or more of the following attributes: (1) lands that periodically support a predominance of hydrophytes (plants whose habitat is water or very wet places); (2) lands in which the substratum is predominantly undrained hydric soil; or (3) lands where an ephemeral or perennial stream is present and whose substratum is predominately non-soil, and where such lands contribute substantially to the biological functions or values of wetlands in the drainage system. As detailed in Table 3 of the draft Resource Protection Plan, the Project would impact 2.13 acres of RPO wetland and 8.7 acres of wetland-buffer on-site, as well as 1.49 acres of RPO wetland and 1.10 acres of wetland-buffer off-site. The Project proposes to partially mitigate these impacts through avoidance of other RPO wetlands on-site; however, these on-site areas would not be suitable to serve as mitigation credit as avoidance is already required per the RPO. As such, additional off-site mitigation would be required in order to fully mitigate impacts to RPO wetlands and wetland-buffers.

The Project's proposal to amend the RPO creates a concern regarding the ability to meet the conservation goals and objectives established in the NC-MSCP. The RPO is one of several enforcement tools the County has advocated to ensure the build out of the NC-MSCP Preserve and the conservation of the NC-MSCP Covered Species. Currently, there is no exemption built into the RPO that allows impacts to RPO wetlands without commensurate mitigation. Allowing exemptions to the RPO on a project-by-project basis severely compromises the effectiveness of this enforcement tool. We request the Project be revised to avoid impacts, except those caused by uses permitted under Sec. 86.604 of the RPO, to all RPO wetlands and wetland-buffer both on and off-site to provide

consistency with the existing RPO.

4. The Project is also requesting an exemption to the RPO to allow development on Steep Slope Lands. Section 86.602(p) of the RPO, defines “Steep Slope Lands” as, “all lands having a slope with natural gradient of 25% or greater and a minimum rise of 50 feet, unless said land has been substantially disturbed by previous grading”. The development footprint of the proposed Project includes 148 acres of Steep Slope Lands. RPO Section 86.604.e.1.cc allows encroachment into Steep Slope Lands “to avoid impacts to significant environmental resources that cannot be avoided by other means, provided no less environmentally damaging alternative exists”. As discussed above, the enforceability of the RPO is critical to the success of the NC-MSCP. The DEIR analyzes several less environmentally damaging alternatives to the proposed Project. Therefore, we recommend that the Project be modified to remove Steep Slope Lands from the development footprint in order to provide consistency with the RPO.
5. The draft NC-MSCP has identified a target level of conservation for lands within the PAMA at 75 percent; however, the project, as proposed, would achieve about 39 percent conservation of the property. We acknowledge that the 75 percent conservation target is an average across the PAMA, where some areas will be conserved at higher levels and others at lower levels. Because anything less than 75 percent conservation on projects occurring in PAMA will require additional cost to the County to make up for that shortfall, we especially advocate for that level of conservation prior to the completion of the NC-MSCP permit. This level of conservation is therefore our starting point as we review each proposed project that is located within the PAMA boundaries. We also consider other factors including the importance of the project area to identified biological core and linkage areas within the preserve, as well as the presence of critical biological resources. As discussed in the Wildlife Agencies NOP response letters for the proposed Project, the balance of any portion of the 75 percent conservation that cannot be achieved on-site should be met by contributing land that adds value to the Merriam Mountains connection, preferably in the same NC-MSCP planning unit.

In order to fulfill the proposed Project’s mitigation requirements and provide the remaining balance of 75 percent conservation, the Project applicant has purchased a 211.8-acre property located within PAMA of the draft NC-MSCP, specifically within the far eastern section of the Ramona Planning Unit. We recognize the value of this property as it provides a block of ~~continuous~~ habitat situated ~~between~~ near segments of the Cleveland National Forest and San Diego County Parks land, ~~and~~ supports high value habitat and sensitive species such as Engelmann Oak, ~~and~~ aides in the build out of the NC-MSCP Preserve. However, this property does not provide comparable habitat to that which would be impacted by the proposed Project, and, importantly, does not off-set the loss/reduction of connectivity created by the Newland Sierra project or further the conservation efforts in the Merriam Mountains vicinity pursuant to NC-MSCP goals.

**Commented [WS3]:** Near? This kind of implies that it actually connects these lands, however it is actually is not contiguous with either

Furthermore, the elevation of the coastal sage scrub on the proposed mitigation property is too high to support gnatcatchers, thus its preservation cannot be considered compensatory for impacts to gnatcatcher occupied and potentially occupied habitat on-site or to impacts to the coastal sage scrub along the I-15 corridor.

6. The DEIR does not adequately address potential impacts to wildlife from roads and traffic both within the project and offsite from the widening of Deer Springs Road and the potential changes to the Deer Springs interchange at Interstate 15. Wildlife crossing structures as well as associated fencing to reduce mortality effects of the roadways should be included as mitigation measures in the project to ensure that the site is permeable to wildlife and to minimize impacts from the roads and traffic.

6.7. The Project applicant has committed to conserving the biological resources within the on and off-site open space in perpetuity by recording a Biological Open Space Easement (M-BIO-8B). Open space easements generally prohibit a number of potentially harmful impacts, such as grading, clearing vegetation, and building structures, from occurring within the open space. However, the proposed easement, as described in M-BIO-8B of the DEIR, includes an exception for selective clearing of vegetation by hand to the extent required by written order of the fire authorities, pursuant to the February 26, 1997 Memorandum of Understanding (MOU) between us and the fire districts. This MOU only addresses clearing to reduce fire hazards for structures that existed at the time the MOU was signed; it was not intended to extend to future development and therefore is not applicable to the proposed Project. New developments should be conditioned to include all FMZ's within the development footprint. Any future fuel modifications that occur within designated open space would be considered impacts and would require additional compensatory mitigation. We recommend the removal of this exception from the proposed open space easement and the reconfiguration of the open space, if necessary, to reduce the potential need for such clearing to occur. Alternatively, if the applicant does not wish to modify the easement language, the Resource Management Plans (RMPs) for the designated open space should include assurances that compensatory mitigation will be provided for any future impacts that occur because of this exception.

8. The text of the DEIR references several versions of the draft NC-MSCP, including the 2009, 2014, and 2016 versions; however, only the 2009 version is included in the Chapter 5 List of References. We recognize that significant aspects of the draft NC-MSCP, including biological goals and objectives and covered species lists, have changed numerous times throughout the plan's development, thus complicating the evaluation of the proposed Project's impact on the plan. Nonetheless, the DEIR should include citations for all documents referenced in the document. The Environmental findings, that are included in the draft Habitat Loss Permit, state that they are based "upon all of the documents contained in the record for this project" not just the 2009 draft

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Commented [WC4]: I was hoping you could expand on this one. We weren't sure what direction to go in...it wouldn't be productive for them to review the Project only based on the 2009 Plan (last public draft), but I'm not sure we can direct them to the 2017 Plan (and updated species list) since it's not \*officially\* public

~~7.~~ The findings include a discussion of the project’s consistency with the *Interim Project Preserve Design Principles*. The first couple of principles state that the on-site open space should provide a long-term biological benefit and that no isolated pockets of open space should be used for mitigation credit. As described above under comments 1 and 2, preservation of a core block of habitat in this unit of the PAMA is critical to the success of the NC-MSCP. We remained concerned about the long-term viability of the proposed openspace in the southern and eastern blocks of biological open space due to indirect effects from the adjacent development, fuel modification, and access roads. Although the County has proposed this project as a “hardline area” in the draft North County Plan, the conservation analysis has not been completed, nor has the Department agreed to the proposed footprint. Therefore the conclusion that “By identifying the proposed on-site biological open space as a proposed hardline area, the County has determined that the proposed biological open space would provide long-term biological benefit” is not valid.

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~~8-9.~~ The draft NC-MSCP proposes to cover two bat spaces, the pallid bat (*Antrozous pallidus*) and Townsend’s big-eared bat (*Corynorhinus townsendii pallescens*). According to the Biological Resources Technical Report (BTR), focused surveys to locate roosting bats were not performed due to the presumed low potential for bats to forage or roost within trees within the Project site. To ensure that potential impacts to these proposed covered species have been thoroughly evaluated, we recommend that focused daytime surveys for potential roosting spots, including trees and rock outcroppings, as well as nighttime surveys for foraging behavior, be performed.

~~9-10.~~ According to the BTR, western spadefoot toad (*Spea hammondi*, spadefoot) has been detected on-site on two occasions, both within the old quarry and outside of the development footprint. There are no expected impacts within the quarry area; however, the BTR recognizes there is a high potential for spadefoot to occur across the site, and therefore the species has been considered significantly and permanently impacted by the proposed Project. Spadefoot is currently listed as a California Species of Special Concern. In the event that additional spadefoot breeding pools are found within 500 ft. of the development footprint, the Project applicant should consult with us to discuss possible relocation, forced dispersal, or alternative avoidance measures.

~~10-11.~~ The proposed biological mitigation measures require the development of several associated documents, including RMPs, a Relocation Plan for Ramona horkelia (*Horkelia truncata*), a Revegetation Plan for the restoration of temporarily impacted areas, and a Nesting Bird Management, Monitoring, and Reporting Plan. Opportunities for the us to review and comment on these documents prior to their approval is currently limited to the Nesting Bird Management, Monitoring, and Reporting Plan. We request the opportunity to review and provide comments on all above-mentioned documents, as well as the

Ms. Ashley Smith (~~FWS/CDFW SD 15B0150 17CPA0166~~)

9

proposed final language for both the biological open space easements and limited-building-zone easements, prior to their approval by County officials.

~~H.12.~~ M-BIO-1 describes the biological monitoring that will occur on-site prior to and during construction activities to ensure adherence to all proposed avoidance, minimization, and mitigation measures. M-BIO-3 states that a final Monitoring Report documenting the monitoring actions will be submitted to the County upon completion of grading activities for each Final Map and prior to rough grading plan final inspection. Given the scale of the proposed Project, we request that the Project Biologist, in addition to preparing the proposed comprehensive final report, circulate monthly updates to us.

We appreciate the opportunity to provide comments on the subject project and look forward to further coordination with the County on this project. If you have questions regarding this letter, please contact Carol Williams of the Department at [Carol.Williams@wildlife.ca.gov](mailto:Carol.Williams@wildlife.ca.gov), (858) 637-5511, or Susan Wynn of the Service at [Susan.Wynn@fws.gov](mailto:Susan.Wynn@fws.gov), (760) 431-9440 ext. 216.

Sincerely,

~~Karen A. Goebel  
Assistant Field Supervisor  
U.S. Fish and Wildlife Service~~

Gail K. Sevens  
Environmental Program Manager  
California Department of Fish and Game

cc:  
State Clearinghouse

**7**

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**From:** Stewart, Mendel <mendel\_stewart@fws.gov>  
**Sent:** Wednesday, December 2, 2015 5:39 PM  
**To:** Rita Brandin  
**Cc:** Karen Goebel; Ed Pert; Mark Wardlaw  
**Subject:** Re: FW: Our Discussion on Friday afternoon, November 20th - Correction on Prior E-Mail

Hi Rita,

Thank-you for trying to capture our conversation. I would like to clarify the following points:

We have no objection to the project applicant's purchase of offsite mitigation lands in support of adding to the overall conservation of the Draft North County MSCP preserve lands; however, from the list of properties provided for our review and support for a potential hard-line agreement, some properties are considered of greater biological value than others. Specifically, we will support acquisition of the Morris Ranch property because the proposed development on the site will sever a key linkage in the Draft North County MSCP, thus conservation of the site has been a priority for conservation for some time. The project applicant's contribution to the acquisition of this critical property would help us make a stronger biological case that the offsite mitigation proposed offsets the loss and fragmentation of the project's onsite PAMA lands. Likewise, we will support the Mountain Gate acquisition because of its size and location within the PAMA and because its purchase will ensure conservation of a large core area of the Draft North County MSCP preserve.

During our conversation, my intent was not to dismiss the value of the Hoospack or Pankey properties' contribution to the Draft North County MSCP preserve system, but only to do what you asked in identifying Service priorities for conservation that would lead to a hard-line agreement. Because the proposed Newland Sierra development will result in a loss of wildlife habitat originally identified to be part of the Draft North County MSCP preserve, acquisition of PAMA lands planned for development helps ensure that there is no net loss of PAMA acreage and that the anticipated size and configuration of the planned preserve can be achieved. Acquisition of one of these properties which both include development would offset the overall loss of existing PAMA acreage that will result from the Newland Sierra development. Conservation of the Hoospack or Pankey properties, while not insignificant, will not assist in maintaining the scope of the PAMA lands needed to assemble the preserve anticipated by the Draft North County MSCP.

I hope this helps clarify our conservation priorities and to dispel any concerns you may have regarding our agency's role in balancing the needs of residential and commercial development with our mission to conserve the nation's important fish and wildlife resources. We believe the section 10 permitting program and regional planning through the MSCP highlight the Service's sincere efforts to work in partnership to achieve this goal.

Marine Corps Base Camp Pendleton is the potential partner for the Morris Ranch property. We let them know that someone might be interested in partnering on this acquisition. Below is the person to contact.

Ken Quigley  
Strategic/Regional Environmental Planner  
Strategic Planning Section, Building 22165  
MCIWEST\_MCB Camp Pendleton  
Box 555008  
Marine Corps Base

Camp Pendleton, CA 92055-5008  
(760) 725-9733  
DSN: 365-9733  
FAX -9722

Please let me know if you have any questions.

<Mendel

On Wed, Dec 2, 2015 at 10:05 AM, Rita Brandin <rbrandin@newlandco.com> wrote:

Good morning Mendel:

After re-reading the e-mail I sent to you on 11/25, I realized that I put the incorrect date down for our last meeting. Please see those corrections below in red.

Please let me know if you have any further additions or corrections. Also, if you have reached the Morris Ranch contact that was discussed in our meeting.

Thank you.

Rita Brandin

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**From:** Rita Brandin  
**Sent:** Wednesday, November 25, 2015 11:58 AM  
**To:** 'mendel\_stewart@fws.gov'  
**Subject:** Our Discussion on Friday afternoon, November 20th  
**Importance:** High

Good morning Mendel:

I appreciate that you called me directly on Friday afternoon to discuss the U.S. Fish and Wildlife agency's stance on offsite acquisition options as a follow up to our Thursday, November 19th meeting at the County. As I have reviewed the discussion with others, I've concluded that it might be important to memorialize our conversation so Newland and our team have clarity moving forward. If I missed any key points or misunderstood any of your comments from the discussion, please feel free to provide those additions or corrections to my summary e-mail. I will attempt to capture the key points as I understood them.

As you know, we had previously proposed a list of off-site parcels at our meeting on November 5th, and we discussed the same list at our meeting on November 19th. We asked that you relook at the biological value of those parcels for acceptable offsite acquisition by Newland in lieu of being limited to only the Morris Ranch and Mtn. Gate parcels as communicated in Karen Goebel's e-mail to me on November 18th. You mentioned you would meet further with your staff to discuss the list.

During our call, you mentioned that as a follow up to our 11/19 discussion, you and your staff had further reviewed the list of parcels, and relooked at two parcels in particular that we had discussed at length – the two we refer to as Hoospack and Pankey. You said that although the California Dept. of Fish and Wildlife wanted to take another look at the biological value of these parcels, that the U.S. Fish and Wildlife Service did not see them as acceptable acquisitions. When I asked why they were not acceptable given our preliminary assessment of their biological value and their core PAMA location, you said they were not “threatened” like the Morris Ranch and Mtn. Gate properties, and these two parcels were of high priority for the agencies. When I asked what you meant by threatened, you said that Hoospack and Pankey are not priority and that you are not worried about them like Morris Ranch or Mt. Gate because neither parcel has significant development potential under the County's General Plan and slopes and terrain didn't make them as viable for development projects. In summary, you said; “[w]e've talked and unless Newland is willing to acquire one of the two options we provided then there will be no hardline”.

I expressed my concern that it appeared the agency's focus on these two tentative map projects as the only acceptable offsite acquisition land for Newland appeared to be having one developer buy another developer's approved project to keep them from being developed. You responded your agency is trying to protect threatened habitat and there are lots of ways to do that.

To close our discussion, I reiterated your comment regarding the limitation of Morris Ranch or Mtn. Gate as the only acceptable options, and wanted to be clear whether there was any opening, in your mind, for further discussions on the other parcels. You indicated that there was not.

I indicated I was still willing to explore a potential joint deal on Morris Ranch with the party that Karen Goebel had mentioned in our November 19th meeting. You indicated that the agency had not been able to get in touch with him as of our call but when you did you would ask him to call me.

Please let me know if I properly captured the key points of our conversation as I want to make sure we are still on the same page moving forward.

Best regards,

Rita Brandin

Newland Sierra, LLC

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Mendel Stewart  
U.S. Fish and Wildlife Service  
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Field Supervisor  
2177 Salk Avenue, Suite 250  
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760-431-9440  
[mendel\\_stewart@fws.gov](mailto:mendel_stewart@fws.gov)  
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Region 8 Facebook page: <https://www.facebook.com/usfwspacificsouthwest>

Region 8 Twitter page: <https://twitter.com/USFWSPacSWest>

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# LATHAM & WATKINS<sup>LLP</sup>

## FIRM / AFFILIATE OFFICES

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June 22, 2018

## VIA EMAIL

Mr. Mark Wardlaw  
Planning & Development Services  
County of San Diego  
5510 Overland Avenue, Suite 310  
San Diego, CA 92123

**Re: Newland Sierra (Log No. PDS2015-ER-15-08-001; SCH No. 2015021036, Project Numbers: PDS2015-GPA-15-001, PDS2015-SP-15-001, PDS2015-REZ-15-001, PDS2015-TM-5597, PDSXXXX-HLP-XXX) – County’s Role in Newland Sierra Project Approval**

Dear Mr. Wardlaw:

As you are aware, we represent Golden Door Properties, LLC (“Golden Door”), a world-class resort and agricultural operation in rural Twin Oaks Valley. The Golden Door has restored farming and beekeeping, including replanting many new trees and orchards, on its property, and shares its products through a community Farm Stand and other worldwide retail operations. The Golden Door has raised many concerns with the County about the proposed Newland Sierra Project and the impacts of adding urban density the size of the City of Del Mar in our rural community.

We write today with concerns about the County’s role in approving the Newland Sierra Project as a follow-up and supplemental comment to our prior correspondence, in particular our letter dated May 17, 2017 (Encl. 8).

### Advocacy for the Newland Sierra Project

You have stated in the past that “PDS is not an advocate for or against the [Newland Sierra] Project, but acts as an independent regulatory capacity as the lead agency for the Project” (see Encl. 9); in particular, in your letter dated June 5, 2017, you stated that “[t]he County’s role in communicating with other agencies does not include advocating or lobbying these agencies to approve projects” (*id.*). However, it appears clear from documents we have obtained that this is not at all the case.

We recently obtained documents as a result of a request under the Freedom of Information Act. These documents show that local agency experts were silenced after Newland Sierra proponents exerted political pressure on senior federal agency officials. (See Encl. 6.)

Documents we have obtained under the California Public Records Act show that County staff appears to have made a conscious effort to justify the inclusion of the Newland project as a “hardline” project in the draft North County MSCP, even as federal agency experts repeatedly expressed their concerns to County staff regarding making such a designation. (E.g., Encl. 4.)

Further, we are troubled by Jim Whalen’s multiple conflicting roles in this matter, which appear to include serving as an advocate for Newland Sierra on biological issues, serving as a political lobbyist with federal officials on behalf of Newland Sierra and other building industry consultants, and serving as an “independent” consultant on biological issues for the County’s environmental impact report process under the County’s adopted CEQA Guidelines. (See Petition and Complaint in San Diego Superior Court Case No. 37-2018-00030460, ¶¶ 60-65.) Jim Whalen, President of J. Whalen Associates, Inc. has held himself out an “expert” on the MSCP and provided technical reports in support of at least one County environmental impact report. He also appears to be playing a role in the County staff’s development of the County’s proposed North County MSCP that is being circulated to other agencies. Yet, documents we have obtained reveal that Mr. Whalen is nearly simultaneously meeting with Congressional staff as a representative of “development industries who conveyed they were having difficulty obtaining permits from the U.S. Fish & Wildlife Service with respect to developments in and around [their] congressional district” (see Encl. 6). These same Congressional staff are then shown to inquire with the USFWS as to why these developments are having this “difficulty” obtaining certain permits. According to these documents, Mr. Whalen has also met several times with USFWS staff to convey a similar message.

We note that Mr. Whalen is not an approved consultant on the County’s CEQA Consultants list, even though he has authored an “expert” report on the MSCP (i.e., a “biological resources” issue in support of a County EIR). In addition, the County CEQA Guidelines require that any consultant who provides a technical study or report in support of CEQA environmental review must enter into a memorandum of agreement that provides the County with rights to oversee, supervise, or otherwise exercise its independent judgment on the technical study or report. These MOUs also provide the County with access to supporting documentation, including emails, in furtherance of those purposes. To our knowledge, Mr. Whalen has not entered into a MOU for his work in support of the County’s EIRs, and therefore it is inappropriate for Mr. Whalen’s “expert” reports to be included as support for County EIRs. The County’s failure to implement the clear requirements of the County CEQA Guidelines, as well as their active efforts to justify the inclusion of the Newland project in the draft North County MSCP outside of the public proceedings for MSCP, are in direct contravention to General Plan Policy COS-1.10, which states that the County must “[e]nsure an open, transparent, and inclusive decision-making process by involving the public throughout the course of planning and implementation of habitat conservation plans and resource management plans.” (Encl. 11.)

Our ability to provide you more information on our concerns has been limited by the fact that the County’s 60-day auto-deletion policy of public records applicable to development projects like Newland has meant that very few County staff documents concerning these matters have been preserved, despite past requests under the California Public Records Act and ongoing requests for information. Additionally, the County has taken the position that some consultants do not have to enter into CEQA consultant MOUs, even though such MOUs are required by the

County's CEQA Guidelines. These MOUs are critical because they ensure that documents regarding a project's environmental review are public records and are accessible to the County and the public. Thus, while we have been able to obtain documents from the U.S. Fish & Wildlife Service and the California Department of Transportation, we have so far been unable to obtain almost all the County documents. Without these County documents, it is impossible to discern to the extent to which Mr. Whalen was working for, coordinating with, or advocating on behalf of County staff in his lobbying with the agencies and other federal officials. We would appreciate it if you would take appropriate steps to restore the deleted documents from any copies that exist in the applicant's files or the consultants' files, including County biologists and Mr. Whalen's files, now that he is a County CEQA consultant that has authored an "expert" report in support of and included in the Final EIR.

The Draft North County Multiple Species Conservation Plan (MSCP)

Although you have stated in the past that in order for the Newland Sierra project "to be included as a hardline within the approved Multiple Species Conservation Plan - North County Plan (Final Plan), the project footprint to be developed and the footprint to be preserved, *including any offsite mitigation areas, must be concurred upon by the Wildlife Agencies, the project proponent, and the County,*" it is clear from documents we have obtained that there is currently no concurrence from the wildlife agencies. (Encl. 9 [emphasis added].)

These documents also clearly highlight the concerns of expert biologists regarding the Newland Sierra project – in particular, the assumption by the County and other proponents of the project that it is a "hardline" component of the draft North County Multiple Species Conservation Plan (MSCP). You have stated:

In conducting the preliminary conservation analysis, County biologists believe that the open space design and future preservation of the 1,209 acres of land that the Project proposes complements the anticipated preserve and Pre-Approved Mitigation Area for the Draft Plan. As a result, the Project has been included in the Draft Plan and, *to be included in the Final Plan, the Wildlife Agencies must concur.*

(Encl. 9 [emphasis added].) The documents we have obtained clearly show that the Wildlife Agencies do not concur with Newland Sierra in the "hardline" or with the mitigation chosen by the Project. (E.g., Encl. 1.) The documents also show that the County has yet to prepare or required to be prepared updated biological surveys of the property, including the site of the proposed new freeway interchange for the federally protected California gnatcatcher, even though such a survey has been requested by federal agencies reviewing the project. (See Encl. 5.)

In particular, these expert agency biologists noted that the inclusion of the Newland project as a "hardline" in the North County MSCP may actually doom the MSCP entirely. (E.g., Encls. 1, 4.) The unraveling of the North County MSCP would be a severe blow not only to the County but to development throughout North County. As expressed by FWS staff, "We are also concerned about how providing this hard line would impact the completion of the North County

MSCP. We are concerned that to continue to provide hardlines that we are reducing the incentive for completing the N. County Plan.” (Encl. 1.)

Further, the expert agency biologists’ concerns point to the need for a comprehensive cumulative impacts analysis of all the General Plan amendment projects in the North County and how they impact the North County MSCP. In other words, if the County’s approval of over 10,000 units of housing in the unincorporated areas cripples the conservation goals of the MSCP, then it seems reasonably likely that the federal and state wildlife agencies will not approve any MSCP at all, which would damage both development and environmental conservation efforts in North County. (See Encls. 1, 4.) We urge the County to reconsider this self-destructive path and postpone consideration of the Newland project until these serious issues are resolved.

Finally, in these newly released documents, the federal agencies clearly requested updated gnatcatcher surveys, but Newland has chosen that it will not perform those surveys until next year. (Encl. 5.) Additional detail regarding this issue and others (including email correspondence received pursuant to the Freedom of Information Act) is set forth in the enclosures. In sum, the history of the project site has consistently shown the presence of gnatcatcher and its habitat, in particular at the southeast portion of the site near I-15 and Deer Springs Road. (Encl. 12.) It is important to note that the Newland project site is located in a critical location in northern San Diego County that, in its present form, allows it not only to serve as “core habitat” but also as a stepping stone between habitat patches north of Escondido, San Marcos, and Vista to the Merriam and San Marcos Mountains, Moosa Canyon, and the San Luis Rey River, in both the east-west and north-south directions. (Megan Jennings, Ph.D., Merriam Mountains Wildlife Connectivity Review at 1 (April 18, 2017); see also Final EIR at 2.4-94 [“For those projects located within or adjacent to the I-15 corridor, California gnatcatchers are of particular interest, because the associated habitats may serve as a conduit for longitudinal and occasional latitudinal movement around the freeway.”].) As federal experts acknowledged, the Merriam Mountains area is a “core habitat area” (Encl. 4). These core habitat areas are particularly important for the protection and preservation of the California gnatcatcher. As noted in the U.S. Fish & Wildlife Service’s 2010 “5-year Review: Summary and Evaluation” (at p. 32) “the NCCP/HCP process has established preserved areas in a core-and-linkage configuration. The core areas are large, unfragmented areas, while linkage areas are intended to provide continuous or ‘stepping stone’ corridors for gnatcatcher movement and dispersal. As a result, these areas help to ameliorate the effects associated with habitat fragmentation.”

Given that the Newland project proposes to fragment this core habitat area, which will also disrupt its function as a linkage area between different parts of North County, having updated surveys is critical. Indeed, the official Coastal California Gnatcatcher Presence/Absence Survey Guidelines provide that surveys are only good for one year. (Encl. 13.) The Newland project’s gnatcatcher surveys were conducted in 2013 and are therefore now 4 years out of date.

Federal agency experts also requested updated surveys for fairy shrimp. (Encl. 2.) But it does not appear that the County has conducted these surveys or required the applicant to conduct these surveys. Do the “County biologists” referred to in your June 5, 2017 letter agree that updated surveys need to be conducted? Have the County biologists identified replacement gnatcatcher nesting land and foraging areas necessary to compensate for the destruction of

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gnatcatcher critical habitat required by the Newland project? We also note that new surveys are needed before the County may approve the project's exemption from the County's Resource Protection Ordinance, which is intended to protect sensitive resources just as gnatcatcher habitat. How can the County approve an exemption or recommend an "alternative resource plan" as a substitute for compliance with the RPO, if the County does not know the nature and extent of the gnatcatcher on the project site, including the full potential site for the interchange? If new surveys are not performed, therefore, it seems clear that the processing of Newland's EIR must be delayed until next year, when those surveys can be performed.

Thank you for your time and attention to our comments. Please do not hesitate to contact us should you have any questions or comments.

Best regards,



Taiga Takahashi  
of LATHAM & WATKINS LLP

Enclosures

cc: Mark Wardlaw, County Planning and Development Services  
Darin Neufeld, County Planning and Development Services  
Mark Slovick, County Planning and Development Services  
Ashley Smith, County Planning and Development Services  
Peter Eichar, County Planning and Development Services  
Crystal Benham, County Planning and Development Services  
William Witt, Esq., County Counsel  
William Pettingill, Esq., County Counsel  
Doug Hageman, Newland Sierra  
Paul Robinson, Hecht Solberg Robinson Goldberg & Bagley  
Mark Dillon, Gatzke Dillon & Balance  
Karen A. Goebel, USFWS  
Mendel Stewart, USFWS  
Gail K. Sevrens, CDFW  
Tom Kumura, Twin Oaks Valley Sponsor Group Chair  
Margarette Morgan, Bonsall Sponsor Group Chair  
Wayne Dauber, Hidden Meadows Sponsor Group Chair  
Dan Silver, Endangered Habitats League  
Laura Hunter, Wildlife and Habitat Conservation Coalition  
George Courser, Sierra Club San Diego  
Stephanie Saathoff, Clay Co.  
Denise Price, Clay Co.  
Christopher W. Garrett, Latham & Watkins  
Kathy Van Ness, Golden Door

**1**

From: [Goebel, Karen](#)  
To: [Stewart, Mendel](#)  
Cc: [Sobiech, Scott](#); [Doreen Stadlander](#); [Wynn, Susan](#); [Jane Hendron](#)  
Subject: **Re: Newland Sierra request for meeting with Paul Souza**  
Date: **Thursday, January 12, 2017 12:57:05 PM**  
Attachments: [Newland Sierra Project 12\\_9\\_2016 \(1\).docx](#)

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Here are the bullets in case you can't find them. They were already provided to Mike Fris. If you want them changed into a formal briefing paper, I guess we can do that, but it would be nice if this will suffice.

Karen

Karen Goebel  
Assistant Field Supervisor  
Carlsbad Fish and Wildlife Office  
2177 Salk Avenue, Suite 250  
Carlsbad, California 92008  
760/431-9440, ext. 296  
760/431-9624 Fax

On Thu, Jan 12, 2017 at 12:52 PM, Goebel, Karen <[karen\\_goebel@fws.gov](mailto:karen_goebel@fws.gov)> wrote:

I found the attachment. Also, I had already prepared bullets on this issue. Do we need to do more than that?

Karen

Karen Goebel  
Assistant Field Supervisor  
Carlsbad Fish and Wildlife Office  
2177 Salk Avenue, Suite 250  
Carlsbad, California 92008  
760/431-9440, ext. 296  
760/431-9624 Fax

On Thu, Jan 12, 2017 at 12:48 PM, Goebel, Karen <[karen\\_goebel@fws.gov](mailto:karen_goebel@fws.gov)> wrote:

If this is an assignment, please forward the Rita attachment.

Karen

Karen Goebel  
Assistant Field Supervisor  
Carlsbad Fish and Wildlife Office  
2177 Salk Avenue, Suite 250  
Carlsbad, California 92008  
760/431-9440, ext. 296  
760/431-9624 Fax

On Thu, Jan 12, 2017 at 12:35 PM, Stewart, Mendel <[mendel\\_stewart@fws.gov](mailto:mendel_stewart@fws.gov)> wrote:  
Karen,

They are moving forward with setting up a meeting with Paul about Newland-Sierra. I suspect they will be wanting a briefing paper on this.

<Mendel

----- Forwarded message -----

From: [steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com) <[steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com)>

Date: Thu, Jan 12, 2017 at 12:30 PM

Subject: Newland Sierra request for meeting with Paul Souza

To: "Mike Fris ([Michael\\_Fris@fws.gov](mailto:Michael_Fris@fws.gov))" <[Michael\\_Fris@fws.gov](mailto:Michael_Fris@fws.gov)>

Cc: Maya Kepner - American West Conservation <[maya@americanwestconservation.com](mailto:maya@americanwestconservation.com)>, Paul Souza <[paul\\_souza@fws.gov](mailto:paul_souza@fws.gov)>, "Byers, Sherry" <[sherry\\_byers@fws.gov](mailto:sherry_byers@fws.gov)>,

"Mendel Stewart ([Mendel\\_Stewart@fws.gov](mailto:Mendel_Stewart@fws.gov))" <[Mendel\\_Stewart@fws.gov](mailto:Mendel_Stewart@fws.gov)>, Rita

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"[Wanda\\_Cantrell@fws.gov](mailto:Wanda_Cantrell@fws.gov)" <[Wanda\\_Cantrell@fws.gov](mailto:Wanda_Cantrell@fws.gov)>,

"[steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com)" <[steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com)>

\*\*\*Maya Kepner for Steve Thompson\*\*\*

Hi Mike:

I cannot thank you enough for all the support and love my Dad has received from USFWS- particularly R8. Steve continues to make progress daily-and we anticipate he will undergo his next surgery on Jan 25<sup>th</sup>. I'm filling-in for Steve while he is recovering, and I'd like to see if we can get this meeting scheduled soon. Sounds like the only conflicts for January on our end are:

**January 9 through January 12<sup>th</sup>**

**January 16 through 18<sup>th</sup>**

Thanks for the help and leadership, Mike.

All the best,

Maya Kepner for Steve Thompson

Also- you can contact me directly at:

[maya@americanwestconservation.com](mailto:maya@americanwestconservation.com) (cc'd above)

916-600-2324

---Original Message-----

From: [steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com) [mailto:[steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com)]

Sent: Friday, December 9, 2016 12:08 PM

To: Michael Fris

Cc: Paul Souza; Wanda Cantrell; Sherry Byers; Mendel Stewart; Rita Brandin; Michael McCollum; April Evans

Subject: Re: Newland Sierra request for meeting with Paul Souza

Ok Mike thanks we are anxious to get this solved so we can get some important work done on the ground

Steve Thompson

916-600-5227

>

> -----Original Message-----

> From: [steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com) [mailto:[steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com)]

> Sent: Friday, December 09, 2016 10:51 AM

> To: Mike Fris ([Michael\\_Fris@fws.gov](mailto:Michael_Fris@fws.gov))

> Cc: Paul Souza; [Wanda\\_Cantrell@fws.gov](mailto:Wanda_Cantrell@fws.gov); Byers, Sherry; Mendel Stewart

> ([Mendel\\_Stewart@fws.gov](mailto:Mendel_Stewart@fws.gov)); Rita Brandin; Michael McCollum

> Subject: RE: Newland Sierra request for meeting with Paul Souza

>

> Mike,

>

> Sorry it has taken me so long to get back to all of you, all my fault.

> Been working really hard with Governor Brown and the water folks on

> solutions for both wildlife and people around the Delta. I have

> attached a summary file from Rita who has been working on this project

> for years and very frustrated, as it is easy to understand why. We

> need to resolve the major issues and get on with development of the property.

>

> We would like a 30 minute meeting with you and Paul to go over how we

> got to where we are and what solutions we need to work out with FWS.

> Mendel has been helpful but we believe we needs Paul's help to finish.

> A meeting as soon as possible would help all of us get on the right

> path to be successful for the landowner and the resources we all care about.

>

> Steve

> [steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com)

> 916-600-5227

>

>

>

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--

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Region 8 Facebook page: <https://www.facebook.com/usfwspacificsouthwest>

Region 8 Twitter page: <https://twitter.com/USFWSPacSWest>

## Newland Sierra Project

- We do not agree that the background information and history recently provided by the project proponent accurately reflects Service efforts to resolve the outstanding issues.
- We do not see value in going point by point to correct the information, rather we present our concerns with the project as presently proposed.
- The Newland Sierra project lies within the boundaries of a regional NCCP/HCP in development by the County of San Diego.
- Under the 4(d) rule, projects that need to clear coastal sage scrub, which is the primary habitat for the gnatcatcher, may move forward with County and Wildlife Agency (Department and Service) approval as long as the project does not undermine the conservation goals of the regional plan.
- The Newland Sierra project fragments a large core area of habitat proposed under the North County Plan.
- Because it is unclear how the County will account for the loss of this core area, it is unclear how the project could gain approval under the draft North County Plan as we know it.
- The Wildlife Agencies could not come to agreement with the project proponent on the off-site mitigation because the acreage proposed for conservation was insufficient to offset the acreage lost to development from the Newland Sierra project within the pre-approved mitigation area or PAMA (i.e., the offsite mitigation proposed neither removed a development area from the PAMA or increased the area of preserve outside of the PAMA).
- The Newland Sierra Project as proposed results in a net loss in preserve acreage over what is anticipated for mitigation in the Draft North County Plan.
- The County did not present a logical method to make up for this loss in mitigation.
- The Newland Sierra Project proponents are not precluded by the Service from moving forward with their proposed project design for approval by the County.
- During the draft EIR phase, the Wildlife Agencies will have the opportunity to comment on the project design, including any initial request for 4(d) concurrence.
- Because no NCCP or ESA permits have been issued for the North County Plan, these comments represent recommendations to the County.
- We believe due consideration would be given to our concerns in accordance with the signed planning agreement between the County and the Wildlife Agencies for the North County Plan, and this is the primary concern of the project proponents.
- Strong public opposition to the project is likely based on prior efforts to get Board of Supervisor approval for almost the exact same development footprint.
- Should the County Board of Supervisors approve the project without fully addressing our concerns, including our potential objection to issuance of a 4(d) permit, the Service would need to evaluate the benefits to conservation of moving forward with the North County Plan.
- These discussions would not involve the Newland Sierra Project proponents, as their project would have already been approved by the County.

- The Newland Sierra project is but one large project currently undergoing review by the County in advance of completion of the North County Plan.
- By approving the Newland Sierra Project and others through the 4(d) rule without addressing inconsistencies with preserve assembly, the potential exists for the 4(d) rule to undermine the very process (i.e., regional NCCP/HCP development) it was aimed at supporting.

## Rita Brandin

---

**From:** Stewart, Mendel <mendel\_stewart@fws.gov>  
**Sent:** Friday, January 15, 2016 5:45 PM  
**To:** Rita Brandin  
**Cc:** Ed Pert (EPert@dfg.ca.gov); Karen Goebel; Mark Wardlaw; Scott Sobiech  
**Subject:** Re: FW: Follow Up from Telephone Discussion Yesterday -

Rita,

Your request for confirmation that no further offsite mitigation would be requested was because Karen had indicated in her 11/18/2015 email see excerpt below, that the Wildlife Agencies would need to determine whether additional offsite mitigation would be required if Newland Sierra entered into a partnership, where mitigation credit would be shared, to acquire the Morris Ranch property rather than purchase the property outright, where full credit would be given to the Newland Sierra property. You indicated in our 12/9 telephone conversation that Newland Sierra would not be willing to purchase additional acreage.

From our 11/18/2015 email:

"The Morris Ranch site is approximately 230 acres in size. Full conservation of the site by the Applicant would result in a 66/34 conservation to impact goal for the project and because of this area's importance to the draft North Coast MSCP, the Wildlife Agencies would agree to a hard-line agreement even at this lower conservation to impact ratio. If the property was purchased in coordination with another entity, the Wildlife Agencies would need to determine the amount of additional offsite acreage that may or may not be needed for a hard-line agreement. We understand that any purchase at this site represents greater risk for the Applicant; however, this is the property that will bring the Applicant greatest support from the Wildlife Agencies, and its conservation could potentially gain support for the project from other conservation groups."

Below are our reasons for not going forward with hardline agreements:

1. We don't believe the necessary quality conservation is designed on site. This includes not only acreage but also the conservation design. We cannot publicly defend what is being proposed as sound conservation meeting the intent of the proposed North County MSCP.
2. We also don't believe the mitigation being proposed, even what would come from your partnership with Camp Pendleton for purchase of Morris Ranch, adequately make up for the on-site deficiencies.
3. We are also concerned about how providing this hardline would impact the completion of the North County MSCP. We are concerned that to continue to provide hardlines that we are reducing the incentive for completing the N. County Plan.

4. Finally, the time commitment required from the wildlife agencies and the county is not well spent. By continuing to address individual project requests for a hardline, we are just encouraging others in the future to make similar requests. It is in all of our best interests to put our efforts toward completing the plan.

I hope this helps clarify our position.

<Mendel

On Tue, Jan 12, 2016 at 1:05 PM, Rita Brandin <[rbrandin@newlandco.com](mailto:rbrandin@newlandco.com)> wrote:

Mendel:

I thought it important to document our conversation yesterday, and I've copied Ed on the communication since Gail was on the call as well.

As a follow up to the joint meeting in late November between the Agencies, the County and Newland, I had a call with you and Karen Goebel on 12/9 wherein we discussed the potential offsite acquisition of Morris Ranch, and I requested confirmation from both agencies that if I were able to jointly acquire Morris Ranch that no further mitigation requirements would be required in order to agree to a hard-line. I wanted this assurance before I started discussion with the contact Karen had given me from the Marine Corps.

Our call yesterday was for you to relay the mutual decision of both agencies that a hard-line will no longer be considered by either agency. This decision was arrived at during the joint meeting between both on 1/11/16. When I asked you why you were no longer willing to consider a hard-line even with the directed offsite acquisition, you indicated that the project design is an issue, that the plan doesn't offer enough acreage for conservation and that entering into a hard-line put the future of the North County MSCP at risk. You also indicated that the time commitment to work with individual applicants was not time well spent for the agencies, and that entering into a hard-line with Sierra would potentially open the door to other applicants wanting the same thing.

You indicated that you had communicated this to the County as well.

This is my understanding of our telephone call. I would appreciate your confirmation or corrections so that we have a record of our communication and the Agencies' decision.

Thank you,

Rita Brandin

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—  
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Region 8 Facebook page: <https://www.facebook.com/usfwspacificsouthwest>

Region 8 Twitter page: <https://twitter.com/USFWSPacSWest>

**2**

From: [Wynn, Susan](#)  
To: [Brock Ortega](#)  
Cc: [Mayer, David@Wildlife](#); [Brian Grover](#); [Michael McCollum](#); [Rita Brandin](#); [Shanti SPL Santulli](#); [michelle.r.lynch@usace.army.mil](#); [Vipul Joshi](#); [Stacey Love \(stacey\\_love@fws.gov\)](#); [Doreen Statlander](#); [Karen Goebel](#); [Mendel Stewart](#); [Eichar, Peter \(Peter.Eichar@sdcounty.ca.gov\)](#)  
Subject: **Re: Newland Sierra**  
Date: **Thursday, January 19, 2017 8:25:18 AM**

---

Thank you for your quick response - I did note that the mapped areas of ponding were in the open space - Given the amount of rain we have already had this year, there may be more ponding on site then was observed in previous years -

Please consider this email our approval for you to commence wet season surveys at this location according to the accepted survey guidelines for the listed large branchiopods, dated May 31, 2015, and pursuant to the conditions of your [respective] recovery permit[s].

Be aware that these surveys missed the first rains of the season therefore the results may be inconclusive . You will want to make sure you are able to substantiate any statements in your 90-day report by providing rain gauge and/or in-field observation information to demonstrate that you are meeting protocol requirements that: "Surveyors should visit sites after initial storm events to determine when known or potential listed large branchiopod habitat has become inundated. Appropriate habitat is considered to be inundated when it holds greater than 3 cm of standing water 24 hours after a rain event."

Please note that the LA County Natural History Museum encourages deposition of all collected fairy shrimp, not only listed species.

Please send your survey report (hard copy at minimum) to Stacey Love.

Thanks,  
Susan

Susan Wynn  
Fish and Wildlife Biologist  
2177 Salk Avenue, Suite 250  
Carlsbad, CA 92008  
(760) 431-9440 ext 216

On Wed, Jan 18, 2017 at 4:15 PM, Brock Ortega <[bortega@dudek.com](mailto:bortega@dudek.com)> wrote:

Thank you Susan for your email.

As you have probably already noted, these locations are situated within planned open space. As described in our BTR and previously provided documents, we disclose that we found a single puddle with western spadefoot toad larvae within the northwestern quarry site. Additionally, we never found any other puddled areas within the project footprint.

Please find attached a request to sample the puddles onsite that we may identify the species. We hope that we may receive quick approval given the nature of this situation. In order to address

Mr. Mayer's concerns, we will also review the puddles for western spadefoot eggs, larvae, and adults.

Thank you for your quick review and consideration.

Best,

**BROCK A. ORTEGA**  
PRINCIPAL/SENIOR WILDLIFE BIOLOGIST

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---

From: **Mayer, David@Wildlife** [mailto:[David.Mayer@wildlife.ca.gov](mailto:David.Mayer@wildlife.ca.gov)]  
Sent: **Wednesday, January 18, 2017 3:42 PM**  
To: **Wynn, Susan; Brian Grover; Brock Ortega; Michael McCollum; Rita Brandin; Shanti SPL Santulli; michelle.r.lynch@usace.army.mil; Vipul Joshi**  
Cc: **Doreen Statlander; Karen Goebel; Mendel Stewart; Eichar, Peter** ([Peter.Eichar@sdcountry.ca.gov](mailto:Peter.Eichar@sdcountry.ca.gov))  
Subject: **RE: Newland Sierra**

It seems any pools should be investigated for spadefoot toad tadpoles as well.

David A. Mayer

Senior Environmental Scientist

South Coast Region

California Department of Fish and Wildlife

3883 Ruffin Road

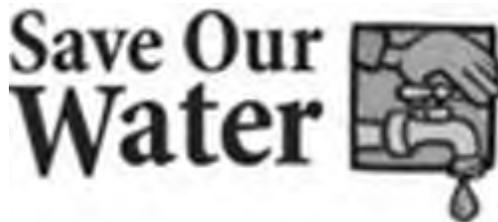
San Diego, California 92123

858-467-4234

858-467-4239 (fax)

[David.Mayer@Wildlife.ca.gov](mailto:David.Mayer@Wildlife.ca.gov)

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From: **Wynn, Susan** [[mailto:susan\\_wynn@fws.gov](mailto:susan_wynn@fws.gov)]  
Sent: **Wednesday, January 18, 2017 3:03 PM**  
To: **Brian Grover; Brock Ortega; Michael McCollum; Rita Brandin; Shanti SPL Santulli; michelle.r.lynch@usace.army.mil; Vipul Joshi**  
Cc: **Doreen Statlander; Karen Goebel; Mendel Stewart; Mayer, David@Wildlife**  
Subject: **Newland Sierra**

Hello all - We received a call from a concerned citizen regarding potential vernal pools on the Newland Sierra project site. I've attached a map and a couple of the photos that were sent over - As you can see from the close up photo of one of the ponded areas, there appears to be fairy shrimp. I can not identify which species this is from a photograph - I'm guessing it is either the un-listed versatile fairy shrimp (*Branchinecta lindahli*) or the federally endangered San Diego fairy shrimp (*B. sandiegonensis*) based on what has been

observed to date in other areas, but this would need to be confirmed by a permitted biologist in the field. I do not recall any mention of potential vernal pools in the previous documents and have not had time to pull the file to check. I also do not recall whether any ponding was mapped as part of a wetland delineation for the Corps. I will continue to pass on any info I receive - given that fairy shrimp are out and there appears to be ponding on the site, we recommend that you have a permitted biologist survey the site for fairy shrimp. I am not sure which staff at the County is working on this project so please coordinate with them as appropriate.

Susan

Susan Wynn

Fish and Wildlife Biologist

2177 Salk Avenue, Suite 250

Carlsbad, CA 92008

(760) 431-9440 ext 216



# **Project Study Report-Project Development Support (PSR-PDS)**

**To**

## **Request Scope Approval of Projects-funded-by-others**

In San Diego County near Escondido on Interstate 15 from 0.6 Mile South to 0.6 Mile  
North of Deer Springs Road Overcrossing

APPROVAL RECOMMENDED:

---

*RITA BRANDIN, PROJECT SPONSOR, Accepts  
Risks Identified in this PSR-PDS and Attached Risk Register*

APPROVAL RECOMMENDED:

---

*ISMAEL SALAZAR, CALTRANS PROJECT MANAGER*

APPROVED:

---

*TOM BOUQUIN, DISTRICT DIRECTOR DESIGN*

---

*DATE*

---

*JOE HULL, DISTRICT DIRECTOR PPM*

---

*DATE*

# Vicinity Map



This project study report-project development support has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

---

*REGISTERED CIVIL ENGINEER* 8/13/2015  
*DATE*



---

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## 1. INTRODUCTION

### Project Description:

The Newland Real Estate Group, LLC, in cooperation with the California Department of Transportation (Caltrans) and the County of San Diego, has initiated this Project Study Report-Project Development Support (PSR-PDS) to evaluate alternatives to increase capacity, improve mobility, and relieve congestion for the existing Interstate 15 (I-15) and Deer Springs Road interchange.

A summary of relevant project data is shown in the following table:

|                                                              |                                                                                                                             |
|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| <b>Project Limits</b>                                        | 11 – SD – 15 – PM R36.0/R37.2                                                                                               |
| <b>Number of Alternatives</b>                                | 4                                                                                                                           |
| <b>Current Capital Outlay Support Estimate for PA&amp;ED</b> | \$700,000 to \$1,000,000                                                                                                    |
| <b>Current Capital Outlay Construction Cost Range</b>        | \$13,500,000 to \$20,200,000                                                                                                |
| <b>Current Capital Outlay Right-of-Way Cost Range</b>        | \$100,000 to \$500,000                                                                                                      |
| <b>Funding Source</b>                                        | Private and other                                                                                                           |
| <b>Type of Facility</b>                                      | Freeway interchange                                                                                                         |
| <b>Number of Structures</b>                                  | 1                                                                                                                           |
| <b>Anticipated Environmental Determination or Document</b>   | Mitigated Negative Declaration (MND)/ Finding of No Significant Impact (FONSI)                                              |
| <b>Legal Description</b>                                     | In San Diego County near Escondido on Interstate 15 from 0.6 Mile South to 0.6 Mile North of Deer Springs Road Overcrossing |
| <b>Project Development Category</b>                          | 3                                                                                                                           |

The remaining capital outlay support, right-of-way, and construction components of the project are preliminary estimates and are not suitable for budgetary purposes. A project report will serve as approval of the “selected” alternative and the remaining components of the project.

Other approvals required are:

- Federal Highway Administration (FHWA)
- County of San Diego

## 2. BACKGROUND

Improvements to the existing I-15 and Deer Springs Road interchange are a requirement of the proposed Sierra Project, which is currently under environmental review with the County of San Diego Planning Department. The Sierra Project is a

proposed community subdivision on 1,985-acres located west of I-15 and north of Deer Springs Road.

Interstate 15 is a major traffic corridor that originates near downtown San Diego and continues north to the United States border with Canada. The intersecting Deer Springs Road is currently an east-west two-lane county roadway between I-15 and Twin Oaks Valley Road. It serves the local communities of Hidden Meadows and San Marcos, while also acting as a link for traffic traveling between I-15 and State Route 78. It has been determined that the congestion along State Route 78 contributes to a significant amount of traffic traveling along this link through the project limits. The existing I-15 and Deer Springs Road interchange is a diamond configuration with single-lane on and off ramps. The interchange consists of two signalized freeway ramp intersections and has two nearby signalized local roadway intersections, which include the Deer Springs Road and Mesa Rock Road intersection, and the Mountain Meadow Road and Champagne Boulevard intersection.

### **3. PURPOSE AND NEED**

#### **Purpose:**

The purpose of the proposed project is to plan for the projected regional population growth and increase in traffic demands at the existing I-15 and Deer Springs Road interchange for the planning design year 2040. The project proposes to widen and reconfigure the interchange to improve traffic operations and enhance transportation choices. The objectives of the project are to:

- Support anticipated regional growth and proposed local-area projects;
- Relieve congestion by providing sufficient vehicle capacity through the interchange area;
- Manage east-west travel between local communities;
- Enhance multi-modal choices;
- Improve the existing park and ride facility to provide transit connectivity; and
- Minimize environmental impacts.

#### **Need:**

The project area is located within San Diego County near Escondido, along a segment of Interstate 15 (I-15). I-15 is a major traffic corridor that serves the local communities of Hidden Meadows and City of San Marcos, while also acting as a link for traffic travelling to and from I-15 to and from State Route (SR) 78. The intersecting Deer Springs Road is classified as a 6-Lane Prime Arterial in the County of San Diego Mobility Element and is currently built as a two-lane facility between I-15 and Twin Oaks Valley Road. Based on growth forecasts prepared by the San Diego Association of Governments, the county's unincorporated areas, which encompass the project area, are expected to see an overall population growth of approximately 25 percent between 2015 and 2050. To accommodate this growth and

future capacity needs within the corridor, the interchange will require additional capacity. Regional growth coupled with the approved site developments in the immediate vicinity will result in increased volumes through the interchange by 2040 of about 25-40%, depending on the road segment. In addition to the projected traffic demands, the I-15/Deer Springs interchange is currently experiencing severe traffic congestion. Existing deficiencies of the I-15/Deer Springs interchange are summarized below:

- Three out of four I-15/Deer Springs interchange intersections are operating near or over the design capacity during peak period traffic volumes;
- Intersection delays of up to 45 seconds;
- High volumes of single occupancy vehicle travel, necessitating improved access to carpools, vanpools, and public transportation choices via existing park and ride facilities within the project area.

#### **4. TRAFFIC ENGINEERING PERFORMANCE ASSESSMENT**

A Traffic Engineering Performance Assessment (TEPA) was prepared in support of this PSR-PDS, which is included as Attachment I. The relevant findings and recommendations are included below for each build alternative. Prior to preparing the TEPA, a traffic modeling report was completed and approved by Caltrans and the County of San Diego. During the PA&ED phase, a full traffic study will be completed to confirm the anticipated traffic volumes and operations for each of the alternatives. Refer to Section 7 below for a description of each alternative.

The existing nonstandard intersection spacing between the Mesa Rock Road intersection and the southbound I-15 ramp termini negatively impact traffic operations in this area. Considering this, the existing north leg of the Mesa Rock Road intersection, which is proposed to be used as the main entrance for the Sierra Project, has been positioned as far west as possible for each of the build alternatives. Due to geometric, socio-economic, and other environmental constraints as described in the PEAR, this intersection cannot be positioned any further west. Also, the south leg of the Mesa Rock Road intersection cannot be moved due to existing development. In addition, the southbound I-15 ramp termini have been positioned as far east as possible for each of the alternatives in order to maximize the distance between these intersections and optimize the overall traffic operations for this area.

##### ***Alternative 1***

The No Build Alternative does not improve the existing operational conditions, and it is anticipated to operate at an unacceptable Level of Service (LOS) F for the design year traffic volumes.

### ***Alternative 2***

The proposed diamond interchange alternative is anticipated to operate at an acceptable LOS D or better for the design year traffic volumes. The queuing analysis indicates that the available intersection spacing between Mesa Rock Road and the I-15 ramp termini does not accommodate the estimated queue along westbound Deer Springs Road at Mesa Rock Road during the anticipated peak hour volumes. It is anticipated that adding a northbound loop off-ramp will improve the operations of the northbound ramp intersection during the PM peak hour. It is recommended that the feasibility of adding this loop ramp should be evaluated during the PA&ED phase.

### ***Alternative 3***

The proposed diverging diamond interchange alternative is anticipated to operate at an acceptable LOS D or better for the design year traffic volumes. The queuing analysis indicates adequate spacing between intersections.

### ***Alternative 4***

The proposed roundabout interchange alternative is anticipated to operate at an acceptable LOS D or better for the design year traffic volumes. However, due to recent and pending changes to standards and software used to analyze the capacity of roundabouts, it is anticipated that further analysis of this alternative will be required during the PA&ED phase to fully assess its traffic performance per the required Intersection Control Evaluation (ICE) process. As such, the Project Development Team (PDT) determined that this alternative should remain in the PSR-PDS.

## **5. DEFICIENCIES**

The existing I-15 and Deer Springs Road interchange is currently experiencing operational problems and is operating near or over its design capacity during peak period traffic volumes. Congestion delay exists along the southbound off-ramp during the AM peak period and the northbound on-ramp during the PM peak period. This is primarily due to the congestion delay along the Route 78 corridor, which causes the traffic to take this alternative Deer Springs Road route during the high peak period traffic volumes. In addition, the existing intersection spacing adjacent to the ramp termini does not accommodate the traffic queues along Deer Springs Road. Vehicle hours of delay, average speeds, travel times, and other traffic performance measures will continue to deteriorate as growth increases in the surrounding areas.

## **6. CORRIDOR AND SYSTEM COORDINATION**

The proposed project improvements for each of the build alternatives have been compared against the 2050 Regional Transportation Plan (RTP) for San Diego.

Based on the revenue constrained plan, I-15 would be widened to include 4 toll lanes (2 northbound and 2 southbound) located within the existing I-15 median from State Route 78 to Riverside County. The proposed project improvements would not impact the implementation of the additional toll lanes. Also, the widened Deer Springs Road overcrossing would be designed to accommodate the expected I-15 freeway cross section. Based on the revenue unconstrained plan, I-15 would be widened to include the same configuration as the revenue constrained plan.

The southbound direction of I-15 is located along the Extra Legal Load Network (ELLN), which requires a minimum vertical clearance of 20 ft. The existing Deer Springs Road Overcrossing currently has less than this requirement with 17.8 ft of vertical clearance. Vehicles requiring the additional clearance currently bypass the Deer Springs Road Overcrossing by exiting the freeway via the southbound off-ramp and then re-entering via the southbound on-ramp. ELLN clearances will be addressed in the proposed project via a similar travel pattern exiting and entering the mainline.

Deer Springs Road is classified as a 6-lane prime arterial in the San Diego County Mobility Element. An option being analyzed in the traffic study assumes Deer Springs Road as a 4.1A Major Road except for the portion between Sarver Lane and Mesa Rock Road which would be built as a 2.1B Community Collector segment with a continuous turn lane between Sarver Lane and Mesa Rock Road. Under this option, fewer vehicles will utilize Deer Springs Road in this option, since the roadway cross section of Deer Springs Road will be narrower than that in the General Plan Mobility Element. The narrower cross section is also supported by SANDAG for improved pedestrian and bicycle safety. Therefore, multiple variations of Deer Springs Road will be analyzed in the Traffic Operations Report during the PA&ED phase. In coordination with the County of San Diego, the project proposes to construct a narrower configuration of Deer Springs Road compared to the County Mobility Element, which is based on the findings of this report.

Improvements to the existing I-15 and Deer Springs Road interchange are currently not identified in the Regional Transportation Improvement Program (RTIP) for San Diego or the San Diego County General Plan. However, the proposed project improvements to the interchange support the proposed Sierra Project improvements, which is a private development located west of I-15 and north of Deer Springs Road.

The County of San Diego Bicycle Transportation Plan classifies Deer Springs Road as a Priority 3 proposed Class III bikeway. Priority 3 proposed bikeways are not included in the County Circulation Element map. The County Bicycle Transportation Plan proposes to incorporate bicycle parking, bicycle racks, and lockers at both of the existing County park-and-ride lots located within the project limits. Deer Springs Road is currently not identified in the 2050 San Diego Regional Bike Plan.

The project will coordinate with the SANDAG Transportation Demand Management (TDM) program iCommute to ensure the project is aligned with any TDM elements being considered in the project area.

## 7. ALTERNATIVES

In the development of the alternatives for the PSR-PDS and as part of the Intersection Control Evaluation (ICE) process, the PDT conducted an alternatives screening process through a series of workshops. During this screening process, the PDT determined weighted evaluation criteria along with a range of potential alternatives. The weighted evaluation criteria were then used to compare and rank each of the potential alternatives. As a result of this screening process, it was decided to eliminate the single point interchange (SPI) configuration, hook ramp interchange configuration, and a 6-leg roundabout configuration from further evaluation.

Each of the build alternatives propose to expand upon the western park-and-ride lot and maintain the size of the eastern park-and-ride lot that are located within the project limits, which will include features to encourage future bicycle and pedestrian traffic. The build alternatives will also consider the potential for multi-modal transit options that would be integrated with the proposed park-and-ride lots and the adjacent ramp termini, which will provide suitable bicycle and pedestrian connectivity.

The San Diego Bicycle Transportation Plan indicates a Class III bikeway within the project limits, however, a Class II bikeway will be considered between Mesa Rock Road and Champagne Boulevard for this project due to the volume of bicycle traffic indicated by crowdsourced GPS information. During the PA&ED phase, the bicycle and pedestrian facilities will be further evaluated to optimize mobility, functionality, and safety for each of the build alternatives.

There are four alternatives identified in this report, which include the No Build Alternative.

### *Alternative 1*

This alternative is the No Build Alternative. The existing I-15 and Deer Springs Road interchange would remain unchanged and no work would be provided to improve operational conditions. The No Build Alternative does not meet the goals of this project to relieve congestion and is inconsistent with the purpose and need.

### *Alternative 2*

This alternative proposes to expand upon the existing diamond interchange configuration in order to improve operational conditions (see Attachment B). This alternative will require nonstandard intersection spacing between the southbound ramp termini and the Mesa Rock Road/Deer Springs Road intersection, and between the northbound ramp termini and the Champagne Boulevard/Deer Springs Road intersection. It proposes to realign the southbound ramps further east in order to improve upon the existing nonstandard intersection spacing between the southbound ramp termini and the Mesa Rock Road/Deer Springs Road intersection. Realigning

these ramps would likely require retaining walls along the southbound off-ramp and on-ramp. It is anticipated that adding a northbound loop on-ramp or off-ramp will improve the operations of the northbound ramp intersection during the PM peak hour. It is recommended that the feasibility of adding a loop ramp should be evaluated during the PA&ED phase. This alternative also proposes to widen Deer Springs Road to meet the increased traffic demand and will require the existing Deer Springs Road Overcrossing to be widened. It proposes to maintain the existing ELLN bypass of the Deer Springs Road Overcrossing via the southbound on and off-ramps.

### ***Alternative 3***

This alternative proposes to reconfigure the existing interchange into a diverging diamond interchange (DDI) configuration in order to improve operational conditions (see Attachment B). The proposed geometry follows the informational guide published by FHWA in August of 2014, which features a conventional 25 mph design speed and a 45 degree intersection angle at the points where the two directions of traffic cross each other. This alternative also proposes to widen Deer Springs Road to meet the increased traffic demand and will require the existing Deer Springs Road Overcrossing to be widened. It proposes to maintain the existing ELLN bypass of the Deer Springs Road Overcrossing via the southbound on and off-ramps utilizing a median opening for the ELLN vehicles to cross Deer Springs Road. This median opening would include several design features to keep other traffic from using it, such as a gate located within the opening, traversable concrete curb, chevron striping along the widened ramp shoulders, landscaping to block the view of the southbound on-ramp, and the geometric alignment of the median opening. This alternative may require a design exception for nonstandard intersection spacing between the southbound ramp termini and the Mesa Rock Road/Deer Springs Road intersection, and between the northbound ramp termini and the Champagne Boulevard/Deer Springs Road intersection. It may also require a design exception for the conventional design speed of 25 mph required for DDI interchange configurations.

### ***Alternative 4***

This alternative proposes to utilize the existing diamond configuration with roundabout intersections for the southbound and northbound ramp termini and for both of the adjacent local intersections along Deer Springs Road (see Attachment B). This alternative also proposes to widen Deer Springs Road to meet the increased traffic demand and will require the existing Deer Springs Road Overcrossing to be widened. It proposes to maintain the existing ELLN bypass of the Deer Springs Road Overcrossing via the southbound on and off-ramps utilizing a roundabout that the ELLN vehicles can navigate through. This alternative will require nonstandard intersection spacing between the southbound ramp termini and the Mesa Rock Road/Deer Springs Road intersection, and between the northbound ramp termini and the Champagne Boulevard/Deer Springs Road intersection. It may also require a design exception for the conventional design speed of 25 mph required for roundabout intersections.

| Design Standards Risk Assessment |                                                                                                  |                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                      |
|----------------------------------|--------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Alternative                      | Design Standard from Highway Design Manual Tables 82.1A & 82.1B                                  | Probability of Design Exception Approval (None, Low, Medium, High,) | Justification for Probability Rating                                                                                                                                                                                                                                                                                                                                                                 |
| 2                                | <sup>M</sup> Distance Between Ramp Intersection and Local Road Intersection                      | Low                                                                 | The nonstandard intersection spacing presents a traffic queuing issue for this alternative, while Alternative 3 and Alternative 4 do not. Although the intersection spacing is an improvement over the existing condition, it has less intersection spacing than Alternative 3. Further, the nonstandard spacing for Alternative 4 does not affect traffic operations due to its configuration type. |
| 3                                | <sup>M</sup> Distance Between Ramp Intersection and Local Road Intersection                      | High                                                                | This alternative provides the most intersection spacing of all the alternatives and does not present any traffic operation issues.                                                                                                                                                                                                                                                                   |
| 3                                | <sup>M</sup> Selection of Design Speed - Local Facilities - with Connections to State Facilities | High                                                                | The conventional design speed required for all DDI interchanges is less than the minimum speed. Therefore, this standard does not apply to or consider this type of interchange configuration. The proposed design speed would also be safer for pedestrians and bicyclists.                                                                                                                         |
| 4                                | <sup>M</sup> Distance Between Ramp Intersection and Local Road Intersection                      | High                                                                | The nonstandard intersection spacing for this alternative does not affect traffic operations due to its configuration type.                                                                                                                                                                                                                                                                          |
| 4                                | <sup>M</sup> Selection of Design Speed - Local Facilities - with Connections to State Facilities | High                                                                | The conventional design speed required for all roundabout intersections is less than the minimum speed. Therefore, this standard does not apply to or consider this type of interchange configuration. The proposed design speed would also be safer for pedestrians and bicyclists.                                                                                                                 |
| 4                                | <sup>A</sup> Median Width                                                                        | High                                                                | The minimum standard for median width is intended for facilities that may require future left turn lanes. Interchange configurations with roundabouts do not require left turn lanes or any other design feature that would require a median. Therefore, this standard does not apply to or consider this interchange configuration.                                                                 |

M = Mandatory, A = Advisory

## **8. RIGHT-OF-WAY**

Most, if not all, of the work will be located within the existing right-of-way limits. It is anticipated that some small partial property acquisitions may be required for some of the alternatives. It is anticipated that the existing freeway access control limits may require modification in order to relinquish the area necessary for the proposed park-and-ride expansion. In addition, a few temporary construction easements will be required from the various parcels adjacent to the project. For additional information, refer to the findings included in the Conceptual Cost Estimate – Right-of-Way Component, which is included as Attachment F.

### **Utilities:**

There are existing utilities located along Deer Springs Road and the local intersecting roadways, which include sewer, water, gas, electrical, and telecommunication facilities. The following utility companies or agencies have been identified as owners of the various utilities located within the project area: AT&T, County of San Diego, Cox Communications, Level 3 Communications, SDG&E, San Diego County Water Authority, Valley Center Municipal Water District, and Vallecitos Water District. Minor impacts to these facilities are anticipated and will be further evaluated during the PA&ED phase.

### **Railroad:**

There are no railroad facilities located within the project study limits.

## **9. STAKEHOLDER INVOLVEMENT**

Local agency representatives from the County of San Diego have been involved in the development of the alternatives during PDT meetings and project workshops. Coordination with representatives from the San Diego Association of Governments (SANDAG), the North County Transit District (NCTD), and the Riverside Transit Authority (RTA) has taken place to determine their involvement and to identify if any potential project features could be incorporated based on their interests. As the owner and operator of the State Highway System, Caltrans has provided independent quality assurance of this document. Future stakeholder outreach will be determined by the PDT and the opportunity for public meetings will be organized during the PA&ED phase.

## **10. ENVIRONMENTAL DETERMINATION/DOCUMENT**

In order to identify environmental issues, constraints, costs and resource needs, a Preliminary Environmental Analysis Report (PEAR) was prepared in support of this PSR-PDS, which is included as Attachment D.

The project would require the preparation of environmental documentation pursuant to the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). It is anticipated that an Initial Study (IS) with proposed Negative Declaration (ND) or Mitigated ND and a Routine Environmental Assessment with proposed Finding of No Significant Impact will be required for this project.

## 11. FUNDING

The proposed interchange project will be privately funded at some point after the County approves the proposed Sierra Development Project. As the project continues to develop, additional funding sources will be explored. Up to this point, it has been determined that this project is not eligible for Federal-aid funding and SANDAG currently does not have any planned funding for interchange improvements.

### Capital Outlay Project Estimate

|               | Range of Estimate |                | STIP Funds   |              | Other Funds  |                |
|---------------|-------------------|----------------|--------------|--------------|--------------|----------------|
|               | Construction      | Right-of-Way   | Construction | Right-of-Way | Construction | Right-of-Way   |
| Alternative 1 | \$0               | \$0            | \$0          | \$0          | \$0          | \$0            |
| Alternative 2 | \$20.2M           | \$0.1 - \$0.5M | \$0          | \$0          | \$20.2M      | \$0.1 - \$0.5M |
| Alternative 3 | \$15.8M           | \$0.1 - \$0.5M | \$0          | \$0          | \$15.8M      | \$0.1 - \$0.5M |
| Alternative 4 | \$13.5M           | \$0.1 - \$0.5M | \$0          | \$0          | \$13.5M      | \$0.1 - \$0.5M |

The level of detail available to develop these capital outlay project estimates is only accurate to within the above ranges and is useful for long-range planning purposes only. The capital outlay project estimates should not be used to program or commit capital outlay funds.

### Capital Outlay Support Estimate

Capital outlay support estimate for programming PA&ED for this project is estimated to be: \$700,000 to \$1,000,000

## 12. SCHEDULE

| Project Milestones       |      | Scheduled Delivery Date |
|--------------------------|------|-------------------------|
| BEGIN ENVIRONMENTAL      | M020 | August 2015             |
| CIRCULATE DED EXTERNALLY | M120 | April 2016              |
| PA & ED                  | M200 | January 2017            |

The anticipated funding fiscal year for construction is 2019.

**13. RISKS**

A Risk Register was completed for this project; see Attachment G.

**14. FHWA COORDINATION**

This project is considered to be a High Profile Project (HPP) in accordance with the current Federal Highway Administration (FHWA) and Department of Transportation (Caltrans) Joint Stewardship and Oversight Agreement.

FHWA “engineering and operational acceptability” must be obtained early in the PA&ED phase prior to circulation of the draft environmental document with an unsigned supplemental project study report (PSR) or an unsigned draft project report. FHWA “approval” will be given after the National Environmental Policy Act (NEPA) process is completed.

**15. PROJECT REVIEWS**

|                                                 |            |
|-------------------------------------------------|------------|
| District Maintenance _____                      | Date _____ |
| District Traffic Safety Engineer _____          | Date _____ |
| Headquarters Project Delivery Coordinator _____ | Date _____ |
| Project Manager _____                           | Date _____ |

**16. PROJECT PERSONNEL**

**CALTRANS**

Ismael Salazar ..... 619.688.6766  
 Project Manager

Armando Salvador..... 619.688.3268  
 Transportation Engineer

Azeb Berhane ..... 619.688.3258  
 Transportation Engineer

Brian Hadley ..... 619.688.1098  
 Traffic Operations/ELLN Coordinator

Bruce Berlau..... 619.688.6945  
 Right-of-Way

|                                     |              |
|-------------------------------------|--------------|
| Gretchen Eichar .....               | 619.688.3106 |
| Environmental Planner               |              |
| Jacob Armstrong.....                | 619.688.6960 |
| Planning                            |              |
| Jason Janis.....                    | 619.688.3224 |
| Traffic Engineering Analysis        |              |
| Jerry Champa .....                  | 916.712.5881 |
| Traffic Safety & Operations Liaison |              |
| Kazim Mamdani .....                 | 619.718.7840 |
| Sr. Transportation Engineer Design  |              |
| Laura Espinoza.....                 | 619.718.7810 |
| District Design Liaison             |              |

**PROJECT SPONSOR**

**Newland Real Estate Group, LLC**

|                      |              |
|----------------------|--------------|
| Rita Brandin .....   | 858.875.8219 |
| Development Director |              |

**LOCAL AGENCIES**

**County of San Diego**

|                                  |              |
|----------------------------------|--------------|
| Everett Hauser.....              | 858.694.2412 |
| County Transportation Specialist |              |
| Nick Ortiz.....                  | 858.694.2410 |
| County Project Manager           |              |
| Richard Chin .....               | 858.694.3858 |
| County Transportation Specialist |              |

**CONSULTANTS**

**T.Y. Lin International**

|                             |              |
|-----------------------------|--------------|
| Clark Fernon.....           | 619.908.3307 |
| Consultant Project Manager  |              |
| Jason Fischer .....         | 619.908.3211 |
| Consultant Project Engineer |              |

**Parsons**

Stephanie Blanco ..... 909.218.3551  
 Consultant Environmental

**Linscott, Law & Greenspan, Engineers**

John Boarman..... 858.300.8800  
 Consultant Traffic Principal Ext: 236

Narasimha Prasad ..... 858.300.8800  
 Consultant Traffic Engineer Ext: 243

**The Tait Group**

David Tait ..... 916.813.1106  
 Consultant Project Facilitator

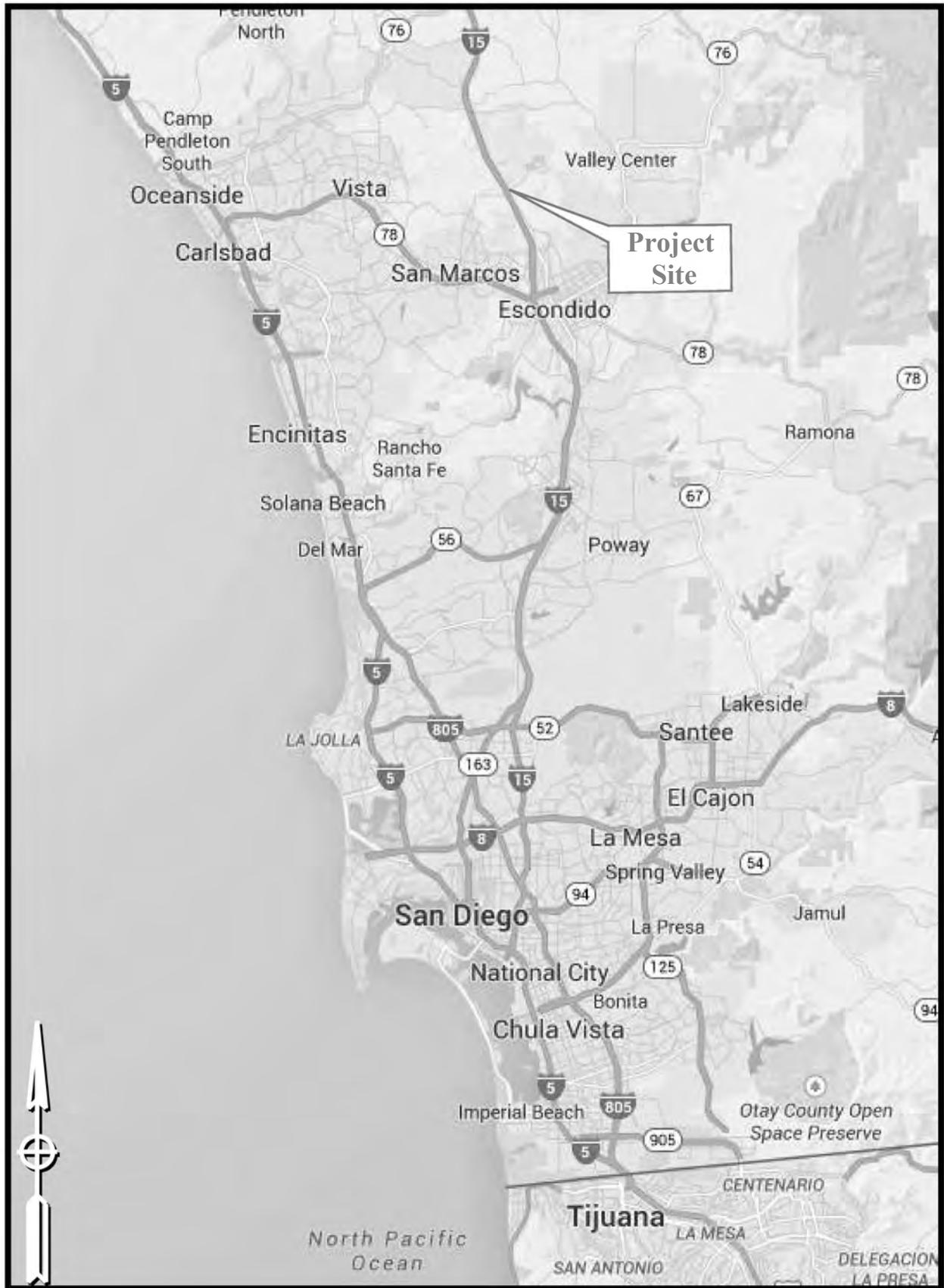
**Fusco Engineering**

Eric Armstrong..... 858.554.1500  
 Consultant Project Manager for the Sierra Project Ext: 4050

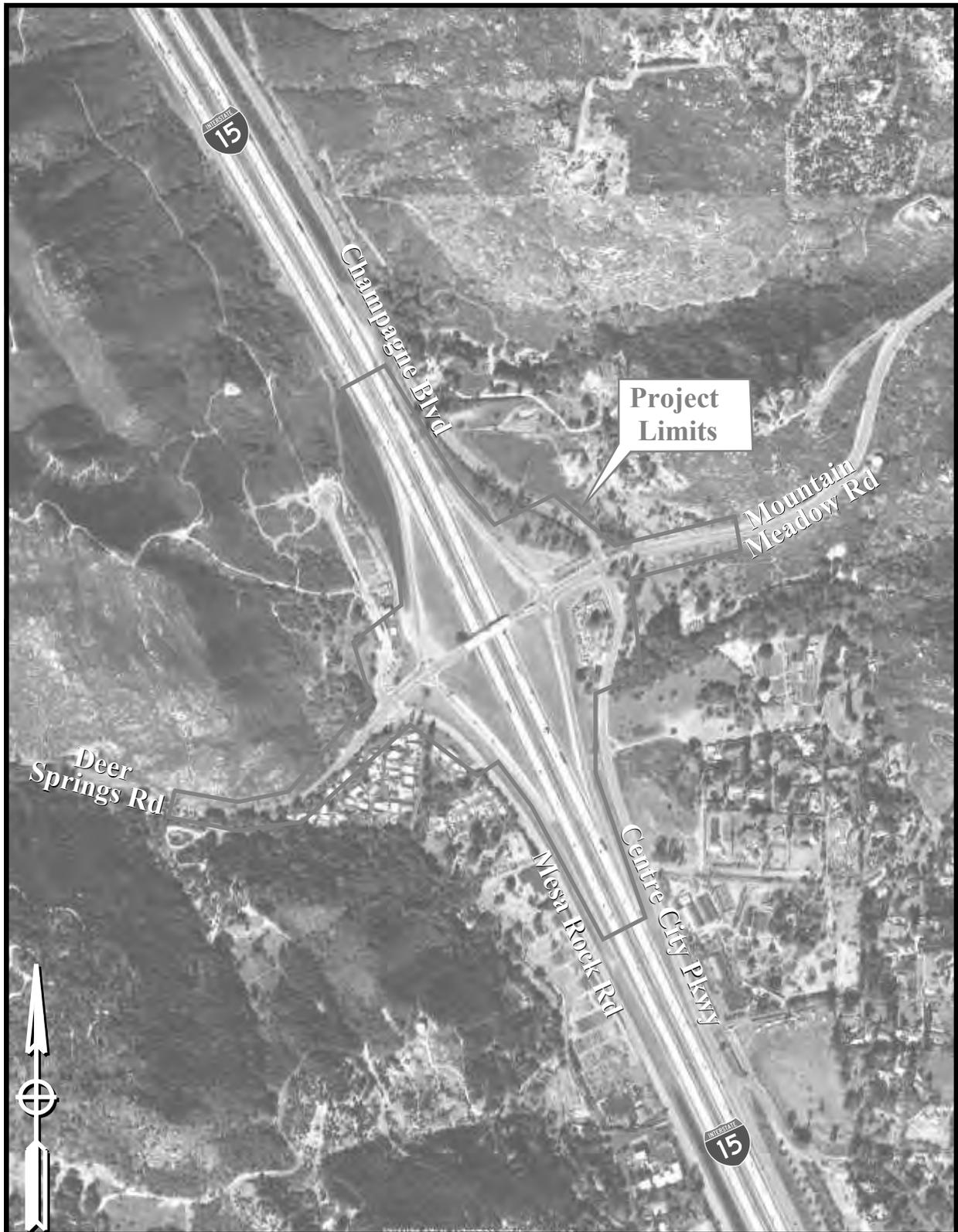
**17. ATTACHMENTS (Number of Pages)**

- A. Location and Vicinity Maps (2)
- B. Project Alternatives (3)
- C. Capital Outlay Project Estimate (9)
- D. Preliminary Environmental Analysis Report (PEAR) (28)
- E. Transportation Planning Scoping Information Sheet (9)
- F. Right-of-Way Conceptual Cost Estimate Component (3)
- G. Risk Register (2)
- H. Stormwater Documentation (67)
- I. Traffic Engineering Performance Assessment (TEPA) (16)

**ATTACHMENT A**  
LOCATION AND VICINITY MAPS



**Regional Location Map**



**Project Vicinity Map**

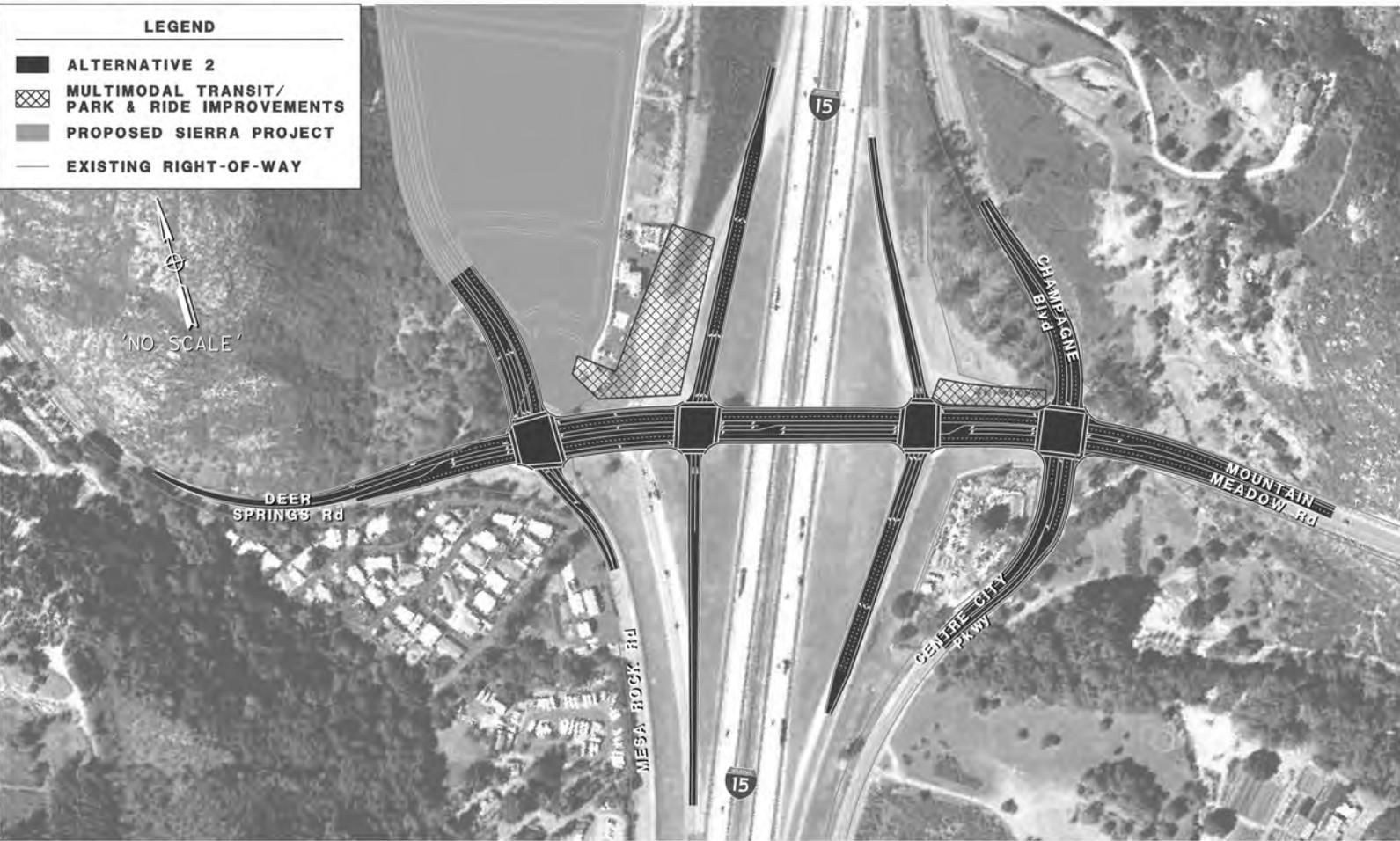
**ATTACHMENT B**  
PROJECT ALTERNATIVES

**LEGEND**

- ALTERNATIVE 2**
- MULTIMODAL TRANSIT/  
PARK & RIDE IMPROVEMENTS**
- PROPOSED SIERRA PROJECT**
- EXISTING RIGHT-OF-WAY**



'NO SCALE'



**I-15 DEER SPRINGS ROAD  
INTERCHANGE PROJECT  
EA 11-41840**

**ALTERNATIVE 2  
DIAMOND INTERCHANGE**

DATE PREPARED:

**5 / 7 / 2015**

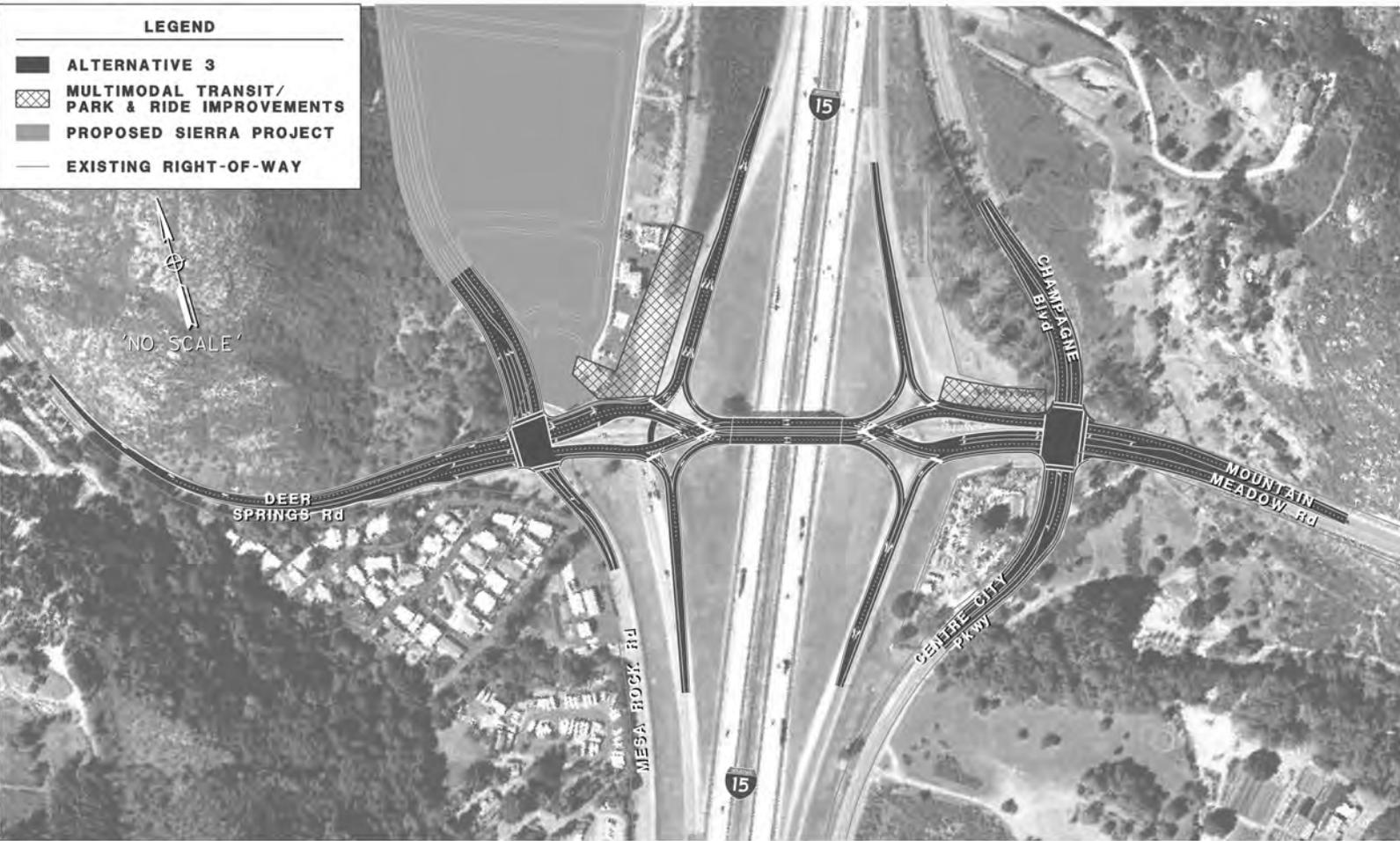
**TYLIN INTERNATIONAL**  
engineers | planners | scientists

**LEGEND**

- ALTERNATIVE 3**
- MULTIMODAL TRANSIT/  
PARK & RIDE IMPROVEMENTS**
- PROPOSED SIERRA PROJECT**
- EXISTING RIGHT-OF-WAY**



'NO SCALE'



**I-15 DEER SPRINGS ROAD  
INTERCHANGE PROJECT  
EA 11-41840**

**ALTERNATIVE 3  
DIVERGING DIAMOND INTERCHANGE**

DATE PREPARED:

**5 / 7 / 2015**

**TYLIN INTERNATIONAL**  
engineers | planners | scientists

**LEGEND**

-  **ALTERNATIVE 4**
-  **MULTIMODAL TRANSIT/  
PARK & RIDE IMPROVEMENTS**
-  **PROPOSED SIERRA PROJECT**
-  **EXISTING RIGHT-OF-WAY**



'NO SCALE'

DEER  
SPRINGS RD

MESA ROCK RD

CHAMPAGNE

MOUNTAIN  
MEADOW RD

CENTRE CITY  
PLAZA

15

15

**I-15 DEER SPRINGS ROAD  
INTERCHANGE PROJECT  
EA 11-41840**

**ALTERNATIVE 4  
DIAMOND INTERCHANGE WITH ROUNDABOUT INTERSECTIONS**

DATE PREPARED:

**5 / 7 / 2015**

**TYLIN INTERNATIONAL**  
engineers | planners | scientists

**ATTACHMENT C**  
CAPITAL OUTLAY PROJECT ESTIMATE

# Project Study Report – Project Development Support Capital Outlay Project Estimate

Dist - Co - Rte 11-SD-15  
PM R36.0/37.2  
Program Code N/A  
Project Number 11-14000093  
Month/Year August 2015

## PROJECT DESCRIPTION:

**Limits:** In San Diego County near Escondido on Interstate 15 (I-15) from 0.6 Mile South to 0.6 Mile North of Deer Springs Road Overcrossing.

**Proposed Improvement (Scope):** Reconstruct the existing I-15 and Deer Springs Road interchange.

**Alternate: 2**

## SUMMARY OF PROJECT COST ESTIMATE

|                                        |                          |
|----------------------------------------|--------------------------|
| TOTAL ROADWAY ITEMS                    | \$ <u>13,440,000</u>     |
| TOTAL STRUCTURE ITEMS                  | \$ <u>5,760,000</u>      |
| TOTAL ENVIRONMENTAL MITIGATION ITEMS   | \$ <u>650,000</u>        |
| SUBTOTAL CONSTRUCTION COSTS            | \$ <u>19,850,000</u>     |
| TOTAL RIGHT-OF-WAY ITEMS               | \$ <u>350,000</u>        |
| <br>TOTAL PROJECT CAPITAL OUTLAY COSTS | <br>\$ <u>20,200,000</u> |

I. ROADWAY ITEMS

|            | <u>Average Cost per Lane Mile</u> |   | <u>Number of Lane Miles</u> |   | <u>Total Cost</u>   |
|------------|-----------------------------------|---|-----------------------------|---|---------------------|
| Total Cost | <u>\$2,400,000</u>                | X | <u>5.6</u>                  | = | <u>\$13,440,000</u> |

Explanation:

Roadway items include costs associated with earthwork, pavement, drainage, traffic, electrical work, landscaping, and other minor items. The cost estimate includes a 20% contingency factor applied to the base cost. The cost estimate has been escalated to the fiscal year 2018 using an annual escalation factor of 3%. The fiscal year 2018 is the anticipated year for construction. Roadway items exclude costs associated with structures, environmental mitigation, and right-of-way. It also excludes costs associated with owner administration, professional engineering, environmental planning, and construction administration.

TOTAL ROADWAY ITEMS \$13,440,000

II. STRUCTURES ITEMS

|                          | Structure<br>(1)                    | Structure<br>(2)           | Structure<br>(3) |
|--------------------------|-------------------------------------|----------------------------|------------------|
| Bridge Name              | <u>Deer<br/>Springs<br/>Road OC</u> | <u>Retaining<br/>Walls</u> | _____            |
| Total Cost for Structure | <u>\$3,900,000</u>                  | <u>\$1,860,000</u>         | _____            |

Explanation:

Structures items include costs associated with widening the existing Deer Springs Road Overcrossing at I-15. Structures items include costs associated with retaining walls. The cost estimate includes a 20% contingency factor applied to the base cost. The cost estimate has been escalated to the fiscal year 2018 using an annual escalation factor of 3%. The fiscal year 2018 is the anticipated year for construction.

TOTAL STRUCTURE ITEMS \$5,760,000

III. ENVIRONMENTAL MITIGATION

|                          | <u>Quantity</u> | <u>Unit</u> | <u>Unit Price</u>  | <u>Item Cost</u>   |
|--------------------------|-----------------|-------------|--------------------|--------------------|
| Environmental Mitigation | <u>LS</u>       | <u>1</u>    | X <u>\$650,000</u> | = <u>\$650,000</u> |

Explanation:

Environmental mitigation includes costs associated with environmental surveys and monitoring, temporary erosion control, and storm water best management practices required during construction.

TOTAL ENVIRONMENTAL MITIGATION ITEMS      \$650,000

IV. RIGHT-OF-WAY ITEMS

|                                                                                 | Escalated<br>Value |
|---------------------------------------------------------------------------------|--------------------|
| A. Acquisition, including excess lands,<br>damages to remainder(s) and Goodwill | <u>\$100,000</u>   |
| B. Utility Relocation (State share)                                             | <u>\$250,000</u>   |

Anticipated Date of Right-of-Way Certification      2018  
(Date to which values are escalated)

Explanation:

Right-of-way items include costs associated with acquiring right-of-way, temporary construction easements, and anticipated utility relocations.

TOTAL RIGHT-OF-WAY ITEMS      \$350,000

# Project Study Report – Project Development Support Capital Outlay Project Estimate

Dist - Co - Rte 11-SD-15  
PM R36.0/37.2  
Program Code N/A  
Project Number 11-14000093  
Month/Year August 2015

## PROJECT DESCRIPTION:

**Limits:** In San Diego County near Escondido on Interstate 15 (I-15) from 0.6 Mile South to 0.6 Mile North of Deer Springs Road Overcrossing.

**Proposed Improvement (Scope):** Reconstruct the existing I-15 and Deer Springs Road interchange.

**Alternate: 3**

## SUMMARY OF PROJECT COST ESTIMATE

|                                        |                          |
|----------------------------------------|--------------------------|
| TOTAL ROADWAY ITEMS                    | \$ <u>11,250,000</u>     |
| TOTAL STRUCTURE ITEMS                  | \$ <u>3,550,000</u>      |
| TOTAL ENVIRONMENTAL MITIGATION ITEMS   | \$ <u>650,000</u>        |
| SUBTOTAL CONSTRUCTION COSTS            | \$ <u>15,450,000</u>     |
| TOTAL RIGHT-OF-WAY ITEMS               | \$ <u>350,000</u>        |
| <br>TOTAL PROJECT CAPITAL OUTLAY COSTS | <br>\$ <u>15,800,000</u> |

I. ROADWAY ITEMS

|            | <u>Average Cost per Lane Mile</u> |   | <u>Number of Lane Miles</u> |   | <u>Total Cost</u>   |
|------------|-----------------------------------|---|-----------------------------|---|---------------------|
| Total Cost | <u>\$2,295,000</u>                | X | <u>4.9</u>                  | = | <u>\$11,250,000</u> |

Explanation:

Roadway items include costs associated with earthwork, pavement, drainage, traffic, electrical work, landscaping, and other minor items. The cost estimate includes a 20% contingency factor applied to the base cost. The cost estimate has been escalated to the fiscal year 2018 using an annual escalation factor of 3%. The fiscal year 2018 is the anticipated year for construction. Roadway items exclude costs associated with structures, environmental mitigation, and right-of-way. It also excludes costs associated with owner administration, professional engineering, environmental planning, and construction administration.

TOTAL ROADWAY ITEMS \$11,250,000

II. STRUCTURES ITEMS

|                          | Structure<br>(1)                    | Structure<br>(2)           | Structure<br>(3) |
|--------------------------|-------------------------------------|----------------------------|------------------|
| Bridge Name              | <u>Deer<br/>Springs<br/>Road OC</u> | <u>Retaining<br/>Walls</u> | _____            |
| Total Cost for Structure | <u>\$2,100,000</u>                  | <u>\$1,450,000</u>         | _____            |

Explanation:

Structures items include costs associated with widening the existing Deer Springs Road Overcrossing at I-15. Structures items include costs associated with retaining walls. The cost estimate includes a 20% contingency factor applied to the base cost. The cost estimate has been escalated to the fiscal year 2018 using an annual escalation factor of 3%. The fiscal year 2018 is the anticipated year for construction.

TOTAL STRUCTURE ITEMS \$3,550,000

III. ENVIRONMENTAL MITIGATION

|                          | <u>Quantity</u> | <u>Unit</u> | <u>Unit Price</u>  | <u>Item Cost</u>   |
|--------------------------|-----------------|-------------|--------------------|--------------------|
| Environmental Mitigation | <u>LS</u>       | <u>1</u>    | X <u>\$650,000</u> | = <u>\$650,000</u> |

Explanation:

Environmental mitigation includes costs associated with environmental surveys and monitoring, temporary erosion control, and storm water best management practices required during construction.

TOTAL ENVIRONMENTAL MITIGATION ITEMS      \$650,000

IV. RIGHT-OF-WAY ITEMS

|                                                                                 | Escalated<br>Value |
|---------------------------------------------------------------------------------|--------------------|
| A. Acquisition, including excess lands,<br>damages to remainder(s) and Goodwill | <u>\$100,000</u>   |
| B. Utility Relocation (State share)                                             | <u>\$250,000</u>   |

Anticipated Date of Right-of-Way Certification      2018  
(Date to which values are escalated)

Explanation:

Right-of-way items include costs associated with acquiring right-of-way, temporary construction easements, and anticipated utility relocations.

TOTAL RIGHT-OF-WAY ITEMS      \$350,000

# Project Study Report – Project Development Support Capital Outlay Project Estimate

Dist - Co - Rte 11-SD-15  
PM R36.0/37.2  
Program Code N/A  
Project Number 11-14000093  
Month/Year August 2015

## PROJECT DESCRIPTION:

**Limits:** In San Diego County near Escondido on Interstate 15 (I-15) from 0.6 Mile South to 0.6 Mile North of Deer Springs Road Overcrossing.

**Proposed Improvement (Scope):** Reconstruct the existing I-15 and Deer Springs Road interchange.

**Alternate: 4**

## SUMMARY OF PROJECT COST ESTIMATE

|                                        |                          |
|----------------------------------------|--------------------------|
| TOTAL ROADWAY ITEMS                    | \$ <u>9,875,000</u>      |
| TOTAL STRUCTURE ITEMS                  | \$ <u>2,625,000</u>      |
| TOTAL ENVIRONMENTAL MITIGATION ITEMS   | \$ <u>650,000</u>        |
| SUBTOTAL CONSTRUCTION COSTS            | \$ <u>13,150,000</u>     |
| TOTAL RIGHT-OF-WAY ITEMS               | \$ <u>350,000</u>        |
| <br>TOTAL PROJECT CAPITAL OUTLAY COSTS | <br>\$ <u>13,500,000</u> |

I. ROADWAY ITEMS

|            | <u>Average Cost per Lane Mile</u> |   | <u>Number of Lane Miles</u> |   | <u>Total Cost</u>  |
|------------|-----------------------------------|---|-----------------------------|---|--------------------|
| Total Cost | <u>\$2,600,000</u>                | X | <u>3.8</u>                  | = | <u>\$9,875,000</u> |

Explanation:

Roadway items include costs associated with earthwork, pavement, drainage, traffic, electrical work, landscaping, and other minor items. The cost estimate includes a 20% contingency factor applied to the base cost. The cost estimate has been escalated to the fiscal year 2018 using an annual escalation factor of 3%. The fiscal year 2018 is the anticipated year for construction. Roadway items exclude costs associated with structures, environmental mitigation, and right-of-way. It also excludes costs associated with owner administration, professional engineering, environmental planning, and construction administration.

TOTAL ROADWAY ITEMS \$9,875,000

II. STRUCTURES ITEMS

|                          | Structure<br>(1)                    | Structure<br>(2)           | Structure<br>(3) |
|--------------------------|-------------------------------------|----------------------------|------------------|
| Bridge Name              | <u>Deer<br/>Springs<br/>Road OC</u> | <u>Retaining<br/>Walls</u> | _____            |
| Total Cost for Structure | <u>\$1,400,000</u>                  | <u>\$1,225,000</u>         | _____            |

Explanation:

Structures items include costs associated with widening the existing Deer Springs Road Overcrossing at I-15. Structures items include costs associated with retaining walls. The cost estimate includes a 20% contingency factor applied to the base cost. The cost estimate has been escalated to the fiscal year 2018 using an annual escalation factor of 3%. The fiscal year 2018 is the anticipated year for construction.

TOTAL STRUCTURE ITEMS \$2,625,000

III. ENVIRONMENTAL MITIGATION

|                          | <u>Quantity</u> | <u>Unit</u> | <u>Unit Price</u>  | <u>Item Cost</u>   |
|--------------------------|-----------------|-------------|--------------------|--------------------|
| Environmental Mitigation | <u>LS</u>       | <u>1</u>    | X <u>\$650,000</u> | = <u>\$650,000</u> |

Explanation:

Environmental mitigation includes costs associated with environmental surveys and monitoring, temporary erosion control, and storm water best management practices required during construction.

TOTAL ENVIRONMENTAL MITIGATION ITEMS      \$650,000

IV. RIGHT-OF-WAY ITEMS

|                                                                                 | Escalated<br>Value |
|---------------------------------------------------------------------------------|--------------------|
| A. Acquisition, including excess lands,<br>damages to remainder(s) and Goodwill | <u>\$100,000</u>   |
| B. Utility Relocation (State share)                                             | <u>\$250,000</u>   |

Anticipated Date of Right-of-Way Certification      2018  
(Date to which values are escalated)

Explanation:

Right-of-way items include costs associated with acquiring right-of-way, temporary construction easements, and anticipated utility relocations.

TOTAL RIGHT-OF-WAY ITEMS      \$350,000

**ATTACHMENT D**  
PRELIMINARY ENVIRONMENTAL ANALYSIS REPORT (PEAR)



# PRELIMINARY ENVIRONMENTAL ANALYSIS REPORT

## 1. Project Information

|                                                                           |              |               |                                          |                 |
|---------------------------------------------------------------------------|--------------|---------------|------------------------------------------|-----------------|
| District<br>11                                                            | County<br>SD | Route<br>I-15 | PM<br>R36.3-R37.2                        | EA<br>11-41840K |
| Project Title: Interstate 15 (I-15)/Deer Springs Road Interchange Project |              |               |                                          |                 |
| Project Manager: Ismael Salazar                                           |              |               | Phone: (619) 688-6766                    |                 |
| Project Engineer: Armando Salvador                                        |              |               | Phone: (619) 688-3268                    |                 |
| Environmental Office Chief/Manager: Olga Estrada                          |              |               | Phone: (619) 688-0229                    |                 |
| PEAR Preparer: Emily Hoyt/Stephanie Blanco (Parsons)                      |              |               | Phone: (949) 333-4546/<br>(909) 218-3551 |                 |

## 2. Project Description

### Purpose and Need

The project area is located within San Diego County, along a segment of Interstate 15 (I-15). I-15 is a major traffic corridor that serves the local community of Hidden Meadows and City of San Marcos, while also acting as a link for traffic traveling to and from I-15 to and from State Route (SR) 78. The intersecting Deer Springs Road is classified as a 6-Lane Prime Arterial in the County of San Diego Mobility Element and is currently built as a two-lane facility between I-15 and Twin Oaks Valley Road. Based on growth forecasts prepared by the San Diego Association of Governments (SANDAG), the County's unincorporated areas, which encompass the project area, are expected to see an overall population growth of approximately 25 percent between 2015 and 2050. To accommodate this growth and future capacity needs within the corridor, the interchange will require additional capacity. Regional growth, coupled with the approved site developments in the immediate vicinity, will result in increased volumes through the interchange by 2040 of approximately 25 to 40 percent, depending on the road segment. In addition to the projected traffic demands, the I-15/Deer Springs Road interchange is currently experiencing severe traffic congestion. Existing deficiencies of the I-15/Deer Springs Road interchange are summarized below:

- Three out of four I-15/Deer Springs Road interchange intersections are operating near or over design capacity during PM peak periods;
- Intersection delays of up to 45 seconds;
- High volumes of single-occupancy vehicle travel, necessitating improved access to carpools, vanpools, and public transportation choices via existing park-and-ride facilities within the project area.

The purpose of the proposed project is to plan for the projected regional population growth and increase in traffic demands on the existing I-15/Deer Springs Road interchange for the planning design year 2040. The project proposes to widen and reconfigure the interchange to improve traffic operations and enhance transportation choices. The objectives of the project are to:

- Support anticipated regional growth and proposed local-area projects;
- Relieve congestion by providing sufficient vehicle capacity through the interchange area;
- Manage east-west travel between local communities;
- Enhance multimodal choices;
- Improve the existing park-and-ride facility to provide transit connectivity; and
- Minimize environmental impacts.

### **Description of Work**

The design alternatives for the project include one No Build Alternative and three build alternatives, which include improvements to Deer Springs Road Interchange.

### **Alternatives**

#### ***Alternative 1***

This alternative is the No Build Alternative. The existing I-15 and Deer Springs Road interchange would remain unchanged and no work would be provided to improve operational conditions. The No Build Alternative does not meet the goals of this project to relieve congestion and is inconsistent with the purpose and need.

#### ***Alternative 2***

Alternative 2 proposes to expand upon the existing diamond configuration to improve operational conditions. This alternative would require nonstandard intersection spacing between the southbound ramp termini and the Mesa Rock Road/Deer Springs Road intersection and between the northbound ramp termini and the Champagne Boulevard/Deer Springs Road intersection. It proposes to realign the southbound ramps farther east to improve upon the existing nonstandard intersection spacing between the southbound ramp termini and the Mesa Rock Road/Deer Springs Road intersection. Realigning these ramps would require retaining walls along the southbound off-ramp and on-ramp. This alternative also proposes to widen Deer Springs Road to meet the increased traffic demand and would require the existing Deer Springs Road Overcrossing to be widened. It proposes to maintain the existing Extra Legal Load Network (ELLN) bypass of the Deer Springs Road Overcrossing via the southbound on- and off-ramps.

### ***Alternative 3***

Alternative 3 proposes to reconfigure the existing interchange into a diverging diamond interchange (DDI) configuration to improve operational conditions. The proposed geometry follows the informational guide published by the Federal Highway Administration (FHWA) in August 2014, which features a conventional 25-mile-per-hour (mph) design speed and a 45-degree intersection angle. This alternative also proposes to widen Deer Springs Road to meet the increased traffic demand and would require the existing Deer Springs Road Overcrossing to be widened. Alternative 3 also proposes to maintain the existing ELLN bypass of the Deer Springs Road Overcrossing via the southbound on- and off-ramps, utilizing a median opening for the ELLN vehicles to cross Deer Springs Road. This median opening would include several design features to keep other traffic from using it, such as a gate located within the opening, traversable concrete curb, chevron striping along the widened ramp shoulders, landscaping to block the view of the southbound on-ramp, and the geometric alignment of the median opening. This alternative may require nonstandard intersection spacing between the southbound ramp termini and the Mesa Rock Road/Deer Springs Road intersection and between the northbound ramp termini and the Champagne Boulevard/Deer Springs Road intersection. It may require a design exception for the conventional design speed of 25 mph required for DDI interchange configurations.

### ***Alternative 4***

Alternative 4 proposes to utilize the existing diamond configuration with roundabout intersections for the southbound and northbound ramp termini and for both of the adjacent local intersections along Deer Springs Road. This alternative also proposes to widen Deer Springs Road to meet the increased traffic demand and would require the existing Deer Springs Road Overcrossing to be widened. It proposes to maintain the existing ELLN bypass of the Deer Springs Road Overcrossing via the southbound on- and off-ramps, utilizing a roundabout through which the ELLN vehicles can navigate. This alternative would require nonstandard intersection spacing between the southbound ramp termini and the Mesa Rock Road/Deer Springs Road intersection and between the northbound ramp termini and the Champagne Boulevard/Deer Springs Road intersection. It may require a design exception for the conventional design speed of 25 mph required for roundabout intersections.

### 3. Anticipated Environmental Approval

Check the anticipated environmental determination or document for the proposed project in the table below.

| CEQA                                                                                           |                                     | NEPA                                                                            |                                     |
|------------------------------------------------------------------------------------------------|-------------------------------------|---------------------------------------------------------------------------------|-------------------------------------|
| <b>Environmental Determination</b>                                                             |                                     |                                                                                 |                                     |
| Statutory Exemption                                                                            | <input type="checkbox"/>            |                                                                                 |                                     |
| Categorical Exemption                                                                          | <input type="checkbox"/>            | Categorical Exclusion                                                           | <input type="checkbox"/>            |
| <b>Environmental Document</b>                                                                  |                                     |                                                                                 |                                     |
| Initial Study or Focused Initial Study with proposed Negative Declaration (ND) or Mitigated ND | <input checked="" type="checkbox"/> | Routine Environmental Assessment with proposed Finding of No Significant Impact | <input checked="" type="checkbox"/> |
|                                                                                                |                                     | Complex Environmental Assessment with proposed Finding of No Significant Impact | <input type="checkbox"/>            |
| Environmental Impact Report                                                                    | <input type="checkbox"/>            | Environmental Impact Statement                                                  | <input type="checkbox"/>            |
| CEQA Lead Agency (if determined):                                                              |                                     | Caltrans                                                                        |                                     |
| Estimated length of time (months) to obtain environmental approval:                            |                                     | 18 months                                                                       |                                     |
| Estimated person hours to complete identified tasks:                                           |                                     | 2,300                                                                           |                                     |

### 4. Special Environmental Considerations

Under any of the project build alternatives, there is the potential for impacts on biological resources, archaeological resources, and drainages. If any archaeological or historic resources identified within the area of potential effect (APE) are determined to be listed on or eligible for listing on the National Register of Historic Places (NRHP), then these would also be considered resources under Section 4(f). In compliance with Section 106 of the National Historic Preservation Act, a Finding of Effect (FOE) would need to be prepared to evaluate the effect of the proposed project on the eligible resource. If the proposed project results in a Finding of No Effect, then a *de minimis* finding would likely be appropriate with regard to Section 4(f). However, this will need to be further evaluated during the Project Approval/ Environmental Document (PA/ED) phase of the proposed project.

Deer Springs Creek runs through the south portion of the I-15/Deer Springs Road Interchange Project area. If temporary or permanent impacts are to occur, a Section 401 Water Quality Certification, Section 404 Nationwide Permit, and Section 1602 Streambed Alteration Agreement would be required; however, because the creek runs through a covered culvert from North Centre City Parkway south to Mesa Rock Road, impacts are not anticipated. Impacts to Deer Springs Creek will be further evaluated and documented during the PA/ED phase of the proposed project.

## **5. Anticipated Environmental Commitments**

Specific avoidance, minimization, and/or mitigation measures and commitments, and associated quantitative times and costs cannot be definitively determined at this time because the technical studies have not been initiated; however, for purposes of this Preliminary Environmental Analysis Report (PEAR), it is assumed that avoidance, minimization, and/or mitigation measures and commitments would consist of those measures that minimize project-related impacts typically used for similar transportation projects. Below is a list of environmental commitments by affected resource.

### **5.1 Community Impacts**

At this stage in project planning, partial and/or full acquisitions have not been finalized for each of the proposed build alternatives; however, all property and right-of-way (ROW) acquisitions as part of the proposed project would be conducted in accordance with California Department of Transportation (Caltrans) and FHWA policies and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. Properties would be purchased at fair market value, and relocation assistance for displaced residents would be provided. If any acquisitions are identified as necessary during the PA/ED phase, then a Relocation Impact Document (RID) would be prepared for the project. Additional community impacts will be discussed in the Community Impact Assessment (CIA) study such as; land use, potential growth, community character, transportation, environmental justice, and public involvement.

### **5.2 Section 4(f)**

The proposed project alternatives are not likely to have a direct affect on parks or historic resources eligible for the NRHP. These resources, if present, would be considered resources under Section 4(f) of the Department of Transportation Act. If it is found that project alternatives do affect historic properties eligible for the NRHP, then a determination of a deminimis impact finding or preparation of a Section 4(f) evaluation would be required.

### **5.3 Visual Impacts**

A Visual Impact Study will be prepared to evaluate visual impacts associated with the proposed project. The FHWA Visual Impact Assessment for Highway Projects guidelines will be followed to quantify the visual analysis.

### **5.4 Cultural Resources**

The proposed project alternatives may affect archaeological sites and possibly historic resources. It is anticipated that a Historic Properties Survey Report (HPSR), an Archaeological Survey Report (ASR), a Historic Resources Evaluation Report (HRER), as well as APE maps would be required for the project. An FOE report would also be required if properties that are directly impacted include resources that are found eligible for the NRHP, although this is not anticipated.

## **5.5 Water Quality Study**

The drainage channels adjacent to the interchange may be affected during construction. Coordination with the California Regional Water Quality Control Board (RWQCB) and the California Department of Fish and Wildlife (CDFW) will be required.

## **5.6 Paleontology**

A project-level Paleontological Identification Report (PIR) and Paleontological Evaluation Report (PER) would be required. Based on the findings of the report, a Paleontological Mitigation Plan (PMP) may be required. Any measures arising from the plan would need to be incorporated into the proposed project commitments.

## **5.7 Hazardous Waste/Materials**

Based on a review of the project site and a review of the State Water Resources Control Board (SWRCB) GeoTracker, hazardous waste may be present within the project limits. One leaking underground storage tank (LUST) site was identified near the Arco Gas Station between Mesa Rock Road and the I-15 southbound off-ramp. According to SWRCB GeoTracker data, this previously contaminated site has undergone cleanup, and the case is now closed. Because only one site was identified, and site cleanup has been completed, the project area is considered low risk. As part of the Phase I Environmental Site Assessment Process, an Initial Site Assessment (ISA) Checklist will be completed for further investigation during the PA/ED phase of this project.

It is assumed that the use, transport, and disposal of hazardous and potential hazardous materials used during construction would be conducted in accordance with applicable federal, state, and local requirements. Soils adjacent to paved areas in the project corridor may contain aerially deposited lead (ADL) from vehicle exhaust. An ADL survey would need to be performed during Caltrans Work Breakdown Structure (WBS) 165 phase of the proposed project according to Caltrans ADL testing guidelines. If the final construction alternative involves the acquisition of land with structures, the structures should be evaluated if lead-based paint (LBP) is suspected. Lead and other heavy metals, such as chromium, may be present in the yellow thermoplastic paint markings on the pavement. These surfacing materials should be tested for LBP prior to removal. If the final construction alternative involves the acquisition of land with structures or modification to existing bridges, the structures or bridges should be evaluated for asbestos-containing materials (ACM), if suspected, prior to demolition.

## **5.8 Air Quality**

The entire San Diego Air Basin is in a nonattainment area for ozone. Implementation of the proposed project would involve enhancements to the interchange, including improved signal timing and increased capacity, to accommodate existing and planned traffic generated in the project vicinity. Regional air quality will be addressed in terms of air quality impacts in the San Diego area. An Air Quality Study Report will be prepared to evaluate the impacts of the proposed project in accordance with Caltrans Transportation Project-Level Carbon Monoxide Protocol (December 1997). Because the project is capacity increasing, a transportation conformity determination would be required.

## **5.9 Noise**

A Noise Study in accordance with FHWA's Highway Traffic Noise Guidance and Policy and the Caltrans Traffic Noise Analysis Protocol will be prepared for this project due to sensitive receptors (mobile home park) within the impact area. In addition, an early coordination meeting will be requested to determine if the project would result in predicted traffic noise levels that approach or exceed the noise abatement criteria or if the predicted traffic noise levels would approach or substantially exceed existing noise levels.

## **5.10 Biology Study**

The interchange project is located within the North County Multiple-Species Conservation Plan (MSCP) and would be subject to the guidelines specific to the County's plan. Additionally, federally listed threatened or endangered species (including candidate species) or their critical or sensitive habitat may exist within the project area; however, further study will be required to determine if the project would adversely affect said species or their critical or sensitive habitat. At a minimum, a Natural Environment Study and potentially a Biological Assessment will be required to be prepared. Coordination with USFWS and CDFW will be required.

## **5.11 Wetlands Study**

Although the project area appears devoid of wetland resources, further study will be required to determine if wetlands actually occur within the project boundary and to quantify the project-related impacts on wetlands. A wetland delineation will be conducted. Coordination with, U.S. Fish and Wildlife Service (USFWS), and U.S. Army Corps of Engineers (USACE) may be required. Coordination with the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (CDFW) may also be required.

## **5.12 Traffic**

The proposed project would result in improved traffic flow through the project corridor and the improved interchanges; however, changes in traffic patterns and flow could result in potential impacts to local arterials that could require mitigation. Potential street, lane, and ramp closures may result in adverse temporary impacts on traffic during construction. Implementation of a Traffic Management Plan (TMP) during construction would be required and would include measures to address construction period traffic impacts.

## **6. *Permits and Approvals***

All construction activities within the Caltrans ROW must conform to the requirements of the National Pollutant Discharge Elimination System (NPDES) Stormwater Permit, Order No. 99-06-DWQ, NPDES No. CAS 000003, in addition to the responsibilities specified in the Stormwater Management Plan. The proposed project must also conform to the requirements of the General NPDES Permit for Construction Activities, Order No. 2009-

0009-DWQ, NPDES No. CAS 00002, and any subsequent general permits in effect at the time of project activity.

It is anticipated that if the proposed project impacts waters or wetlands, the following permits may be required:

- Water Quality Certification under Clean Water Act (CWA) Section 401 through the RWQCB;
- Nationwide Permit 14 under CWA Section 404 through USACE; and
- Streambed Alteration Agreement under Fish and Game Code 1602.

## **7. *Level of Effort: Risks and Assumptions***

The proposed project poses several risks pertaining to hazardous waste, biological resources, cultural resources, and the nearby community. As previously discussed, a decontaminated LUST site is located adjacent to the project area. It is assumed that if hazardous material is present onsite, it may require removal and disposal pursuant to federal or state law whether it is disturbed by the project or not.

While no sensitive habitats appear to be present in the project area and there does not appear to be any potential for special-status plants to occur, critical habitat for the federally threatened California gnatcatcher (CAGN) has been identified approximately 0.25 mile northeast of the project limits. CAGN is known to frequent areas with dense coastal sage scrub (CSS) vegetation. Within gore areas of the project limits, existing native CSS cover was observed on a field study conducted in 2014. Given the proximity to CAGN critical habitat and a history of CSS within the project area, focused, protocol-level CAGN surveys conducted by a federal 10(a)(1)(A) permitted biologist are recommended. The surveys would only be required in CSS areas within and adjacent to areas to be impacted by the proposed project. Surveys would determine the distribution and abundance of CAGN within the project site, which could potentially pose a risk to the project.

No bats, swift or swallow nests were observed on the existing bridge. If nesting or roosting activities are identified, avoidance and/or minimization measures would be required. The specifics of these measures would depend on the species and number of individuals.

It is known that Native Americans previously occupied areas near the I-15/Deer Springs Road Interchange Project location. As with many other projects that require excavation activities in southern California, there is the possibility of encountering potentially significant archaeological resources within the project area depending on the depth of construction for the project. The same risk also applies to paleontological resources; however, there is generally higher potential to uncover archaeological artifacts compared to paleontological specimens in this region.

Based on current designs of the proposed I-15/Deer Springs Road Interchange Project, there is slight risk that the project alignment would require additional ROW that could potentially result in community impacts.

## **8. PEAR Technical Summaries**

### **8.1 Land Use**

According to the San Diego County General Plan Land Use Map and Zoning Map, the project area is zoned commercial and office, residential mobile home, agriculture, and rural residential. Future land uses in the project area are guided by the County's General Plan and zoning ordinance. This area of the county is not built out, with many undeveloped parcels. For lands that are still vacant/undeveloped, a large percentage, including those near the proposed interchange, already have entitlements that are approved and in place. One development project within the immediate vicinity of the interchange is the Sierra-Newland Development Project. This is a proposed community subdivision on 1,985 acres currently undergoing environmental review with the County of San Diego Planning Department.

Within the project area, Deer Springs Road is primarily identified as a Collector Road, transitioning to a Major Road just southwest of Mesa Rock Road. The proposed project would be compatible with the County of San Diego's General Plan Mobility Element, which identifies Deer Springs Road as needing capacity improvements. Deer Springs Road is presently a 2 lane facility; however, per the County's current Mobility Element, Deer Springs Road classified as the following: from San Marcos City Limits to I-15 NB Ramp, Deer Springs Road is designated as a 6 lane prime arterial with a capacity of 50,000 ADT; and from I-15 NB ramp to Centre City Parkway, Deer Springs Road will be widened to be either 4 or 6 lanes depending on the traffic volumes for the specified design year and input from the County. The I-15/Deer Springs Interchange Project is consistent with these descriptions.

### **8.2 Section 4(f)**

It is not expected that any of the project alternatives would directly affect parks or historic sites eligible for or listed on the NRHP. No parks have been identified within the project area. However, if a significant archaeological site is found, as determined by Caltrans in consultation with the State Historic Preservation Officer (SHPO), appropriate Native American tribe, and the Advisory Council on Historic Preservation (ACHP), it may be NRHP eligible. If NRHP-eligible properties or resources are present in the project area, then they would be considered resources under Section 4(f) of the Department of Transportation Act; however, for the proposed project alternative, a *de minimis* impact finding will likely be determined. If it is found that the finalized project alternatives do adversely affect historic resources eligible for the NRHP, then preparation of a Section 4(f) evaluation would be required.

### **8.3 Growth**

The area immediately surrounding the project area includes existing residential, commercial, and industrial properties, as well as recreational open space. The area served

by the existing interchange is primarily residential with open space that has yet to be developed. The proposed project is not anticipated to appreciably affect the rate, type, or amount of growth that has already been accounted for in the City of Escondido, City of San Marcos, and San Diego County general plan documents. It is anticipated that following implementation of the proposed project, the pattern and rate of the population and housing growth would be consistent with rates projected in existing plans for the area.

#### **8.4 Farmlands/Timberlands**

The proposed project would not be located in an area that includes any farmlands that are designated by the California Department of Conservation (DOC) as prime farmland or farmland of local or state importance; however, DOC-classified unique farmland may temporarily and/or permanently be impacted by the proposed project. The proposed project would have no direct impacts to lands protected under the California Land Conservation Act of 1965, commonly known as the Williamson Act.

Directly north of the interchange and southwest of the interchange are some general use agricultural lands that may be impacted by construction activities. The northern agricultural land is the most likely to be impacted by construction activities, while the southwestern agricultural lands may be indirectly impacted. Indirect impacts would result from cumulative impacts due to changes in regional development patterns and growth-related changes. Indirect impacts to farmlands/timberlands would be further assessed in the Community Impact Assessment. Additional reconnaissance surveys need to be conducted to further analyze these resources.

#### **8.5 Community Impacts**

An existing mobile home park is located off of Deer Springs Road and Mesa Rock Road. Permanent impacts to this community would be minimal; however, a Community Impact Assessment (CIA) will need to be prepared to adequately assess impacts to the community cohesion and character.

Currently, no residential or commercial ROW impacts are anticipated. Because adequate ROW is present at the interchange, impacts to properties outside Caltrans ROW would be avoided to the extent feasible. If any partial or full acquisitions are required for the project, they will be thoroughly documented and assessed in the PA/ED phase. If any acquisitions are identified as necessary in a later project phase, then a RIS would be prepared for the project. Additional community impacts will be discussed in the Community Impact Assessment study such as; land use, potential growth, community character, transportation, and public involvement.

#### **8.6 Visual/Aesthetics**

The interchange project is within the County of San Diego's I-15 Corridor Subregional Plan and its Scenic Preservation Guidelines. In accordance with the plan, the project will protect and enhance scenic resources within the project area to the extent feasible.

Each of the proposed build alternatives could potentially affect the views of residences and businesses located adjacent to the project area, particularly related to the construction of improved structures, which could modify or obstruct views of sensitive viewers. The proposed project could also result in increased shading and increased glare from additional lighting, if incorporated into the project. In addition, removal of trees and vegetation may be necessary to construct the proposed project. A Visual Impact Assessment (VIA), in accordance with the FHWA Visual Impact for Highway Projects guidance, will be required. The VIA should address the aesthetic treatment of the new interchange structure and walls, vegetation removal, soundwalls, and measures to address impacts on sensitive viewer groups.

## **8.7 Cultural Resources**

Cultural resource identification, analysis, and subsequent reports will be conducted in compliance with the Amended Section 106 Programmatic Agreement (PA) in compliance with Section 106 of the National Historic Preservation Act (NHPA), as it pertains to the administration of the Federal-Aid Highway Program in California executed January 1, 2014. Potential historic properties will be identified and evaluated for inclusion in the NRHP as required by 36 Code of Federal Regulations (CFR) Part 800 and the regulations implementing Section 106 of the NHPA of 1966, as amended.

Preliminary research from a literature and records database search at the South Coast Information Center has revealed that there are cultural resources located in the project vicinity. This search covered both published and unpublished materials on previous researches and projects within the project vicinity as part of the scoping process. Native Americans may have previously occupied this area. There were nine recorded sites within a half mile radius of the project APE, with three sites recorded partially within the project APE. The majority of these sites were located on the eastern portion of the project APE. After reviewing the site reports and relevant literature, it was revealed that much of these sites were destroyed from previous construction projects. However, there is potential for encountering surface or buried archaeological artifacts during construction of the proposed project alternatives. If any of these cultural resources are encountered, or are deemed to be a CEQA historical resource, then the resource would require evaluation under Section 106, and an Archaeological Evaluation Report would be required.

It is also known that the area may contain remnants of historic trails and roads. Given the size and scope of the project, a pedestrian field survey by a qualified archaeologist will need to be conducted for the project area. This is done in order to assess whether or not the recorded sites still exist, and to discern if there are additional archaeological or historic resources in the project area. Based on the results of the survey and the completed ASR, monitoring during construction by a qualified archaeologist is recommended. If the widening of Deer Springs Road impacts an archaeological site that is potentially eligible for the NRHP, then a more detailed analysis will need to be conducted by a professionally qualified archaeologist. Depending on the results of the analysis, a memorandum of Understanding (MOU), and/or an Archaeological Data Recovery (Phase III) may become required.

Additionally, coordination with the Native American Heritage Commission (NAHC) would identify tribal representatives in the area and request a record of any known sacred grounds. As part of this outreach and consultation effort, interested parties such as historical societies, local historians and tribal representatives shall be contacted in order to ask if they have any known concerns or information beyond any archaeological properties that could affect the alternatives, cost, schedule, or viability of the proposed project alternatives.

An HPSR and APE maps would also be required for the proposed project. The literature and records search revealed a few historic buildings that were in a dilapidated state as of 2000. Subsequent research suggests that these buildings no longer exist.

Additionally, a survey will need to be conducted by an architectural historian as part of an evaluation of buildings or structures for the HRER that would be required. At this stage in the project proposal, no properties are expected to be impacted.

If any historic or archaeological resources within or adjacent to the APE are determined to be listed on or eligible for listing on the NRHP, then these would also be considered resources under Section 4(f). There may be additional cultural resources that meet the 50-year threshold and are not exempt under the Section 106 Programmatic Agreement; however, this would have to be determined when more detailed studies are conducted for the proposed project.

In accordance with Section 106 PA of the National Historic Preservation Act, a FOE would need to be prepared to evaluate the effect of the proposed project on the NRHP eligible resource, should any exist in the APE. If the proposed project results in a Finding of No Adverse Effect, then a *de minimus* finding would likely be appropriate with regard to Section 4(f). Based on the proposed build alternatives, no historic resources are anticipated to be impacted. However, the need for a Section 4(f) evaluation related to cultural resources, and the level of Section 4(f) evaluation, will be addressed during the PA/ED phase of the proposed project.

## **8.8 Water Quality and Stormwater Runoff**

Two drainages were observed within the project vicinity: Deer Springs Creek and South Fork Moosa Canyon Creek. Only Deer Springs Creek has the potential to be impacted because it flows through the southern portion of the project area; however, because the creek runs through a covered culvert from North Centre City Parkway south to Mesa Rock Road, water quality impacts are not anticipated. The second drainage is located on the northeast quadrant of I-15 and appears to be underground at Champagne Boulevard; it would most likely not be impacted by any construction activities or operation of the completed project. Both drainages are shown on the Environmental Constraints Map in Appendix E, Report Figures. Impacts to Deer Springs Creek and South Fork Moosa Canyon Creek will be further evaluated and documented in a Water Quality Study during the PA/ED phase of the proposed project.

Under the build alternatives, grading activities associated with construction could result in temporary soil erosion. Implementation of Best Management Practices (BMPs) would minimize erosion of exposed soils and the resulting movement of sediment into the storm drain system and downstream water bodies. During construction, the contractor would be required to implement several temporary site BMPs to limit soil erosion, implement water conservation practices, and maintain water quality. The construction site BMP strategy for the proposed project would consist of soil stabilization and sediment control devices.

The proposed project may require a Storm Water Pollution Prevention Plan (SWPPP) because the disturbed soil area could possibly be more than 1 acre. The proposed project alternatives may require a USACE 404 permit and an RWQCB 401 Water Quality Certification.

## **8.9 Geology, Soils, Seismic, and Topography**

Southern California is a seismically active region with numerous faults of various types and the potential for earthquakes of Richter scale magnitude. In San Diego County, where the proposed project lies, the San Jacinto Fault, which is California's second most active fault, after the San Andreas Fault, runs through northeast San Diego County. The Rose Canyon Fault is another major fault in San Diego County that runs through the downtown portion of San Diego County through La Jolla. A geotechnical investigation should be conducted during the PA/ED phase.

## **8.10 Paleontology**

Southern California has been a valuable resource for paleontological finds. There is the possibility of encountering paleontological resources within the project area, depending on the depth of construction for the project. A PIR and PER will need to be prepared for this project by a qualified paleontologist. Part of these reports will include a review of relevant published and unpublished geologic reports and paleontological locality records from the San Diego Natural History Museums. Geologic formations and paleontological deposits have a direct relationship with each other and should be considered jointly as part of the initial scoping process. The United States Geological Survey map for the project area was reviewed to gain information on geologic formations in the project area. Type Qoa covers most of the interchange which is old alluvial flood plain deposits from the late-to-middle Pleistocene epoch (6 – 11.5 million years ago). It consists of gravel, sand, silt, and clay. The other formation which covers the other large portion of the project is Kjd, Granodiorite of Jesmond Dean of the mid-Cretaceous epoch (95 – 115 million years ago). It consists of fine-grained, black and dark-gray granodiorite.

Additionally, coordination with other interested parties, such as museums, universities and knowledgeable individuals, should be undertaken as part of this effort. Given the size and scope of the project, a pedestrian survey of the project area should be conducted to identify any surface paleontological artifacts, fossils or specimen and geologic formations.

The depths of the excavations for the project have not yet been established , and intensive studies into the paleontological sensitivity of the region have not been conducted. Based on the findings of the PIR and PER reports, a PMP and construction monitoring maybe required.

### **8.11 Hazardous Waste/Materials**

As previously discussed, because only one hazardous waste cleanup site was identified adjacent to the I-15/Deer Springs Road interchange, the project area is considered low risk. An ISA Checklist and Phase I Environmental Site Assessment will be completed for further investigation during the PA/ED phase of this project.

Furthermore, the use, transport, and disposal of hazardous and potentially hazardous materials used during construction would be conducted in accordance with applicable federal, state, and local requirements.

### **8.12 Air Quality**

An Air Quality Study Report (AQSR) will be prepared to evaluate the impacts of the proposed project. The AQSR will address transportation conformity and project-level air quality impacts.

As previously stated, the entire San Diego Air Basin is in a nonattainment area for ozone. Regional air quality will be addressed in terms of air quality impacts in the San Diego area. It is anticipated that the proposed project would accommodate anticipated increases in vehicle traffic but would serve existing and planned land uses and developments. It is anticipated that the proposed project would reduce future congestion and improve traffic flow in the project area; therefore, it would potentially yield air quality benefits to the region. However, due to the capacity increasing elements associated with the proposed project, it is subject to Transportation Conformity. The project will be presented to TCWG in order to obtain concurrence that the project is in conformity with the air quality regulations. Following TCWG's recommendation, an Air Quality Conformity Report (AQCR) will be prepared. The AQCR will evaluate, among other items, regional emissions, project-level carbon monoxide and particulate matter emissions, mobile source air toxics emissions, naturally occurring asbestos, and construction emissions.

It is expected that operation results would improve area traffic congestion and therefore have a beneficial effect on air quality. It is possible that construction-related activities could produce air quality emissions. Possible mitigation measures for construction-related air quality effects, such as dust control measures, will be addressed in the AQSR.

### **8.13 Noise and Vibration**

The proposed project could temporarily increase noise levels as a result of construction activities. There are currently no soundwalls along the residential area along the southeastern portion of the interchange. The proposed project would most likely need to provide sound abatement for the sensitive receptors living adjacent to the interchange. A Noise Study Report (NSR) would be required to measure the noise impacts on nearby residences and other noise-sensitive land uses. Determination of the need for and the

placement of new soundwalls would be made during the PA/ED phase of the project based on the NSR. The Noise Abatement Decision Report (NADR) compiles information from the NSR, other relevant environmental studies, and the design considerations into a single, comprehensive document before public review of the proposed project. The final determination regarding the incorporation of any soundwalls would be based on the findings of the NSR and NADR and any input received from the public during the environmental document availability period.

#### **8.14 Biological Environment**

Non-Native Grasslands, Southern Mixed Chaparral, Coast Live Oak Woodland, Southern Coast Live Oak Riparian Forest, Chamise Chaparral, oak trees, and eucalyptus trees surround the interchange. The Non-Native Grassland, Southern Coast Live Oak Riparian Forest, Southern Mixed Chaparral, and the eucalyptus trees have the most potential to be impacted by the proposed build alternatives. The impact areas are along the west side of Deer Springs Road; just south of the road are mature oak trees and Deer Springs Creek. South Fork Moosa Canyon Creek is on the east side of I-15, at the intersection of Champagne Boulevard and Mountain Meadow Road, as well as mature eucalyptus trees north and south of Mountain Meadow Road. If there is construction work outside of the existing ROW, then these trees may be impacted. At this stage in the project, it is not expected that work outside of the existing ROW will be necessary.

Within gore areas, existing native CSS cover was observed on a field study conducted in 2014; however, it currently appears to be disturbed, non-native grasslands with sporadic CSS species based on a field survey completed in January and February 2015. Further field studies need to be conducted to verify these areas. No habitats of concern appear to be present in the project area, and there does not appear to be any potential for special-status plants to occur.

The interchange appears to be located within the Northern County MSCP. Based on the USFWS Critical Habitat Mapping database, there is no designated critical habitat for the CAGN within or immediately adjacent to the interchange area; however, designated habitat for CAGN has been identified approximately 0.25 mile northeast of the edge of the project area. Given the proximity to CAGN critical habitat and a history of CSS within the project area, then a habitat assessment for CAGN should be completed for the project. If habitat is found in the project area, then a focused, protocol-level CAGN surveys should be conducted by a federal 10(a)(1)(A) permitted biologist in accordance with 1997 Coastal California Gnatcatcher Presence/Absence Survey Guidelines published by USFWS. Surveys would determine the distribution and abundance of CAGN within the project site. The survey does not have to include the entire Biological Study Area (BSA,) but only CSS areas within and adjacent to areas to be impacted by the project.

No swift or swallows nests were observed on the existing bridge. Bats were not observed utilizing the structure either. Additional biological field studies will be conducted to verify these preliminary findings.

A Natural Environment Study will be prepared to accurately assess impacts to those resources and to identify appropriate mitigation and monitoring measures to minimize impacts.

### **8.15 Context-Sensitive Solutions**

Caltrans uses context-sensitive solutions as its approach to plan, design, construct, maintain, and operate its transportation system. Context-sensitive solutions use innovative and inclusive approaches that integrate and balance community, aesthetic, historic, and environmental values with transportation safety, maintenance, and performance goals. The plans are reached through a collaborative, interdisciplinary approach involving all stakeholders. As the project progresses through the design phase (PA/ED), context-sensitive solutions would be implemented through coordination among the Project Development Team, as appropriate. Any public outreach should also include the topic of context-sensitive solutions so that the community can provide input with regard to how the project will fit into the community. Community groups that would be contacted for public participation include, but are not limited to, Twin Oaks Valley Community Sponsor Group, and the I-15 Design Review Board. Some solutions that may apply to the project would be the incorporation of avoidance/minimization measures related to any identified cultural resources and surface or other treatments of any soundwalls or retaining walls that are required.

## **9. Summary Statement for PSR or PSR-PDS**

The anticipated document for compliance with the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) is a joint Initial Study (IS)/Environmental Analysis (EA) leading to a Mitigated Negative Declaration (MND). Caltrans will act as the Lead Agency for CEQA and, as of July 1, 2007, Caltrans has been assigned the responsibility for the environmental review, consultation, and any other action required in accordance with applicable federal laws pursuant to 23 United States Code (U.S.C.) 327, thereby making Caltrans the lead agency for NEPA as well. Under NEPA, the appropriate documentation will be a Finding of No Significant Impact (FONSI). The MND/FONSI timeline could require approximately 18 months from the start of the environmental studies to approval of the environmental document.

The potential impacts of the proposed project are summarized below.

A CIA will be prepared to assess any impacts to the adjacent mobile home park and/or nearby businesses.

Depending on the alternative that is selected, the proposed project may result in partial acquisitions of residential and/or commercial properties. A Draft and Final RID would be required to address any relocations that occur as a result of the project.

General use agricultural land may be impacted directly to the north of the project vicinity if construction exceeds the existing ROW in that area. Mitigation and/or avoidance and minimization measures will need to be developed if any impacts are anticipated to this resource.

Excavations could potentially encounter paleontological resources. A project-level PIR and PER will be required. Based on the report findings, a PMP may also be required.

The proposed build alternatives could impact cultural resources. An HPSR and an ASR will be required. An HRER will be required to assess properties of historic significance within the project vicinity. Coordination with the NAHC and individual tribal representatives will be necessary.

If impacts to Deer Springs Creek occur, the proposed project will require the following permits: a Water Quality Certification under CWA Section 401 through the RWQCB; a Nationwide Permit 14 or Individual Permit under CWA Section 404 through USACE, depending on the extent of impact on federal Waters (Waters of the United States); and a Streambed Alteration Agreement under Fish and Game Code 1602.

The proposed project will require a Water Quality Report to analyze the potential impacts of the project on the aquatic environment. The project will require an SWPPP because the disturbed soil area could exceed 1 acre. Although temporary and permanent BMPs related to water quality should be implemented, future detailed site investigations would determine additional BMPs to be recommended as permanent treatment BMPs.

ADL studies will need to be conducted on the unpaved areas along the roadway, and studies may also be required for the structures targeted for demolition that could possibly contain LBP and/or ACM.

The proposed project is intended to reduce congestion and vehicle delay times, and it would also increase capacity. An AQSR will be required to assess the potential for the project to result in impacts to air quality during construction and operation. In addition, a quantitative analysis of greenhouse gas emissions will be required.

The proposed build alternatives will require an NSR to measure the noise impacts on nearby residences and other noise-sensitive land uses. Soundwalls may be required.

The proposed project alternatives will require a Natural Environment Study (Minimal Impacts) to evaluate impacts on biological resources and to identify avoidance, minimization, and/or mitigation measures. Bats may be present under the existing bridge, and birds protected by the federal Migratory Bird Treaty Act and similar provisions under Department of Fish and Game code may be present. Additionally, the eucalyptus and oak trees found in the project vicinity may be impacted if construction exceeds the current ROW. Mitigation and/or avoidance measures will need to be developed in case any of these biological resources are impacted.

A decontaminated LUST site is located adjacent to the proposed project area. An ISA Checklist will be required for further investigation.

## **10. Disclaimer**

The PEAR provides an initial environmental evaluation of a project before it is programmed. While it anticipates the environmental constraints that may affect project

design, cost, schedule, and delivery, it is not an environmental determination or document. Based on the project description provided in the Project Study Report (PSR), the PEAR estimates the scope, schedule, and costs associated with the subsequent environmental compliance process and it documents the assumptions used to develop those estimates. The text briefly outlines the issues and assumptions. Project scope changes made after the PEAR will affect assumption and cost.

Project scope changes made after this PEAR is prepared may affect level of environmental approval, cost and schedule. Please note that the information provided is preliminary and based on cursory examination. All impacts and associated mitigation should be considered as estimates until the project areas are thoroughly surveyed by specialists. The cost estimates (which only include preparation hours) and conclusions in the PEAR are approximate and are based on cursory analyses of probable effects. A reevaluation of the PEAR will be needed for changes in project scope or alternatives, or in environmental laws, regulations, or guidelines.

11. List of Preparers

|                                                                      |                 |
|----------------------------------------------------------------------|-----------------|
| <b>Cultural Resources specialist:</b><br>Monica Corpuz               | Date: 6/18/2015 |
| <b>Biologist:</b><br>Arianne Preite                                  | Date: 6/23/2015 |
| <b>Community Impacts specialist:</b><br>Emily Hoyt                   | Date: 6/24/2015 |
| <b>Noise and Vibration specialist:</b><br>Areg Gharabegian           | Date: 4/27/2015 |
| <b>Air Quality specialist:</b><br>Bruce Campbell                     | Date: 4/27/2015 |
| <b>Paleontology specialist/liaison:</b><br>Monica Corpuz             | Date: 6/18/2015 |
| <b>Water Quality specialist:</b><br>Chris Hinds                      | Date: 4/27/2015 |
| <b>Hydrology and Floodplain specialist:</b><br>Portia Gonzalez, P.E. | Date: 4/27/2015 |
| <b>Hazardous Waste/Materials specialist:</b><br>Shala Craig          | Date: 4/27/2015 |
| <b>Visual/Aesthetics specialist:</b><br>Jeff Lormand                 | Date: 4/27/2015 |
| <b>Energy and Climate Change specialist:</b><br>James Santos         | Date: 4/27/2015 |
| <b>PEAR Preparer:</b><br>Emily Hoyt/Stephanie Blanco                 | Date: 7/30/2015 |

**12. Review and Approval**

I confirm that environmental cost, scope, and schedule have been satisfactorily completed and that the PEAR meets all Caltrans requirements.

\_\_\_\_\_  
Environmental Branch Chief

\_\_\_\_\_  
Date:

\_\_\_\_\_  
Project Manager

\_\_\_\_\_  
Date:

**REQUIRED ATTACHMENTS:**

Attachment A: PEAR Environmental Studies Checklist

Attachment B: Schedule (Gantt Chart)

Attachment C: PEAR Environmental Commitments Cost Estimate (Standard PSR)

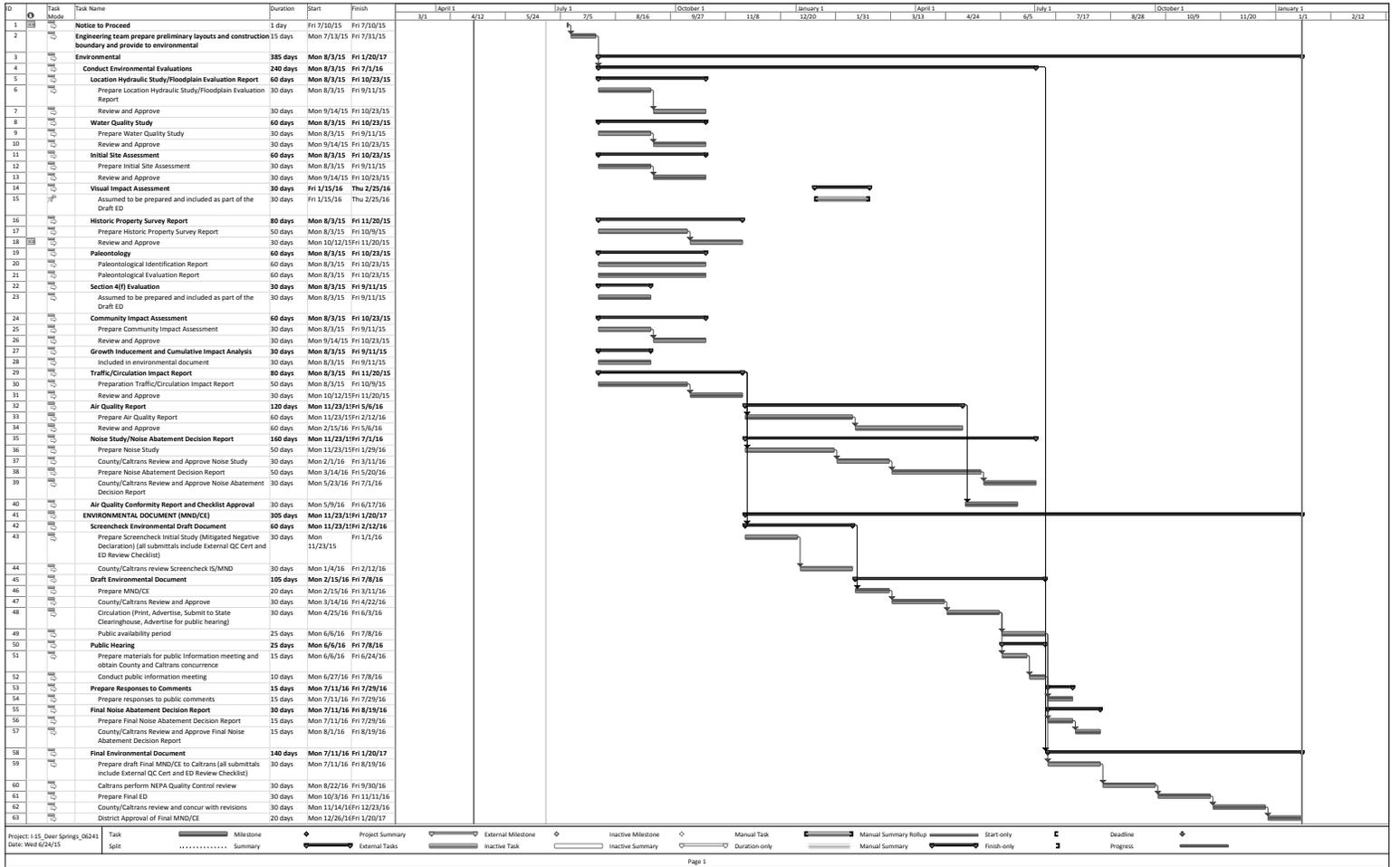
**Attachment A:  
PEAR Environmental Studies Checklist**

| <b>Environmental Studies for PA&amp;ED Checklist</b> |                                     |                                     |                                     |                |              |
|------------------------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|----------------|--------------|
|                                                      | Not anticipated                     | Memo to file                        | Report required                     | Risk*<br>L M H | Comments     |
| Land Use                                             | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       | Part of CIA  |
| Growth                                               | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       | Part of CIA  |
| Farmlands/Timberlands                                | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       | Part of CIA  |
| Community Impacts                                    | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       | Part of CIA  |
| Community Character and Cohesion                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       | Part of CIA  |
| Relocations                                          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       | Part of CIA  |
| Environmental Justice                                | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       | Part of CIA  |
| Utilities/Emergency Services                         | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <u>L</u>       | Part of CIA  |
| Visual/Aesthetics                                    | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>M</u>       |              |
| Cultural Resources:                                  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>M</u>       |              |
| Archaeological Survey Report                         | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       |              |
| Historic Resources Evaluation Report                 | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>M</u>       |              |
| Historic Property Survey Report                      | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       |              |
| Historic Resource Compliance Report                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |              |
| Section 106 / PRC 5024 & 5024.5                      | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       | Part of HPSR |
| Native American Coordination                         | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       | Part of HPSR |
| Finding of Effect                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |              |
| Data Recovery Plan                                   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |              |
| Memorandum of Agreement                              | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |              |
| Other: APE Maps and ESA Action Plan                  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       | Part of HPSR |
| Hydrology and Floodplain                             | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       |              |
| Water Quality and Stormwater Runoff                  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       |              |
| Geology, Soils, Seismic and Topography               | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       |              |
| Paleontology                                         | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       |              |
| PER                                                  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       |              |
| PMP                                                  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       |              |
| Hazardous Waste/Materials:                           | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       |              |
| ISA (Additional)                                     | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       |              |
| PSI                                                  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |              |
| Other:                                               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |              |
| Air Quality                                          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       |              |
| Noise and Vibration                                  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>M</u>       |              |
| Energy and Climate Change                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <u>L</u>       | Part of ED   |
| Biological Environment                               | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       |              |
| Natural Environment Study                            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       | NES (MI)     |
| Section 7:                                           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |              |

## Environmental Studies for PA&ED Checklist

|                                               | Not anticipated                     | Memo to file                        | Report required                     | Risk*<br>L M H | Comments    |
|-----------------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|----------------|-------------|
| Formal                                        | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| Informal                                      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| No effect                                     | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| Section 10                                    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| USFWS Consultation                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| NMFS Consultation                             | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| Species of Concern (CNPS, USFS, BLM, S, F)    | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| Wetlands & Other Waters/Delineation           | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       | JD Report   |
| 404(b)(1) Alternatives Analysis               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| Invasive Species                              | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <u>L</u>       | Part of NES |
| Wild & Scenic River Consistency               | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| Coastal Management Plan                       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| HMMP                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| DFG Consistency Determination                 | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| 2081                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| Other:                                        | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| Cumulative Impacts                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <u>L</u>       | Part of ED  |
| Context Sensitive Solutions                   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <u>L</u>       | Part of ED  |
| Section 4(f) Evaluation                       | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <u>L</u>       | Part of ED  |
| <b>Permits:</b>                               |                                     |                                     |                                     |                |             |
| 401 Certification Coordination                | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>M</u>       |             |
| 404 Permit Coordination, IP, NWP, or LOP      | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>M</u>       |             |
| 1602 Agreement Coordination                   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>M</u>       |             |
| Local Coastal Development Permit Coordination | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| State Coastal Development Permit Coordination | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| NPDES Coordination                            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <u>L</u>       |             |
| US Coast Guard (Section 10)                   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| TRPA                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |
| BCDC                                          | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <u>L</u>       |             |

**Attachment B:  
Schedule (Gantt Chart)**



**Attachment C:  
PEAR Environmental Commitments Cost Estimate (Standard PSR)**

## ALTERNATIVES 2, 3, AND 4

### *PART 1. PROJECT INFORMATION*

|                                                                                                                                         |                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|
| 11 – SD – 15 – PM R36.3-R37.2                                                                                                           | EA: 11-41840K                   |
| Project Description:<br>The build alternatives include improvements to the Interstate 15 to the north of Deer Springs Road Interchange. |                                 |
| Form completed by (Name/District Office):<br>District 11                                                                                |                                 |
| Project Manager:<br>Ismael Salazar                                                                                                      | Phone Number:<br>(619) 688-6766 |
| Date: 6/25/2014                                                                                                                         |                                 |

### *PART 2. PERMITS AND AGREEMENTS*

|                                                                                      | Permits and Agreements<br>(\$\$) |
|--------------------------------------------------------------------------------------|----------------------------------|
| Fish and Game 1602 Agreement                                                         | \$4,912.25                       |
| Coastal Development Permit                                                           |                                  |
| State Lands Agreement                                                                |                                  |
| Section 401 Water Quality Certification                                              | \$1,500                          |
| Section 404 Permit – Nationwide (U.S. Army Corps)                                    | N/A                              |
| Section 404 Permit – Individual (U.S. Army Corps)                                    | N/A                              |
| Section 10 Navigable Waters Permit (U.S. Army Corps)                                 |                                  |
| Section 9 Permit (U.S. Coast Guard)                                                  |                                  |
| Other:                                                                               |                                  |
| California Department of Fish and Wildlife CEQA<br>Environmental Document Filing Fee | \$2,210                          |
| County Clerk Processing Fee                                                          | \$50                             |
|                                                                                      |                                  |
|                                                                                      |                                  |
| Total (enter zeros if no cost)                                                       | \$8,672.25                       |

### *PART 3. ENVIRONMENTAL COMMITMENTS FOR PERMANENT IMPACTS*

| <b>Environmental Commitments – Alternatives 2, 3, and 4</b>               |                             |                                                                                                 |
|---------------------------------------------------------------------------|-----------------------------|-------------------------------------------------------------------------------------------------|
|                                                                           | Estimated Cost in \$1,000's | Notes                                                                                           |
| Hazardous Waste                                                           | \$150 – 175                 |                                                                                                 |
| Archaeological resources                                                  | \$75 – 100                  |                                                                                                 |
| Biological resources                                                      |                             |                                                                                                 |
| <ul style="list-style-type: none"> <li>• ESA fencing</li> </ul>           | \$50 – 100                  | ESA fencing for CSS                                                                             |
| <ul style="list-style-type: none"> <li>• Biological Monitoring</li> </ul> | \$100 – 125                 | Biological monitoring for CAGN, bats, nesting birds, and other species within the project area. |
| Paleontology                                                              | \$90-100                    | Paleontological                                                                                 |

|                                |             |                                                     |
|--------------------------------|-------------|-----------------------------------------------------|
|                                |             | Management Plan, and processing of two discoveries. |
| Noise                          | \$390-400   | Noise abatement (i.e. soundwalls)                   |
| Total (enter zeros if no cost) | \$855-1,000 |                                                     |

**ATTACHMENT E**  
**TRANSPORTATION PLANNING SCOPING INFORMATION SHEET**

# Transportation Planning Scoping Information Sheet

## PROJECT INFORMATION

| District No.                                                                                                                                                                                                                                                                                   | County    | Route | Post Miles  | Project ID No/<br>Expenditure Authorization |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|-------|-------------|---------------------------------------------|
| 11                                                                                                                                                                                                                                                                                             | San Diego | 15    | R36.0/R37.2 | PN 11-140000093/<br>EA 11-41840K            |
| <p><b>Project Name and Description :</b><br/>                     The I-15/Deer Springs Road Interchange project proposes to evaluate alternatives to increase capacity, improve mobility, and relieve congestion for the existing Interstate 15 (I-15) and Deer Springs Road interchange.</p> |           |       |             |                                             |

**Prepared by:**

|                                              |                     |                  |                             |
|----------------------------------------------|---------------------|------------------|-----------------------------|
| District Information Sheet Point of Contact* | Name: Jason Fischer | Functional Unit: | Consultant Project Engineer |
|----------------------------------------------|---------------------|------------------|-----------------------------|

\* The District Information Sheet Point of Contact is responsible for completing Project Information, PDT Team and Stakeholder Information, and coordinating the completion of project-related information with the Transportation Planning Stakeholders. Upon completion, provides the Transportation Planning PDT Representative and Project Manager with a copy of the Information Sheet.

| <b>Project Development Team (PDT) Information</b> |                |              |
|---------------------------------------------------|----------------|--------------|
| Title                                             | Name           | Phone Number |
| Project Manager                                   | Clark Fernon   | 619.692.1920 |
| Project Engineer                                  | Jason Fischer  | 619.692.1920 |
| Transportation Planning PDT Representative**      | Ismael Salazar | 619.688.6766 |

| <b>Transportation Planning Stakeholder Information</b>      |             |              |
|-------------------------------------------------------------|-------------|--------------|
| Title                                                       | Name        | Phone Number |
| Regional Planner                                            | TBD         |              |
| System Planner                                              | TBD         |              |
| Local Development-Intergovernmental Review (LD-IGR) Planner | TBD         |              |
| Community Planner                                           | TBD         |              |
| Goods Movement Planner                                      | TBD         |              |
| Transit Planner                                             | TBD         |              |
| Bicycle and Pedestrian Coordinator                          | Seth Cutter | 619.688.2597 |
| Park and Ride Coordinator                                   | Mike Roy    | 619.688.6489 |
| Native American Liaison                                     | TBD         |              |
| Other Coordinators:                                         | TBD         |              |

|                                                                                                                                                                                                                                                                                                                |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Project Purpose and Need**</b></p> <p><u>Purpose:</u><br/>                     The purpose of the proposed project is to plan for the projected regional population growth and increase in traffic demands on the existing I-15 and Deer Springs Road interchange for the planning design year 2040.</p> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

The project proposes to widen and reconfigure the interchange to improve traffic operations and enhance transportation choices. The objectives of the project are to:

- Support anticipated regional growth and proposed local-area projects;
- Relieve congestion by providing sufficient vehicle capacity through the interchange area;
- Manage east-west travel between local communities;
- Enhance multi-modal choices;
- Improve the existing park and ride facility to provide transit connectivity; and
- Minimize environmental impacts.

Need:

The project area is located within San Diego County near Escondido, along a segment of Interstate 15 (I-15). I-15 is a major traffic corridor that serves the local communities of Hidden Meadows and San Marcos, while also acting as a link for traffic travelling to/from I-15 to/from SR 78. The intersecting Deer Springs Road is classified as a 6-Lane Prime Arterial in the County of San Diego Mobility Element and is currently built as a two-lane facility between I-15 and Twin Oaks Valley Road. Based on growth forecasts prepared by the San Diego Association of Governments, the county’s unincorporated areas, which encompass the project area, are expected to see an overall population growth of approximately 25 percent between 2015 and 2050. To accommodate this growth and future capacity needs within the corridor, the interchange will require additional capacity. Regional growth coupled with the approved site developments in the immediate vicinity will result in increased volumes through the interchange by 2040 of about 25-40%, depending on the road segment. In addition to the projected traffic demands, the I-15/Deer Springs interchange is currently experiencing severe traffic congestion. Existing deficiencies of the I-15/Deer Springs interchange are summarized below:

- Three out of four I-15/Deer Springs interchange intersections are operating near or over the design capacity during peak period traffic volumes;
- Intersection delays of up to 45 seconds;
- High volumes of single occupancy vehicle travel, necessitating improved access to carpools, vanpools, and public transportation choices via existing park and ride facilities within the project area.

\*\* The Transportation Planning PDT Representative is responsible for providing the PDT with the system-wide and corridor level deficiencies identified by Transportation Planning. The PDT uses the information provided by Transportation Planning to develop the purpose and need with contributions from other Caltrans functional units and external stakeholders at the initiation of the PID and is refined throughout the PID process. As the project moves past the project initiation stage and more data becomes available, the purpose and need is refined. For additional information on purpose and need see: [www.dot.ca.gov/hq/env/emo/purpose\\_need.htm](http://www.dot.ca.gov/hq/env/emo/purpose_need.htm)

**1. Project Funding:**

|   |                                                                                                                                                                                                                                                                                                  |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | List all known and potential funding sources and percent splits: (ie. State Transportation Improvement Program (STIP)/State Highway Operations and Protection Program (SHOPP)/Transportation Enhancement (TE)/Environmental Enhancement and Mitigation (EEM)/Safe Routes to School (SR2S)/etc.). |
|   | This project will be privately funded along with any additional funding sources identified during the development of the project.                                                                                                                                                                |
| b | Is this a measure project? Yes ___ /No <input checked="" type="checkbox"/> . If yes, name and describe the measure.                                                                                                                                                                              |
|   |                                                                                                                                                                                                                                                                                                  |

**2. Regional Planning:**

|   |                                                                                                                                                                                            |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | Name of and contact information for Metropolitan Planning Organization (MPO) or Regional Transportation Planning Agency (RTPA).                                                            |
|   | San Diego Association of Governments (SANDAG)<br>Sarah Strand<br>Regional Planner<br>401 B Street, Suite 800<br>San Diego, CA 92101<br>619.595.5609<br>Sarah.strand@sandag.org             |
| b | Name of and contact information for local jurisdiction (City or County)                                                                                                                    |
|   | County of San Diego<br>Nick Ortiz<br>County Project Manager<br>858.694.2410<br>francisco.ortiz@sdcounty.ca.gov                                                                             |
| c | Provide the page number and project description as identified in the Regional Transportation Plan (RTP) and the date of adoption, or provide an explanation if not in RTP.                 |
|   | This project is a condition required by the County of San Diego for an adjacent subdivision project, which is proposed by a private developer. Therefore, it is not identified in the RTP. |
| d | Provide nexus between the RTP objectives and the project to establish the basis for the project purpose and need.                                                                          |
|   | N/A                                                                                                                                                                                        |
| e | Is the project located in an area susceptible to sea-level rise?                                                                                                                           |
|   | No                                                                                                                                                                                         |
| f | Name of Air Quality Management District (AQMD)                                                                                                                                             |
|   | San Diego County Air Pollution Control District (SDAPCD)                                                                                                                                   |
| g | If the project is located in a federal non-attainment or attainment-maintenance area is the project:                                                                                       |
|   | • Regionally Significant? (per 40 Code of Federal Regulations (CFR) 93.101) Y <input checked="" type="checkbox"/> / N <input type="checkbox"/>                                             |
|   | • Exempt from conformity? (per 40 CFR 93.126 and 93.128) Y <input type="checkbox"/> / N <input checked="" type="checkbox"/>                                                                |
|   | • Exempt from regional analysis? (per 40 CFR 93.127) Y <input type="checkbox"/> / N <input checked="" type="checkbox"/>                                                                    |
|   | • Not exempt from conformity (must meet all requirements)? Y <input checked="" type="checkbox"/> / N <input type="checkbox"/>                                                              |

### 3. Native American Consultation and Coordination:

|   |                                                                                                                                                                                                                                                                                                                                   |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | If project is within or near an Indian Reservation or Rancheria? If so, provide the name of Tribe.                                                                                                                                                                                                                                |
|   | No                                                                                                                                                                                                                                                                                                                                |
| b | Has/have the Tribal Government(s) been consulted? Y <input type="checkbox"/> / N <input checked="" type="checkbox"/> . If no, why not?                                                                                                                                                                                            |
|   |                                                                                                                                                                                                                                                                                                                                   |
| c | If the project requires Caltrans to use right-of-way on trust or allotted lands, this information needs to be included as soon as possible as a key topic in the consultation with the Tribe(s). Has the Tribe been consulted on this topic? Y <input type="checkbox"/> / N <input checked="" type="checkbox"/> . If no, why not? |
|   |                                                                                                                                                                                                                                                                                                                                   |
| d | Has the Bureau of Indian Affairs (BIA) been notified? Y <input type="checkbox"/> / N <input checked="" type="checkbox"/>                                                                                                                                                                                                          |
|   |                                                                                                                                                                                                                                                                                                                                   |
| e | Have all applicable Tribal laws, ordinances and regulations [Tribal Employment Rights Ordinances (TERO), etc.] been reviewed for required contract language and coordination?                                                                                                                                                     |
|   | N/A                                                                                                                                                                                                                                                                                                                               |
| f | If the Tribe has a TERO, is there a related Memorandum of Understanding between the District and the Tribe?                                                                                                                                                                                                                       |
|   |                                                                                                                                                                                                                                                                                                                                   |

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| g | Has the area surrounding the project been checked for prehistoric, archeological, cultural, spiritual, or ceremonial sites, or areas of potentially high sensitivity? If such areas exist, has the Tribe, Native American Heritage Commission or other applicable persons or entities been consulted?<br>Cultural work has been on-going for the Sierra Project and sites have been identified. The NAHC has been consulted for those sites. A database search is currently being completed for the I15/Deer Springs interchange project. |
| h | If a Native American monitor is required for this project, will this cost be reflected in cost estimates?<br>Yes                                                                                                                                                                                                                                                                                                                                                                                                                          |
| i | In the event of project redesign, will the changes impact a Native American community as described above in d, e, or h?<br>No                                                                                                                                                                                                                                                                                                                                                                                                             |

#### 4. System Planning:

|   |                                                                                                                                                                                                                                                                                                                                                                                             |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a | Is the project consistent with the DSMP? Y__/N <input checked="" type="checkbox"/> . If yes document approval date. If no, explain.<br>This project is not listed or associated to any of the projects listed in the DSMP.                                                                                                                                                                  |
| b | Is the project identified in the TSDP? Y__/N <input checked="" type="checkbox"/> ? If yes, document approval date____. If no, explain.<br>N/A – District 11 TSDP listed as “not available” on Caltrans Website                                                                                                                                                                              |
| c | Is the project identified in the TCR/RCR or CSMP? Y__/N <input checked="" type="checkbox"/> . If yes, document approval date____. If no, explain. Is the project consistent with the future route concept? Y__/N <input checked="" type="checkbox"/> . If no, explain.<br>The project is not identified by the TCR or the CSMP. However, it is consistent with the future route concept.    |
| d | Provide the Concept Level of Service (LOS) through project area.<br>LOS D                                                                                                                                                                                                                                                                                                                   |
| e | Provide the Concept Facility – include the number of lanes. Does the Concept Facility include High Occupancy Vehicle lanes? Y__/N <input checked="" type="checkbox"/> .<br>12 total lanes – 4 general purpose lanes and 2 toll lanes in each direction.                                                                                                                                     |
| f | Provide the Ultimate Transportation Corridor (UTC) – include the number of lanes. Does the UTC include High Occupancy Vehicle Lanes? Y__/N <input checked="" type="checkbox"/> .<br>12 total lanes – 4 general purpose lanes and 2 toll lanes in each direction.                                                                                                                            |
| g | Describe the physical characteristics of the corridor through the project area (i.e. flat, rolling or mountainous terrain...).<br>Rolling Terrain                                                                                                                                                                                                                                           |
| h | Is the highway in an urban or rural area? Urban <input checked="" type="checkbox"/> /Rural____. Provide Functional Classification.<br>I-15 – Interstate Freeway<br>Deer Springs Road – Local County Arterial                                                                                                                                                                                |
| i | Is facility a freeway, expressway or conventional highway?<br>Yes, I-15 is an Interstate Freeway.                                                                                                                                                                                                                                                                                           |
| j | Provide Route Designations: (i.e. Interregional Transportation Strategic Plan (ITSP) High Emphasis or Focus Route, Surface Transportation Assistance Act (STAA) Route, Scenic Route...).<br>Interstate-15 is a Surface Transportation Assistance Act (STAA) Route; I-15 is also part of the Interregional Road System as stated in the ITSP.                                                |
| k | Describe the land uses adjacent to project limits (i.e. agricultural, industrial...).<br>Residential, Commercial, and Agricultural                                                                                                                                                                                                                                                          |
| l | Describe any park and ride facility needs identified in the TCR/CSMP, local plans, and RTP.<br>Park and Ride Lot #33 is located at the I-15 and Deer Springs Rd intersection and has 28 spaces.<br>Park and Ride Lot #34 is located at the I-15 and Mountain Meadows Dr intersection and has 41 spaces.<br>The project proposes to expand lot #33 and maintain the existing size of lot #34 |

|   |                                                                                                                                                                                                                                                               |
|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| m | Describe the Forecasted 10 and 20-year Vehicle Miles Traveled (VMT), Annual Average Daily Traffic (AADT), and Peak Hour truck data in the TCR. Include the source and year of Forecast, and names and types of traffic and travel demand analysis tools used. |
|   | N/A                                                                                                                                                                                                                                                           |
| n | Has analysis on Daily Vehicle Hours of Delay (DVHD) from the Highway Congestion Monitoring Program (HICOMP) been completed and included? Y___/N___.                                                                                                           |
|   | N/A                                                                                                                                                                                                                                                           |

**5. Local Development – Intergovernmental Review (LD-IGR) :**

List LD-IGR projects that may directly or indirectly impact the proposed Caltrans project or that the proposed Caltrans project may impact. (Attach additional project information if needed.)

| <b>LD-IGR Project Information</b> |                                                                                                                                                                                                                        | <b>Project</b>                                                                                                                                                                                                                       |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a                                 | County-Route-Postmile & Distance to Development.                                                                                                                                                                       | SD – 15 – PM – R36.4 – Directly adjacent to development                                                                                                                                                                              |
| b                                 | Development name, type, and size.                                                                                                                                                                                      | Sierra Project, Community Subdivision, 1,985 acres                                                                                                                                                                                   |
| c                                 | Local agency and/or private sponsor, and contact information.                                                                                                                                                          | Private Sponsor<br>Rita G. Brandin<br>Senior Vice President, Development Director<br>9820 Towne Center Drive, Suite 100<br>San Diego, CA 92121<br>858.875.8219<br><a href="mailto:rbrandin@newlandco.com">rbrandin@newlandco.com</a> |
| d                                 | California Environmental Quality Act (CEQA) status and Implementation Date.                                                                                                                                            | Sierra Project currently in EIR process with the County. CEQA document for the interchange project will be completed in the PA/ED phase.                                                                                             |
| e                                 | If project includes federal funding, National Environmental Policy Act (NEPA) status.                                                                                                                                  | N/A                                                                                                                                                                                                                                  |
| f                                 | All vehicular and non-vehicular unmitigated impacts and planned mitigation measures including Transportation Demand Management (TDM) and Transportation System Management (TSM) that would affect Caltrans facilities. | Identified in Draft Traffic Operations Report                                                                                                                                                                                        |
| g                                 | Approved mitigation measures and implementing party.                                                                                                                                                                   | N/A                                                                                                                                                                                                                                  |
| h                                 | Value of constructed mitigation and/or amount of funds provided.                                                                                                                                                       | N/A                                                                                                                                                                                                                                  |
| i                                 | Encroachment Permit, Transportation Permit, Traffic Management Plan, or California Transportation Commission (CTC) Access approvals needed.                                                                            | N/A                                                                                                                                                                                                                                  |
| j                                 | Describe relationship to Regional Blueprint, General Plans, or County Congestion Management Plans.                                                                                                                     | The Project is processing a General Plan amendment with the County of San Diego.                                                                                                                                                     |
| k                                 | Inclusion in a Regional Transportation Plan Sustainable Community Strategy or                                                                                                                                          | N/A                                                                                                                                                                                                                                  |

|   |                                                    |     |
|---|----------------------------------------------------|-----|
|   | Alternative Planning Strategy?                     |     |
| 1 | Regional or local mitigation fee program in place? | Yes |

**6. Community Planning:**

|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>INITIAL PID INFORMATION</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |
| a                              | Has lead agency staff worked with any neighborhood/community groups in the area of the proposed improvements? Y <input checked="" type="checkbox"/> /N <input type="checkbox"/> . If yes, summarize the process and its results including any commitments made to the community. If no, why not?                                                                                                                                                                                                                                               |  |
|                                | Representatives from the surrounding local agencies have been included in the PDT.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |  |
| b                              | Are any active/completed/proposed Environmental Justice (EJ) or Community-Based Transportation (CBTP) Planning Grants in the project area? Y <input type="checkbox"/> /N <input checked="" type="checkbox"/> . If yes, summarize the project, its location, and whether/how it may interact with the proposed project.                                                                                                                                                                                                                         |  |
| c                              | Describe any community participation plans for this PID including how recommendations will be incorporated and/or addressed. Has a context sensitive solutions (CSS) approach been applied? Y <input checked="" type="checkbox"/> /N <input type="checkbox"/>                                                                                                                                                                                                                                                                                  |  |
|                                | The community has not been involved at this time. Further coordination will occur at the PA/ED phase.                                                                                                                                                                                                                                                                                                                                                                                                                                          |  |
| <b>FINAL PID INFORMATION</b>   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |
| d                              | How will the proposed transportation improvements impact the local community? Is the project likely to create or exacerbate existing environmental or other issues, including public health and safety, air quality, water quality, noise, environmental justice or social equity? Y <input type="checkbox"/> /N <input checked="" type="checkbox"/> . Describe issues, concerns, and recommendations (from sources including neighborhood/community groups) and what measures will be taken to reduce existing or potential negative effects. |  |
| e                              | Does this highway serve as a main street? Y <input type="checkbox"/> /N <input checked="" type="checkbox"/> . If yes, what main street functions and features need to be protected or preserved?                                                                                                                                                                                                                                                                                                                                               |  |

**7. Freight Planning:**

|                                |                                                                                                                                                                                                                                                                                                                     |  |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>INITIAL PID INFORMATION</b> |                                                                                                                                                                                                                                                                                                                     |  |
| a                              | Identify all modal and intermodal facilities that may affect or be affected by the project.                                                                                                                                                                                                                         |  |
|                                | Interstate 15                                                                                                                                                                                                                                                                                                       |  |
| <b>FINAL PID INFORMATION</b>   |                                                                                                                                                                                                                                                                                                                     |  |
| b                              | Describe how the design of this project could facilitate or impede Goods Movement and relieve choke points both locally and statewide through grade separations, lane separations, or other measures (e.g., special features to accommodate truck traffic and at-grade railroad crossings).                         |  |
|                                | The purpose of this project is to alleviate traffic congestion in the vicinity of the I-15/Deer Springs Road Interchange. By improving traffic operations, the project would help facilitate goods movement.                                                                                                        |  |
| c                              | Describe how the project integrates and interconnects with other modes (rail, maritime, air, etc.). Do possibilities exist for an intermodal facility or other features to improve long-distance hauling, farm-to-market transportation and/or accessibility between warehouses, storage facilities, and terminals? |  |
|                                | It does not impact any existing intermodal facilities. No future intermodal facilities are planned with this project.                                                                                                                                                                                               |  |
| d                              | Is the project located in a high priority goods movement area, included in the Goods Movement Action Plan (GMAP) or on a Global Gateways Development Program (GGDP) route? Y <input checked="" type="checkbox"/> /N <input type="checkbox"/> . If yes, describe.                                                    |  |
|                                | I-15 is a Major International Trade Highway Route.                                                                                                                                                                                                                                                                  |  |
| e                              | Is the project on a current and/or projected high truck volume route [e.g., Average Annual Daily Truck Traffic (AADTT) of 5 axle trucks is greater than 3000]? Yes <input checked="" type="checkbox"/> /N <input type="checkbox"/> . If yes, describe how the project                                               |  |

|   |                                                                                                                                                                                                                                               |
|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | addresses this demand.                                                                                                                                                                                                                        |
|   | The project does not impact I-15. The purpose of this project is to alleviate traffic congestion in the vicinity of the I-15/Deer Springs Road Interchange. By improving traffic operations, the project would help facilitate truck traffic. |
| f | If the project is located near an airport, seaport, or railroad depot, describe how circulation (including truck parking) needs are addressed.                                                                                                |
|   | N/A                                                                                                                                                                                                                                           |
| g | Describe any other freight issues.                                                                                                                                                                                                            |
|   | N/A                                                                                                                                                                                                                                           |

**8. Transit (bus, light rail, commuter rail, intercity rail, high speed rail):**

|   |                                                                                                                                                                                                                                                                                                       |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | <b>INITIAL PID INFORMATION</b>                                                                                                                                                                                                                                                                        |
| a | List all local transit providers that operate within the corridor.                                                                                                                                                                                                                                    |
|   | North County Transit District (NCTD) and San Diego Metropolitan Transit System (SDMTS)                                                                                                                                                                                                                |
| b | Have transit agencies been contacted for possible project coordination? Y <input checked="" type="checkbox"/> /N <input type="checkbox"/> . If no, why not?                                                                                                                                           |
|   |                                                                                                                                                                                                                                                                                                       |
| c | Describe existing transit services and transit features (bus stops, train crossings, and transit lines) within the corridor.                                                                                                                                                                          |
|   | Existing transit service in the project area is NCTD Breeze bus route 389 that operates every 2 hours each day of the week between Pala Casino and the Escondido Transit Center.                                                                                                                      |
| d | Describe transit facility needs identified in short- and long-range transit plans and RTP. Describe how these future plans affect the corridor.                                                                                                                                                       |
|   | The SANDAG Draft 2050 RTP proposes the “Temecula (peak only) Extension of Escondido to Downtown Rapid” transit service, the High Speed Rail alignment along the I-15 corridor, and “Safe Routes to Transit at new transit stations” in its 2050 Revenue Constrained Transit Network (RTP Figure A.3). |
|   | <b>FINAL PID INFORMATION</b>                                                                                                                                                                                                                                                                          |
| e | Describe how the proposed project integrates transit and addresses impacts to transit services and transit facilities.                                                                                                                                                                                |
|   | The proposed design alternatives provide room to expand the existing park-and-ride to allow for future inclusion of multi-modal transit options.                                                                                                                                                      |
| f | Have transit alternatives and improvement features been considered in this project? Y <input checked="" type="checkbox"/> /N <input type="checkbox"/> If yes, describe. If no, why not?                                                                                                               |
|   | The project proposes to integrate potential multi-modal transit options into the project design.                                                                                                                                                                                                      |

**9. Bicycle:**

|   |                                                                                                                                                                                                                                                                                                                                                                   |
|---|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | <b>INITIAL PID INFORMATION</b>                                                                                                                                                                                                                                                                                                                                    |
| a | Does the facility provide for bicyclist safety and mobility needs? If no, please explain.                                                                                                                                                                                                                                                                         |
|   | Yes, the project proposes to incorporate the features listed in the County Bicycle Transportation Plan and also proposes to incorporate bikeways along Deer Springs Rd between Mesa Rock Rd and Champagne Blvd that provide safe connectivity to the surrounding features of the project, such as the adjacent park-and-ride lots and local street intersections. |
| b | Are any improvements for bicyclist safety and mobility proposed for this facility by any local agencies or included in bicycle master plans? If yes, describe (including location, time frame, funding, etc.).                                                                                                                                                    |
|   | Yes, per the County Bicycle Transportation Plan, the project proposes bicycle parking, racks, and lockers at both of the existing park-and-ride lots.                                                                                                                                                                                                             |
| c | Are there any external bicycle advocacy groups and bicycle advisory committees that should be included in the project stakeholder list? If so, provide contact information.                                                                                                                                                                                       |
|   | Yes, the San Diego County Bicycle Coalition and the North County Cycle Club:                                                                                                                                                                                                                                                                                      |

|                              |                                                                                                                                                                                                                                                     |
|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                              | San Diego County Bicycle Coalition<br>858-487-6063<br><a href="mailto:info@sdbikecoalition.org">info@sdbikecoalition.org</a><br><br>North County Cycle Club<br><a href="mailto:admin@northcountycycleclub.com">admin@northcountycycleclub.com</a>   |
| <b>FINAL PID INFORMATION</b> |                                                                                                                                                                                                                                                     |
| d                            | Will bicycle travel deficiencies be corrected? How or why not?<br>N/A                                                                                                                                                                               |
| e                            | How will this project affect local agency plans for bicycle safety and mobility improvements?<br>It proposes to incorporate all planned bicycle improvements (per Section 9.b. above).                                                              |
| f                            | If the project is the construction of a new freeway or modification to an existing freeway, will it sever or destroy existing provisions for bicycle travel? If yes, describe how bicycle travel provisions will be included in this project.<br>No |

**10. Pedestrian including Americans with Disabilities Act (ADA):**

|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>INITIAL PID INFORMATION</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| a                              | Does this facility provide for pedestrian safety and mobility needs? If so, describe pedestrian facilities. Do continuous and well-maintained sidewalks exist? Are pedestrians forced to walk in the roadway at any locations due to lack of adequate pedestrian facilities? Please explain.<br>There is currently no existing sidewalk within the project limits. The proposed project improvements include 6' ADA accessible sidewalks on each side of Deer Springs Road between Mesa Rock Rd and Champagne Blvd. In addition, crosswalks are proposed to allow access for these intersecting streets. |
| b                              | Are pedestrian crossings located at reasonable intervals?<br>Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| c                              | Are all pedestrian facilities within the corridor ADA accessible and in compliance with Federal and State ADA laws and regulations?<br>Yes                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>FINAL PID INFORMATION</b>   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| d                              | Will pedestrian travel deficiencies be corrected? How or why not?<br>Yes, per Section 10.b. above.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| e                              | How will this project affect local agency plans for pedestrian safety and mobility improvements?<br>The proposed facilities meet the current local agency plans, and will coordinate with local agency during the design.                                                                                                                                                                                                                                                                                                                                                                                |
| f                              | If the project is the construction of a new freeway or modification to an existing freeway, will it sever or destroy existing provisions for pedestrian travel? If yes, describe how pedestrian travel provisions will be included in this project.<br>No                                                                                                                                                                                                                                                                                                                                                |
| g                              | Are there any external pedestrian advocacy groups and advisory committees that should be included in the project stakeholder list? If so, provide contact information.<br>No                                                                                                                                                                                                                                                                                                                                                                                                                             |
| h                              | Have ADA barriers as noted in the District's ADA Transition Plan been identified within the project limits? If not included in the project, provide justification and indicate whether District Design coordinator approval was obtained.<br>N/A                                                                                                                                                                                                                                                                                                                                                         |

**11. Equestrian:**

|                                |  |
|--------------------------------|--|
| <b>INITIAL PID INFORMATION</b> |  |
|--------------------------------|--|

|                       |                                                                                                                                                                   |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| a                     | If this corridor accommodates equestrian traffic, describe any project features that are being considered to improve safety for equestrian and vehicular traffic? |
|                       | N/A                                                                                                                                                               |
| FINAL PID INFORMATION |                                                                                                                                                                   |
| b                     | Have features that accommodate equestrian traffic been identified? If so, are they included a part of this project? Describe. If no, why not?                     |
|                       | N/A                                                                                                                                                               |

**12. Intelligent Transportation Systems (ITS):**

|                         |                                                                                                                                                                                                                                                                           |
|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| INITIAL PID INFORMATION |                                                                                                                                                                                                                                                                           |
| a                       | Have ITS features such as closed-circuit television cameras, signal timing, multi-jurisdictional or multimodal system coordination been considered in the project? Y <input checked="" type="checkbox"/> / N <input type="checkbox"/> . If yes, describe. If no, explain. |
|                         | All traffic signals will be connected or coordinated.                                                                                                                                                                                                                     |
| FINAL PID INFORMATION   |                                                                                                                                                                                                                                                                           |
| b                       | Have ITS features been identified? If so, are they included a part of this project? Describe. If no, why not?                                                                                                                                                             |
|                         | Yes, the traffic signals located along Deer Springs Road.                                                                                                                                                                                                                 |

**ATTACHMENT F**  
RIGHT-OF-WAY CONCEPTUAL COST ESTIMATE COMPONENT

**CONCEPTUAL COST ESTIMATE REQUEST – RIGHT OF WAY COMPONENT**

To: Caltrans District 11  
RIGHT OF WAY

Date: August 2015

ATTN: Ismael Salazar

11-SD-15-R36.0/R37.2  
Project ID 11-14000093  
EA 11-41840K

From: Jason Fischer

The above-referenced project will require a(n) Original/Updated Conceptual Cost Estimate for the Right of Way Component by February 2016.

**Project Information**

Type and description of the project.

Project Setting:  Urban  Rural Current Land Use: Commercial, Residential, and Agricultural

Project Schedule: PID Date August 2015 PA&ED Date August 2016 RWC Date July 2018

Number of Alternatives to be Studied 4 Environmental Document Type MND/CE

Environment Mitigation Parcels/Credits Anticipated:  Yes  No  Unknown

Environmental Permits: Number 404, 401, 1602 Permits Needed Prior to PA&ED None

Permits to Enter for Environmental/Engineering Studies Yes

Number of Public Meetings Anticipated 2 Controversial:  Yes  No  Unknown

**Right of Way Requirements**

Additional R/W: Number of Parcels 6 Total Additional Area 33,000 Sq Ft

Number of Easements 10 Total Easement Area 25,000 Sq Ft

Access Points/Control:  No Anticipated Change  Change is Anticipated

Identify Change in Access: Potential relinquishment along existing SB I-15 off-ramp

Utilities:  None  Minor  Major Types of Utility facilities: Telecommunications, Water, Gas, Electrical and Sewer

Potholing Needed Number N/A

Railroad: Identify Rail Companies in the Vicinity of the Project: N/A

List Possible RR Needs (e.g. 'Flagging'): N/A

No Rail Companies in the Vicinity of the Project

Existing Facilities:  No Relinquishments/Vacations  Relinquishments  Vacations

Proposed Facilities:  No Relinquishments  Relinquishments

# CONCEPTUAL COST ESTIMATE – RIGHT OF WAY COMPONENT

To: Ismael Salazar

Date: August 2015

From: Jason Fischer

11-SD-15-R36.0/R37.2

11-14000093

11-41840K

Project Description

A Field Review was conducted  Yes  No

## Scope of the Right of Way

Provide a general description of the right of way including the location attributes.

Right of Way Required  Yes  No

Number of Parcels  1-10  11-25  26-50  51-100  >100

Urban  Rural

Land Area: Fee 33,000 Sq Ft Easement 25,000 Sq Ft

Displaced Persons/Businesses  Yes  No

Demolition/Clearance  Yes  No

Railroad Involvement  Yes  No

Utility Involvements  Yes  No 10 Number of Utilities in area

## Cost Estimates

|               |                                                        |                                                   |
|---------------|--------------------------------------------------------|---------------------------------------------------|
| Support Costs | <input type="checkbox"/> \$0-\$25,000                  | <input type="checkbox"/> \$500,001-\$1,000,000    |
|               | <input checked="" type="checkbox"/> \$25,001-\$100,000 | <input type="checkbox"/> \$1,000,001-\$5,000,000  |
|               | <input type="checkbox"/> \$100,001-\$250,000           | <input type="checkbox"/> \$5,000,001-\$10,000,000 |
|               | <input type="checkbox"/> \$250,001-\$500,000           | <input type="checkbox"/> > \$10,000,000           |

|               |                                                         |                                                     |
|---------------|---------------------------------------------------------|-----------------------------------------------------|
| Capital Costs | <input type="checkbox"/> \$0-\$100,000                  | <input type="checkbox"/> \$5,000,001-\$15,000,000   |
|               | <input checked="" type="checkbox"/> \$100,001-\$500,000 | <input type="checkbox"/> \$15,000,001-\$50,000,000  |
|               | <input type="checkbox"/> \$500,001-\$1,000,000          | <input type="checkbox"/> \$50,000,001-\$100,000,000 |
|               | <input type="checkbox"/> \$1,000,001-\$5,000,000        | <input type="checkbox"/> >\$100,000,000             |

## Schedule

Right of Way will require 12 months to deliver a Right of Way Certification #1 from Final R/W Maps. This estimate is based on a Right of Way Certification date of July 2018.

**Areas of Concern**

Provide a description of areas in close proximity to the project footprint that are likely to result in complex right of way issues if impacted (i.e. junkyards, cemeteries, utility towers, etc.).

If impacted, the existing Deer Springs Oak Mobile Home Estates located south of Deer Springs Road and west of I-15 that could potentially result in complex right-of-way issues. However, none of the proposed build alternatives are expected to impact this area.

**Assumptions and Limiting Conditions**

Provide a description of assumptions and limiting conditions.

Capital costs were based on a square foot estimate of the land area required and the Automated Valuation Model (AVM) of the adjacent parcels.

**ATTACHMENT G**  
**RISK REGISTER**

| LEVEL 2 - RISK REGISTER |      |        |                | Project Name: I-15/Deer Springs Rd Interchange                                                                                                           |                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                          | DIST- EA    | 11-41840K   | Project Manager | Ismael Salazar |            |           | Risk Response |                                                                                                                                                                                                                                                                                                 |                                    |            |         |
|-------------------------|------|--------|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|-----------------|----------------|------------|-----------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|------------|---------|
| Risk Identification     |      |        |                |                                                                                                                                                          |                                                                                                                                                                                                                                                              | Risk Assessment                                                                                                                                                                                                                                                                                          |             |             |                 |                |            | Strategy  |               | Response Actions                                                                                                                                                                                                                                                                                |                                    | Risk Owner | Updated |
| Status                  | ID # | Type   | Category       | Title                                                                                                                                                    | Risk Statement                                                                                                                                                                                                                                               | Current status/assumptions                                                                                                                                                                                                                                                                               | Probability | Cost Impact | Cost Score      | Time Impact    | Time Score | Rationale | Strategy      | Response Actions                                                                                                                                                                                                                                                                                | Risk Owner                         | Updated    |         |
| Active                  | 1    | Threat | Environmental  | Environmental analysis incomplete                                                                                                                        | Design could require modification as a result of identifying additional environmental impacts.                                                                                                                                                               | At this stage of the design, there is limited information related to the project footprint, which makes it difficult to determine potential impacts to adjacent environmental resources. If encroachment occurs, opportunities to reduce encroachment should be explored, which could affect the design. | 3-Moderate  | 4-Moderate  | 12              | 4-Moderate     | 12         |           | Accept        | Prior to completion of the technical studies, a more detailed design will be provided.<br>Complete environmental studies in the PA&ED phase.                                                                                                                                                    | Environmental                      | 8/10/2015  |         |
| Active                  | 2    | Threat | Environmental  | New information after Environmental Document is completed may require re-evaluation or a new document (i.e. utility relocation beyond document coverage) | Delay in RTL and construction due to additional environmental documentation and processing                                                                                                                                                                   | The environmental review process is expected to identify all potential environmental impacts and define appropriate mitigation.                                                                                                                                                                          | 1-Very Low  | 4-Moderate  | 4               | 4-Moderate     | 4          |           | Accept        | Prior to project approval, the project team will work together to identify design elements that would require a re-evaluation or new document.                                                                                                                                                  | Environmental                      | 8/10/2015  |         |
| Active                  | 3    | Threat | Environmental  | Design changes require modification to the project footprint. Subsequently, additional environmental analysis may be required.                           | Environmental studies could require modification as a result of design changes.                                                                                                                                                                              | At this stage of the design, there is limited information available to determine all of the design parameters.                                                                                                                                                                                           | 3-Moderate  | 4-Moderate  | 12              | 4-Moderate     | 12         |           | Accept        | Prior to completion of the technical studies, a more detailed design will be provided.                                                                                                                                                                                                          | Environmental / Design             | 8/10/2015  |         |
| Active                  | 4    | Threat | ROW            | Landowners unwilling to sell                                                                                                                             | Difficult property acquisitions could warrant eminent domain, which could delay the project schedule.                                                                                                                                                        | Only a small number/amount of property acquisitions are expected to be required for the project.                                                                                                                                                                                                         | 2-Low       | 2-Low       | 4               | 4-Moderate     | 8          |           | Mitigate      | Identify right-of-way needs and determine the number of impacted parcels as early as possible.                                                                                                                                                                                                  | Project Management / R/W           | 8/10/2015  |         |
| Active                  | 5    | Threat | Environmental  | Local communities pose objections                                                                                                                        | Local communities object to project related elements.                                                                                                                                                                                                        | Project is not expected to adversely impact the local communities.                                                                                                                                                                                                                                       | 3-Moderate  | 2-Low       | 6               | 4-Moderate     | 12         |           | Avoid         | Avoid design features that could adversely impact the local communities.<br>If necessary, provide public outreach to communicate project benefits and impacts to the community.                                                                                                                 | Project Management / Environmental | 8/10/2015  |         |
| Active                  | 6    | Threat | Design         | Stakeholders request late changes or have unreasonably high expectations                                                                                 | Design could change and delays could occur as a result of additional stakeholder requirements or late requests.                                                                                                                                              | All known stakeholders have been involved in the early phases of project development.                                                                                                                                                                                                                    | 1-Very Low  | 2-Low       | 2               | 4-Moderate     | 4          |           | Mitigate      | During PA&ED, the project will complete a stakeholder analysis and then develop a stakeholder requirements register.<br>The project team will include all known stakeholders at the early phases of the project, which include Caltrans, San Diego County, FHWA, and Newland Real Estate group. | Project Management / Design        | 8/10/2015  |         |
| Active                  | 7    | Threat | ROW            | Threat of lawsuits                                                                                                                                       | Project may be viewed by others as having adverse impacts. Opposition to the project could cause delays to the schedule or hinder the approval of what could be the most viable alternative.                                                                 | Project is not expected to cause adverse impacts.                                                                                                                                                                                                                                                        | 3-Moderate  | 4-Moderate  | 12              | 4-Moderate     | 12         |           | Avoid         | Avoid design features that could cause adverse impacts.<br>If necessary, provide public outreach to communicate project benefits.                                                                                                                                                               | Project Management / R/W           | 8/10/2015  |         |
| Active                  | 8    | Threat | Organizational | Reviewing agency requires longer than expected review time                                                                                               | As a result of the need to receive approval from multiple reviewing agencies (County of San Diego and Caltrans), the possibility of project delays during approval could occur which would result in an increased project schedule.                          | It is not expected that lengthy delays will occur.                                                                                                                                                                                                                                                       | 3-Moderate  | 2-Low       | 6               | 4-Moderate     | 12         |           | Mitigate      | During the approval process, the team will investigate processing times of the agencies to ensure timely responses and the efficient transfer of information.                                                                                                                                   | Project Management                 | 8/10/2015  |         |
| Active                  | 9    | Threat | Construction   | Construction or pile driving noise and vibration impacting adjacent businesses or residents                                                              | As a result of construction activities, the need to provide additional environmental mitigation may occur, which would lead to additional project costs and schedule delays.                                                                                 | Due to piles being included in the structure design, specifications will be included to limit construction noise.                                                                                                                                                                                        | 3-Moderate  | 4-Moderate  | 12              | 4-Moderate     | 12         |           | Mitigate      | Indicate on the plans and in the specifications to require the contractor to use construction methods or time windows that reduce the noise and vibration impacts to the surrounding communities.                                                                                               | Office Engineer                    | 8/10/2015  |         |
| Active                  | 10   | Threat | Design         | Unexpected geotechnical or groundwater issues                                                                                                            | As a result of the structures that are required, and since no preliminary geotechnical work has been completed, the presence of unexpected subsurface conditions may occur which would lead to more complex structure designs and higher construction costs. | Geotechnical investigations will occur in the PA&ED phase.                                                                                                                                                                                                                                               | 2-Low       | 2-Low       | 4               | 2-Low          | 4          |           | Accept        | A Geotechnical Design Report and Structures Foundation Report will be prepared in the PA&ED phase to better define the subsurface conditions.                                                                                                                                                   | Design                             | 8/10/2015  |         |

|        |    |        |                |                                                                                                                                          |                                                                                                                                                                                                   |                                                                                                                           |            |             |    |             |    |  |          |                                                                                                                                                                                                                             |                          |           |
|--------|----|--------|----------------|------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|------------|-------------|----|-------------|----|--|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-----------|
| Active | 11 | Threat | Design         | New or revised design standard                                                                                                           | Standards are always changing and the introduction of new requirements could lead to additional construction costs and potential ROW impacts.                                                     | The project team is continually monitoring the design standards.                                                          | 3-Moderate | 2 -Low      | 6  | 2 -Low      | 6  |  | Accept   | The project will be required to comply with the latest design standards.                                                                                                                                                    | Design                   | 8/10/2015 |
| Active | 12 | Threat | DES            | Hazardous materials in existing structure or surrounding soil, lead paint, contaminated soil, asbestos pipe, asbestos bearings and shims | As a result of the project impacting existing structures and surrounding soil, discovery of hazardous waste may occur. If not appropriately identified, it could cause delay to project schedule. | Hazardous material investigations will occur in the PA&ED phase.                                                          | 3-Moderate | 2 -Low      | 6  | 2 -Low      | 6  |  | Mitigate | An Initial Site Assessment will be completed during PA&ED to identify hazardous materials located within the project limits. If structure takes are likely then the specific buildings will be surveyed during PA&ED phase. | Environmental / Design   | 8/10/2015 |
| Active | 13 | Threat | DES            | Unforeseen aesthetic requirements                                                                                                        | As a result of a change in aesthetic requirements, delays to the project schedule could occur.                                                                                                    | Aesthetic requirements are expected to be identified during the PA&ED phase.                                              | 2-Low      | 2 -Low      | 4  | 2 -Low      | 4  |  | Accept   | Coordinate with the appropriate stakeholders aesthetic requirements during the PA&ED phase. Once identified, aesthetic requirements will be incorporated into the project.                                                  | Environmental / Design   | 8/10/2015 |
| Active | 14 | Threat | ROW            | Utility relocation requires more time than planned                                                                                       | Due to the potential impacts to utilities, delays in ROW clearances may occur delaying the project schedule.                                                                                      | Utility conflicts and relocation requirements are expected to be determined before any delays to the project would occur. | 3-Moderate | 4 -Moderate | 12 | 4 -Moderate | 12 |  | Mitigate | The project team will work with the utility companies to ensure delays do not occur.                                                                                                                                        | Design / R/W             | 8/10/2015 |
| Active | 15 | Threat | ROW            | Resolving objections to Right of Way appraisal takes more time and/or money                                                              | Right-of-way appraisals may cause delays to the project schedule.                                                                                                                                 | Right-of-way acquisitions are expected to begin early enough to avoid delays to the project schedule.                     | 2-Low      | 2 -Low      | 4  | 4 -Moderate | 8  |  | Mitigate | Begin right-of-way acquisitions early enough to help avoid potential delays to the project schedule.                                                                                                                        | Project Management / R/W | 8/10/2015 |
| Active | 16 | Threat | ROW            | Seasonal requirements during utility relocation                                                                                          | Some utilities may be limited to being relocated during certain times of the year.                                                                                                                | Limited utility impacts are expected. Subsequently, seasonal requirements are not expected.                               | 2-Low      | 2 -Low      | 4  | 4 -Moderate | 8  |  | Accept   | Seasonal requirements will be identified during the PA&ED phase.                                                                                                                                                            | Environmental / R/W      | 8/10/2015 |
| Active | 17 | Threat | Organizational | Internal "red tape" causes delay getting approvals, decisions                                                                            | Due to processing guidelines, schedule delays could occur.                                                                                                                                        | It is not expected that lengthy delays will occur.                                                                        | 3-Moderate | 2 -Low      | 6  | 4 -Moderate | 12 |  | Accept   | Investigate in advance of and conform to all Caltrans and County requirements.                                                                                                                                              | Project Management       | 8/10/2015 |
| Active | 18 | Threat | Organizational | Functional units not available overloaded                                                                                                | Due to agency workload, delays in project schedule could occur.                                                                                                                                   | Project schedule will be provided at the beginning of the PA&ED phase.                                                    | 3-Moderate | 2 -Low      | 6  | 4 -Moderate | 12 |  | Mitigate | Coordinate anticipated submittal dates to help functional units schedule adequate resources. A workload agreement will be coordinated prior to the completion of the schedule.                                              | Project Management       | 8/10/2015 |

**ATTACHMENT H**  
**STORMWATER DOCUMENTATION**

**APPENDIX E**

Submitted 8-06-2015 (PSR-PDS)

**I-15 / Deer Springs Interchange  
Long Form - Storm Water Data Report**



|                         |                                         |
|-------------------------|-----------------------------------------|
| Dist-County-Route:      | 11-SD-015                               |
| Post Mile Limits:       | PM R36.0/R37.2                          |
| Project Type:           | Interchange Reconfiguration             |
| Project ID (or EA):     | 11-14000093 (11-41840K)                 |
| Program Identification: | -                                       |
| Phase:                  | <input checked="" type="checkbox"/> PID |
|                         | <input type="checkbox"/> PA/ED          |
|                         | <input type="checkbox"/> PS&E           |

Regional Water Quality Control Board(s): San Diego RWCQB Region 9

Is the Project required to consider Treatment BMPs? Yes  No   
 If yes, can Treatment BMPs be incorporated into the project? Yes  No   
 If No, a Technical Data Report must be submitted to the RWQCB at least 30 days prior to the projects RTL date. List RTL Date: \_\_\_\_\_

Total Disturbed Soil Area: 30 ACRES Risk Level: 2  
 Estimated: Construction Start Date: May 2018 Construction Completion Date: April 2020  
 Notification of Construction (NOC) Date to be submitted: January 2018

Erosivity Waiver Yes  Date: \_\_\_\_\_ No   
 Notification of ADL reuse (if Yes, provide date) Yes  Date: \_\_\_\_\_ No   
 Separate Dewatering Permit (if yes, permit number) Yes  Permit # \_\_\_\_\_ No

*This Report has been prepared under the direction of the following Licensed Person. The Licensed Person attests to the technical information contained herein and the date upon which recommendations, conclusions, and decisions are based. Professional Engineer or Landscape Architect stamp required at PS&E.*

*Paul Kosinski* 8/6/2015  
 Paul Kosinski, Registered Project Engineer/Landscape Architect Date

*I have reviewed the stormwater quality design issues and find this report to be complete, current and accurate:*

\_\_\_\_\_  
Ismael Salazar, Project Manager Date

\_\_\_\_\_  
Terry Kloepfer, Designated Maintenance Representative Date

\_\_\_\_\_  
Tim Mann, Acting Landscape Architect Representative Date

[Stamp Required for PS&E only]

\_\_\_\_\_  
Carl Savage, District SW Coordinator Date

## STORM WATER DATA INFORMATION

### 1. Project Description

- *Clearly describe the type of project and major engineering features.*

The project proposes to widen Deer Springs Road from west of Mesa Rock Road to east of Centre City Parkway/Champagne Boulevard. The widening will require improvements to or replacement of the existing Deer Spring Road Bridge Overcrossing. In addition, improvements to intersections and freeway access ramps will also be required. The proposed project is located at the existing Interstate 15 (I-15)/Deer Springs Road Interchange between Mesa Rock Road and Champagne Boulevard.

The purpose of the Deer Springs Road Interchange modifications is to alleviate existing traffic congestion and improve interchange traffic operations to meet 2040 forecasted traffic demands. The improvements to Deer Springs Road and the I-15/Deer Springs Road Interchange are off-line improvements required to implement the Sierra Project. The Sierra Project is a proposed master-planned community project integrating residential, commercial, recreational, and open space land uses, on 1,985-acres located west of I-15 and north of Deer Springs Road. Currently Deer Springs Road is a two lane facility and the on and off ramps for the I-15 interchange are single lanes. The interchange and adjacent intersections are currently over capacity. With forecasted regional growth including the addition of the Sierra Project, improvements will be needed to reduce the congestion in the area.

- *Quantify total disturbed soil area and describe how it was calculated. It should be noted that projects that preserve, upkeep, and restore roadway structures do not need to include these activities within the calculation for DSA.*

The total disturbed soil area of the project has been estimated to be approximately 30 acres for each build alternative. This value is based on potential areas of exposed, erodible soil within the project limits that result from the construction of grading and roadways.

- *Quantify the existing impervious surface, and the impervious surface area after the project is completed.*

There are 12 acres of existing impervious surface within the project limits. The proposed project would add between 1.5 acres to 4.5 acres, depending on which alternative, of impervious surface for a total impervious area of 13.5 to 16.5 acres.

- *Identify all urban MS4 areas within the project limits.*

The project is located in Hidden Meadows, an unincorporated community of San Diego County. Within the project limits, the San Diego County operates under an MS4 permit that includes storm drain inlets, concrete ditches, natural dirt ditches, and Deer Springs Creek which crosses the I-15 south of Deer Springs Road Interchange, through a 10-foot by 5-foot Reinforced Concrete Box (RCB).

### 2. Site Data and Storm Water Quality Design Issues (refer to Checklists SW-1, SW-2, and SW-3)

*Project Engineer (PE) should confer with District/Regional Storm Water Coordinator, Landscape Architecture, Maintenance, Hydraulics, Construction and Environmental Units to define design issues.*



## I-15 / Deer Springs Interchange Long Form - Storm Water Data Report

Provide a narrative that contains pertinent information from source documents identified on SW-1 (e.g. Preliminary Geotechnical Report [PGR]) and a summary of the answers to the questions in SW-2 and SW-3. Use the bullets listed below as examples of information that should be described in the narrative. Note, not all of the information listed is available at each phase of a project (document status of availability, as appropriate). Information to be included will depend on the nature of the project and the site conditions.

- Identify Receiving Water Bodies (including the Hydrologic Area or sub-area [name and/or number]) and distance from the project's outfalls

Storm water runoff from the project site discharges into Deer Springs Creek through a system of inlets, culverts, natural channels and concrete channels. Deer Springs Creek flows south and westerly to San Marcos Creek which joins into Batiquitos Lagoon and ultimately discharges into the Pacific Ocean.

The San Diego Regional Water Quality Control Board (SDRWQCB) Region 9 has jurisdiction within the project limits. The project discharges into the SDRWQCB hydrologic unit 904.5, known as the San Marcos Hydrologic Area comprised of three Hydrologic Sub-Areas: Twin Oaks 904.53, Richland 904.52, and Batiquitos 904.51. The San Marcos Hydrologic Area is one of seven hydrologic areas within the Carlsbad Hydrologic Unit, see Figure 2.1.

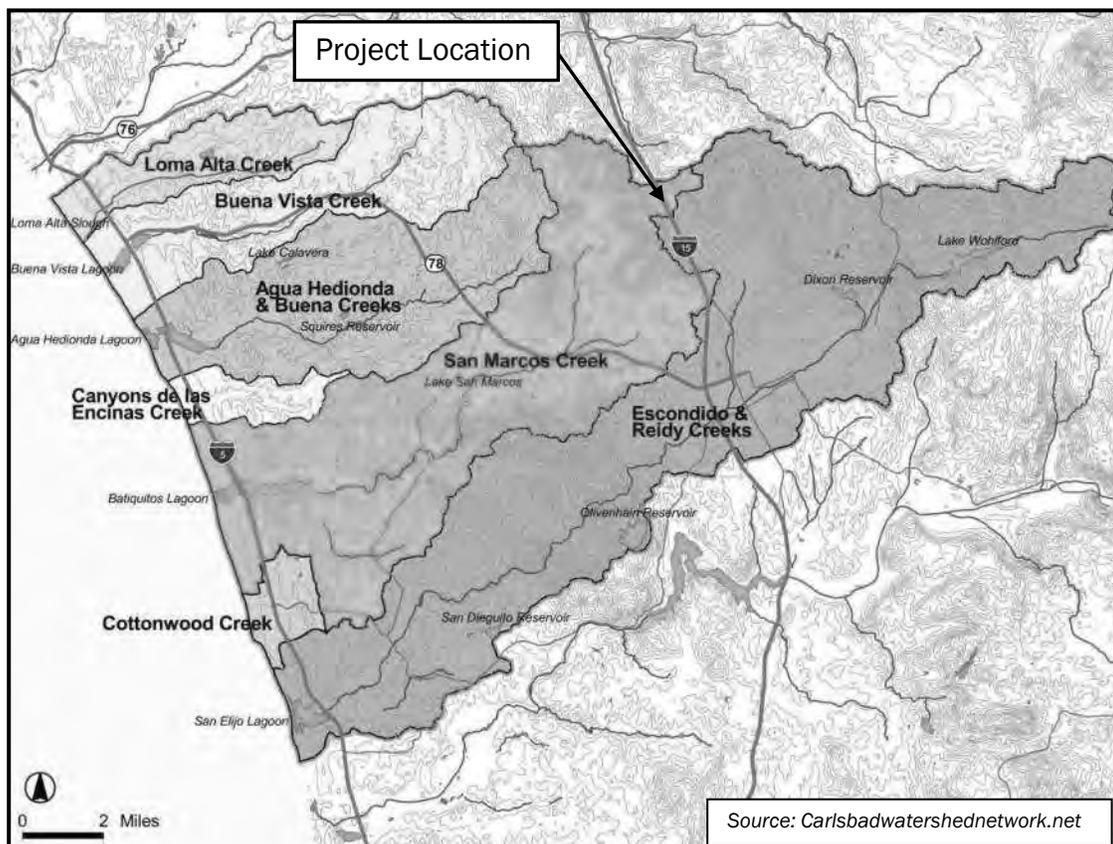


Figure 2.1: Carlsbad Hydrologic Unit

- Identify if any of the Receiving Water Bodies are on the 303(d) list / describe Pollutants of Concern

The San Marcos Creek is an impaired water body on the 303(d) list. Since the California Department of Transportation (Caltrans) must meet requirements set forth



## *I-15 / Deer Springs Interchange Long Form - Storm Water Data Report*

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under the National Pollutant Discharge Elimination System (NPDES) Permit mandated by the Federal Clean Water Act for discharge of storm water runoff to the Pacific Ocean, this project will need to be designed in conformance with NPDES requirements. The pollutants listed for San Marcos Creek on the 303(d) list are DDE (Dichlorodiphenyldichloroethylene), Phosphorus, Sediment Toxicity, and Selenium.

- Phosphorus can over stimulate the growth of aquatic plants to the detriment of other aquatic life and to some beneficial uses of the receiving water. Sources of phosphorous that may be present in highway runoff include tree leaves, surfactants, emulsifiers, and natural sources such as mineralized soil organic matter.
- DDE is a chemical similar to DDT (dichloro-diphenyl-trichloroethane), which was a pesticide once use widely to control insects in agriculture and insects that carry disease such as malaria. It was banned in the US in 1972 due to damage to wildlife. DDE has no commercial use.
- According to the California Coastal Commission, phosphorus, DDE, and sediment toxicity result primarily from urban runoff/storm sewers. The project will be mitigated by the use of Construction Site Best Management Practices (BMPs) and Permanent Treatment BMPs to prevent and minimize the discharge of pollutants contained in storm water runoff to the affected waterbodies.

The potential pollutant sources within the project right-of-way to be treated consist primarily of highway runoff. These items for the most part include total suspended solids (TSS) and total dissolved solids (TDS), specifically sediment resulting from erosion, but also including particulate and dissolved metals from the wearing of brake pads and the combustion products of fossil fuels as well as grease and oil from automobiles. The Targeted Design Constituent (TDC) for the receiving water is Phosphorus. The Permanent Treatment BMPs proposed for load reduction of the projects pollutants will address treatment for Phosphorus along with the anticipated pollutants expected in the project vicinity: TSS, TDS, Dissolved metals, grease and oil.

- *Identify if 401 certification is required*

A 401 certification will not be required because the project does not discharge to navigable waters.

- *Identify any Drinking Water Reservoirs and/or Recharge Facilities within project limit*

There are no known drinking water reservoirs and/or recharge facilities located with the project limits.

- *Describe RWQCB special requirements/concerns, including TMDLs or effluent limits*

The SDRWQCB developed a Water Quality Control Plan for the entire San Diego Basin. The plan identifies the beneficial uses of all water bodies within the region in order to determine the water quality objectives necessary to protect those uses. The beneficial uses of inland surface waters defined for the receiving waters within the Twin Oaks Hydrologic Sub-Area are as follows:

- Agricultural Supply (AGR) – Water for farming, horticulture, or ranching
- Water Contact Recreation (REC1) – Water for recreational activities involving body contact with water



## *I-15 / Deer Springs Interchange Long Form - Storm Water Data Report*

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- Non-contact Water Recreation (REC2) – Water for recreational activities not involving body contact with water
- Warm Freshwater Habitat (WARM) – Water that supports aquatic ecosystems
- Wildlife Habitat (WILD) – Water that supports terrestrial ecosystems

The beneficial uses defined for groundwater within the Twin Oaks Hydrologic Sub-Area are as follows:

- Municipal and Domestic Supply (MUN) – Water for community, military, or individual water supply systems
- Agricultural Supply (AGR) – Water for farming, horticulture, or ranching
- Industrial Service Supply (PRO) – Water for industrial activities that do not depend primarily on water quality

NPDES permit Order (2012-0011-DWQ) was adopted by State Water Resources Control Board (SWRCB) effective as of July 1, 2013 and subsequently, On May 20, 2014, the SWRCB, adopted amendments to the Caltrans Statewide Stormwater Permit. Attachment IV was amended to incorporate specific requirements for 84 Total Maximum Daily Loads (TMDLs).

Attachment IV to the Caltrans NPDES permit outlines a methodology for prioritizing stream segments included in TMDLs in which Caltrans is subject to. The permit establishes BMP implementation requirements, evaluated in terms of compliance units. Caltrans is expected to achieve 1650 compliance units per year through the implementation of retrofit BMPs, cooperative implementation, and post construction treatment beyond permit requirements. This prioritization list is currently in development.

- *Describe local agency requirements/concerns*

The project area does not have any High Risk Areas such as municipal or domestic water supply reservoirs or ground water percolation facilities.

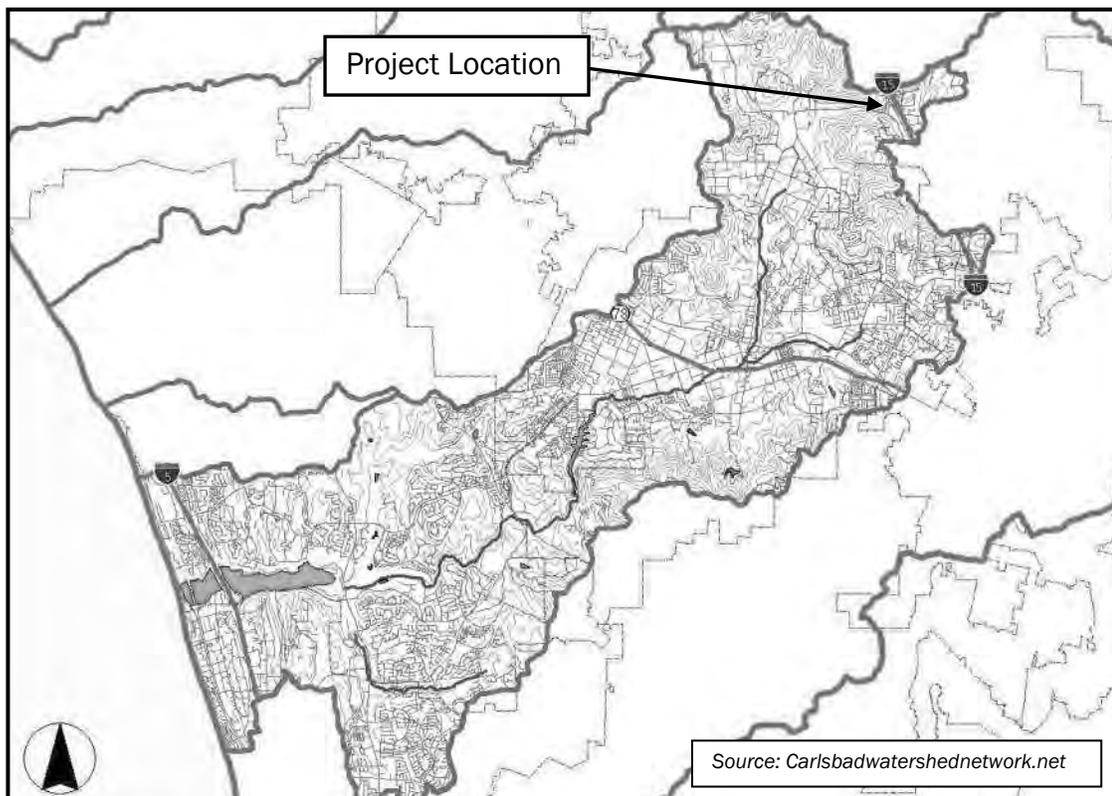
- *Describe project design considerations (climate, soil, topography, geology, groundwater, right-of-way requirements, slope stabilization, etc.)*

- The Caltrans March 2003 *Construction Site Best Management Practices (BMPs) Manual*, Table 2-1 designates the rainy season dates for Region 11 (San Diego County) from October 1 through May 1, but due to the minimal amount of rain received yearly in the southern California region, there are no construction work exclusion dates or seasonal construction restrictions required by state or local regulatory agencies.
- The *Caltrans Water Quality Planning Tool* calculates the annual rainfall in the project area as 18.61 inches.
- Based on the soil HSG Classification, Group B (*County of San Diego Hydrology Manual Appendix A*) within the project vicinity, it is estimated that the existing typical infiltration rates are <0.3 in/hr (*Caltrans Storm Water Quality Handbook Project Planning and Design Guide* pg. B-14).
- Rainfall intensity information for the project location will be obtained from NOAA.



## I-15 / Deer Springs Interchange Long Form - Storm Water Data Report

- More detailed information on the geology in the area will be added to this report upon the completion of the Geotechnical Design Report.
- The site exhibits variable topography from hilly and rugged ridges, peaks, and mesas to gently rolling valleys. Given the orientation of the cut slopes, stabilization is not needed. Fill slopes will be constructed at a ratio of 4:1 (H:V) and cut slopes at a ratio of 2:1 (H:V).
- Elevations within the project limits vary between 942 and 1057-feet above mean sea level (NAVD 88). Improvements within the project area will minimally impact the topographic and ground surface relief features.
- Right-of-way impacts for the project involve acquisition of temporary construction easements, permanent easements, and partial takes near state right-of-way or on private property.
- The local land use within the project area and adjacent areas consist primarily of undeveloped private land.
- There is no dry weather flow from Caltrans right of way present on the existing project area.



**Figure 2.2: San Marcos Hydrologic Area Topography**

- *Describe project risk level determination and identify project risk level*

The Risk Level (RL) for this project was determined using the Caltrans Project Risk Determination Guidance. Of the 3 levels established by the Construction General Permit (CGP), this project has a Risk Level of 2. The RL is calculated in two parts: 1) Project Sediment Risk (SR), and 2) Receiving Water Risk (RWR). For this project, SR is



## I-15 / Deer Springs Interchange Long Form - Storm Water Data Report

Medium and RWR is high. The Risk determination Worksheet is provided in Attachment C.

- *Identify if project involves reuse of soil containing Aerially Deposited Lead (ADL)*

There are no known contaminated or hazardous soils within project limits at this time.

- *Identify Right-of-way costs for BMPs*

Construction and Maintenance of BMPs would be within the right-of-way limits and no additional right-of-way is required. Adequate funding, including supplemental funds, will be set aside for storm-water pollution control during construction.

- *Describe measures for avoiding or reducing potential stormwater impacts*

For project areas exceeding 1-acre in disturbed soil area, NPDES guidelines necessitate the development of a Storm Water Pollution Prevention Program (SWPPP) by the contractor prior to construction to establish project-specific permanent and temporary BMPs. During the design phase, Water Pollution Control Plans will be prepared to determine the minimum control requirements to be included in the SWPPP.

Within the graded regions along the freeway, runoff will be collected by biofiltration swales or detention basins prior to discharging into Deer Springs Creek.

Standard erosion control practices will be implemented to minimize soil erosion following construction activities. Typical measures utilized during construction include applications of fiber rolls for slope stability and sediment control, temporary construction entrances to prevent sediment tracking on paved surfaces, temporary drainage inlet protection, temporary concrete washouts for concrete spoils, street sweeping, contour grading, temporary check dams and temporary hydraulic mulch or soil binders/tackifiers.

Permanent erosion and sedimentation control features may include but will not be limited to the following: hydroseeding of steeper cut slopes, permanent fiber rolls, erosion control blankets, rip-rap, and improvement of drainage facilities to handle excess runoff.

The project alignment will be chosen to minimize impacts on receiving waters by limiting cut and fill slopes, minimizing disturbance of vegetation, and avoiding formations difficult to re-stabilize. Cut and fill slopes will be made as flat as feasible, and concentrated flows shall be collected in stabilized drains and channels. Benches are not required on slopes 2:1 (H:V) or flatter and the proposed slopes are not large enough to warrant the need of benches. Slopes will be vegetated, rounded or shaped to reduce concentrated flows and will be collected in stabilized drains and channels. Maintenance pullouts are recommended adjacent to the interchange ramps to provide Maintenance and Operations personnel safe access. In addition, native, drought-tolerant plant species may be recommended to minimize landscaping maintenance requirements.

Runoff from painted materials can cause a decrease in water quality. For this reason, the proposed improvements will limit the use of paint in architectural treatment. Textures will be used where appropriate to minimize the usage of paint and other related chemicals that may potentially contribute to storm water pollution.

The modifications to the interchange ramps will require additional drainage crossovers, inlets and outlets. If the proposed conditions are found to increase



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existing flow velocities, mitigation through the use of outlet velocity dissipation or bioswale devices will be implemented. These BMPs will also be utilized as permanent storm water pollution controls early in the construction process to provide additional protection.

- *Identify any existing Treatment BMPs within the project limits and their association with the project*  
The project site currently contains no existing Treatment BMPs.

### 3. Regional Water Quality Control Board Agreements

*The District/Regional NPDES coordinator will furnish information and language for this part of the Checklist.*

- *Summarize any key negotiated understandings or agreements with RWQCB pertaining to this project. This would include any discussions relating to 401 Certifications, Waste Discharge Requirements, Rainfall Erosivity Waiver, or other required permits/certifications.*

This project does not require any negotiated understandings or agreements with RWQCB at this time.

This project conforms to NPDES-Caltrans Statewide Permit (Order No. 2012-001-DWQ) (NPDES No.CAS000003) and General Construction Permit (Order No. 2012-0006-DWQ) (NPDES CAS000002) apply to this project. The project owner will file a Notice of Intent (NOI) with the State Regional Water Quality Control Board at least 30 days prior to start of construction.

- *Document any specific meeting dates and contact names that reference the negotiated understandings and/or agreements. (Communication with the RWQCB is coordinated through the District/Regional NPDES Storm Water Coordinator.)*

To date no meetings have been held with the San Diego RWQCB to discuss this project and no agreements have been made.

### 4. Proposed Design Pollution Prevention BMPs to be used on the Project.

*Summarize responses to Checklist DPP-1, Parts 1-5 in a short narrative. Use the sub-headings shown below for the type of information that should be described in the narrative. Note, not all of the bulleted information listed is required or available at each phase of a project. Information to be included will depend on the nature of the project and the site conditions. To comply with the CGP (II.D), sediment yield and site stabilization be described in the permanent erosion control strategy, such that the site will not pose any additional risk than pre-construction conditions.*

*Summarize any qualitative benefits of Design Pollution Prevention BMPs including reducing the release of pollutants to downstream waters, increased detention time to allow for infiltration, reduced discharges (volumetric flow rates), and ancillary filtration and infiltration within vegetated conveyances and surfaces, as described in Section 2.4.1.*

*Develop an estimate of quantities and costs for the erosion control/revegetation portion of the Design Pollution Prevention BMPs as part of the Storm Water BMP Cost Summary; include right-of-way costs if additional right-of-way is needed for erosion control. Complete for each phase of the project.*

#### Downstream Effects Related to Potentially Increased Flow, Checklist DPP-1, Parts 1 and 2

- *Identify any increase to velocity or volume of downstream flow*
- *Describe Existing vs. Post Construction Conditions*
- *Describe channel condition and design (e.g., will the project discharge to unlined channels)*

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- *Describe potential for increased sediment loading*
- *Identify hydraulic changes that may affect downstream channel stability. (realignment, encroachment, etc.)*

The project may increase the velocity of flow within the project limits, but should have a negligible effect on downstream flow. During the construction phase of the project, conveyance systems will lead to biofiltration swales, or outlet velocity dissipation devices, which will minimize sediment discharges and will prevent an increase in peak flows discharged to receiving water bodies. All transitions between outlets and channels will be smooth to reduce turbulence and scour. Roadway runoff shall be treated and controlled to the maximum extent practical. The project will not encroach, cross, realign, or cause any other hydraulic changes to Deer Springs Creek that may affect downstream channel stability.

### Slope/Surface Protection Systems, Checklist DPP-1, Parts 1 and 3

- *Describe cut and fill requirements*
- *Describe existing and proposed slope conditions*
- *Describe the permanent erosion control strategy (plants, soils, mulch, blankets, establishment periods, etc.)*
- *Use Erosion Prediction Procedure to validate erosion control design (attach RUSLE2 Output as applicable)*
- *When required, provide date of approval of the Erosion Control Plan by Landscape Architecture and Maintenance*
- *Summarize any hard surfaces (rock blankets, paving)*

Conventional cut and fill grading techniques will be used to produce the proposed grades. Both cut and fill slopes will be constructed 2:1 of flatter and be less than 15 feet high. The existing slopes are both stable and vegetated with rounded shapes to reduce concentrated flow.

The existing slopes within the area are stable; however, during construction soil stabilization BMPs will be utilized to prevent soil particles from detaching and becoming suspended in storm water and non-storm water runoff.

These BMPs may include the following:

- The preservation of existing vegetation where required and when feasible;
- The implementation of temporary soil stabilization measures at regular intervals throughout the rainy season;
- The stabilization of non-active areas within 14 days of cessation of construction activities during the rainy season;
- The application of erosion control seeding or check dams for concentrated flow paths; and
- The application of permanent erosion control to remaining disturbed soil areas at the completion of the construction phase. Soil stabilization will involve the installation of uniform vegetative cover, fiber matrices, erosion control blankets, and/or fiber rolls.



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The aforementioned BMPs will be deployed in a sequence to follow the progress of grading and construction. As the locations of soil disturbance change, erosion controls will be adjusted accordingly to control storm water runoff at the downgrade perimeter.

Move-in/move-out (temporary and permanent erosion control) for the project shall include moving onto the project when an area is ready to receive temporary erosion control, setting up required personnel and equipment for the application of erosion control materials and moving out all personnel and equipment when erosion control in that area is completed.

Existing vegetation within the project limits consists primarily of desert brush. The soil type within the project limits range from loamy-sand, to areas of silt or clay. A Landscaping Design shall be developed and approved by the District Landscape Architect. The BMP vegetative surface area will feature native plants. Seed mixtures, mulch, tackifier, and fertilizer recommended by the District Landscape Architect will be utilized.

Hard surface protection (slope paving, rock slope protection) will be constructed beneath the bridge abutments where vegetation does not provide adequate erosion protection. In addition, hard surface BMPs are planned at the gore points within the interchanges for maintenance and safety purposes.

The total BMP area will be determined during the design stage of the project.

### Concentrated Flow Conveyance Systems, Checklist DPP-1, Parts 1 and 4

- Briefly describe the Concentrated Conveyance Systems to be implemented for this project

The exact locations and sizes of the drainage system components have not yet been determined. However, the project Drainage Report shall contain designs with the following general features:

- Surface runoff will be conveyed via curb and gutter, to inlets. Flared end sections and riprap material are proposed at the outlets of the storm drains to reduce the flow velocities of the discharged storm water.
- Bridge runoff will be collected in a bridge drainage system and conveyed to proposed treatment BMPs.

It shall be the intent of the drainage design to prevent increases to existing flow velocities through the use of grading, energy dissipaters, and bio-swales. The drainage report shall include an analysis of flows at the outlets of the project to determine impacts. Offsite drainage patterns will be maintained and onsite drainage patterns will be designed to closely mimic existing drainage patterns.

### Preservation of Existing Vegetation, Checklist DPP-1, Parts 1 and 5

- *Describe area(s) of clearing and grubbing identified and defined in the contract plans*

Clearing and grubbing will be performed on all areas located within the cut/fill. Clearing and grubbing limits will not be identified at this phase.

- *Describe area(s) that will be placed off-limits to the contractor, if applicable (e.g., ESA areas)*

Areas to be placed off-limits to the contractor have not been identified at this time. Locations will be shown on plans.



- Consider project changes to increase preservation or preserve/avoid critical areas such as floodplains, wetlands, problem soils, and steep slopes.

Preservation areas will not be identified at this project phase. Locations identified on project drawings will be fenced during construction.

## 5. Proposed Permanent Treatment BMPs to be used on the Project

Summarize responses to Checklist T-1, Parts 1-10 in a short narrative. Use the bullets listed below as examples of information that should be described in the narrative. Note, not all of the information listed is required or available at each phase of a project. Information to be included will depend on the nature of the project and the site conditions.

Develop an estimate of quantities and costs for the proposed Treatment BMPs as part of the Storm Water BMP Cost Summary; include additional right-of-way costs if needed for these BMPs. Complete for each phase of the project.

*This section of the SWDR should be used to develop the Technical Report required by the SWMP for projects that must consider Treatment BMPs, but are not able to incorporate them due to siting constraints. At PS&E stage, if the project must consider Treatment BMPs but is not able to incorporate them, document the date of the submittal of the Technical Report to the appropriate RWQCB.*

### Treatment BMP Strategy, Checklist T-1

- List the Targeted Design Constituent(s), if any.

The TDC for the project is phosphorous.

- List what percentage of the WQV (or WQF depending upon device) will be treated. If less than 100%, describe justification.

The goal of the project will be to treat 100% of the WQV/WQF. A more accurate number will be obtained at the design phase.

- Describe the Treatment BMP strategy for the watershed(s) within the project limits.

Phosphorus has been identified the first priority design pollutant for the proposed project due to the concentrations of phosphorus in the receiving waters of San Marcos Creek. The project will also address the anticipated pollutants expected in the project vicinity: TSS, TDS, Dissolved metals, grease and oil. Mitigation for short and long-term impacts to water quality is proposed through incorporating biofiltration swales, detention basins or Austin Sand Filters. Biofiltration swales and detention basins have a low to medium removal effectiveness for Sediment and Nutrient targeted constituents and are also considered sufficient treatment for Metals and Pathogens, per Caltrans Stormwater BMP website. Austin Sand Filters primarily remove TSS, dissolved metals, litter, and are effective at removing phosphorus, per *BMP Retrofit Pilot Program, FINAL REPORT*, January 2004.

The preliminary locations identified that could house a treatment BMP feature are in the southeast and southwest quadrants of the interchange. These BMPs should intercept and treat rainfall runoff from the roadway and assist in achieving future TMDL requirements. The biofiltration swales could potentially be placed on the shoulders of the ramps.

### Biofiltration Swales/Strips, Checklist T-1, Parts 1 and 2

- Are Biofiltration Swales/Strips incorporated into project? If not, explain reason why not feasible. If yes, list number of Biofiltration Swales and Strips, location(s), approximate dimensions of device, and total WQF treated.



Biofiltration BMPs are a potential Treatment BMP.

- Quantify Tributary Area

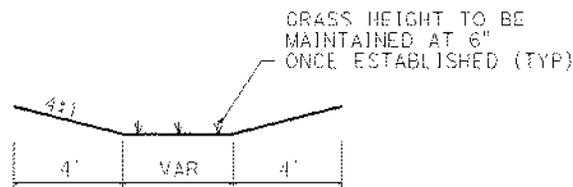
Tributary areas will not be determined at this project phase.

Biofiltration BMPs are linear channels that are lined with vegetation for the purpose of storm water conveyance and treatment. Biofiltration swales are designed to reduce the velocity of storm water runoff at the water quality event and remove particulate pollutants. These swales provide moderate to low treatment efficiencies for particulate and dissolved metals, grease and oil, and Total Suspended Solids (TSS). Most of the proposed biofiltration swales will follow existing and proposed roadway slopes, with some additional excavation required. They will also be designed to minimize flow depth, minimize flow velocity, maximize length, and eliminate standing water. The scour velocity for the type of soil will not exceed 4.0-feet per second per Table B-1 Summary of Biofiltration Strips and Swales Siting and Design Factors, of the Caltrans PPDG, July 2010.

Although the overall pavement area will increase, proposed biofiltration swales and grading modifications will reduce the increased flow rates to minimize additional storm water runoff to the Deer Springs Creek. These discharges will be treated through settling, infiltration and biofiltration as they pass slowly through the flat, vegetated, trapezoidal channel and into an inlet with apron.

Biofiltration swales require maintenance responsibilities including:

- Periodic sediment removal
- Trash, debris and vegetation removal
- Vegetation Management
- Animal/Vector control
- Removal of standing water
- Erosion and structural maintenance



**Figure 5.1: Biofiltration Swale Cross-Section**

The cross-section of the swales will be trapezoidal with a minimum top width of 12-feet, minimum depth of 1-foot and side slopes of 4:1 or flatter. The swales will be designed for both the water quality storm and the 25-year storm. For the water quality storm, the runoff shall have a minimum hydraulic residence time of 5 minutes, maximum flow velocity of 1-foot per second and maximum depth of 3-inches. For the 25-year storm, the storm water runoff shall have a maximum flow velocity of 4-feet per second, maximum depth of 1-foot, and a minimum freeboard of 6-inches below the edge of shoulder flow line. Swale grass heights will be maintained around 6-inches once established.

### Dry Weather Diversion, Checklist T-1, Parts 1 and 3

- Are Dry Weather Diversions incorporated into project? If not, explain reason why not feasible. If yes, list number of Dry Weather Diversions, location(s), and total flow rate diverted.

- Describe persistent dry weather flows
- Describe proximity to sanitary sewer
- Document Publicly Owned Treatment Works (POTW) and local health agencies acceptance
- Identify need for existing sanitary sewer pipeline upgrade

Dry weather flow is not an issue within the project area. Dry weather diversion devices will not be incorporated into the proposed design.

#### **Infiltration Devices – Checklist T-1, Parts 1 and 4**

- Are Infiltration Devices incorporated into project? If not, explain reason why not feasible (e.g. threat to local groundwater quality, etc.). If yes, list number of Infiltration Devices, location(s), and total WQV treated.
- Quantify approximate tributary area of impervious surface per Infiltration Device
- Calculate Water Quality Volume (WQV) treated per Treatment Infiltration Device
- Document soil type , HSG, and permeability
- Document groundwater depth
- Identify infiltration rate
- Discuss Geotechnical Integrity

An infiltration basin is a device designed to remove pollutants from surface discharges by capturing the Water Quality Volume (WQV) and infiltrating it directly to the soil rather than discharging to receiving waters. An infiltration basin could be used depending on the height of the water table and the permeability of soil. These findings will be reported in the Geotechnical Design Report and then it can be concluded whether an infiltration basin would be an adequate BMP.

#### **Detention Devices, Checklist T-1, Parts 1 and 5**

- Are Detention Devices incorporated into project? If not, explain reason why not feasible. If yes, list number of Detention Devices, location(s), and total WQV treated.
- Quantify approximate tributary area of impervious surface per Treatment Detention Basin
- Calculate WQV treated per Treatment Detention Basin
- Discuss Geotechnical Integrity
- Document groundwater depth
- Discuss hydraulic head sufficiency

A detention basin is a permanent device formed by excavating and/or constructing an embankment so that runoff from the water quality design storm is temporarily detained under quiescent conditions, allowing sediment and particulates to settle out before the runoff is discharged. The design flows throughout the project limits will be influenced by the following parameters: pavement area changes, storm water conveyance extensions or modifications, and grading modifications.

The design of any detention basin will use the guidance provided in the Caltrans PPDG.

#### **Gross Solids Removal Devices (GSRDs), Checklist T-1, Parts 1 and 6**



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- *Are GSRDs incorporated into project? If not, explain reason why not feasible or required. If yes, list number of GSRDs, location(s), and total tributary area treated.*
- *Is receiving water on a 303(d) list for trash or have Total Maximum Daily Loads (TMDLs) for trash been established?*
- *Calculate Tributary Area for each GSRD*
- *Estimate volume of each GSRD device*
- *Identify peak design flow*

Since the project site has no TMDL for trash or litter, GSRDs have not been proposed for the project improvements.

### Traction Sand Traps, Checklist T-1, Parts 1 and 7

- *Are Traction Sand Traps incorporated into project? If not, explain reason why not feasible or required. If yes, list number of Traction Sand Traps, location(s).*
- *Is Traction Sand or an abrasive applied to roadway more than twice per year?*
- *Estimate volume of traction sand applied (S) (ft<sup>3</sup>/yr)*
- *Estimate impact from highway sweeping, snow-blowing operations, or accumulation from other sources*
- *Discuss Traction Sand Trap cleaning frequency and Maintenance operational needs such as pullouts*

Traction sand is not regularly applied within the project limits; therefore there are no Traction Sand Trap Devices within the project limits.

### Media Filters, Checklist T-1, Parts 1 and 8

- *Are Media Filters incorporated into project? If not, explain reason why not feasible. If yes, list number of Media Filters, location(s), and total WQV treated.*
- *Identify type of Media Filter incorporated: Full Sedimentation Austin Sand Filter, Partial Sedimentation Austin Sand Filter or Delaware Sand Filter*
- *If an Austin Sand Filter is incorporated into project, identify if earthen configuration or lined*
- *Is pretreatment provided to capture sediment and litter?*
- *Quantify approximate tributary area of impervious surface per Media Filter*
- *Identify Water Quality Volume (WQV) treated per Media Filter*
- *Identify depth to groundwater*
- *Discuss local vector agency issues*

Media Filters remove fine sediment, particulate-associated pollutants, and sometimes dissolved pollutants. The normal configuration of such a device consists of an initial sedimentation basin or vault followed by a filtering vault that is lined with a media. Media Filters have been considered for the project location because they would treat for all the target pollutants. Media Filters have the potential to create a permanent pool of standing water where mosquito breeding is likely to occur and they are not preferred by vector control authorities. The filter material would require changing every three to five years along with standard detention basin maintenance. The construction costs are approximately three times that of a comparable sized detention basin. However, even with the increased construction and maintenance costs; media filters are being considered because, the TDC



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for San Marcos Creek is Phosphorus and these treatment BMPs are more effective at reducing this pollutant load than other viable options.

### Multi-Chambered Treatment Trains (MCTTs), Checklist T-1, Parts 1 and 9

- *Are MCTTs incorporated into project? If not, explain reason why not feasible. If yes, list number of MCTTs, location(s), and total WQV treated.*
- *Quantify approximate tributary area of impervious surface per MCTT*
- *Identify Water Quality Volume (WQV) treated per MCTT*
- *Discuss local vector agency issues*

Multi-chamber treatment trains use three treatment mechanisms in three different chambers. These include a catch basin with a sump, a sedimentation chamber with tube settlers and sorbet pads, and a filtering chamber lined with media. Similarly to Media Filters, MCTTs have the potential to create vector control issues, require excessive underground storage requirements, and additional maintenance. Therefore, MCTTs are not considered feasible for this project.

### Wet Basins, Checklist T-1, Parts 1 and 10

- *Are Wet Basins incorporated into project? If not, explain reason why not feasible. If yes, list number of Wet Basins, location(s), and total WQV treated.*
- *Quantify approximate tributary area of impervious surface per Wet Basin*
- *Identify Water Quality Volume (WQV) treated per Wet Basin*
- *Identify soil type and permeability*
- *Document groundwater depth*

Wet basins (constructed wetlands) are permanent pools of water designed to mimic naturally occurring wetlands. The main distinction between construction and natural wetlands is that constructed wetlands are placed in upland areas and are not subject to wetland protection regulations. Wet basins are not practical BMP devices because they should only be considered when the site is located where the visual aesthetics of the permanent pool is a considered a benefit (e.g. roadside rest area or vista point). In addition, wet basins require a steady source of water to maintain a permanent pool and the flows from the project site are intermittent. Wet Basins are not a feasible BMP for the project.

## **6. Proposed Temporary Construction Site BMPs to be used on Project**

*Summarize the selected Construction Site BMPs in a Short Narrative. The narrative should also include any pertinent details from the strategy used for the implementation of Construction Site BMPs (e.g. specific project conditions, construction operations, etc.) and monitoring. It is understood that the level of detail discussed will be different at each phase of the project. Include a brief summary to how the BMPs were estimated.*

- *Identify those Construction Site BMPs that have been designated as separate Bid Line Items.*
- *Identify those Construction Site BMPs incorporated as a lump sum in the Construction Site Management Item.*
- *Identify project risk level. If Risk Level 2 or 3, then identify planned monitoring locations and activities.*
- *Identify if dewatering will be required during the construction of the project. Describe circumstances. (i.e. will a separate dewatering permit be needed?)*



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- *Identify if active treatment systems (ATS) will be used for the site, or portions thereof.*
- *Document the coordination effort to get concurrence with Construction regarding the Construction Site BMP strategy and associated quantities (provide names of staff and date of meeting(s)). Attach a copy of the Construction Site BMP Consideration Form to the SWDR at PS&E.*
- *Develop an estimate of quantities and costs (for internal Caltrans use only) for Construction Site BMPs and monitoring as a part of the Storm Water BMP Cost Summary. Complete for each phase of the project.*

Construction Site BMPs will not be evaluated at this project phase. Proposed temporary construction site BMPs will be designed with coordination from the construction representative.

### **7. Maintenance BMPs (Drain Inlet Stenciling)**

*Briefly describe locations where drain inlet stenciling is required, such as within cities, towns, and communities with populations of 10,000 or more, or within designated MS4 areas. Include any specific stencil types and names of contacts that recommended stencil types or locations.*

All storm water draining into the underground pipe system is eventually discharged to the Pacific Ocean. The County of San Diego and Caltrans have endeavored to inform the public concerning the importance of preventing hazardous or poisonous materials from entering the storm water system. The County and Caltrans may use annotation on drainage inlets with stenciling stating “No Dumping – This Drains to Ocean.” Stenciling should be used on the County streets where dumping will impact Deer Springs Creek, or in other areas recommended by the responsible agency. In addition, Caltrans Maintenance will “number” the drainage inlets, and amend the drainage inlet inventory for the District.

#### Attachments:

- A. Vicinity Map
- B. Evaluation Documentation Form (EDF)
- C. Risk Level Determination Documentation
- D. Checklist SW-1, Site Data Sources
- E. Checklist SW-2, Storm Water Quality Issues Summary
- F. Checklist SW-3, Measures for Avoiding or Reducing Potential Storm Water BMPs
- G. Checklists DPP-1, Parts 1–5 (Design Pollution Prevention BMPs)
- H. Checklists T-1, Parts 1, 2, 4, 5 & 8 (Treatment BMPs)
- I. 303(d) List of Receiving Waters
- J. Water Quality Standard Inventory Database
- K. BMP Cost: Project Planning Cost Estimate (PPCE)

#### Attachments Required at PS&E:

- Construction Site BMP Consideration Form
- SWDR Attachment for SMARTS Input
- RUSLE2 Summary Sheet, as applicable
- Treatment BMP Summary Spreadsheets



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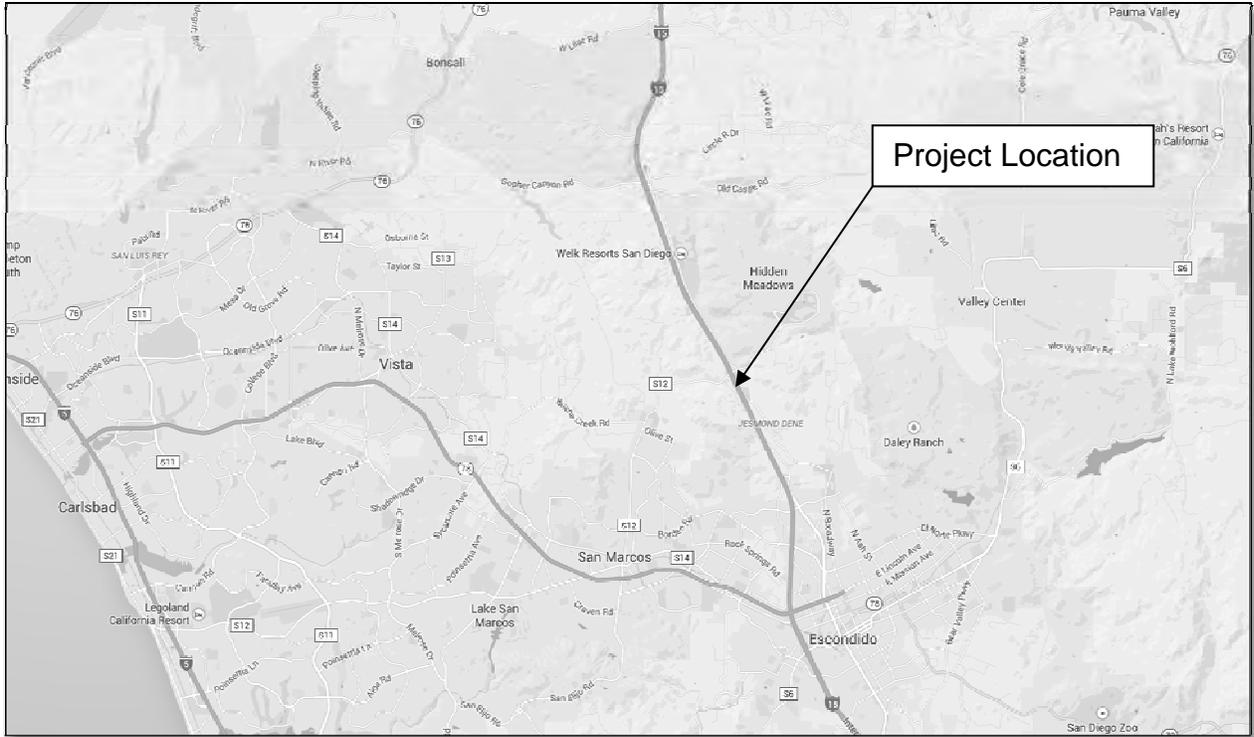
- Quantities for Construction Site BMPs
- Rainfall Erosivity Waiver, if applicable
- Storm Water BMP Cost Summary
- Preliminary Engineer's Cost Estimate (PECE) for PS&E project phase
- Plans showing BMP Deployment
- Pertinent Correspondence with RWQCB *(if requested or recommended by District/Regional NPDES Storm Water Coordinator or Designated Reviewer)*
- Checklists CS-1, Parts 1–6 (Construction Site BMPs)
- Calculations and cross sections related to BMPs *(if requested by District/Regional Design Storm Water Coordinator)*
- Section 13 2010 or (07-340 or 07-345 for 2006) *(if requested or recommended by District/Regional Design Storm Water Coordinator)*
- Conceptual Drainage Map or Drainage Plans, if available *(if requested by District/Regional Design Storm Water Coordinator for review)*



# Attachment A

## Vicinity Map





Vicinity Map

## Attachment B

### Evaluation Documentation Form (EDF)



## Evaluation Documentation Form

DATE: 8/06/2015

Project ID ( or EA): 11-14000093 (11-41840K)

| NO. | CRITERIA                                                                                                                                                                                          | YES<br>✓ | NO<br>✓ | SUPPLEMENTAL INFORMATION FOR<br>EVALUATION                                                                                                                                                                                                                                 |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1.  | Begin Project Evaluation regarding requirement for consideration of Treatment BMPs                                                                                                                | ✓        |         | See Figure 4-1, Project Evaluation Process for Consideration of Permanent Treatment BMPs. Go to 2                                                                                                                                                                          |
| 2.  | Is this an emergency project?                                                                                                                                                                     |          | ✓       | If <b>Yes</b> , go to 10.<br>If <b>No</b> , continue to 3.                                                                                                                                                                                                                 |
| 3.  | Have TMDLs or other Pollution Control Requirements been established for surface waters within the project limits?<br>Information provided in the water quality assessment or equivalent document. |          | ✓       | If <b>Yes</b> , contact the District/Regional NPDES Coordinator to discuss the Department's obligations under the TMDL (if Applicable) or Pollution Control Requirements, go to 9 or 4.<br><br>_____ (Dist./Reg. SW Coordinator initials)<br>If <b>No</b> , continue to 4. |
| 4.  | Is the project located within an area of a local MS4 Permittee?                                                                                                                                   | ✓        |         | If <b>Yes</b> , <u>County of San Diego</u> , go to 5.<br>If <b>No</b> , document in SWDR go to 5.                                                                                                                                                                          |
| 5.  | Is the project directly or indirectly discharging to surface waters?                                                                                                                              | ✓        |         | If <b>Yes</b> , continue to 6.<br>If <b>No</b> , go to 10.                                                                                                                                                                                                                 |
| 6.  | Is it a new facility or major reconstruction?                                                                                                                                                     | ✓        |         | If <b>Yes</b> , continue to 8.<br>If <b>No</b> , go to 7.                                                                                                                                                                                                                  |
| 7.  | Will there be a change in line/grade or hydraulic capacity?                                                                                                                                       |          |         | If <b>Yes</b> , continue to 8.<br>If <b>No</b> , go to 10.                                                                                                                                                                                                                 |
| 8.  | Does the project result in a <u>net increase of one acre or more of new impervious surface</u> ?                                                                                                  | ✓        |         | If <b>Yes</b> , continue to 9.<br>If <b>No</b> , go to 10.<br><br><u>1.5-4.5 AC (Net Increase New Impervious Surface)</u>                                                                                                                                                  |
| 9.  | Project is required to consider approved Treatment BMPs.                                                                                                                                          | ✓        |         | See Sections 2.4 and either Section 5.5 or 6.5 for BMP Evaluation and Selection Process. Complete Checklist T-1 in this Appendix E.                                                                                                                                        |
| 10. | Project is not required to consider Treatment BMPs.<br><u>RS</u> (Dist./Reg. Design SW Coord. Initials)<br><u>PK</u> (Project Engineer Initials)<br><u>8/6/15</u> (Date)                          |          |         | Document for Project Files by completing this form, and attaching it to the SWDR.                                                                                                                                                                                          |

1 See Figure 4-1, Project Evaluation Process for Consideration of Permanent Treatment BMPs

# Attachment C

## Risk Determination



| Sediment Risk Factor Worksheet                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  | Entry         |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------|
| <b>A) R Factor</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |               |
| <p>Analyses of data indicated that when factors other than rainfall are held constant, soil loss is directly proportional to a rainfall factor composed of total storm kinetic energy (E) times the maximum 30-min intensity (I30) (Wischmeier and Smith, 1958). The numerical value of R is the average annual sum of EI30 for storm events during a rainfall record of at least 22 years. "Isoerodent" maps were developed based on R values calculated for more than 1000 locations in the Western U.S. Refer to the link below to determine the R factor for the project site.</p> <p><a href="http://water.epa.gov/polwaste/npdes/stormwater/Rainfall-Erosivity-Factor-Calculator.cfm">http://water.epa.gov/polwaste/npdes/stormwater/Rainfall-Erosivity-Factor-Calculator.cfm</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |               |
| <b>R Factor Value</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | 73.95         |
| <b>B) K Factor (weighted average, by area, for all site soils)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |               |
| <p>The soil-erodibility factor K represents: (1) susceptibility of soil or surface material to erosion, (2) transportability of the sediment, and (3) the amount and rate of runoff given a particular rainfall input, as measured under a standard condition. Fine-textured soils that are high in clay have low K values (about 0.05 to 0.15) because the particles are resistant to detachment. Coarse-textured soils, such as sandy soils, also have low K values (about 0.05 to 0.2) because of high infiltration resulting in low runoff even though these particles are easily detached. Medium-textured soils, such as a silt loam, have moderate K values (about 0.25 to 0.45) because they are moderately susceptible to particle detachment and they produce runoff at moderate rates. Soils having a high silt content are especially susceptible to erosion and have high K values, which can exceed 0.45 and can be as large as 0.65. Silt-size particles are easily detached and tend to crust, producing high rates and large volumes of runoff. Use Site-specific data must be submitted.</p> <p><a href="ftp://swrcb2a.waterboards.ca.gov/pub/swrcb/dwq/cgp/Risk/RUSLE/RUSLE_K_Factor/">ftp://swrcb2a.waterboards.ca.gov/pub/swrcb/dwq/cgp/Risk/RUSLE/RUSLE_K_Factor/</a></p> |  |               |
| <b>K Factor Value</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  | 0.2           |
| <b>C) LS Factor (weighted average, by area, for all slopes)</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |  |               |
| <p>The effect of topography on erosion is accounted for by the LS factor, which combines the effects of a hillslope-length factor, L, and a hillslope-gradient factor, S. Generally speaking, as hillslope length and/or hillslope gradient increase, soil loss increases. As hillslope length increases, total soil loss and soil loss per unit area increase due to the progressive accumulation of runoff in the downslope direction. As the hillslope gradient increases, the velocity and erosivity of runoff increases. Use the LS table located in separate tab of this spreadsheet to determine LS factors. Estimate the weighted LS for the site prior to construction.</p> <p><a href="tp://swrcb2a.waterboards.ca.gov/pub/swrcb/dwq/cgp/Risk/RUSLE/RUSLE_LS_Factor/">tp://swrcb2a.waterboards.ca.gov/pub/swrcb/dwq/cgp/Risk/RUSLE/RUSLE_LS_Factor/</a></p>                                                                                                                                                                                                                                                                                                                                                                                                                           |  |               |
| <b>LS Factor Value</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | 4.59          |
| <b>Watershed Erosion Estimate (=RxKxLS) in tons/acre</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  | 67.8861       |
| <b>Site Sediment Risk Factor</b><br>Low Sediment Risk: < 15 tons/acre<br>Medium Sediment Risk: >=15 and <75 tons/acre<br>High Sediment Risk: >= 75 tons/acre                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  | <b>Medium</b> |



**Water: Stormwater**

You are here: [Water](#) » [Pollution Prevention & Control](#) » [Permitting \(NPDES\)](#) » [Stormwater](#) » LEW Results

## LEW Results

### Rainfall Erosivity Factor Calculator for Small Construction Sites

#### Facility Information

|             |            |
|-------------|------------|
| Start Date: | 05/01/2018 |
| End Date:   | 5/1/2020   |
| Latitude:   | 33.197     |
| Longitude:  | -117.125   |

#### Erosivity Index Calculator Results

AN EROSIIVITY INDEX VALUE OF **73.95** HAS BEEN DETERMINED FOR THE CONSTRUCTION PERIOD OF **05/01/2018 - 5/1/2020**.

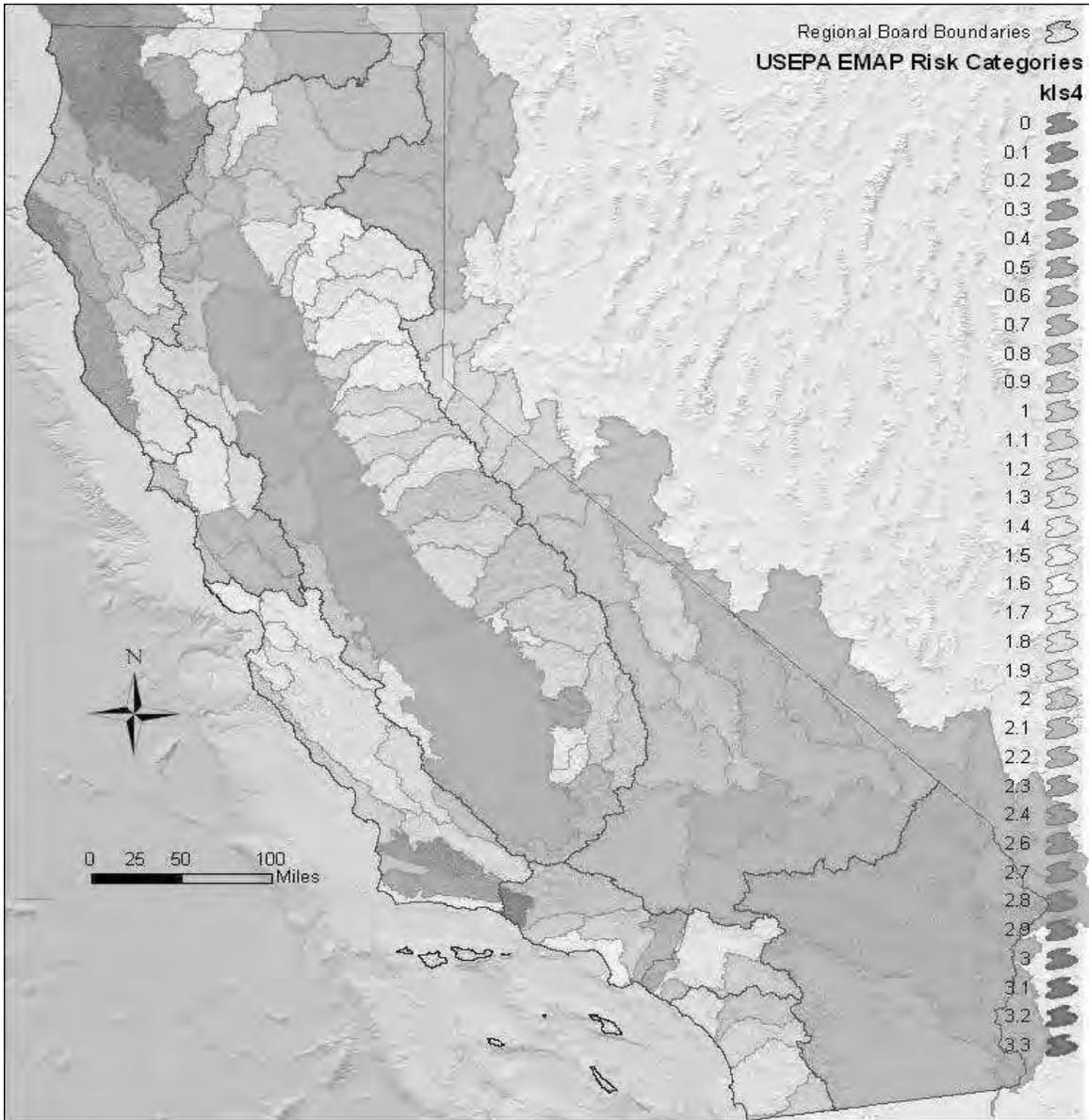
A rainfall erosivity factor of 5.0 or greater has been calculated for your site and period of construction. **You do NOT qualify for a waiver from NPDES permitting requirements.**

---

Last updated on Monday, July 28, 2014

For the GIS Map Method, the R factor for the project is calculated using the online calculator at (see cell to right). The product of K and LS are shown on the figure below. To determine soil loss in tons per acre, multiply the R factor times the value for K times LS from the map.

<http://cfpub.epa.gov/npdes/stormwater/LEW/lewCalculator.cfm>



# Rish Level Determination

| Sheet<br>Flow<br>Length<br>(ft) | Average Watershed Slope (%) |      |      |      |      |      |      |      |      |      |      |       |       |       |       |       |       |       |       |
|---------------------------------|-----------------------------|------|------|------|------|------|------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|
|                                 | 0.2                         | 0.5  | 1.0  | 2.0  | 3.0  | 4.0  | 5.0  | 6.0  | 8.0  | 10.0 | 12.0 | 14.0  | 16.0  | 20.0  | 25.0  | 30.0  | 40.0  | 50.0  | 60.0  |
| <3                              | 0.05                        | 0.07 | 0.09 | 0.13 | 0.17 | 0.20 | 0.23 | 0.26 | 0.32 | 0.35 | 0.36 | 0.38  | 0.39  | 0.41  | 0.45  | 0.48  | 0.53  | 0.58  | 0.63  |
| 6                               | 0.05                        | 0.07 | 0.09 | 0.13 | 0.17 | 0.20 | 0.23 | 0.26 | 0.32 | 0.37 | 0.41 | 0.45  | 0.49  | 0.56  | 0.64  | 0.72  | 0.85  | 0.97  | 1.07  |
| 9                               | 0.05                        | 0.07 | 0.09 | 0.13 | 0.17 | 0.20 | 0.23 | 0.26 | 0.32 | 0.38 | 0.45 | 0.51  | 0.56  | 0.67  | 0.80  | 0.91  | 1.13  | 1.31  | 1.47  |
| 12                              | 0.05                        | 0.07 | 0.09 | 0.13 | 0.17 | 0.20 | 0.23 | 0.26 | 0.32 | 0.39 | 0.47 | 0.55  | 0.62  | 0.76  | 0.93  | 1.08  | 1.37  | 1.62  | 1.84  |
| 15                              | 0.05                        | 0.07 | 0.09 | 0.13 | 0.17 | 0.20 | 0.23 | 0.26 | 0.32 | 0.40 | 0.49 | 0.58  | 0.67  | 0.84  | 1.04  | 1.24  | 1.59  | 1.91  | 2.19  |
| 25                              | 0.05                        | 0.07 | 0.10 | 0.16 | 0.21 | 0.26 | 0.31 | 0.36 | 0.45 | 0.57 | 0.71 | 0.85  | 0.98  | 1.24  | 1.56  | 1.86  | 2.41  | 2.91  | 3.36  |
| 50                              | 0.05                        | 0.08 | 0.13 | 0.21 | 0.30 | 0.38 | 0.46 | 0.54 | 0.70 | 0.91 | 1.15 | 1.40  | 1.64  | 2.10  | 2.67  | 3.22  | 4.24  | 5.16  | 5.97  |
| 75                              | 0.05                        | 0.08 | 0.14 | 0.25 | 0.36 | 0.47 | 0.58 | 0.69 | 0.91 | 1.20 | 1.54 | 1.87  | 2.21  | 2.86  | 3.67  | 4.44  | 5.89  | 7.20  | 8.37  |
| 100                             | 0.05                        | 0.09 | 0.15 | 0.28 | 0.41 | 0.55 | 0.68 | 0.82 | 1.10 | 1.46 | 1.88 | 2.31  | 2.73  | 3.57  | 4.59  | 5.58  | 7.44  | 9.13  | 10.63 |
| 150                             | 0.05                        | 0.09 | 0.17 | 0.33 | 0.50 | 0.68 | 0.86 | 1.05 | 1.43 | 1.92 | 2.51 | 3.09  | 3.68  | 4.85  | 6.30  | 7.70  | 10.35 | 12.75 | 14.89 |
| 200                             | 0.06                        | 0.10 | 0.18 | 0.37 | 0.57 | 0.79 | 1.02 | 1.25 | 1.72 | 2.34 | 3.07 | 3.81  | 4.56  | 6.04  | 7.88  | 9.67  | 13.07 | 16.16 | 18.92 |
| 250                             | 0.06                        | 0.10 | 0.19 | 0.40 | 0.64 | 0.89 | 1.16 | 1.43 | 1.99 | 2.72 | 3.60 | 4.48  | 5.37  | 7.16  | 9.38  | 11.55 | 15.67 | 19.42 | 22.78 |
| 300                             | 0.06                        | 0.10 | 0.20 | 0.43 | 0.69 | 0.98 | 1.28 | 1.60 | 2.24 | 3.09 | 4.09 | 5.11  | 6.15  | 8.23  | 10.81 | 13.35 | 18.17 | 22.57 | 26.51 |
| 400                             | 0.06                        | 0.11 | 0.22 | 0.48 | 0.80 | 1.14 | 1.51 | 1.90 | 2.70 | 3.75 | 5.01 | 6.30  | 7.60  | 10.24 | 13.53 | 16.77 | 22.95 | 28.60 | 33.67 |
| 600                             | 0.06                        | 0.12 | 0.24 | 0.56 | 0.96 | 1.42 | 1.91 | 2.43 | 3.52 | 4.95 | 6.67 | 8.45  | 10.26 | 13.94 | 18.57 | 23.14 | 31.89 | 39.95 | 47.18 |
| 800                             | 0.06                        | 0.12 | 0.26 | 0.63 | 1.10 | 1.65 | 2.25 | 2.89 | 4.24 | 6.03 | 8.17 | 10.40 | 12.69 | 17.35 | 23.24 | 29.07 | 40.29 | 50.63 | 59.93 |
| 1000                            | 0.06                        | 0.13 | 0.27 | 0.69 | 1.23 | 1.86 | 2.55 | 3.30 | 4.91 | 7.02 | 9.57 | 12.23 | 14.96 | 20.57 | 27.66 | 34.71 | 48.29 | 60.84 | 72.15 |

LS Factors for Construction Sites. *Table from Renard et. al., 1997.*

| Receiving Water (RW) Risk Factor Worksheet                                                                                                                                                                                        | Entry      | Score       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------|
| <b>A. Watershed Characteristics</b>                                                                                                                                                                                               | yes/no     |             |
| A.1. Does the disturbed area discharge (either directly or indirectly) to a <b>303(d)-listed waterbody impaired by sediment</b> ? For help with impaired waterbodies please check the attached worksheet or visit the link below: |            |             |
| <a href="#">2006 Approved Sediment-impaired WBs Worksheet</a>                                                                                                                                                                     |            |             |
| <a href="http://www.waterboards.ca.gov/water_issues/programs/tmdl/303d_lists2006_epa.shtml">http://www.waterboards.ca.gov/water_issues/programs/tmdl/303d_lists2006_epa.shtml</a>                                                 |            |             |
| <b><u>OR</u></b>                                                                                                                                                                                                                  |            |             |
| A.2. Does the disturbed area discharge to a waterbody with designated beneficial uses of SPAWN & COLD & MIGRATORY?                                                                                                                |            |             |
| <a href="http://www.ice.ucdavis.edu/geowbs/asp/wbquse.asp">http://www.ice.ucdavis.edu/geowbs/asp/wbquse.asp</a>                                                                                                                   | <b>Yes</b> | <b>High</b> |

|                             |         | <b>Combined Risk Level Matrix</b> |         |      |
|-----------------------------|---------|-----------------------------------|---------|------|
|                             |         | <u>Sediment Risk</u>              |         |      |
| <u>Receiving Water Risk</u> | Low     | Low                               | Medium  | High |
|                             | Low     | Level 1                           | Level 2 |      |
| High                        | Level 2 |                                   | Level 3 |      |

**Project Sediment Risk:** Medium  
**Project RW Risk:** High  
**Project Combined Risk:** **Level 2**

## Attachment D

### Checklist SW-1, Site Data Sources



|                                          |                                                    |                                     |
|------------------------------------------|----------------------------------------------------|-------------------------------------|
| <b>Checklist SW-1, Site Data Sources</b> |                                                    |                                     |
| Prepared by: <u>Paul Kosinski</u>        | Date: <u>May 15, 2015</u>                          | District-Co-Route: <u>11-SD-015</u> |
| PM : <u>R36.0/R37.2</u>                  | Project ID (or EA): <u>11-14000093 (11-41840K)</u> | RWQCB: <u>9</u>                     |

Information for the following data categories should be obtained, reviewed and referenced as necessary throughout the project planning phase. Collect any available documents pertaining to the category and list them and reference your data source. For specific examples of documents within these categories, refer to Section 5.5 of this document. Example categories have been listed below; add additional categories, as needed. Summarize pertinent information in Section 2 of the SWDR.

| DATA CATEGORY/SOURCES                                                                                                                                                                                                                                                                                                                                                                                                                                     | Date                                   |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| <b>Topographic</b>                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                        |
| <ul style="list-style-type: none"> <li>• US Topo Quadrangles<br/><a href="http://nationalmap.gov/ustopo/">http://nationalmap.gov/ustopo/</a></li> <li>•</li> <li>•</li> </ul>                                                                                                                                                                                                                                                                             | April 2015                             |
| <b>Hydraulic</b>                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                        |
| <ul style="list-style-type: none"> <li>• Caltrans Highway Design Manual</li> <li>•</li> <li>•</li> </ul>                                                                                                                                                                                                                                                                                                                                                  | March 2014                             |
| <b>Soils</b>                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                        |
| <ul style="list-style-type: none"> <li>• United States Department of Agriculture<br/><a href="http://www.nrcs.usda.gov/wps/portal/nrcs/site/national/home/">http://www.nrcs.usda.gov/wps/portal/nrcs/site/national/home/</a></li> <li>•</li> <li>•</li> </ul>                                                                                                                                                                                             | April 2015                             |
| <b>Climatic</b>                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                        |
| <ul style="list-style-type: none"> <li>• National Weather Service Rainfall<br/><a href="http://www.wrh.noaa.gov/sgx/obs/rainobs.php?wfo=sgx">http://www.wrh.noaa.gov/sgx/obs/rainobs.php?wfo=sgx</a></li> <li>• Water Quality Planning Tool, CSU Sacramento Website,<br/><a href="https://www.owp.csus.edu/">https://www.owp.csus.edu/</a></li> <li>•</li> </ul>                                                                                          | April 2015<br>April 2015               |
| <b>Water Quality</b>                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                        |
| <ul style="list-style-type: none"> <li>• Clean Water Act Section 303(d) List/ SWRCB, Website</li> <li>• Caltrans Stormwater Quality Manuals and Handbooks<br/><a href="http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm">http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm</a></li> <li>• San Diego Watershed Resources<br/><a href="http://www.projectcleanwater.org/index.php">http://www.projectcleanwater.org/index.php</a></li> </ul> | April 2015<br>April 2015<br>April 2015 |
| <b>Other Data Categories</b>                                                                                                                                                                                                                                                                                                                                                                                                                              |                                        |
| <ul style="list-style-type: none"> <li>•</li> <li>•</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                            |                                        |

## Attachment E

### Checklist SW-2, Storm Water Quality Issues Summary



**Checklist SW-2, Storm Water Quality Issues Summary**

Prepared by: Paul Kosinski Date: May 15, 2015 District-Co-Route: 11-SD-015

PM : R36.0/R37.2 Project ID (or EA): 11-1400093 (11-41840K) RWQCB: 9

The following questions provide a guide to collecting critical information relevant to project stormwater quality issues. Complete responses to applicable questions, consulting other Caltrans functional units (Environmental, Landscape Architecture, Maintenance, etc.) and the District/Regional Storm Water Coordinator as necessary. Summarize pertinent responses in Section 2 of the SWDR.

- |                                                                                                                                                                                                                                                  |                                              |                             |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|-----------------------------|
| 1. Determine the receiving waters that may be affected by the project throughout the project life cycle (i.e., construction, maintenance and operation).                                                                                         | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 2. For the project limits, list the 303(d) impaired receiving water bodies and their constituents of concern.                                                                                                                                    | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 3. Determine if there are any municipal or domestic water supply reservoirs or groundwater percolation facilities within the project limits. Consider appropriate spill contamination and spill prevention control measures for these new areas. | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 4. Determine the RWQCB special requirements, including TMDLs, effluent limits, etc.                                                                                                                                                              | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 5. Determine regulatory agencies seasonal construction and construction exclusion dates or restrictions required by federal, state, or local agencies.                                                                                           | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 6. Determine if a 401 certification will be required.                                                                                                                                                                                            | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 7. List rainy season dates.                                                                                                                                                                                                                      | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 8. Determine the general climate of the project area. Identify annual rainfall and rainfall intensity curves.                                                                                                                                    | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 9. If considering Treatment BMPs, determine the soil classification, permeability, erodibility, and depth to groundwater.                                                                                                                        | <input type="checkbox"/> Complete            | <input type="checkbox"/> NA |
| 10. Determine contaminated soils within the project area.                                                                                                                                                                                        | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 11. Determine the total disturbed soil area of the project.                                                                                                                                                                                      | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 12. Describe the topography of the project site.                                                                                                                                                                                                 | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 13. List any areas outside of the Caltrans right-of-way that will be included in the project (e.g. contractor's staging yard, work from barges, easements for staging, etc.).                                                                    | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 14. Determine if additional right-of-way acquisition or easements and right-of-entry will be required for design, construction and maintenance of BMPs. If so, how much?                                                                         | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 15. Determine if a right-of-way certification is required.                                                                                                                                                                                       | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 16. Determine the estimated unit costs for right-of-way should it be needed for Treatment BMPs, stabilized conveyance systems, lay-back slopes, or interception ditches.                                                                         | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 17. Determine if project area has any slope stabilization concerns.                                                                                                                                                                              | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 18. Describe the local land use within the project area and adjacent areas.                                                                                                                                                                      | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 19. Evaluate the presence of dry weather flow.                                                                                                                                                                                                   | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |



## Attachment F

### Checklist SW-3, Measures for Avoiding or Reducing Potential Storm Water BMPs



**Checklist SW-3, Measures for Avoiding or Reducing Potential Storm Water Impacts**

Prepared by: Paul Kosinski Date: May 15, 2015 District-Co-Route: 11-SD-015

PM : R36.0/R37.2 Project ID (or EA): 11-14000093 (11-41840K) RWQCB: 9

The PE must confer with other functional units, such as Landscape Architecture, Hydraulics, Environmental, Materials, Construction and Maintenance, as needed to assess these issues. Summarize pertinent responses in Section 2 of the SWDR.

Options for avoiding or reducing potential impacts during project planning include the following:

- |                                                                                                                                                                                                                                                                                     |                                         |                                        |                                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|----------------------------------------|----------------------------------------|
| 1. Can the project be relocated or realigned to avoid/reduce impacts to receiving waters or to increase the preservation of critical (or problematic) areas such as floodplains, steep slopes, wetlands, and areas with erosive or unstable soil conditions?                        | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No | <input type="checkbox"/> NA            |
| 2. Can structures and bridges be designed or located to reduce work in live streams and minimize construction impacts?                                                                                                                                                              | <input type="checkbox"/> Yes            | <input type="checkbox"/> No            | <input checked="" type="checkbox"/> NA |
| 3. Can any of the following methods be utilized to minimize erosion from slopes:                                                                                                                                                                                                    |                                         |                                        |                                        |
| a. Disturbing existing slopes only when necessary?                                                                                                                                                                                                                                  | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | <input type="checkbox"/> NA            |
| b. Minimizing cut and fill areas to reduce slope lengths?                                                                                                                                                                                                                           | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | <input type="checkbox"/> NA            |
| c. Incorporating retaining walls to reduce steepness of slopes or to shorten slopes?                                                                                                                                                                                                | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | <input type="checkbox"/> NA            |
| d. Acquiring right-of-way easements (such as grading easements) to reduce steepness of slopes?                                                                                                                                                                                      | <input type="checkbox"/> Yes            | <input type="checkbox"/> No            | <input checked="" type="checkbox"/> NA |
| e. Avoiding soils or formations that will be particularly difficult to re-stabilize?                                                                                                                                                                                                | <input type="checkbox"/> Yes            | <input type="checkbox"/> No            | <input checked="" type="checkbox"/> NA |
| f. Providing cut and fill slopes flat enough to allow re-vegetation and limit erosion to pre-construction rates?                                                                                                                                                                    | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | <input type="checkbox"/> NA            |
| g. Providing benches or terraces on high cut and fill slopes to reduce concentration of flows?                                                                                                                                                                                      | <input type="checkbox"/> Yes            | <input checked="" type="checkbox"/> No | <input type="checkbox"/> NA            |
| h. Rounding and shaping slopes to reduce concentrated flow?                                                                                                                                                                                                                         | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | <input type="checkbox"/> NA            |
| i. Collecting concentrated flows in stabilized drains and channels?                                                                                                                                                                                                                 | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | <input type="checkbox"/> NA            |
| 4. Does the project design allow for the ease of maintaining all BMPs?                                                                                                                                                                                                              | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |                                        |
| 5. Can the project be scheduled or phased to minimize soil-disturbing work during the rainy season?                                                                                                                                                                                 | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            |                                        |
| 6. Can permanent storm water pollution controls such as paved slopes, vegetated slopes, basins, and conveyance systems be installed early in the construction process to provide additional protection and to possibly utilize them in addressing construction storm water impacts? | <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No            | <input type="checkbox"/> NA            |

## Attachment G

Checklist DPP-1, Parts 1-5  
(Design Pollution Prevention BMPs)



|                                         |                                                    |                                     |
|-----------------------------------------|----------------------------------------------------|-------------------------------------|
| <b>Design Pollution Prevention BMPs</b> |                                                    |                                     |
| <b>Checklist DPP-1, Part 1</b>          |                                                    |                                     |
| Prepared by: <u>Paul Kosinski</u>       | Date: <u>May 15, 2015</u>                          | District-Co-Route: <u>11-SD-015</u> |
| PM : <u>R36.0/R37.2</u>                 | Project ID (or EA): <u>11-14000093 (11-41840K)</u> | RWQCB: <u>9</u>                     |

**Consideration of Design Pollution Prevention BMPs**

**Consideration of Downstream Effects Related to Potentially Increased Flow [to streams or channels]**

- Will project increase velocity or volume of downstream flow?  Yes  No  NA
- Will the project discharge to unlined channels?  Yes  No  NA
- Will project increase potential sediment load of downstream flow?  Yes  No  NA
- Will project encroach, cross, realign, or cause other hydraulic changes to a stream that may affect downstream channel stability?  Yes  No  NA

If Yes was answered to any of the above questions, consider **Downstream Effects Related to Potentially Increased Flow**, complete the DPP-1, Part 2 checklist.

**Slope/Surface Protection Systems**

- Will project create new slopes or modify existing slopes?  Yes  No  NA

If Yes was answered to the above question, consider **Slope/Surface Protection Systems**, complete the DPP-1, Part 3 checklist.

**Concentrated Flow Conveyance Systems**

- Will the project create or modify ditches, dikes, berms, or swales?  Yes  No  NA
- Will project create new slopes or modify existing slopes?  Yes  No  NA
- Will it be necessary to direct or intercept surface runoff?  Yes  No  NA
- Will cross drains be modified?  Yes  No  NA

If Yes was answered to any of the above questions, consider **Concentrated Flow Conveyance Systems**; complete the DPP-1, Part 4 checklist.

**Preservation of Existing Vegetation**

It is the goal of the Storm Water Program to maximize the protection of desirable existing vegetation to provide erosion and sediment control benefits on all projects.  Complete

Consider **Preservation of Existing Vegetation**, complete the DPP-1, Part 5 checklist.

## Design Pollution Prevention BMPs

### Checklist DPP-1, Part 2

Prepared by: Paul Kosinski Date: May 15, 2015 District-Co-Route: 11-SD-015

PM : R36.0/R37.2 Project ID (or EA): 11-14000093 (11-41840K) RWQCB: 9

#### Downstream Effects Related to Potentially Increased Flow

1. Review total paved area and reduce to the maximum extent practicable.  Complete
2. Review channel lining materials and design for stream bank erosion control.  Complete
  - (a) See Chapters 860 and 870 of the HDM.  Complete
  - (b) Consider channel erosion control measures within the project limits as well as downstream. Consider scour velocity.  Complete
3. Include, where appropriate, energy dissipation devices at culvert outlets.  Complete
4. Ensure all transitions between culvert outlets/headwalls/wingwalls and channels are smooth to reduce turbulence and scour.  Complete
5. Include, if appropriate, peak flow attenuation basins or devices to reduce peak discharges.
6. Calculate the water quality volume infiltrated by DPP BMPs within the project limits. Include the percentage of the water quality volume for each BMP and subwatershed, as appropriate, for site conditions. These calculations will be used later in the T-1 checklist.  Complete



|                                         |                                                    |                                     |
|-----------------------------------------|----------------------------------------------------|-------------------------------------|
| <b>Design Pollution Prevention BMPs</b> |                                                    |                                     |
| <b>Checklist DPP-1, Part 3</b>          |                                                    |                                     |
| Prepared by: <u>Paul Kosinski</u>       | Date: <u>May 15, 2015</u>                          | District-Co-Route: <u>11-SD-015</u> |
| PM : <u>R36.0/R37.2</u>                 | Project ID (or EA): <u>11-14000093 (11-41840K)</u> | RWQCB: <u>9</u>                     |

**Slope / Surface Protection Systems**

1. What are the proposed areas of cut and fill? (attach plan or map)  Complete
2. Were benches or terraces provided on high cut and fill slopes to reduce concentration of flows?  Yes  No
3. Were slopes rounded and/or shaped to reduce concentrated flow?  Yes  No
4. Were concentrated flows collected in stabilized drains or channels?  Yes  No
5. Are new or disturbed slopes > 4:1 horizontal:vertical (h:v)?  Yes  No  
 If Yes, District Landscape Architect must prepare or approve an erosion control plan, at the District's discretion.
6. Are new or disturbed slopes > 2:1 (h:v)?  Yes  No  
 If Yes, Geotechnical Services must prepare a Geotechnical Design Report, and the District Landscape Architect should prepare or approve an erosion control plan. Concurrence must be obtained from the District Maintenance Storm Water Coordinator for slopes steeper than 2:1 (h:v).
7. Estimate the net new impervious area that will result from this project. 4.0 acres  Complete

**VEGETATED SURFACES**

1. Identify existing vegetation.  Complete
2. Evaluate site to determine soil types, appropriate vegetation and planting strategies.  Complete
3. How long will it take for permanent vegetation to establish?  Complete
4. Minimize overland and concentrated flow depths and velocities.  Complete

**HARD SURFACES**

1. Are hard surfaces required?  Yes  No  
 If Yes, document purpose (safety, maintenance, soil stabilization, etc.), types, and general locations of the installations.  Complete
- Review appropriate SSPs for Vegetated Surface and Hard Surface Protection Systems.  Complete

**Design Pollution Prevention BMPs**

**Checklist DPP-1, Part 4**

Prepared by: Paul Kosinski Date: May 15, 2015 District-Co-Route: 11-SD-015

PM : R36.0/R37.2 Project ID (or EA): 11-14000093 (11-41840K) RWQCB: 9

**Concentrated Flow Conveyance Systems**

**Ditches, Berms, Dikes and Swales**

- 1. Consider Ditches, Berms, Dikes, and Swales as per Topics 813, 834.3, and 835, and Chapter 860 of the HDM.  Complete
- 2. Evaluate risks due to erosion, overtopping, flow backups or washout.  Complete
- 3. Consider outlet protection where localized scour is anticipated.  Complete
- 4. Examine the site for run-on from off-site sources.  Complete
- 5. Consider channel lining when velocities exceed scour velocity for soil.  Complete

**Overside Drains**

- 1. Consider downdrains, as per Index 834.4 of the HDM.  Complete
- 2. Consider paved spillways for side slopes flatter than 4:1 h:v.  Complete

**Flared Culvert End Sections**

- 1. Consider flared end sections on culvert inlets and outlets as per Chapter 827 of the HDM.  Complete

**Outlet Protection/Velocity Dissipation Devices**

- 1. Consider outlet protection/velocity dissipation devices at outlets, including cross drains, as per Chapters 827 and 870 of the HDM.  Complete

Review appropriate SSPs for Concentrated Flow Conveyance Systems.  Complete

|                                         |                                                    |                                     |
|-----------------------------------------|----------------------------------------------------|-------------------------------------|
| <b>Design Pollution Prevention BMPs</b> |                                                    |                                     |
| <b>Checklist DPP-1, Part 5</b>          |                                                    |                                     |
| Prepared by: <u>Paul Kosinski</u>       | Date: <u>May 15, 2015</u>                          | District-Co-Route: <u>11-SD-015</u> |
| PM : <u>R36.0/R37.2</u>                 | Project ID (or EA): <u>11-14000093 (11-41840K)</u> | RWQCB: <u>9</u>                     |

**Preservation of Existing Vegetation**

1. Review Preservation of Property, (Clearing and Grubbing) to reduce clearing and grubbing and maximize preservation of existing vegetation.  Complete
  
2. Has all vegetation to be retained been coordinated with Environmental, and identified and defined in the contract plans?  Yes  No
  
3. Have steps been taken to minimize disturbed areas, such as locating temporary roadways to avoid stands of trees and shrubs and to follow existing contours to reduce cutting and filling?  Complete
  
4. Have impacts to preserved vegetation been considered while work is occurring in disturbed areas?  Yes  No
  
5. Are all areas to be preserved delineated on the plans?  Yes  No

## Attachment H

Checklist T-1, Parts 1, 2, 4, 5, 8  
(Treatment BMPs)



|                                   |                                                    |                                     |
|-----------------------------------|----------------------------------------------------|-------------------------------------|
| <b>Treatment BMPs</b>             |                                                    |                                     |
| <b>Checklist T-1, Part 1</b>      |                                                    |                                     |
| Prepared by: <u>Paul Kosinski</u> | Date: <u>May 15, 2015</u>                          | District-Co-Route: <u>11-SD-015</u> |
| PM : <u>R36.0/R37.2</u>           | Project ID (or EA): <u>11-14000093 (11-41840K)</u> | RWQCB: <u>9</u>                     |

**Consideration of Treatment BMPs**

This checklist is used for projects that require the consideration of Approved Treatment BMPs, as determined from the process described in Section 4 (Project Treatment Consideration) and the Evaluation Documentation Form (EDF). This checklist will be used to determine which Treatment BMPs should be considered for each watershed and sub-watershed within the project. Supplemental data will be needed to verify siting and design applicability for final incorporation into a project.

**Complete this checklist for each phase of the project, when considering Treatment BMPs. Use the responses to the questions as the basis when developing the narrative in Section 5 of the Storm Water Data Report to document that Treatment BMPs have been appropriately considered.**

**Answer all questions, unless otherwise directed. Questions 14 through 16 should be answered after all subwatershed (drainages) are considered using this checklist.**

1. Is the project in a watershed with prescriptive TMDL treatment BMP requirements in an adopted TMDL implementation plan or does the project have a dual purpose facility requirement (e.g. flood control and water quality treatment or Design Pollution Prevention BMPs that provide infiltration and treatment)?  Yes  No

If Yes, consult the District/Regional Storm Water Coordinator to determine whether the T-1 checklist should be used to propose alternative BMPs because the prescribed BMPs may not be feasible or other BMPs may be more cost-effective. Special documentation and regulatory response may be necessary.

2. Dry Weather Flow Diversion
- (a) Are dry weather flows generated by Caltrans anticipated to be persistent?  Yes  No
- (b) Is a sanitary sewer located on or near the site?  Yes  No

If Yes to both 2 (a) and (b), continue to (c). If No to either, skip to question 3.

- (c) Is connection to the sanitary sewer possible without extraordinary plumbing, features or construction practices?  Yes  No
- (d) Is the domestic wastewater treatment authority willing to accept flow?  Yes  No

If Yes was answered to all of these questions consider **Dry Weather Flow Diversion**, complete and attach **Part 3** of this checklist.

3. Is the receiving water on the 303(d) list for litter/trash or has a TMDL been issued for litter/trash?  Yes  No

If Yes, consider **Gross Solids Removal Devices (GSRDs)**. Complete and attach **Part 6** of this checklist. Note: Infiltration Devices, Detention Devices, Media Filters, MCTTs, and Wet Basins also can capture litter. Before considering GSRDs for stand-alone installation or in sequence with other BMPs, consult with District/Regional NPDES Storm Water Coordinator to determine whether Infiltration Devices, Detention Devices, Media Filters, MCTTs, and Wet Basins should be considered instead of GSRDs to meet litter/trash TMDL.

4. Is the project located in an area (e.g., mountain regions) where traction sand is applied more than twice a year?  Yes  No

If Yes, consider **Traction Sand Traps**. Complete and attach **Part 7** of this checklist.

5. Maximizing Biofiltration Strips and Swales

Objectives:

- 1) Quantify infiltration from biofiltration alone
- 2) Identify highly infiltrating biofiltration (i.e. > 90%) and skip further BMP consideration.
- 3) Identify whether amendments can substantially improve infiltration.

- (a) Have biofiltration strips and swales been designed for runoff from all project areas, including sheet flow and concentrated flow conveyance? If no, document justification in Section 5 of the SWDR.  Yes  No

(b) Based on existing site conditions, estimate what percentage of the WQV<sup>1</sup> can be infiltrated. When calculating the WQV, use a drawdown time appropriate for the site conditions..

- < 20%
  - 20 % - 50%
  - 50% - 90%
  - > 90%
- Complete

- (c) Is infiltration greater than 90 percent? If Yes, skip to question 13.  Yes  No
- If No, Continue to 5 (d).

---

<sup>1</sup> A complete methodology for determining WQV infiltration is available at: <http://www.dot.ca.gov/hq/oppd/stormwtr/index.htm>

(d) Can the infiltration ranking in question 5(b) above be increased by using soil amendments? Yes No

If Yes, consider including soil amendments (increasing the infiltration ranking of strips and swales shows performance comparable to other BMPs). Record the new infiltration estimate below. If No, continue to 5 (e).

- \_\_\_ < 20% (skip to 6)
- \_\_\_ 20 % - 50% (skip to 6)
- \_\_\_ 50% - 90% (skip to 6)
- \_\_\_ >90% Complete

(e) Is infiltration greater than 90 percent? If Yes, skip to question 13. If No, continue to 5 (f). Yes No

(f) Is infiltration greater than 50 percent and is biofiltration preferred? If yes to both, skip to question 13. Yes No

**6. Biofiltration in Rural Areas**

Is the project in a rural area (outside of urban areas that is covered under an NPDES Municipal Stormwater Permit<sup>2</sup>)? If Yes, proceed to question 13. Yes No

**7. Estimating Infiltration for BMP Combinations**

Objectives:

- 1) Identify high-infiltration biofiltration or biofiltration and infiltration BMP combinations and skip further BMP consideration.
- 2) If high infiltration is infeasible, then identify the infiltration level of all feasible BMP combinations for use in the subsequent BMP selection matrices.

(a) Has concentrated infiltration (i.e., via earthen basins) been prohibited? Consult your District/Regional Storm Water Coordinator and/or environmental documents. Yes No

If No, continue to 7 (b); if Yes, skip to question 8 and do not consider earthen basin-type BMPs

<sup>2</sup> See pages 39 and 40 of the Fact Sheets for the CGP.  
[http://www.waterboards.ca.gov/water\\_issues/programs/stormwater/docs/constpermits/wqo\\_2009\\_0009\\_factsheet.pdf](http://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/constpermits/wqo_2009_0009_factsheet.pdf)

(b) Can the infiltration ranking be increased by infiltrating the un-infiltrated remaining WQV from question 5, with an infiltration BMP<sup>1</sup>? If yes, record the new infiltration estimate below. If no, proceed to 7(c).  Yes  No

- \_\_\_ < 20% (do not consider this BMP combination)
- \_\_\_ 20% - 50%
- \_\_\_ 50% - 90%
- \_\_\_ >90%

Is at least 90 percent infiltration estimated? If Yes, proceed to 13. If No, proceed to 7(c).  Yes  No

(c) Assess infiltration of biofiltration combined with an approved earthen BMP. This assessment will be used in subsequent BMP selection matrices.

Earthen Detention Basin

- \_\_\_ < 20%  Complete
- \_\_\_ 20% - 50%
- \_\_\_ > 50%

Continue to Question 8

8. Identifying BMPs based on the Target Design Constituents

(a) Does the project discharge to a 303(d) impaired water body or a water body that has a TMDL adopted? If “No,” use Matrix A to select BMPs, consider designing to treat 100% of the WQV, then skip to question 12.  Yes  No

If Yes, is the identified pollutant(s) considered a Targeted Design Constituent (TDC) (check all that apply below)?

- |                                                |                                                                           |
|------------------------------------------------|---------------------------------------------------------------------------|
| <input checked="" type="checkbox"/> sediments  | <input type="checkbox"/> copper (dissolved or total)                      |
| <input checked="" type="checkbox"/> phosphorus | <input type="checkbox"/> lead (dissolved or total)                        |
| <input type="checkbox"/> nitrogen              | <input type="checkbox"/> zinc (dissolved or total)                        |
|                                                | <input type="checkbox"/> general metals (dissolved or total) <sup>2</sup> |

(b) Treating Sediment. Is sediment a TDC? If Yes, use Matrix A to select BMPs, then skip to question 12. Otherwise, proceed to question 9.  Yes  No

<sup>1</sup> Assess the combined infiltration of the WQV by both biofiltration and infiltration BMPs. As site constraints allow, size the infiltration BMP up to the un-infiltrated WQV remaining after the biofiltration BMP.

<sup>2</sup> General metals is a designation used by Regional Water Boards when specific metals have not yet been identified as causing the impairment.

| <b>BMP Selection Matrix A: General Purpose Pollutant Removal</b>                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                               |                                                                                                                         |                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Consider approaches to treat the remaining WQV with combinations of the BMPs in this table. The PE should select at least one BMP for the project; preference is for Tier 1 BMPs, followed by Tier 2 BMPs when Tier 1 BMPs are not feasible. Within each Tier, BMP selection will be determined by the site-specific determination of feasibility (Section 2.4.2.1). BMPs are chosen based on the infiltration category determined in question 7. BMPs in other categories should be ignored.</p> |                                                                                                               |                                                                                                                         |                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | BMP ranking for infiltration category:                                                                        |                                                                                                                         |                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Infiltration < 20%                                                                                            | Infiltration 20% - 50%                                                                                                  | Infiltration > 50%                                                                                                                             |
| Tier 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Strip: HRT > 5<br>Austin filter (concrete)<br>Austin filter (earthen)<br>Delaware filter<br>MCTT<br>Wet basin | Austin filter (earthen)<br>Detention (unlined)<br>Infiltration basins*<br>Infiltration trenches*<br>Biofiltration Strip | Austin filter (earthen)<br>Detention (unlined)<br>Infiltration basins*<br>Infiltration trenches*<br>Biofiltration Strip<br>Biofiltration Swale |
| Tier 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Strip: HRT < 5<br>Biofiltration Swale<br>Detention (unlined)                                                  | Austin filter (concrete)<br>Delaware filter<br>Biofiltration Swale<br>MCTT<br>Wet basin                                 | Austin filter (concrete)<br>Delaware filter<br>MCTT<br>Wet basin                                                                               |
| HRT = hydraulic residence time (min)<br><br>*Infiltration BMPs that infiltrate the water quality volume were considered previously, so only undersized infiltration BMPs or hybrid designs are considered where infiltration is less than 90% of the water quality volume.                                                                                                                                                                                                                           |                                                                                                               |                                                                                                                         |                                                                                                                                                |

9. Treating both Metals and Nutrients.

Is copper, lead, zinc, or general metals AND nitrogen or phosphorous a TDC? If Yes, use Matrix D to select BMPs, then skip to question 12. Otherwise, proceed to question 10. Yes No

10. Treating Only Metals.

Are copper, lead, zinc, or general metals listed TDCs? If Yes, use Matrix B below to select BMPs, and skip to question 12. Otherwise, proceed to question 11. Yes No

| <b>BMP Selection Matrix B: Any metal is the TDC, but not nitrogen or phosphorous</b>                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                             |                                                                                                                       |                                                                                                                                                                     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Consider approaches to treat the remaining WQV with combinations of the BMPs in this table. The PE should select at least one BMP for the project; preference is for Tier 1 BMPs, followed by Tier 2 BMPs when Tier 1 BMPs are not feasible. Within each Tier, BMP selection will be determined by the site-specific determination of feasibility (Section 2.4.2.1). BMPs are chosen based on the infiltration category determined in question 7. BMPs in other categories should be ignored. |                                                                                             |                                                                                                                       |                                                                                                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | BMP ranking for infiltration category:                                                      |                                                                                                                       |                                                                                                                                                                     |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Infiltration < 20%                                                                          | Infiltration 20% - 50%                                                                                                | Infiltration > 50%                                                                                                                                                  |
| Tier 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | MCTT<br>Wet basin<br>Austin filter (earthen)<br>Austin filter (concrete)<br>Delaware filter | Austin filter (earthen)<br>Detention (unlined)<br>Infiltration basins*<br>Infiltration trenches*<br>MCTT<br>Wet basin | Austin filter (earthen)<br>Detention (unlined)<br>Infiltration basins*<br>Infiltration trenches*<br>MCTT<br>Biofiltration Strip<br>Biofiltration Swale<br>Wet basin |
| Tier 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Strip: HRT > 5<br>Strip: HRT < 5<br>Biofiltration Swale<br>Detention (unlined)              | Austin filter (concrete)<br>Delaware filter<br>Biofiltration Strip<br>Biofiltration Swale                             | Austin filter (concrete)<br>Delaware filter                                                                                                                         |
| HRT = hydraulic residence time (min)<br>*Infiltration BMPs that infiltrate the water quality volume were considered previously, so only undersized infiltration BMPs or hybrid designs are considered where infiltration is less than 90% of the water quality volume.                                                                                                                                                                                                                        |                                                                                             |                                                                                                                       |                                                                                                                                                                     |

11. Treating Only Nutrients.

Are nitrogen and/or phosphorus listed TDCs? If “Yes,” use Matrix C to select BMPs. If “No”, please check your answer to 8(a). At this point one of the matrices Yes No should have been used for BMP selection for the TDC in question, unless no BMPs are feasible.

| <b>BMP Selection Matrix C: Phosphorous and / or nitrogen is the TDC, but no metals are the TDC</b>                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                |                                                                                                        |                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Consider approaches to treat the remaining WQV with combinations of the BMPs in this table. The PE should select at least one BMP for the project; preference is for Tier 1 BMPs, followed by Tier 2 BMPs when Tier 1 BMPs are not feasible. Within each Tier, BMP selection will be determined by the site-specific determination of feasibility (Section 2.4.2.1). BMPs are chosen based on the infiltration category determined in question 7. BMPs in other categories should be ignored.</p> |                                                                                |                                                                                                        |                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | BMP ranking for infiltration category:                                         |                                                                                                        |                                                                                                                                                |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Infiltration < 20%                                                             | Infiltration 20% - 50%                                                                                 | Infiltration > 50%                                                                                                                             |
| Tier 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Austin filter (earthen)<br>Austin filter (concrete)<br>Delaware filter**       | Austin filter (earthen)<br>Detention (unlined)<br>Infiltration basins*<br>Infiltration trenches*       | Austin filter (earthen)<br>Detention (unlined)<br>Infiltration basins*<br>Infiltration trenches*<br>Biofiltration Strip<br>Biofiltration Swale |
| Tier 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Wet basin<br>Biofiltration Strip<br>Biofiltration Swale<br>Detention (unlined) | Austin filter (concrete)<br>Delaware filter<br>Biofiltration Strip<br>Biofiltration Swale<br>Wet basin | Austin filter (concrete)<br>Delaware filter<br>Wet basin                                                                                       |
| <p>* Infiltration BMPs that infiltrate the water quality volume were considered previously, so only undersized infiltration BMPs or hybrid designs are considered where infiltration is less than 90% of the water quality volume.</p>                                                                                                                                                                                                                                                               |                                                                                |                                                                                                        |                                                                                                                                                |
| <p>** Delaware filters would be ranked in Tier 2 if the TDC is nitrogen only, as opposed to phosphorous only or both nitrogen and phosphorous.</p>                                                                                                                                                                                                                                                                                                                                                   |                                                                                |                                                                                                        |                                                                                                                                                |

| <b>BMP Selection Matrix D: Any metal, plus phosphorous and / or nitrogen are the TDCs</b>                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                        |                                                                                                                    |                                                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Consider approaches to treat the remaining WQV with combinations of the BMPs in this table. The PE should select at least one BMP for the project; preference is for Tier 1 BMPs, followed by Tier 2 BMPs when Tier 1 BMPs are not feasible. Within each Tier, BMP selection will be determined by the site-specific determination of feasibility (Section 2.4.2.1). BMPs are chosen based on the infiltration category determined in question 7. BMPs in other categories should be ignored.</p> |                                                                                        |                                                                                                                    |                                                                                                                                                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | BMP ranking for infiltration category:                                                 |                                                                                                                    |                                                                                                                                                                  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Infiltration < 20%                                                                     | Infiltration 20% - 50%                                                                                             | Infiltration > 50%                                                                                                                                               |
| Tier 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Wet basin*<br>Austin filter (earthen)<br>Austin filter (concrete)<br>Delaware filter** | Wet basin*<br>Austin filter (earthen)<br>Detention (unlined)<br>Infiltration basins***<br>Infiltration trenches*** | Wet basin*<br>Austin filter (earthen)<br>Detention (unlined)<br>Infiltration basins***<br>Infiltration trenches***<br>Biofiltration Strip<br>Biofiltration Swale |
| Tier 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Biofiltration Strip<br>Biofiltration Swale<br>Detention (unlined)                      | Austin filter (concrete)<br>Delaware filter<br>Biofiltration Strip<br>Biofiltration Swale                          | Austin filter (concrete)<br>Delaware filter                                                                                                                      |
| * The wet basin should only be considered for phosphorus                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                        |                                                                                                                    |                                                                                                                                                                  |
| ** In cases where earthen BMPs can infiltrate, Delaware filters are ranked in Tier 2 if the TDC is nitrogen only, but they are Tier 1 for phosphorous only or both nitrogen and phosphorous.                                                                                                                                                                                                                                                                                                         |                                                                                        |                                                                                                                    |                                                                                                                                                                  |
| *** Infiltration BMPs that infiltrate the water quality volume were considered previously, so only undersized infiltration BMPs or hybrid designs are considered where infiltration is less than 90% of the water quality volume.                                                                                                                                                                                                                                                                    |                                                                                        |                                                                                                                    |                                                                                                                                                                  |

12. Does the project discharge to a 303(d) waterbody that is listed for mercury or low dissolved oxygen? Yes No

If Yes, contact the District/Regional NPDES Storm Water Coordinator to determine if standing water in a Delaware filter, wet basin, or MCTT would be a risk to downstream water quality.

13. After completing the above, identify and attach the checklists shown below for every Treatment BMP under consideration. (use one checklist every time the BMP is considered for a different drainage within the project) Complete

- Biofiltration Strips and Biofiltration Swales: Checklist T-1, Part 2
- Dry Weather Diversion: Checklist T-1, Part 3
- Infiltration Devices: Checklist T-1, Part 4
- Detention Devices: Checklist T-1, Part 5
- GSRDs: Checklist T-1, Part 6
- Traction Sand Traps: Checklist T-1, Part 7
- Media Filter [Austin Sand Filter and Delaware Filter]: Checklist T-1, Part 8
- Multi-Chambered Treatment Train: Checklist T-1, Part 9
- Wet Basins: Checklist T-1, Part 10

14. Estimate what percentage of the net WQV (for all new impervious surfaces within the project) or WQF (depending upon the Treatment BMP selected) will be treated by the preferred Treatment BMP(s): 100 %\* Complete

15. Estimate what percentage of the net WQV (for all new impervious surfaces within the project) that will be infiltrated by the preferred treatment BMP(s): \_\_\_\_\_ %\*\* Complete

16. Prepare cost estimate, including right-of-way, and site specific determination of feasibility (Section 2.4.2.1) for selected Treatment BMPs and include as supplemental information for SWDR approval. Complete

\*Note: The amount of treatment should be calculated for each BMP and each subwatershed, unless all BMPs within a project are the same. Document in SWDR.

\*\*Note: The Water Quality Volume infiltrated should be documented for the entire project and also for each subwatershed. Document in SWDR.

|                                   |                                                    |                                     |
|-----------------------------------|----------------------------------------------------|-------------------------------------|
| <b>Treatment BMPs</b>             |                                                    |                                     |
| <b>Checklist T-1, Part 2</b>      |                                                    |                                     |
| Prepared by: <u>Paul Kosinski</u> | Date: <u>May 15, 2015</u>                          | District-Co-Route: <u>11-SD-015</u> |
| PM : <u>R36.0/R37.2</u>           | Project ID (or EA): <u>11-14000093 (11-41840K)</u> | RWQCB: <u>9</u>                     |

**Biofiltration Swales / Biofiltration Strips**

**Feasibility**

1. Do the climate and site conditions allow vegetation to be established?  Yes  No
2. Are flow velocities from a peak drainage facility design event < 4 fps (i.e. low enough to prevent scour of the vegetated biofiltration swale as per HDM Table 873.3E)?  Yes  No  
 If !No" to either question above, Biofiltration Swales and Biofiltration Strips are not feasible.
3. Are Biofiltration Swales proposed at sites where known contaminated soils or groundwater plumes exist?  Yes  No  
 If !Yes", consult with District/Regional NPDES Coordinator about how to proceed.
4. Does adequate area exist within the right-of-way to place Biofiltration device(s)?  Yes  No  
 If !Yes", continue to Design Elements section. If !No", continue to Question 5.
5. If adequate area does not exist within right-of-way, can suitable, additional right-of-way be acquired to site Biofiltration devices and how much right-of-way would be needed to treat WQF? \_\_\_\_\_ acres  Yes  No  
 If !Yes", continue to Design Elements section. If !No", continue to Question 6.
6. If adequate area cannot be obtained, document in Section 5 of the SWDR that the inability to obtain adequate area prevents the incorporation of these Treatment BMPs into the project.  Complete

**Design Elements**

\* **Required** Design Element # A !Yes" response to these questions is required to further the consideration of this BMP into the project design. Document a !No" response in Section 5 of the SWDR to describe why this Treatment BMP cannot be included into the project design.

\*\* **Recommended** Design Element # A !Yes" response is preferred for these questions, but not required for incorporation into a project design.

1. Has the District Landscape Architect provided vegetation mixes appropriate for climate and location? \*  Yes  No

- 
- |                                                                                                                                                                                                     |                                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|
| 2. Can the biofiltration swale be designed as a conveyance system under any expected flows > the WQF event, as per HDM Chapter 800? * (e.g. freeboard, minimum slope, etc.)                         | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 3. Can the biofiltration swale be designed as a water quality treatment device under the WQF while meeting the required HRT, depth, and velocity criteria? (Reference Appendix B, Section B.2.3.1)* | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 4. Is the maximum length of a biofiltration strip $\leq$ 100 ft? Strips > 100 ft. may still be considered as long as potential erosion issues have been addressed.**                                | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 5. Has the minimum width (perpendicular to flow) of the invert of the biofiltration swale received the concurrence of Maintenance? *                                                                | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 6. Can biofiltration swales be located in natural or low cut sections to reduce maintenance problems caused by animals burrowing through the berm of the swale? **                                  | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 7. Has the infiltration rate of the bio-filtration device been calculated and maximized through amendments where appropriate. **                                                                    | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| 8. Have Biofiltration Systems been considered for locations upstream of other Treatment BMPs, as part of a treatment train? **                                                                      | <input type="checkbox"/> Yes <input type="checkbox"/> No |



|                                   |                                                    |                                     |
|-----------------------------------|----------------------------------------------------|-------------------------------------|
| <b>Treatment BMPs</b>             |                                                    |                                     |
| <b>Checklist T-1, Part 4</b>      |                                                    |                                     |
| Prepared by: <u>Paul Kosinski</u> | Date: <u>May 15, 2015</u>                          | District-Co-Route: <u>11-SD-015</u> |
| PM : <u>R36.0/R37.2</u>           | Project ID (or EA): <u>11-14000093 (11-41840K)</u> | RWQCB: <u>9</u>                     |

***Infiltration Devices***

***Feasibility***

1. Does local Basin Plan or other local ordinance provide influent limits on quality of water that can be infiltrated, and would infiltration pose a threat to groundwater quality? Yes No
  2. Does infiltration at the site compromise the integrity of any slopes in the area? Yes No
  3. Per survey data or U.S. Geological Survey (USGS) Quad Map, are existing slopes at the proposed device site >15%? Yes No
  4. At the invert, does the soil type classify as NRCS Hydrologic Soil Group (HSG) D, or does the soil have an infiltration rate < 0.5 inches/hr? For Design Pollution Prevention BMPs, can the soil be amended to provide an adequate infiltration rate and void space. Yes No
  5. Is site located over a previously identified contaminated groundwater plume? Yes No
- If "Yes" to any question above, Infiltration Devices are not feasible; stop here and consider other approved Treatment BMPs.
6. (a) Does site have groundwater within 10 ft of basin invert? Yes No
  - (b) Does site investigation indicate that the infiltration rate is significantly greater than 2.5 inches/hr? Yes No
- If "Yes" to either part of Question 6, the RWQCB must be consulted, and the RWQCB must conclude that the groundwater quality will not be compromised, before approving the site for infiltration.
7. Does adequate area exist within the right-of-way to place Infiltration Device(s)? If "Yes", continue to Design Elements sections. If "No", continue to Question 8. Yes No
  8. If adequate area does not exist within right-of-way, can suitable, additional right-of-way be acquired to site Infiltration Devices and how much right-of-way would be needed to treat WQV? \_\_\_\_\_ acres Yes No  
 If Yes, continue to Design Elements section.  
 If No, continue to Question 9.
  9. If adequate area cannot be obtained, document in Section 5 of the SWDR that the inability to obtain adequate area prevents the incorporation of this Treatment BMP into the project. Complete



**Design Elements – Infiltration Basin**

\* **Required** Design Element # A !Yes" response to these questions is required to further the consideration of this BMP into the project design. Document a !No" response in Section 5 of the SWDR to describe why this Treatment BMP cannot be included into the project design.

\*\* **Recommended** Design Element # A !Yes" response is preferred for these questions, but not required for incorporation into a project design.

- 1. Has a detailed investigation been conducted, including subsurface soil investigation, in-hole conductivity testing and groundwater elevation determination? (This report must be completed for PS&E level design.) \* Yes No
- 2. Has an overflow spillway with scour protection been provided? \* Yes No
- 3. Is the Infiltration Basin size sufficient to capture the WQV while maintaining a 40-48 hour drawdown time? If the BMP is used in series with a biofiltration device, then does the total upstream infiltration plus the Infiltration Basin volume at least equal the WQV. \* Yes No
- 4. Can access be placed to the invert of the Infiltration Basin? \* Yes No
- 5. Can the Infiltration Basin accommodate the freeboard above the overflow event elevation (reference Appendix B.1.3.1)? \* Yes No
- 6. Can the Infiltration Basin be designed with interior side slopes no steeper than 4:1 (h:v) (may be 3:1 [h:v] with approval by District Maintenance)? \* Yes No
- 7. Can vegetation be established in the Infiltration Basin? \*\* Yes No
- 8. Can diversion be designed, constructed, and maintained to bypass flows exceeding the WQV? \*\* Yes No
- 9. Can a gravity-fed Maintenance Drain be placed? \*\* Yes No

**Design Elements – Infiltration Trench**

- 1. Has a detailed investigation been conducted, including subsurface soil investigation, in-hole conductivity testing and groundwater elevation determination? (This report must be completed for PS&E level design.) \* Yes No
- 2. Is the surrounding soil within Hydrologic Soil Groups (HSG) Types A or B? \*\* Yes No
- 3. Since this BMP is used in series with a pretreatment (see No. 7 below), then does the total upstream infiltration by the pretreatment plus the void space volume of the Infiltration Trench at least equal the WQV, while maintaining a drawdown time of  $\leq 72$  hours? \*\* Yes No
- 4. Is the depth of the Infiltration Trench  $\leq 13$  ft? \* Yes No
- 5. Can an observation well be placed in the trench? \*\* Yes No
- 6. Can access be provided to the Infiltration Trench? \* Yes No
- 7. Can pretreatment be provided to capture sediment in the runoff (such as using vegetation)? \* Yes No
- 8. Can flow diversion be designed, constructed, and maintained to bypass flows exceeding the Water Quality event? \*\* Yes No

9. Can a perimeter curb or similar device be provided (to limit wheel loads upon the trench)? \*\*  Yes  No

### **Design Elements and Feasibility – Infiltration-DPP BMPs**

\* **Required** Design Element # (see definition above)

\*\* **Recommended** Design Element # (see definition above)

1. Has a detailed soil investigation been conducted, to assure stability of the slope? \*\*  Yes  No
2. Does the soil have adequate infiltration rates or can the soil be amended to increase its infiltrating properties? \*\*  Yes  No
3. Are flow velocities from a peak drainage facility design event < 4 fps (i.e. low enough to prevent scour or erosion of DPP (swale or conveyance) as per HDM Table 873.3E)? Or has the BMP been designed to prevent scour or erosion for higher velocities (e.g. rock lined ditch). \*  Yes  No

|                                   |                                                    |                                     |
|-----------------------------------|----------------------------------------------------|-------------------------------------|
| <b>Treatment BMPs</b>             |                                                    |                                     |
| <b>Checklist T-1, Part 5</b>      |                                                    |                                     |
| Prepared by: <u>Paul Kosinski</u> | Date: <u>May 15, 2015</u>                          | District-Co-Route: <u>11-SD-015</u> |
| PM : <u>R36.0/R37.2</u>           | Project ID (or EA): <u>11-14000093 (11-41840K)</u> | RWQCB: <u>9</u>                     |

***Detention Devices***

***Feasibility***

1. Is there sufficient head to prevent objectionable backwater conditions in the upstream drainage systems?  Yes  No
  
  2. 2a) Is the volume of the Detention Device equal to at least the WQV? (Note: the WQV must be  $\geq 4,356 \text{ ft}^3$  [0.1 acre-feet]). If the BMP is used in series with a biofiltration device, then does the total upstream infiltration plus the Detention Device volume at least equal the WQV?.  Yes  No

Only answer (b) if the Detention Device is being used also to capture traction sand.

2b) Is the total volume of the Detention Device at least equal to the WQV plus the anticipated volume of traction sand, while maintaining a minimum 12 inch freeboard (1 ft)?  Yes  No
  
  3. Is basin invert  $\geq 10$  ft above seasonally high groundwater or can it be designed with an impermeable liner? (Note: If an impermeable liner is used, the seasonally high groundwater elevation must not encroach within 12 inches of the invert.)  Yes  No
- If No to any question above, then Detention Devices are not feasible.
4. Does adequate area exist within the right-of-way to place Detention Device(s)?  Yes  No  
If Yes, continue to the Design Elements section. If No, continue to Question 5.
  5. If adequate area does not exist within right-of-way, can suitable, additional right-of-way be acquired to site Detention Device(s) and how much right-of way would be needed to treat WQV? \_\_\_\_\_ acres  Yes  No  
If Yes, continue to the Design Elements section. If No, continue to Question 6.
  6. If adequate area cannot be obtained, document in Section 5 of the SWDR that the inability to obtain adequate area prevents the incorporation of this Treatment BMP into the project.  Complete



**Design Elements**

\* **Required** Design Element # A !Yes" response to these questions is required to further the consideration of this BMP into the project design. Document a !No" response in Section 5 of the SWDR to describe why this Treatment BMP cannot be included into the project design.

\*\* **Recommended** Design Element # A !Yes" response is preferred for these questions, but not required for incorporation into a project design.

1. Has the geotechnical integrity of the site been evaluated to determine potential impacts to surrounding slopes due to incidental infiltration? If incidental infiltration through the invert of an unlined Detention Device is a concern, consider using an impermeable liner. \* Yes No
2. Has the location of the Detention Device been evaluated for any effects to the adjacent roadway and subgrade? \* Yes No
3. Can a minimum freeboard of 12 inches be provided above the overflow event elevation? \* Yes No
4. Is an overflow outlet provided? \* Yes No
5. Is the drawdown time of the Detention Device within 24 to 72 hours? \* Yes No
6. Is the basin outlet designed to minimize clogging (minimum outlet orifice diameter of 0.5 inches)? \* Yes No
7. Are the inlet and outlet structures designed to prevent scour and re-suspension of settled materials, and to enhance quiescent conditions? \* Yes No
8. Can vegetation be established in an earthen basin at the invert and on the side slopes for erosion control and to minimize re-suspension? Note: Detention Basins may be lined, in which case no vegetation would be required for lined areas.\* Yes No
9. Has sufficient access for Maintenance been provided? \* Yes No
10. Is the side slope 4:1 (h:v) or flatter for interior slopes? \*\* Yes No  
(Note: Side slopes up to 3:1 (h:v) allowed with approval by District Maintenance.)
11. If significant sediment is expected from nearby slopes, can the Detention Device be designed with additional volume equal to the expected annual loading? \*\* Yes No
12. Is flow path as long as possible ( $\geq$  2:1 length to width ratio at WQV elevation is recommended)? \*\* Yes No



|                                   |                                                    |                                     |
|-----------------------------------|----------------------------------------------------|-------------------------------------|
| <b>Treatment BMPs</b>             |                                                    |                                     |
| <b>Checklist T-1, Part 8</b>      |                                                    |                                     |
| Prepared by: <u>Paul Kosinski</u> | Date: <u>May 15, 2015</u>                          | District-Co-Route: <u>11-SD-015</u> |
| PM : <u>R36.0/R37.2</u>           | Project ID (or EA): <u>11-14000093 (11-41840K)</u> | RWQCB: <u>9</u>                     |

**Media Filters**

Caltrans has approved two types of Media Filter: Austin Sand Filters and Delaware Filters. Austin Sand filters are typically designed for larger drainage areas, while Delaware Filters are typically designed for smaller drainage areas. The Austin Sand Filter is constructed with an open top and may have a concrete or earthen invert, while the Delaware is always constructed as a vault. See Appendix B, Media Filters, for a further description of Media Filters.

**Feasibility - Austin Sand Filter**

1. Is the volume of the Austin Sand Filter equal to at least the WQV using a 24 hour drawdown? (Note: the WQV must be  $\geq 4,356 \text{ ft}^3$  [0.1 acre-feet])  Yes  No
2. Is there sufficient hydraulic head to operate the device (minimum 3 ft between the inflow and outflow chambers)?  Yes  No
3. If initial chamber has an earthen bottom, is initial chamber invert  $\geq 3$  ft above seasonally high groundwater?  Yes  No
4. If a vault is used for either chamber, is the level of the concrete base of the vault above seasonally high groundwater or is a special design provided?  
If No to any question above, then an Austin Sand Filter is not feasible.  Yes  No
5. Does adequate area exist within the right-of-way to place an Austin Sand Filter(s)?  Yes  No  
If Yes, continue to Design Elements sections. If No, continue to Question 6.
6. If adequate area does not exist within right-of-way, can suitable, additional right-of-way be acquired to site the device and how much right-of way would be needed to treat WQV? \_\_\_\_\_ acres  Yes  No  
If Yes, continue to the Design Elements section.  
If No, continue to Question 7.
7. If adequate area cannot be obtained, document in Section 5 of the SWDR that the inability to obtain adequate area prevents the incorporation of this Treatment BMP into the project.  Complete  
  
If an Austin Sand Filter meets these feasibility requirements, continue to the Design Elements # Austin Sand Filter below.

**Feasibility- Delaware Filter**

- 1. Is the volume of the Delaware Filter equal to at least the WQV using a 48 hour drawdown? (Note: the WQV must be  $\geq 4,356 \text{ ft}^3$  [0.1 acre-feet], consult with District/Regional Design Storm Water Coordinator if a lesser volume is under consideration.) Yes No
- 2. Is there sufficient hydraulic head to operate the device (minimum 3 ft between the inflow and outflow chambers)? Yes No
- 3. Would a permanent pool of water be allowed by the local vector control agency? Confirm that check valves and vector proof lid as shown on standard detail sheets will be allowed, is used. Yes No

If No to any question, then a Delaware Filter is not feasible

- 4. Does adequate area exist within the right-of-way to place a Delaware Filter(s)? If Yes, continue to Design Elements sections. If No, continue to Question 5. Yes No
- 5. If adequate area does not exist within right-of-way, can suitable, additional right-of-way be acquired to site the device and how much right-of way would be needed to treat WQV? \_\_\_\_\_ acres Yes No  
If Yes, continue to the Design Elements section. If No, continue to Question 6.
- 6. If adequate area cannot be obtained, document in Section 5 of the SWDR that the inability to obtain adequate area prevents the incorporation of this Treatment BMP into the project. Complete
- 7. Does the project discharge to a waterbody that has been placed on the 303-d list or has had a TMDL adopted for bacteria, mercury, sulfides, or low dissolved oxygen? Yes No

If yes, contact the Regional/District NPDES Storm Water Coordinator to determine if standing water in this treatment BMP would be a risk to downstream water quality. If standing water is a potential issue, consider use of another treatment BMP.

If a Delaware Filter is still under consideration, continue to the Design Elements # Delaware Filter section.

**Design Elements – Austin Sand Filter**

\* **Required** Design Element # A !Yes" response to these questions is required to further the consideration of this BMP into the project design. Document a !No" response in Section 5 of the SWDR to describe why this Treatment BMP cannot be included into the project design.

\*\* **Recommended** Design Element # A !Yes" response is preferred for these questions, but not required for incorporation into a project design.

- |                                                                                                                                                          |                              |                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|-----------------------------|
| 1. Is the drawdown time of the 2 <sup>nd</sup> chamber 24 hours? *                                                                                       | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 2. Is access for Maintenance vehicles provided to the Austin Sand Filter? *                                                                              | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 3. Is a bypass/overflow provided for storms > WQV? *                                                                                                     | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 4. Is the flow path length to width ratio for the sedimentation chamber of the !full" Austin Sand Filter $\geq 2:1$ ? **                                 | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 5. Can pretreatment be provided to capture sediment and litter in the runoff (such as using vegetation)? **                                              | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 6. Can the Austin Sand Filter be placed using an earthen configuration? **<br>If No, go to Question 9.                                                   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 7. Is the Austin Sand Filter invert separated from the seasonally high groundwater table by $\geq 10$ ft)? *<br>If No, design with an impermeable liner. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 8. Are side slopes of the earthen chamber 3:1 (h:v) or flatter? *                                                                                        | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 9. Is maximum depth $\leq 13$ ft below ground surface? *                                                                                                 | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 10. Can the Austin Sand Filter be placed in an offline configuration? **                                                                                 | <input type="checkbox"/> Yes | <input type="checkbox"/> No |



**Design Elements – Delaware Filter**

\* **Required** Design Element # A !Yes" response to these questions is required to further the consideration of this BMP into the project design. Document a !No" response in Section 5 of the SWDR to describe why this Treatment BMP cannot be included into the project design.

\*\* **Recommended** Design Element # A !Yes" response is preferred for these questions, but not required for incorporation into a project design.

1. Is the drawdown time of the 2<sup>nd</sup> chamber between 40 and 48 hours, typically 40-48 hrs? \* Yes No
2. Is access for Maintenance vehicles provided to the Delaware Filter? \* Yes No
3. Is a bypass/overflow provided for storms > WQV? \*\* Yes No
4. Can pretreatment be provided to capture sediment and litter in the runoff (such as using vegetation)? \*\* Yes No
5. Is maximum depth  $\leq$  13 ft below ground surface? \* Yes No



# Attachment I

## 303(d) List of Receiving Waters



**2010 California 303(d) List of Water Quality Limited Segments\***

Water quality limited segments requiring a TMDL(5A), being addressed by TMDL(5B), and/or being addressed by an action other than TMDL(5C).

| REGION | WATER BODY NAME  | WATER BODY TYPE  | INTEGRATED REPORT CATEGORY | CALWATER WATERSHED | POLLUTANT                              | POLLUTANT CATEGORY | FINAL LISTING DECISION                              | TMDL REQUIREMENT STATUS** | EXPECTED TMDL COMPLETION DATE*** | POTENTIAL SOURCES         |
|--------|------------------|------------------|----------------------------|--------------------|----------------------------------------|--------------------|-----------------------------------------------------|---------------------------|----------------------------------|---------------------------|
| 9      | San Marcos Creek | River & Stream   | 5                          | 90451000           | DDE (Dichlorodiphenyldichloroethylene) | Pesticides         | List on 303(d) list (TMDL required list)            | 5A                        | 2019                             | Source Unknown            |
| 9      | San Marcos Creek | River & Stream   | 5                          | 90451000           | Phosphorus                             | Nutrients          | List on 303(d) list (TMDL required list)            | 5A                        | 2019                             | Unknown Nonpoint Source   |
| 9      | San Marcos Creek | River & Stream   | 5                          | 90451000           | Phosphorus                             | Nutrients          | List on 303(d) list (TMDL required list)            | 5A                        | 2019                             | Source Unknown            |
| 9      | San Marcos Creek | River & Stream   | 5                          | 90451000           | Phosphorus                             | Nutrients          | List on 303(d) list (TMDL required list)            | 5A                        | 2019                             | Urban Runoff/Storm Sewers |
| 9      | San Marcos Creek | River & Stream   | 5                          | 90451000           | Phosphorus                             | Nutrients          | List on 303(d) list (TMDL required list)            | 5A                        | 2019                             | Unknown Point Source      |
| 9      | San Marcos Creek | River & Stream   | 5                          | 90451000           | Sediment Toxicity                      | Toxicity           | Do Not Delist from 303(d) list (TMDL required list) | 5A                        | 2019                             | Unknown Point Source      |
| 9      | San Marcos Creek | River & Stream   | 5                          | 90451000           | Sediment Toxicity                      | Toxicity           | Do Not Delist from 303(d) list (TMDL required list) | 5A                        | 2019                             | Urban Runoff/Storm Sewers |
| 9      | San Marcos Creek | River & Stream   | 5                          | 90451000           | Sediment Toxicity                      | Toxicity           | Do Not Delist from 303(d) list (TMDL required list) | 5A                        | 2019                             | Unknown Nonpoint Source   |
| 9      | San Marcos Creek | River & Stream   | 5                          | 90451000           | Selenium                               | Metals/Metalloids  | List on 303(d) list (TMDL required list)            | 5A                        | 2021                             | Source Unknown            |
| 9      | San Marcos Lake  | Lake & Reservoir | 5                          | 90452000           | Ammonia as Nitrogen                    | Nutrients          | List on 303(d) list (TMDL required list)            | 5A                        | 2019                             | Unknown Point Source      |
| 9      | San Marcos Lake  | Lake & Reservoir | 5                          | 90452000           | Ammonia as Nitrogen                    | Nutrients          | List on 303(d) list (TMDL required list)            | 5A                        | 2019                             | Urban Runoff/Storm Sewers |
| 9      | San Marcos Lake  | Lake & Reservoir | 5                          | 90452000           | Ammonia as Nitrogen                    | Nutrients          | List on 303(d) list (TMDL required list)            | 5A                        | 2019                             | Unknown Nonpoint Source   |
| 9      | San Marcos Lake  | Lake & Reservoir | 5                          | 90452000           | Nutrients                              | Nutrients          | List on 303(d) list (TMDL required list)            | 5A                        | 2019                             | Urban Runoff/Storm Sewers |
| 9      | San Marcos Lake  | Lake & Reservoir | 5                          | 90452000           | Nutrients                              | Nutrients          | List on 303(d) list (TMDL required list)            | 5A                        | 2019                             | Unknown Nonpoint Source   |
| 9      | San Marcos Lake  | Lake & Reservoir | 5                          | 90452000           | Nutrients                              | Nutrients          | List on 303(d) list (TMDL required list)            | 5A                        | 2019                             | Unknown Point Source      |

## Attachment J

### Water Quality Standard Inventory Database (San Marcos Creek)





[Caltrans](#) > [DEA](#) > [Stormwater](#) > **Water Quality Planning Tool**

## San Marcos Creek

### Watershed Specific Water Quality Objectives

**Waterbody Reach Beneficial Use Constituent Limit Units Details Reference Comments**

#### Numeric Water Quality Objectives

| Beneficial Use          | Constituent      | Limit | Units | Details | Reference                                     | Comments |
|-------------------------|------------------|-------|-------|---------|-----------------------------------------------|----------|
| Agricultural Supply     | Boron            | 0.75  | mg/L  | -       | Quality Criteria for Water, 1986 - Gold Book. |          |
| Warm Freshwater Habitat | Dissolved Oxygen | -5    | mg/L  | -       |                                               |          |

#### Ammonia Water Quality Objectives

| Beneficial Use               | Constituent  | pH | Temperature | Duration | Concentration | Units | Details | Reference |
|------------------------------|--------------|----|-------------|----------|---------------|-------|---------|-----------|
| Agricultural Supply          | Ammonia as N | -  | -           | -        | 0.025         | mg/L  | -       |           |
| Water Contact Recreation     | Ammonia as N | -  | -           | -        | 0.025         | mg/L  | -       |           |
| Non-Contact Water Recreation | Ammonia as N | -  | -           | -        | 0.025         | mg/L  | -       |           |
| Warm Freshwater Habitat      | Ammonia as N | -  | -           | -        | 0.025         | mg/L  | -       |           |
| Wildlife Habitat             | Ammonia as N | -  | -           | -        | 0.025         | mg/L  | -       |           |

#### Bacteria Water Quality Objectives

| Beneficial Use               | Constituent    | Limit | Units            | Details                            | Reference | Comments                                                                                 |
|------------------------------|----------------|-------|------------------|------------------------------------|-----------|------------------------------------------------------------------------------------------|
| Water Contact Recreation     | Fecal Coliform | 400   | Count per 100 ml | Log Mean-10% of Samples for 30 day |           | Log mean value. Based on more than 10 percent of total samples during any 30-day period. |
| Water Contact Recreation     | Fecal Coliform | 200   | Count per 100 ml | Log Mean-5 Samples for 30 day      |           | Log mean value. Based on a minimum of not less than five samples for any 30-day period.  |
| Non-Contact Water Recreation | Fecal Coliform | 4000  | Count per 100 ml | Average-10% of Samples for 30 day  |           | Average value. Based on more than 10 percent of total samples during any 30-day period.  |
| Non-Contact Water Recreation | Fecal Coliform | 2000  | Count per 100 ml | Average-for 30 day                 |           | Average value. Based on samples for a 30-day period.                                     |

#### Narrative Water Quality Objectives

| Constituent                | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bioestimulatory Substances | Inland surface waters, bays and estuaries and coastal lagoon waters shall not contain bioestimulatory substances in concentrations that promote aquatic growth to the extent that such growths cause nuisance or adversely affect beneficial uses.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Color                      | Waters shall be free of coloration that causes nuisance or adversely affects beneficial uses. The natural color of fish, shellfish or other resources in inland surface waters, coastal lagoon or bay and estuary shall not be impaired.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Dissolved Oxygen           | The dissolved oxygen concentration in ocean waters shall not at any time be depressed more than 10 percent from that which occurs naturally, as the result of the discharge of oxygen demanding waste materials.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Floating Material          | Waters shall not contain floating material, including solids, liquids, foams, and scum in concentrations which cause nuisance or adversely affect beneficial uses.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Oil and Grease             | Waters shall not contain oils, greases, waxes, or other materials in concentrations which result in a visible film or coating on the surface of the water or on objects in the water, or which cause nuisance or which otherwise adversely affect beneficial uses.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| pH                         | The pH value shall not be changed at any time more than 0.2 pH units from that which occurs naturally. Changes in normal ambient pH levels shall not exceed 0.2 units in waters with designated marine (MAR), or estuarine (EST), or saline (SAL) beneficial uses. Changes in normal ambient pH levels shall not exceed 0.5 units in fresh waters with designated cold freshwater habitat (COLD) or warm freshwater habitat (WARM) beneficial uses. In bays and estuaries the pH shall not be depressed below 7.0 nor raised above 9.0. In inland surface waters the pH shall not be depressed below 6.5 nor raised above 8.5.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Radioactivity              | Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life nor that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal or aquatic life.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Sediment                   | The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Suspended Solids           | Waters shall not contain suspended and settleable solids in concentrations of solids that cause nuisance or adversely affect beneficial uses.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Taste and Odor             | Waters shall not contain taste or odor producing substances at concentrations which cause a nuisance or adversely affect beneficial uses. The natural taste and odor of fish, shellfish or other Regional water resources used for human consumption shall not be impaired in inland surface waters and bays and estuaries.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Temperature                | The natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Board that such alteration in temperature does not adversely affect beneficial uses. At no time or place shall the temperature of any COLD water be increased more than 5F above the natural receiving water temperature.<br>All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, bioassays of appropriate duration, or other appropriate methods as specified by the Regional Board. The survival of aquatic life in surface waters subjected to a waste discharge or other controllable water quality factors, shall not be less than that for the same water body in areas unaffected by the waste discharge or, when necessary, for other control water that is consistent with requirements specified in US EPA, State Water Resources Control Board. |
| Toxicity                   | As a minimum, compliance with this objective as stated in the previous sentence shall be evaluated with a 96-hour acute bioassay. In addition, effluent limits based upon acute bioassays of effluents will be prescribed where appropriate, additional numerical receiving water objectives for specific toxicants will be established as sufficient data become available, and source control of toxic substances will be encouraged.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Turbidity                  | Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

## Attachment K

BMP Cost: Project Planning Cost Estimate (PPCE)



Storm Water BMP Cost Summary - PID Phase Only  
THIS INFORMATION IS FOR CALTRANS INTERNAL USE ONLY

|                     |                                      |
|---------------------|--------------------------------------|
| Project Name:       | I-15 / DEER SPRINGS ROAD INTERCHANGE |
| District:           | 11                                   |
| County:             | San Diego                            |
| Route:              | 15                                   |
| Postmile Limits:    | PM R36.0/R37.2                       |
| Project ID (or EA): | 11-14000093 (11-41840K)              |

**1.0 Design Pollution Prevention BMPs**

| BMP Quantity | Unit Cost |          |           |
|--------------|-----------|----------|-----------|
| 1            | \$120,000 | SUBTOTAL | \$120,000 |

**2.0 Treatment BMPs**

| Miles of Pavement | \$100,000 per Mile |          |           |
|-------------------|--------------------|----------|-----------|
| 1.8               | \$180,000          | SUBTOTAL | \$324,000 |

**3.0 Prepare SWPPP**

| Total Construction Cost | Cost per Table F-6 |          |          |
|-------------------------|--------------------|----------|----------|
| \$20,200,000            | \$11,400           | SUBTOTAL | \$11,400 |

RQM Value (if SWPPP is required):

\$5,400

**4.0 Construction Site BMPs**

| Total Construction Cost | x.x% per Table F-3 |          |           |
|-------------------------|--------------------|----------|-----------|
| \$20,200,000            | 2.00%              | SUBTOTAL | \$404,000 |

**4.0 Stormwater Monitoring**

| Project Risk Level | SWM Cost-PPDG Appendix F* |          |          |
|--------------------|---------------------------|----------|----------|
| 2                  | \$26,400                  | SUBTOTAL | \$52,800 |

|                                        |                  |
|----------------------------------------|------------------|
| <b>TOTAL COST FOR STORM WATER BMPs</b> | <b>\$912,200</b> |
|----------------------------------------|------------------|

\*SWM Cost = M x {[Days<sup>0.5</sup> x \$1000] + \$2000 (1 + 0.1 (Months/12))}  
where M=1; Days<sup>0.5</sup> = 24; and Months = 24

**ATTACHMENT I**  
**TRAFFIC ENGINEERING PERFORMANCE ASSESSMENT**

TRAFFIC ENGINEERING PERFORMANCE ASSESSMENT  
**I-15 AT DEER SPRINGS ROAD INTERCHANGE**  
San Diego County, California  
June 25<sup>th</sup>, 2015

LLG Ref. 3-14-2316

Prepared by:  
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TRAFFIC ENGINEERING PERFORMANCE ASSESSMENT  
I-15 AT DEER SPRINGS ROAD INTERCHANGE  
San Diego County, California  
June 25<sup>th</sup>, 2015

## 1.0 INTRODUCTION

This report contains traffic information in support of the Project Study Report (PSR) prepared for the I-15 / Deer Springs Road interchange project in the County of San Diego. This Traffic Engineering Performance Assessment (TEPA) is prepared in accordance with Caltrans guidelines and presents our preliminary traffic engineering findings and provides recommendations for future analysis of the interchange alternatives. Existing traffic data was collected at the four study area intersections and segments. Freeway and ramp traffic volumes were obtained from Caltrans' California Freeway Performance Measurement System (PeMS). Analysis of existing and future conditions was performed for several interchange alternatives and is presented in this report.

The objective of the PSR is to determine the preliminary geometric design and operational characteristics for the redesigned I-15 / Deer Springs Road interchange. The information in the PSR will result in preliminary alternatives for the improvement of the I-15 / Deer Springs Road interchange that will relieve traffic congestion around the interchange and the ramps in the long-term.



## 2.0 PROJECT DESCRIPTION

The I-15/Deer Springs Road interchange serves as a primary access to the interstate highway system for the Hidden Meadows and Twin Oaks Valley communities.

### 2.1 Network Options

The following two Network Options were analyzed in the PSR:

- *Option A* assumes Deer Springs Road to be a 4.1A Major Road between I-15 SB Ramps and Twin Oaks Valley Road, except between Sarver Lane and Mesa Rock Road, where it is assumed as a 2.1A Community Collector section with a continuous turn lane.
- *Option B* assumes Deer Springs Road as a 6.1 Prime Arterial per the San Diego County Mobility Element.

**Figure 2-1** depicts the two network options.

In addition to the above options, volumes are forecasted without the eastward extension of Mountain Meadow Road (Mirar De Valle Road) to Valley Center Road, since this connection is speculative.

### 2.2 Intersection Control Evaluation (ICE) Process

In the development of the alternatives for the PSR-PDS and as part of the Intersection Control Evaluation (ICE) process, the Project Development Team (PDT) conducted an alternatives screening process through a series of workshops. During this screening process, the PDT determined weighted evaluation criteria along with a range of potential alternatives. The weighted evaluation criteria were then used to compare and rank each of the potential alternatives. As a result of this screening process, it was decided to eliminate the single point interchange (SPI), hook ramp interchange, 6-leg roundabout, along with various loop ramp alternatives from further evaluation.

### 2.3 Interchange Alternatives

#### 2.3.1 Alternative 1 – No Build

In this alternative, the existing interchange configuration and intersection geometry is assumed and no improvements are included.

**Figure 2-2** depicts the Existing interchange configuration and intersection geometry and indicates the intersections studied in this document.

#### 2.3.2 Alternative 2 – Diamond

In this alternate, the existing interchange configuration is assumed with improved geometry at each of the intersections such as dual left-turn lanes and additional through lane(s) at the two ramp intersections. It is proposed to relocate the I-15 SB ramps further east to increase intersection spacing between the SB ramps and Mesa Rock Road.

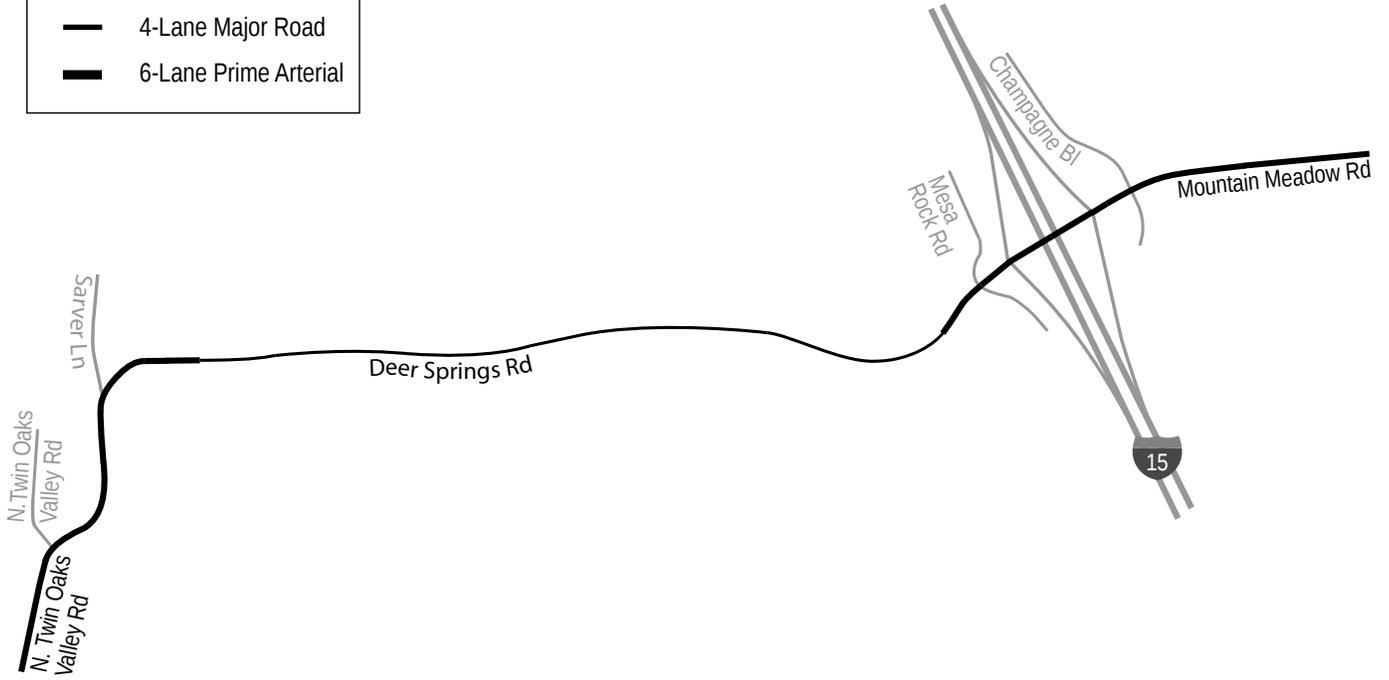
### 2.3.3 Alternative 3 – Diverging Diamond Interchange (DDI)

In this alternative, a *diverging diamond interchange* (DDI) configuration is assumed. The adjacent intersections at the frontage roads are signalized.

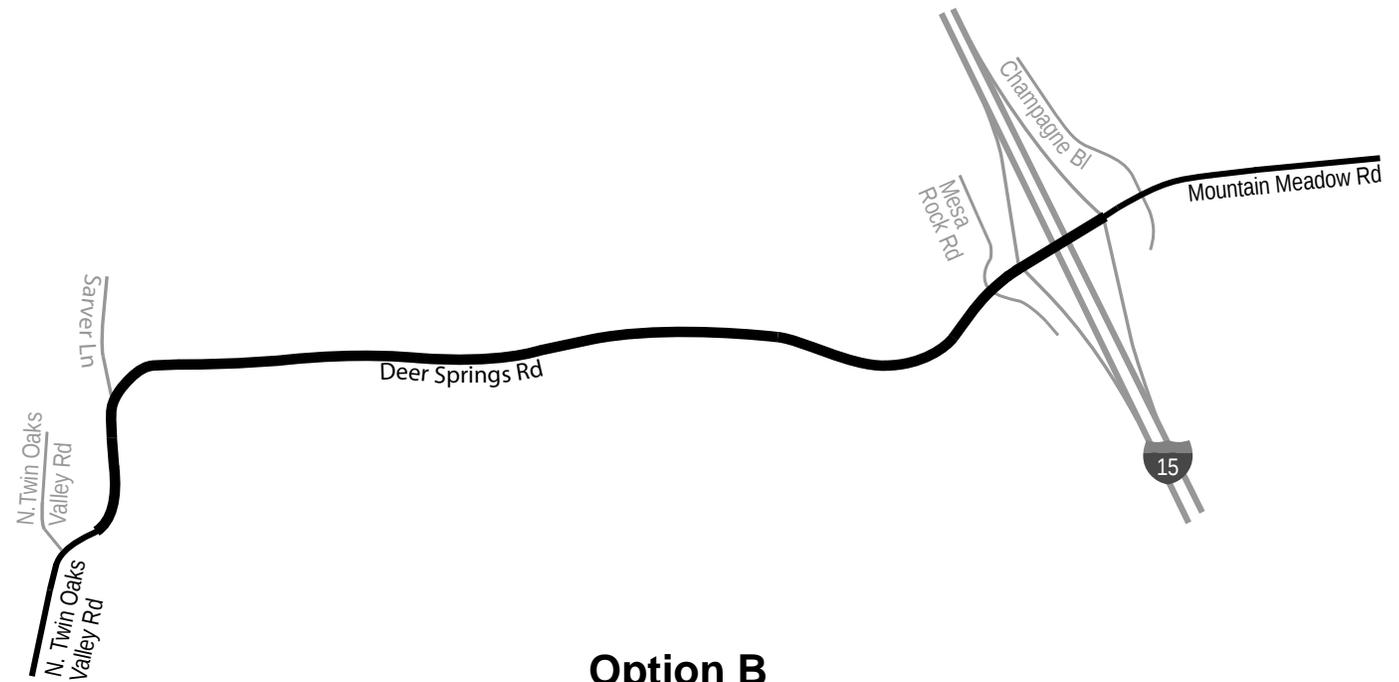
### 2.3.4 Alternative 4 – Four-Roundabouts Interchange

In this alternative, roundabouts are assumed at each of the ramp intersections and the frontage road intersections at Deer Springs Road.

-  2-Lane Collector
-  4-Lane Major Road
-  6-Lane Prime Arterial

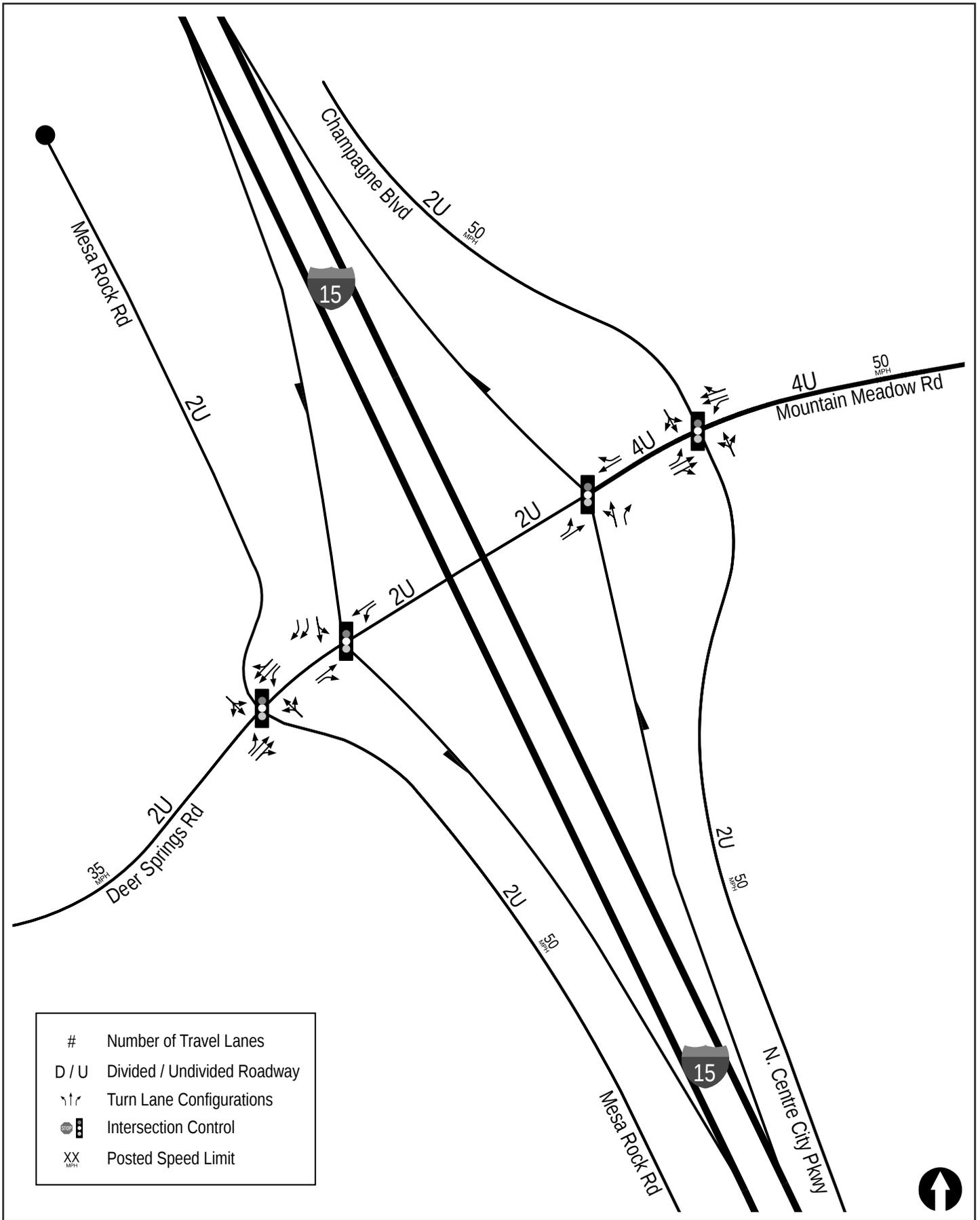


**Option A**



**Option B**





N:\2316\Operations Report\TEPA\Figures  
Date: 05/04/15

Figure 2-2

### Existing Roadway and Intersection Geometry

I-15 AT DEER SPRINGS ROAD INTERCHANGE

### 3.0 EXISTING CONDITIONS

This section discusses the existing conditions in the study area. Existing conditions traffic volume data was obtained from the *Final Traffic Volumes Report I-15/Deer Springs Road Interchange*, San Diego, California, April 21<sup>st</sup>, 2015. The data was assembled from the Caltrans' California Freeway Performance Measurement System (PeMS) for the freeway segments. AM / PM peak hour and daily segment volume counts were conducted on January 21, 2014.

Average Daily Traffic (ADT) volumes for existing conditions are summarized in **Table 3-1**.

TABLE 3-1  
EXISTING SEGMENT VOLUMES

| Street Segment                       | ADT <sup>a</sup> |
|--------------------------------------|------------------|
| <b>I-15 Mainline</b>                 |                  |
| Gopher Canyon Rd to Deer Springs Rd  | 127,900          |
| Deer Springs Rd to Centre City Pkwy  | 124,200          |
| <b>Deer Springs Road</b>             |                  |
| Sarver Lane to Mesa Rock Road        | 17,000           |
| Mesa Rock Road to I-15 SB Ramps      | 20,000           |
| I-15 SB Ramps to I-15 NB Ramps       | 15,600           |
| I-15 NB Ramps to Champagne Boulevard | 11,200           |
| <b>Mountain Meadow Road</b>          |                  |
| East of Champagne Blvd               | 7,900            |

**Footnote:**

a. ADT – Average Daily Traffic Volumes

### 3.1 Existing Intersection Operations

**Table 3-2** summarizes the existing peak hour intersection operations at the study area intersections. As seen in **Table 3-2**, all study area intersections are calculated to currently operate at LOS D or better, except the Deer Springs Road / I-15 NB Ramps intersection, which is calculated to operate at LOS E during the PM peak hour.

However, though the calculated existing intersection operations are acceptable, during the AM peak hour, the westbound queues extend from Mesa Rock Road several hundred feet eastward, east of the southbound ramps intersection and during the PM peak hour, the eastbound queues extend from the southbound ramps intersection several hundred feet westward, west of Mesa Rock Road.

TABLE 3-2  
EXISTING INTERSECTION OPERATIONS

| Intersection                        | Control Type | Peak Hour | Delay <sup>a</sup> | LOS <sup>b</sup> |
|-------------------------------------|--------------|-----------|--------------------|------------------|
| 1. Deer Springs Rd / Champagne Blvd | Signal       | AM        | 11.3               | B                |
|                                     |              | PM        | 11.4               | B                |
| 2. Deer Springs Rd / I-15 NB Ramps  | Signal       | AM        | 24.0               | C                |
|                                     |              | PM        | <b>66.0</b>        | <b>E</b>         |
| 3. Deer Springs Rd / I-15 SB Ramps  | Signal       | AM        | 35.1               | D                |
|                                     |              | PM        | 31.7               | C                |
| 4. Deer Springs Rd / Mesa Rock Rd   | Signal       | AM        | 18.6               | B                |
|                                     |              | PM        | 18.3               | B                |

**Footnotes:**

- a. Average delay expressed in seconds per vehicle.
- b. Level of Service

| Signalized   |     | Unsignalized |     |
|--------------|-----|--------------|-----|
| Delay        | LOS | Delay        | LOS |
| 0.0 < 10.0   | A   | 0.0 < 10.0   | A   |
| 10.1 to 20.0 | B   | 10.1 to 15.0 | B   |
| 20.1 to 35.0 | C   | 15.1 to 25.0 | C   |
| 35.1 to 55.0 | D   | 25.1 to 35.0 | D   |
| 55.1 to 80.0 | E   | 35.1 to 50.0 | E   |
| > 80.1       | F   | > 50.1       | F   |

## 4.0 SUMMARY OF PRELIMINARY FINDINGS & RECOMMENDATIONS

### 4.1 Assessment Approach, Data Sources and Major Assumptions

#### 4.1.1 Forecasted Traffic Volumes & Conditions

Future traffic volume data was obtained from the *Final Traffic Volumes Report I-15/Deer Springs Road Interchange*, San Diego, California, April 21<sup>st</sup>, 2015. Long-term analysis is based on SANDAG Series 12 Year 2035 model. Therefore, LLG obtained Year 2035 with Sierra Project model runs for *Options A and B*, these models included the *Mountain Meadow Road connection*. Year 2040 volumes were forecasted using a three-step process.

#### Step 1 – Year 2035 Volume Forecast

LLG worked with SANDAG staff to enter project land uses into the Year 2035 model. Project land uses for each of the 7 neighborhoods were input into the model exactly as proposed. The model runs for all Options used the same project land use inputs. The network assumptions for Options A and B were inputted accordingly for each model run while keeping the land use constant. The Year 2035 with Sierra Project volumes were obtained from each model run.

#### Step 2 – Growing Year 2035 Volumes to Year 2040

In Step 2, a Select Zone Assignment for the project-only trips was conducted. The project-only trips assigned to the street system were then removed from the Year 2035 With Sierra Project ADT to arrive at Year 2035 Without Sierra Project traffic volumes. This was done so Sierra would not have the growth factor applied to them.

#### Step 3 – Year 2040 Volumes

Growth factors were developed for each segment and five years of growth was added to each segment. The Sierra Project traffic was then added back in to obtain the Year 2040 with Sierra Project traffic. These steps are described in detail in the following section.

A model without the eastward connection of Mountain Meadow Road towards Valley Center Road was run. The volumes from the “with” and “without” Mountain Meadow Road connection were compared and a relationship (percentage change) between the two was developed for each segment. These percentage changes were applied to the ADT volumes, to obtain the *Option A without Mountain Meadow Road Connection* volumes. The AM / PM peak hour volumes were forecast as described above for *Option A*.

Average Daily Traffic (ADT) volumes (without the eastward connection of Mountain Meadow Road for Option A and Option B are summarized in **Table 4-1**.

#### 4.1.2 Methodology / Analysis Software

Peak hour intersection analysis was conducted for the four study area intersections for all project alternatives. The Synchro analysis software was used to conduct the peak hour intersection analysis. The following section summarizes the results of this analysis.

TABLE 4-1  
SEGMENT VOLUMES

| Street Segment                      | Existing | Year 2040 |          |
|-------------------------------------|----------|-----------|----------|
|                                     |          | Option A  | Option B |
| <b>I-15 Mainline</b>                |          |           |          |
| Gopher Canyon Rd to Deer Springs Rd | 127,900  | 178,840   | 180,090  |
| Deer Springs Rd to Centre City Pkwy | 124,200  | 180,370   | 185,690  |
| <b>Deer Springs Road</b>            |          |           |          |
| Sarver Lane to Mesa Rock Road       | 17,000   | 24,620    | 34,950   |
| Mesa Rock Road to I-15 SB Ramps     | 20,000   | 36,010    | 38,510   |
| I-15 SB Ramps to I-15 NB Ramps      | 15,600   | 26,100    | 29,330   |
| I-15 to Champagne Boulevard         | 11,200   | 22,750    | 27,650   |
| <b>Mountain Meadow Road</b>         |          |           |          |
| East of Champagne Blvd              | 7,900    | 14,560    | 15,530   |

#### 4.1.3 Preliminary Assessment Findings

The existing nonstandard intersection spacing between the Mesa Rock Road intersection and the southbound I-15 ramp termini negatively impacts traffic operations in this area. Considering this, the existing north leg of the Mesa Rock Road intersection, which is proposed to be used as the main entrance for the Sierra Project, has been positioned as far west as possible for each of the build alternatives. Due to geometric, socio economic, and other environmental constraints as described in the PEAR, this intersection cannot be positioned any further west. The south leg of Mesa Rock Road cannot be moved due to existing development. In addition, the southbound I-15 ramp termini have been positioned as far east as possible for each of the alternatives in order to maximize the distance between these intersections and optimize the overall traffic operations for this area.

#### Alternative 1 – No Build

Option B volumes are used in the *No Build* analysis since that corresponds to the County Mobility Element. **Table 4-1** summarizes the *No Build* intersection analysis. As seen in *Table 4-1* two intersections are calculated to operate at LOS E/F or worse conditions.

In the *No-Build* alternative, though the calculated intersection operations are acceptable, as in the case of the existing condition, during the AM peak hour, the westbound queues extend from Mesa Rock Road several hundred feet eastward, east of the southbound ramps intersection and during the PM peak hour, the eastbound queues extend from the southbound ramps intersection several hundred feet westward, west of Mesa Rock Road.

### Alternative 2 – Diamond Alternative

**Table 4-2** summarizes the *Diamond* intersection analysis. As seen in *Table 4-2* all intersections are calculated to operate at LOS D or better.

Though the calculated intersection operations are acceptable, as in the case of the *No-Build* condition, during the AM peak hour, the westbound queues extend from Mesa Rock Road several hundred feet eastward, east of the southbound ramps intersection and during the PM peak hour, the eastbound queues extend from the southbound ramps intersection several hundred feet westward, west of Mesa Rock Road.

### Alternative 3 – Diverging Diamond Alternative

**Table 4-2** summarizes the *Diverging Diamond* intersection analysis. As seen in *Table 4-2* all intersections are calculated to operate at LOS D or better.

In this alternative, though the calculated intersection operations are acceptable, as in the case of the Alternative 2, during the AM peak hour, the westbound queues extend from Mesa Rock Road several hundred feet eastward, east of the southbound ramps intersection and during the PM peak hour, the eastbound queues extend from the southbound ramps intersection several hundred feet westward, west of Mesa Rock Road.

### Alternative 4 – Four Roundabouts Alternative

Based on the future forecasted volumes, two-lane roundabouts are not expected to operate at acceptable levels of service in the long-term. Therefore, a preliminary “sensitivity” analysis was conducted to determine the period up to which a system of two lane roundabouts would operate at LOS D or better. This analysis indicated that both with Option A and Option B traffic, the system of two-lane roundabouts are calculated to operate at LOS E or worse prior to Year 2040. Another analysis was conducted to determine if a system of 3/2-lane roundabouts would operate at LOS D or better for a few years. This alternative was calculated to operate at LOS D or better for 5 years or less from installation.

The analysis of a *4-Roundabout* alternative is not finalized. The 4-roundabouts could be analyzed as a network using the VisSim or Corsim softwares in the PR&ED phase. It is possible that the roundabouts would operate more efficiently when analyzed as a network. Since standards and software used to analyze the capacity of roundabouts are evolving, further analysis of this alternative will be required during the PA&ED phase to fully assess its traffic performance per the required Intersection Control Evaluation (ICE) process. As such, the PDT determined that this alternative should remain in the PSR-PDS.

TABLE 4-1  
INTERSECTION OPERATIONS: ALTERNATIVE 1 – NO BUILD

| Intersection                        | Control Type | Peak Hour | Delay <sup>a</sup> | LOS <sup>b</sup> |
|-------------------------------------|--------------|-----------|--------------------|------------------|
| 1. Deer Springs Rd / Champagne Blvd | Signal       | AM        | 27.7               | C                |
|                                     |              | PM        | 31.8               | C                |
| 2. Deer Springs Rd / I-15 NB Ramps  | Signal       | AM        | <b>55.7</b>        | <b>E</b>         |
|                                     |              | PM        | <b>236.0</b>       | <b>F</b>         |
| 3. Deer Springs Rd / I-15 SB Ramps  | Signal       | AM        | <b>62.2</b>        | <b>E</b>         |
|                                     |              | PM        | <b>161.8</b>       | <b>F</b>         |
| 4. Deer Springs Rd / Mesa Rock Rd   | Signal       | AM        | 38.0               | D                |
|                                     |              | PM        | 30.4               | C                |

**Footnotes:**

- a. Average delay expressed in seconds per vehicle.
- b. Level of Service

| Signalized   |     |
|--------------|-----|
| Delay        | LOS |
| 0.0 < 10.0   | A   |
| 10.1 to 20.0 | B   |
| 20.1 to 35.0 | C   |
| 35.1 to 55.0 | D   |
| 55.1 to 80.0 | E   |
| > 80.1       | F   |

TABLE 4-2  
INTERSECTION OPERATIONS

| Intersection                        | Control Type | Peak Hour | OPTION A           |                  | OPTION B |     |
|-------------------------------------|--------------|-----------|--------------------|------------------|----------|-----|
|                                     |              |           | Delay <sup>a</sup> | LOS <sup>b</sup> | Delay    | LOS |
| Alternative 2 – Diamond             |              |           |                    |                  |          |     |
| 1. Deer Springs Rd / Champagne Blvd | Signal       | AM        | 47.5               | D                | 49.7     | D   |
|                                     |              | PM        | 38.4               | D                | 39.3     | D   |
| 2. Springs Rd / I-15 NB Ramps       | Signal       | AM        | 35.0               | C                | 35.6     | D   |
|                                     |              | PM        | 51.6               | D                | 50.7     | D   |
| 3. Deer Springs Rd / I-15 SB Ramps  | Signal       | AM        | 42.7               | D                | 42.1     | D   |
|                                     |              | PM        | 25.0               | C                | 29.5     | C   |
| 4. Deer Springs Rd / Mesa Rock Rd   | Signal       | AM        | 29.9               | C                | 23.8     | C   |
|                                     |              | PM        | 48.3               | D                | 35.9     | D   |
| Alternative 3 – Diverging Diamond   |              |           |                    |                  |          |     |
| 1. Deer Springs Rd / Champagne Blvd | Signal       | AM        | 43.3               | D                | 36.9     | D   |
|                                     |              | PM        | 47.1               | D                | 42.2     | D   |
| 2. Deer Springs Rd / I-15 NB Ramps  | Signal       | AM        | 31.4               | C                | 14.1     | B   |
|                                     |              | PM        | 34.2               | C                | 49.7     | D   |
| 3. Deer Springs Rd / I-15 SB Ramps  | Signal       | AM        | 16.6               | B                | 8.5      | A   |
|                                     |              | PM        | 22.2               | C                | 21.8     | C   |
| 4. Deer Springs Rd / Mesa Rock Rd   | Signal       | AM        | 25.3               | C                | 28.9     | C   |
|                                     |              | PM        | 22.6               | C                | 23.7     | C   |

**Footnotes:**

- a. Average delay expressed in seconds per vehicle.
- b. Level of Service

| Signalized   |     |
|--------------|-----|
| Delay        | LOS |
| 0.0 < 10.0   | A   |
| 10.1 to 20.0 | B   |
| 20.1 to 35.0 | C   |
| 35.1 to 55.0 | D   |
| 55.1 to 80.0 | E   |
| > 80.1       | F   |

## 5.0 SCOPE OF FUTURE TRAFFIC ENGINEERING STUDIES, ACTIVITIES, AND TASKS

Further operational analyses listed below will be conducted:

- Freeway mainline segments
- ILV analysis of the ramp intersections
- Ramp merge
- Ramp diverge

The following will be evaluated / developed:

- Vehicular, pedestrian and bicycle safety for each of the alternatives
- Electrical systems including type, service, hardware, software
- A traffic management plan for the work zone during construction



From: [Goebel, Karen](#)  
To: [Michael McCollum](#)  
Cc: [Fris, Michael](#); [Mendel Stewart](#); [Lynch, Michelle R CIV USARMY CESPL \(US\)](#); [Mark Wardlaw](#); [Ed Pert](#)  
Bcc: [susan\\_wynn@fws.gov](mailto:susan_wynn@fws.gov)  
Subject: **Newland Sierra Project 4(d) vs Section 7 vs Section 10**  
Date: **Thursday, March 16, 2017 1:14:39 PM**

---

Hi Mike,

In follow-up to our discussion on Friday, Mike Fris asked me to provide some additional information concerning the need for a take exemption for gnatcatchers for the Newland Sierra project. I have copied the Department and the County on this email so that they are informed about this discussion. We have had these same discussions with the project proponents at meetings where the Department and County were present so the information should not be new to them. I am also copying the Corps of Engineers (Corps) since they may be involved through the section 7 consultation process.

As we discussed, there are 3 processes allowed under the Act for the Service to grant take exemptions: through section 7 consultations where a Federal nexus exists, through section 10 permits, and for threatened species only (e.g., gnatcatcher), special 4(d) rules.

All of these avenues are available to the project proponents for the Newland Sierra project because 1) a Federal nexus exists under section 7 with the Corps, 2) an individual section 10 permit could be pursued in advance of the North County regional planning effort, which is still underway, or 3) the project proponent could apply through the County for a habitat loss permit (HLP) consistent with the special 4(d) rule, State NCCP process and conservation guidelines, and the County's ordinance implementing the 4(d) process within the County.

This is to confirm that only one process is required to grant the take exemption such that no HLP permit would be required if a take exemption was granted through either the section 7 or section 10 process. For the benefit of the Department and County, this statement is confirmed in the special 4(d) rule on page 65090 and in Attachment F of the County's ordinance, which have been forwarded to the Department and County by separate email.

You have asked for clarification regarding how the Service would address the coastal sage scrub (CSS) impacts of the project on gnatcatcher if the Corps initiated section 7 consultation with us. We attempt to address this question here, though we have not yet seen the Corps' final scope of analysis for areas under their jurisdiction nor have we determined whether our scope of analysis may differ. I also do not believe that the Corps has initiated consultation with us for the Newland Sierra project.

For discussion purposes only, let's assume the Service will include all CSS within our scope of analysis. I assume this may be logical in this instance because CSS is the primary habitat of gnatcatchers and we will need to evaluate the impact of both the loss and conservation of CSS due to the project on individual gnatcatchers (i.e., will there be take?) and determine how these impacts affect overall gnatcatcher survival and recovery at the species level, as is required when making our jeopardy/no jeopardy determination.

From the preliminary information we have received, the project will remove occupied CSS near the I-15 corridor supporting 1 gnatcatcher pair. I am not quite sure how much of this pair's territory will be affected without specific project information; but for this purpose, let's assume the loss represents the majority, if not all, of the CSS within this pair's territory.

Although unoccupied CSS exists in the southern interior section of the project site, this CSS also falls within the development footprint. Thus, birds displaced from existing occupied habitat cannot be expected to disperse to nearby unoccupied habitat onsite. Likewise, CSS within the northern portion of the site is already occupied. Based on this preliminary assessment, take of the gnatcatcher pair near the I-15 corridor is likely.

In making our jeopardy/no jeopardy determination, impacts to 1 pair of gnatcatchers and loss of the onsite CSS will be measured against conservation of the CSS in the northern portion of the site and any offsite conservation required as mitigation through the CEQA process. Thus, under this scenario, we will have addressed all of the onsite habitat, whether lost or conserved; the unoccupied CSS onsite, though no take is anticipated specifically from removal of unoccupied CSS; and any offsite habitat offered as mitigation in support of recovery of the species.

We should also clarify that the Service does not take a position as to which path you take (section 7 vs. HCP vs. 4(d)/HLP). We are simply clarifying options for you. Issuance of a non-jeopardy biological opinion should not be viewed as Service support for the project (or lack of support). We have expressed concern to the County about the overall project design's fragmentation of a core habitat area. We have also requested clarification on how the County will assemble a North County

preserve that relies on conservation of 75 percent of the Pre-Approved Mitigation Area when large projects, such as Newland Sierra and others, are not required to individually meet this conservation goal. Our understanding is that the County views these issues as resolvable and plans to address them in future iterations of the conservation design. Nevertheless, these are regional conservation planning issues that have not yet been resolved and which may be highlighted during the CEQA review process for this project.

Hope this helps, and you can call me if you have questions. I will be teleworking (760-415-2802) this afternoon up until 4:00 pm. After that, I am off to Seattle through Monday of next week.

Sincerely,

Karen

Karen Goebel  
Assistant Field Supervisor  
Carlsbad Fish and Wildlife Office  
2177 Salk Avenue, Suite 250  
Carlsbad, California 92008  
760/431-9440, ext. 296  
760/431-9624 Fax



From: [Zack, Winston S CIV CPMS \(US\)](mailto:Winston.S.Zack@usace.army.mil)  
To: [Stadtlander, Doreen](mailto:doreen_stadtlander@fws.gov)  
Cc: [susan\\_wynn](mailto:susan_wynn@fws.gov); [Lynch, Michelle R CIV USARMY CESPL \(US\)](mailto:Michelle.R.Lynch@usace.army.mil); [Dahl, Kyle J CIV USARMY CESPL \(US\)](mailto:Kyle.J.Dahl@usace.army.mil)  
Subject: **RE: [Non-DoD Source] Re: [EXTERNAL] Newland Sierra - Corps-Service-Applicant meeting**  
Date: **Thursday, May 3, 2018 1:35:57 PM**

---

The Applicant is aware that updated surveys will need to be done. They can't do those this year because of their EIR process doesn't want updated surveys. So they plan on conducting updated surveys next year.

The main point of this requested meeting is to identify Scope and what the Corps' Action Area will be for future consultation. The other part of the meeting would be related to what, if any, other non-Corps areas of the project site may/may not need to be consulted on. There are probably other questions the Applicant (and team) want to get clarified, but I can't think of what those would be right now.

Thanks!

-----Original Message-----

From: Stadtlander, Doreen [[mailto:doreen\\_stadtlander@fws.gov](mailto:doreen_stadtlander@fws.gov)]  
Sent: Thursday, May 3, 2018 1:18 PM  
To: Zack, Winston S CIV CPMS (US) <[Winston.S.Zack@usace.army.mil](mailto:Winston.S.Zack@usace.army.mil)>  
Cc: [susan\\_wynn](mailto:susan_wynn@fws.gov) <[susan\\_wynn@fws.gov](mailto:susan_wynn@fws.gov)>; [Lynch, Michelle R CIV USARMY CESPL \(US\)](mailto:Michelle.R.Lynch@usace.army.mil) <[Michelle.R.Lynch@usace.army.mil](mailto:Michelle.R.Lynch@usace.army.mil)>; [Dahl, Kyle J CIV USARMY CESPL \(US\)](mailto:Kyle.J.Dahl@usace.army.mil) <[Kyle.J.Dahl@usace.army.mil](mailto:Kyle.J.Dahl@usace.army.mil)>  
Subject: [Non-DoD Source] Re: [EXTERNAL] Newland Sierra - Corps-Service-Applicant meeting

Hi Winston,

My understanding is that the Corps had previously met with the project applicant and recommended that the CAGN surveys be updated. Have you received the results?

Doreen

On Thu, May 3, 2018 at 11:00 AM, Zack, Winston S CIV CPMS (US) <[Winston.S.Zack@usace.army.mil](mailto:Winston.S.Zack@usace.army.mil)> <<mailto:Winston.S.Zack@usace.army.mil>> > wrote:

Susan and Doreen,

Could you please provide me with some dates/times we could set up a meeting for the Newland Sierra Project?

I recall you wanted to have an Agency (Corps & Service) meeting before we meet with the Applicant. So, potentially we could have back-to-back meetings on the same day? Food for thought.

Thank you,

Winston S. Zack  
Regulatory Project Manager, Archaeologist, M.S., RPA  
U.S. Army Corps of Engineers Regulatory Division  
5900 La Place Court, Suite 100  
Carlsbad, CA 92008  
Office Phone: (760) 602-4838

winston.s.zack@usace.army.mil <<mailto:winston.s.zack@usace.army.mil>>

--

Doreen Stadtlander  
Division Chief  
Carlsbad Fish and Wildlife Office  
2177 Salk Avenue, Suite 250  
Carlsbad, CA 92008  
(760) 431-9440, ext. 223

**6a**

From: [Goebel, Karen](#)  
To: [Statlander, Doreen](#); [Wynn, Susan](#); [Carol Roberts](#); [Jon Avery](#); [Woulfe, MaryBeth](#); [Jane Hendron](#)  
Subject: **Fwd: Permitting issue**  
Date: **Tuesday, April 18, 2017 2:06:43 PM**  
Attachments: [San Diego Issue Brief 4 18 2017.docx](#)

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Just FYI. This meeting will be with Paul and Mike next week as a result of the Matrix meeting in D.C. Bullet assignment was prepared by Dan and edited by me. See attached.

Jane, copying you because this is a congressional meeting. Did you ever see the matrix? If not, I can forward to you. It would be good for you to be aware of these issues since they seem to be causing the RO to engage a lot, and I don't know how that translates into potential hot topics or not.

Karen

Karen Goebel  
Assistant Field Supervisor  
Carlsbad Fish and Wildlife Office  
2177 Salk Avenue, Suite 250  
Carlsbad, California 92008  
760/431-9440, ext. 296  
760/431-9624 Fax

----- Forwarded message -----

From: **Cox, Dan** <[dan\\_cox@fws.gov](mailto:dan_cox@fws.gov)>  
Date: Mon, Apr 17, 2017 at 3:55 PM  
Subject: Re: Permitting issue  
To: "Stewart, Mendel" <[mendel\\_stewart@fws.gov](mailto:mendel_stewart@fws.gov)>, Karen Goebel <[Karen\\_Goebel@fws.gov](mailto:Karen_Goebel@fws.gov)>  
Cc: Michael Fris <[michael\\_fris@fws.gov](mailto:michael_fris@fws.gov)>, Michael Senn <[michael\\_senn@fws.gov](mailto:michael_senn@fws.gov)>

Mendel and Karen,

looks like we will need to talk and maybe come up with some quick bullets on where we are on our list of projects... do you want to take the first stab at this or would you like me to?

I don't have any more information than what's is in this email chain, but my guess is we should be ready to talk about:

- Santee
- North County Plan
- Newland
- Eagle issues and village 13/14

I will call you tomorrow and we can discuss.

thanks  
dan

On Mon, Apr 17, 2017 at 12:47 PM, Michael Fris <[michael\\_fris@fws.gov](mailto:michael_fris@fws.gov)> wrote:  
See below. Let's check in on status of our various projects before then.

Sent from my iPhone

Begin forwarded message:

**From:** "Rische, Robert" <[Robert.Rische@mail.house.gov](mailto:Robert.Rische@mail.house.gov)>  
**Date:** April 17, 2017 at 12:30:58 PM PDT  
**To:** 'Paul Souza' <[paul\\_souza@fws.gov](mailto:paul_souza@fws.gov)>  
**Cc:** Michael Fris <[Michael\\_Fris@fws.gov](mailto:Michael_Fris@fws.gov)>, "[michael\\_senn@fws.gov](mailto:michael_senn@fws.gov)" <[michael\\_senn@fws.gov](mailto:michael_senn@fws.gov)>, Dan Cox <[Dan\\_Cox@fws.gov](mailto:Dan_Cox@fws.gov)>, "[wanda\\_cantrell@fws.gov](mailto:wanda_cantrell@fws.gov)" <[wanda\\_cantrell@fws.gov](mailto:wanda_cantrell@fws.gov)>, "[amedee\\_brickey@fws.gov](mailto:amedee_brickey@fws.gov)" <[amedee\\_brickey@fws.gov](mailto:amedee_brickey@fws.gov)>  
**Subject:** RE: Permitting issue

Next Monday (4/24) at 3:00 will work for me. Just to clarify, are you DC-based and can meet in person or would this be a call? Either works for me, just wanted to clarify.

Thanks,

Robert

---

From: **Paul Souza** [[mailto:paul\\_souza@fws.gov](mailto:paul_souza@fws.gov)]  
Sent: **Monday, April 17, 2017 3:03 PM**  
To: **Rische, Robert**  
Cc: **Michael Fris; [michael\\_senn@fws.gov](mailto:michael_senn@fws.gov); Dan Cox; [wanda\\_cantrell@fws.gov](mailto:wanda_cantrell@fws.gov); [amedee\\_brickey@fws.gov](mailto:amedee_brickey@fws.gov)**  
Subject: **Re: Permitting issue**

Thanks for the note, Robert. I'd be happy to meet with you anytime.

Just took a quick look at the calendar . . . Would early next week work? How about Monday, April 24 at 3:00 pm EST or Tuesday, April 25 at 2:00 pm EST? If you'd prefer a different time, just say the word.

Looking forward to the conversation . . .

Sincerely,

Paul Souza

Regional Director

Pacific Southwest

U.S. Fish and Wildlife Service

2800 Cottage Way, Suite W-2606

Sacramento, CA 95825

916-414-6469

916-208-2457 Cell

<https://www.fws.gov/cno>

On Apr 17, 2017, at 2:13 PM, Rische, Robert  
<[Robert.Rische@mail.house.gov](mailto:Robert.Rische@mail.house.gov)> wrote:

Good afternoon,

My name is Robert Rische and I'm counsel to Congressman Issa in his D.C. office. We recently met with James Whalen and Jeff O'Connor, representing development industries who conveyed they were having difficulty obtaining permits from the U.S. Fish & Wildlife Service with respect to developments in and around our congressional district.

They mentioned they had been in contact with your agency, so I wanted to touch base with you. Would you be available for a call later this week or early next week to discuss further?

Thanks,

Robert

Robert Rische

Counsel

**Office of Congressman Darrell Issa (CA-49)**

2269 Rayburn House Office Building

Washington, D.C. 20515

202-225-3906

[robert.rische@mail.house.gov](mailto:robert.rische@mail.house.gov)

<image001.png> <image002.png>

<image003.png> <image004.png>

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Dan Cox  
US Fish and Wildlife Service  
Section 10 (HCP) Coordinator

2800 Cottage Way W2606  
Sacramento, Ca 95825  
(916) 414-6539  
[dan\\_cox@fws.gov](mailto:dan_cox@fws.gov)

- **City of Santee- new HCP (Subarea Plan under the MSCP)**
  - **Summary of the project:** We are working with the City of Santee on their draft Subarea Plan. The Subarea Plan will focus on the biggest development project proposed within the City, the Fanita Ranch project.
  - **Status:** Working through the process to negotiate their Subarea Plan. CFWO discussed a new reserve design with the City, waiting for a response.
  - **Concerns:** The developer felt like they had a hard line agreement from 20 years ago. Hard line agreements go into effect at permit issuance when take is authorized. No permit has yet been issued for the City's Subarea Plan, and species' status and needs have changed in the area, which is why we have proposed changes from the design that was identified in the former hardline agreement.
  - **Next steps:** Waiting to hear back from the City on CFWO's proposed reserve design.
  
- **North County Plan- new HCP**
  - **Summary of the project:** We have been working with San Diego County to develop their North County Plan.
  - **Status:** Meetings with the County occur about 2 times per month; the plan is still being drafted. County gave CFWO a preliminary draft plan in early April, which is under review by CFWO.
  - **Concerns:** Working with new County staff that are inexperienced in developing HCPs. County wants draft plan out to the public in September; CFWO feels like this is an ambitious schedule due to outstanding issues (e.g., new conservation analysis not yet discussed or understood, funding, working through golden eagle issues.)
  - **Next steps:** CFWO commenting on sections of their preliminary plan by April 30<sup>th</sup>
  
- **Newland Sierra Development- new development project**
  - **Summary of the project:** New development project proposed within the draft North County Plan.
  - **Status:** CFWO has been in discussions with the developer to explain their regulatory options for take authorization, including a section 7 consultation or take authorization through the existing gnatcatcher 4d rule. Developer purchased land that they propose to meet mitigation needs.
  - **Concerns:** The proposed mitigation was purchased without input from the Wildlife Agencies (CFWO and CDFW) and does not address our concerns expressed for impacts to the overall reserve design of the North County Plan.
  - **Next steps:** Section 7 seems to be a viable option to pursue for take authorization.
  
- **San Diego MSCP and Eagle Issues with Village 14- within existing HCP**
  - **Summary of the project:** Development within the San Diego MSCP. Golden eagle take was not authorized in this area in the MSCP, but the latest science indicates that take may occur from the development.
  - **Status:** CEQA has been initiated (Notice of Preparation) by the County of San Diego for the proposed development project. Environmental groups are talking with the developer about options to alleviate the situation. FWS (RO and CFWO) is working through the biological and regulatory questions associated with the proposed development project.
  - **Concerns:** There are limited solutions that work for the developer and for golden eagles. Maintaining partnerships with the County, developers, and environmental groups has been challenging as they have opposite views on resolution.

- **Next steps:** CFWO is meeting on May 4<sup>th</sup> with San Diego County to discuss eagle issues.
- **San Diego MSCP and Quino/Eagle Issues with Village 13- within existing HCP**
  - **Summary of the project:** CFWO is working with San Diego County to figure out how to adjust their project and or the MSCP to address take of quino checkerspot butterfly. Quino is not a covered species under the MSCP.
  - **Status:** Working with the County to balance quino checkerspot butterfly and golden eagle conservation needs with developer needs. The County is considering amending the MSCP to include quino or developing a new HCP for quino only.
  - **Concerns:** Quino locations are all over the proposed development footprint so take cannot be avoided; need to find the right balance between development and conservation needs.
  - **Next steps:** CFWO is proposing a solution that will hopefully work for the developer and for conservation of quino checkerspot butterfly. The potential solution involves a reserve design change that will also help to address concerns about golden eagles.
- **Ramona Grasslands Preserve- recreation**
  - **Summary of the project:** The desire for increased public access within land purchased with Federal grant funding increases risks to golden eagle conservation, which was a primary purpose of the grant funding.
  - **Status:** CFWO is working with the County to try and find a balance between recreational access and conservation of golden eagles. Since the land was acquired, a docent led trail program during the limited non-breeding season for resident golden eagles (September 1 – December 1) has been used as a compromise. The County is now pushing for the trail to be open for 3 months without usage control.
  - **Concerns:** Potential abandonment of an active golden eagle territory due to recreation in an area that was purchased for the conservation of golden eagles and other raptors.
  - **Next steps:** Continue to work with the County to find a balance for both parties.

From: [Stadlander, Doreen](mailto:Stadlander.Doreen)  
To: [Susan Wynn](mailto:Susan.Wynn)  
Subject: **Fwd: FW: [EXTERNAL] RE: Checking In**  
Date: **Tuesday, April 3, 2018 8:54:47 AM**

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see email chain..

----- Forwarded message -----

From: **Stewart, Mendel** <[mendel\\_stewart@fws.gov](mailto:mendel_stewart@fws.gov)>  
Date: Mon, Apr 2, 2018 at 5:34 PM  
Subject: Fwd: FW: [EXTERNAL] RE: Checking In  
To: "Roberts, Carol" <[carol\\_a\\_roberts@fws.gov](mailto:carol_a_roberts@fws.gov)>  
Cc: "Sobiech, Scott" <[scott\\_sobiech@fws.gov](mailto:scott_sobiech@fws.gov)>, Karen Goebel <[karen\\_goebel@fws.gov](mailto:karen_goebel@fws.gov)>, Doreen Stadlander <[doreen\\_stadlander@fws.gov](mailto:doreen_stadlander@fws.gov)>

Carol,

Please provide any input you have to Doreen so we can provide an update to the Regional office by COB on Tuesday.

Thank you <Mendel

----- Forwarded message -----

From: **Michael Fris** <[michael\\_fris@fws.gov](mailto:michael_fris@fws.gov)>  
Date: Mon, Apr 2, 2018 at 11:59 AM  
Subject: FW: [EXTERNAL] RE: Checking In  
To: Mendel Stewart <[mendel\\_stewart@fws.gov](mailto:mendel_stewart@fws.gov)>, Dan Cox <[Dan\\_Cox@fws.gov](mailto:Dan_Cox@fws.gov)>

Mendel, Dan: See comments by Jim W below. I'm gonna ask Dan to help put together a paragraph on status of each of these. I don't think we need to rebut or correct him, but just clear the air on where we are with each. Shouldn't be that hard. Dan: I can sit with you today and outline them. I can be on the phone early tomorrow to walk through them with both of you, and be able to walk through status of each of these, do any necessary clarifications or course corrections, and move forward

From: **Evans, April** [[mailto:april\\_evans@fws.gov](mailto:april_evans@fws.gov)]  
Sent: **Friday, March 30, 2018 12:35 PM**  
To: **Holzworth, Jody**  
Cc: **Michael Fris; Wanda Cantrell**  
Subject: **Re: [EXTERNAL] RE: Checking In**

Both are scheduled. 8-9 pre-brief and 9-10 call with Jim Whalen.

*April Evans,*

*U.S. Fish and Wildlife Service*

*Secretary to the Assistant Regional Director*

*Ecological Services*

*Region 8*

*(916) 414-6516*

*(916) 414-6462 FAX*

On Fri, Mar 30, 2018 at 10:39 AM, Holzworth, Jody <[jody\\_holzworth@fws.gov](mailto:jody_holzworth@fws.gov)> wrote:

Mike,

Please make Paul's asks here next week's priority, including an updated briefing paper by COB Tuesday. Let me know how I can help.

April, please schedule a pre-brief on San Diego HCP issues for Wednesday morning that includes Mike, Paul and myself. Then, please schedule a time to visit with Jim Whalen after the first Wednesday meeting, if possible. Paul plans to call into both of these meetings while on vacation (he is on EST so mornings are best). It would be good if we can get these scheduled today.

Mike, you'll want to let Wanda know who else will be joining us from your team and Carlsbad on Monday.

Thank you!

--Jody

----- Forwarded message -----  
From: **Paul Souza** <[paul\\_souza@fws.gov](mailto:paul_souza@fws.gov)>  
Date: Thu, Mar 29, 2018 at 4:34 PM

Subject: Fwd: [EXTERNAL] RE: Checking In  
To: Michael Fris <[Michael\\_Fris@fws.gov](mailto:Michael_Fris@fws.gov)>  
Cc: [jody\\_holzworth@fws.gov](mailto:jody_holzworth@fws.gov)

Mike,

As we discussed, I'm going to need a briefing on the status of these projects (see below) . . . Your RO team can lead the briefing and Carlsbad can join the pre-brief. Probably Wednesday morning and I'd like a written briefing paper the day before. Jim implies there may be other issues coming, too. I'm going to see if we schedule the meeting with Jim and his colleagues right after. Jim specifically said he did not want Carlsbad in that meeting.

Let's see how far we can get on each of these issues. I'd like you and your team to be able to clearly define the sticking points on the remaining issues. Please see if we can get them thinking about fair solutions that are workable for the developers. I've found it difficult to separate the key issues from the less important issues in some of the briefings with Carlsbad. Not sure who should be the key voice on the phone from that office . . . Use your good judgment.

Many thanks,

Paul Souza  
Regional Director  
Pacific Southwest  
U.S. Fish and Wildlife Service  
2800 Cottage Way, Suite W-2606  
Sacramento, CA 95825  
916-414-6469  
916-208-2457 Cell  
<https://www.fws.gov/cno>

Begin forwarded message:

**From:** James Whalen <[james@jwhalen.net](mailto:james@jwhalen.net)>  
**Date:** March 29, 2018 at 7:18:01 PM EDT  
**To:** Paul Souza <[paul\\_souza@fws.gov](mailto:paul_souza@fws.gov)>  
**Subject:** [EXTERNAL] RE: Checking In

Hi Paul—thanks for getting back to me. You are right, we are planning on sending you what we are looking for, but it has been taking longer than I'd hoped. I'll get it asap. I had been hoping to do something this week with you so as not to bother you on vacation next week, but Dudek isn't quite done yet. Here

is where we stand:

### Low-Hanging Fruit

*Warner Springs Ranch*—we brought you material February 12, 2016, on the benefits of proceeding with a “mega-preserve” of 100,000 acres in the Henshaw Valley over a year ago, but nothing has happened (because there is no development “threat”?). This has the potential to really help on golden eagle and other apex species, not to mention Quino and about three other listed species. We need a champion from your office who will make this a priority. The request to you is to help make this conservation effort happen by assigning one of the best Carlsbad FWS people to this, Jonathan Snyder, who gets things done.

*Newland Sierra*—Rita Brandin and I met with you on December 18, 2017, and you said a Section 7 for the gnatcatcher was the simplest path forward. We took this direction. The Newland team has submitted its 404 application, and the Corps said they will ask for a meeting with the FWS. We requested that Mike Fris be personally involved to ensure there are no jeopardy issues. We request that this process be completed under your oversight to ensure it is satisfactorily completed.

### Tougher Calls

*Otay Ranch Village 14*—material in support of the Land Exchange was given to your office on June 26, 2017. Since then, despite having a compelling argument for a superior project with the land exchange, and spending \$2MM to do it as directed by FWS, there has been no movement. We tried in good faith, but have run out of time, so the current project is proceeding to approval. The County is issuing findings that will resolve the Baldwin letter issues. FWS is trying to require a MSCP major boundary adjustment rather than allowing the findings permitted under the County's Biological Mitigation ordinance. Because we anticipate objection from FWS, our request is to allow the County to proceed with the BMO findings without objection from FWS.

*Fanita Ranch*—Jeff O'Connor and I met with you on August 21, 2017, and shared three footprints, two of which were acceptable to the FWS. The third, which is the project proposed today, is clearly superior to the other two on its face, but was rejected by the Carlsbad FWS. The documentation that supports Home Fed's assertion that their proposal is superior is almost done. The request is to support the inclusion of the Home Fed footprint in the incipient Santee MSCP Subarea Plan.

Village 13—Stephen Haase and I met with you on June 21, 2017, and came back with your admonition to document the adequate mitigation of Quino impacts in a revised footprint called Alternative H. We also met twice more to no avail with Carlsbad. We have nearly completed the requested documentation. Based upon expert analysis, it is clear a key element necessary for survival of the species is conservation and management. Alternative H implements this strategy by restoring and enhancing unoccupied Quino habitat onsite and providing additional funding for on-going management. (Note that FWS/SD Zoo efforts to breed and transplant captive Quino larvae have borne fruit with the recent, second year of successful emergence of adults.) We believe the foregoing meets your requirements to support the modified Alternative H through the Section 7 process, and request your leadership and oversight.

It would be good to discuss on the phone. I am loath to disrupt your hard-earned vacation, so you tell me what works, time-wise. Thanks so much again, JimW

James E. Whalen

President

J. Whalen Associates, Inc.

1660 Hotel Circle North, Suite 725

San Diego, CA 92108

Phone: 619-683-5544

Email: [james@jwhalen.net](mailto:james@jwhalen.net)

---

**From:** Paul Souza <[paul\\_souza@fws.gov](mailto:paul_souza@fws.gov)>

**Sent:** Thursday, March 29, 2018 1:50 PM

**To:** James Whalen <[james@jwhalen.net](mailto:james@jwhalen.net)>

**Subject:** Checking In

Jim,

Thanks for the conversation last week. I thought you were going to send me a follow up note with the issues you'd like to cover next week. Just want to be sure we're prepared and can schedule it.

Many thanks and talk with you soon . . .

Paul Souza  
Regional Director  
Pacific Southwest  
U.S. Fish and Wildlife Service  
2800 Cottage Way, Suite W-2606  
Sacramento, CA 95825  
916-414-6469  
916-208-2457 Cell  
<https://www.fws.gov/cno>

--

**Jody Holzworth**  
**Deputy Regional Director**  
**U.S. Fish & Wildlife Service**  
**Sacramento, CA**  
**(916) 414-6619**

--

Mendel Stewart  
U.S. Fish and Wildlife Service  
Carlsbad Fish and Wildlife Office  
Field Supervisor  
2177 Salk Avenue, Suite 250  
Carlsbad, CA 92008

760-431-9440 x211 office  
760-533-5976 mobile  
[mendel\\_stewart@fws.gov](mailto:mendel_stewart@fws.gov)  
<http://www.fws.gov/carlsbad/>

Region 8 Facebook page: <https://www.facebook.com/usfwspacificsouthwest>

Region 8 Twitter page: <https://twitter.com/USFWSPacSWest>

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Doreen Stadlander  
Division Chief  
Carlsbad Fish and Wildlife Office  
2177 Salk Avenue, Suite 250  
Carlsbad, CA 92008  
(760) 431-9440, ext. 223

**6b**

From: Wynn, Susan  
To: Williams, Carol@Wildlife; Sevrens, Gail@Wildlife; David Mayer  
Cc: Doreen Statdlander; Karen Goebel  
Subject: Newland Sierra  
Date: Wednesday, August 2, 2017 9:58:30 AM  
Attachments: 15B0150-17CPA0166 Newland Sierra DEIR comments.docx

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Hi Carol et al - Thanks for taking the lead on this letter - Carol did an amazing job. Unfortunately, we are not going to be able to go joint with you on it- I had started to make a few edits - you can use or delete as you see fit, I also removed any reference to us.

If you have any questions, please give Karen a call.

Susan

Susan Wynn  
Fish and Wildlife Biologist  
2177 Salk Avenue, Suite 250  
Carlsbad, CA 92008  
(760) 431-9440 ext 216



U.S. Fish and Wildlife Service  
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California Department of Fish and Wildlife  
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In Reply Refer To:  
FWS/CDFW 15B0150 17CPA0166

Ms. Ashley Smith  
County of San Diego  
Department of Planning and Development Services  
5510 Overland Avenue, Suite 310  
San Diego, California 92123

Subject: Comments on the Draft Environmental Impact Report, General Plan Amendment, Specific Plan, Rezone, Tentative Map, and Draft Habitat Loss Permit for the proposed Newland Sierra Project, County of San Diego, California (Log No. PDS2015-ER-15-08-001; SCH No. 2015021036. Project Numbers: PDS2015-GPA-15-001, PDS2015-SP-15-001, PDS2015-REZ-15-001, PDS2015-TM-5597)

Dear Ms. Smith:

The Department of Fish and Wildlife (Department) and the U.S. Fish and Wildlife Service (Service), collectively referred to as the Wildlife Agencies, have reviewed the Draft Environmental Impact Report (DEIR), General Plan Amendment, Specific Plan, Rezone, Tentative Map, and Draft Habitat Loss Permit (HLP) for the proposed Newland Sierra Project (Project) received on June 15, 2017. The comments provided in this letter are based on information in the documents provided; associated reference materials including Dudek's December 11, 2013 Memorandum; Megan Jennings' April 2017 Merriam Mountains Wildlife Connectivity Review; multiple meetings and discussions with San Diego County (County) staff and representatives of the Project applicant; our knowledge of sensitive and declining plant and animal species and vegetation communities in the County; and our participation in regional conservation planning, including working with the County, various consultants, and stakeholders involved with the County's draft North County Multiple Species Conservation Program (NC-MSCP) planning effort.

The primary concern and mandate of the Service is the protection of public fish and wildlife resources and their habitats. The Service has legal responsibility for the welfare of migratory birds, anadromous fish, and endangered animals and plants occurring in the United States. The Service is also responsible for administering the Federal Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 *et seq.*), including habitat conservation plans (HCP) developed under section 10(a)(1) of the Act. The Department is a Trustee Agency and a responsible Agency pursuant to the California Environmental Quality Act (CEQA), Sections 15386 and 15381, respectively. The Department is responsible for the conservation, protection, and management of the State's biological resources, including rare, threatened, and endangered plant and animal

species, pursuant to the California Endangered Species Act (CESA) and other sections of the Fish and Game Code, and administers the Natural Community Conservation Planning (NCCP) program. The County has signed a Planning Agreement with the Department and the Service for the development of the draft NC-MSCP, and this NCCP/Habitat Conservation Plan (HCP) is currently in development for unincorporated lands in north San Diego County.

The Project site consists of 51 parcels totaling approximately 1,985 acres located west of Interstate 15, north of Deer Springs Road, and east of Twin Oaks Valley Road within the Twin Oaks Valley and Hidden Meadows communities of the North County Metropolitan Subregional Plan area (southern portion) and the Bonsall Community Planning area (northern portion) of the unincorporated San Diego County (County). The Project would include the development of 2,135 dwelling units, 81,000 square feet of general commercial uses, a six-acre school site, approximately 36 acres of parks, and 1,202 acres of biological open space. Overall, the master-planned community would consist of seven planning areas focused around a town center located off of Deer Springs Road in the southeastern corner of the site and include an extensive trail system including: 6.9 miles of multi-use pathways along the main road; 8.9 miles of internal pathways and trails within neighborhoods; 2 miles of multi-purpose trails through the open space area; and, 1.5 miles of secondary trails through the open space area. Access to the Project site would be provided by two main access points along Deer Springs Road, with an additional access point provided at Camino Mayor off of Twin Oaks Valley Road.

The Project site is located within the northern portion of the Merriam Mountains range, a narrow 8.5-mile-long chain of low mountains generally running north-south with a variety of east-west trending ridgelines and scattered peaks. The property is primarily undeveloped with on-site topography composed mostly of hills and valleys dominated by rock (granodiorite) outcroppings, moderate to steeply sloping terrain, and elevations ranging from approximately 660 feet above mean sea level (AMSL) near the northwestern end to approximately 1,750 feet AMSL in the west-central portion of the Project site. Various dirt roads and trails that provide access to each parcel and service roads for existing water infrastructure traverse the Project site. An abandoned quarry is located in the northwest portion of the Project site and an abandoned private landing strip is located in the north-central portion. Surrounding land uses to the north, west, and south of the Project site include large-lot, single-family residential development, agricultural uses and conserved open space.

The Project site is also located within a core habitat area within the Pre-Approved Mitigation Area (PAMA) of the draft NC-MSCP, specifically the Gopher Canyon - Twin Oaks Planning Unit. Merriam Mountains represents one of only two-three remaining large blocks of natural habitat in the PAMA west of Interstate 15. Vegetation on the Project site consists predominately of southern mixed chaparral, with interspersed patches of Diegan coastal sage scrub, live oak woodlands, and southern willow scrub. The South Fork of Moosa Canyon also runs from the northern to northeastern area of the Project site. In addition, the habitat evaluation maps of the draft NC-MSCP indicate that habitats on and adjacent to the Project site are “moderate”, “high”, and “very high” habitat quality. Areas to the north, south, east, and west of the site are also identified as PAMA in the draft NC-MSCP.

Commented [WS1]: IF we are restricted to referencing the 2009 plan, then it is in the San Marcos-Merriam Mountains Core and this project is shown as a hardline – going back to this draft does not make sense to me at this point in the process – so keeping it generic

Commented [WS2]: See Megan Jennings write up

The proposed Project would permanently impact 776.6 acres on-site, including 54.5 acres of coastal scrub, 666.9 acres of chaparral, 6.5 acres of coast live oak woodland, 15.3 acres of riparian habitat, and 15.3 acres of non-native grassland. Permanent impacts off-site would range from 70.5-73.2 total acres and include impacts to coastal scrub, chaparral, oak woodland, riparian habitats, and non-native grassland. The applicant proposes to mitigate these impacts through the designation of 1,209.1 acres of on-site biological open space and the purchase of an additional 211.8 acres off-site. On-site impacts would also permanently impact the federally threatened coastal California gnatcatcher (*Polioptila californica californica*, gnatcatcher). The applicant proposes to mitigate impacts to coastal scrub and gnatcatcher through the County's HLP process. In addition to permanent impacts, the Project will temporarily impact 8.7-9.2 total acres on-site and 1.29 total acres off-site. The applicant proposes to restore the temporarily impacted areas within designated open space via the development and implementation of a Revegetation Plan.

We offer the following comments and recommendations to assist in avoiding, minimizing, and adequately mitigating Project-related impacts to biological resources, and to ensure that the Project is consistent with the HLP process, Federal and State endangered species laws/regulations, and ongoing regional habitat conservation planning efforts:

1. The DEIR analyzes eleven alternatives to the proposed Project, including an Existing General Plan Alternative. Under this alternative, the Project site would be developed under existing General Plan land use designations of Village, Semi-Rural, and Rural Lands. According to the Land Use Element of the County's General Plan, approximately 19.6 acres of the existing property are designated Semi-Rural 10 (SR10), which allows one dwelling unit per 10 gross acres on land with slopes of less than 25 percent, and one dwelling unit per 20 gross acres on land with slopes greater than 25 percent. Approximately 1,907 acres of the existing property is designated Rural Lands 20 (RL20), which allows one dwelling unit per 20 gross acres. Approximately 4.64 acres are designated General Commercial (C-1), which allows a maximum intensity of 0.70 floor area ratio in areas designated as Village. Approximately 53.64 acres are designated Office Professional (C-2), which allows a maximum intensity of 0.80 floor area ratio in areas designated as Village.

The DEIR concludes that this alternative would allow approximately 99 single-family residential dwelling units and 2,008,116 square feet of office professional and commercial space with associated roadways, leach fields for septic systems, and Fuel Modification Zones (FMZs), and would decrease open space by approximately 273 acres in comparison to the proposed Project. According to our understanding of the County's Conservation Subdivision Ordinance, which requires 75% avoidance of resources on lands zoned SR 10, and 80% avoidance on lands zoned RL 20, this conclusion is incorrect. It is our understanding that the zoning allowances are only applied to the acreage that remains after the avoidance criteria have been met. This would result in the development of approximately 20 homes on lands zoned SR10 and RL20, and the avoidance and protection of approximately 1,539 acres of open space on those lands, a

330-acre increase from the proposed Project. The Conservation Subdivision Ordinance also contains specific requirements that relate to the design of the open space on site. According to the County's "Rural Subdivision Design and Processing Guidelines", Projects subject to the Conservation Subdivision Ordinance are required to:

- A. Conserve the largest blocks possible of fragmented and interconnected open space;
- B. Avoid creating slivers of open space or fingers of open space that extend in and around development and provide the lowest amount of interface between open space and development – referred to as maximizing the surface area to perimeter ratio;
- C. Create the maximum amount of connectivity between on and off-site resource areas;
- D. Maintain patterns of diversity within the landscape such as multiple habitat types, varying topography, agriculture, etc; and,
- E. Preserve particularly unique and/or sensitive resources in the core of open space areas or such that they are sufficiently buffered to achieve the same practical effect.

These requirements are consistent with the preserve design principles outlined in the Planning Agreement, the NCCP Conservation Guidelines, and the NCCP Act of 2003.

The avoided lands shall be protected with an easement dedicated to the County or a conservancy approved by the Director of County PDS. Under the application of the Conservation Subdivision Ordinance as described above, the Existing General Plan Alternative would maximize on-site open space and lead to the most biologically sound preserve design alternative. If our understanding is correct, although we have not yet seen the resulting project footprint, it is very possible that we would recommend the adoption of this alternative.

2. The DEIR also analyzes three alternatives recommended by the Department and the U.S. Fish and Wildlife Service (Wildlife Agencies) in our response letters ~~response~~ to the Notice of Preparation (NOP) for the DEIR. These alternatives would minimize project impacts to the draft PAMA, provide for a large, contiguous block of open space in the eastern and northern portion of the property thereby contributing to assemblage of the San Marcos-Merriam Mountains Core Area, and maintain connectivity between on and offsite areas designated as draft PAMA and to other conservation efforts outside the NCMSCP planning area. Retaining a core block of habitat onsite as well as connectivity for wildlife throughout the Project site is a primary concern of ours. There are very few areas remaining in the NC-MSCP that support blocks of native vegetation that are greater than 500 acres. In addition, ~~a~~As discussed in Megan Jennings' Merriam Mountains Wildlife Connectivity Review, the proposed Project site's location within the Merriam Mountains serves as a critical stepping-stone between north-south coastal sage scrub habitat patches along the I-15. The proposed Project location is also important for east-west movement between the Merriam Mountains and the San Marcos Mountains. Given the importance

~~of the Project's location for wildlife habitat and connectivity, the Wildlife Agencies continue to recommended-recommend selection of a three-scaled-back alternatives that would minimize Project impacts to the PAMA in the draft NC-MSCP and preserve a large core block of habitat; provide for a large, continuous block of open space in the eastern and northern portion of the Site; and maintain connectivity between on- and off-site areas designated as draft PAMA and other conservation efforts outside the NC-MSCP planning area.~~

Under CDFW/USFWS Land Use Planning Alternative A – one of the three Wildlife Agency recommended alternatives - the Town Center, Terraces, and Hillside planning areas, along with associated access roadways, parks, and other improvements, would be removed and replaced with open space. The remainder of the planning areas (Valley, Mesa, Knoll, and Summit) would remain as proposed under the Project. The DEIR concludes that this alternative is the Environmentally Superior Alternative, with the exception of the No Project (No Build) Alternative. In the event that the Existing General Plan Alternative is not adopted, given the wildlife habitat and connectivity benefits discussed above, we would also support the adoption of this alternative.

3. The proposed Project is requesting an amendment to the County's Resource Protection Ordinance (RPO) to allow impacts to RPO wetlands and wetland-buffers. The RPO defines wetlands as lands that have one or more of the following attributes: (1) lands that periodically support a predominance of hydrophytes (plants whose habitat is water or very wet places); (2) lands in which the substratum is predominantly undrained hydric soil; or (3) lands where an ephemeral or perennial stream is present and whose substratum is predominately non-soil, and where such lands contribute substantially to the biological functions or values of wetlands in the drainage system. As detailed in Table 3 of the draft Resource Protection Plan, the Project would impact 2.13 acres of RPO wetland and 8.7 acres of wetland-buffer on-site, as well as 1.49 acres of RPO wetland and 1.10 acres of wetland-buffer off-site. The Project proposes to partially mitigate these impacts through avoidance of other RPO wetlands on-site; however, these on-site areas would not be suitable to serve as mitigation credit as avoidance is already required per the RPO. As such, additional off-site mitigation would be required in order to fully mitigate impacts to RPO wetlands and wetland-buffers.

The Project's proposal to amend the RPO creates a concern regarding the ability to meet the conservation goals and objectives established in the NC-MSCP. The RPO is one of several enforcement tools the County has advocated to ensure the build out of the NC-MSCP Preserve and the conservation of the NC-MSCP Covered Species. Currently, there is no exemption built into the RPO that allows impacts to RPO wetlands without commensurate mitigation. Allowing exemptions to the RPO on a project-by-project basis severely compromises the effectiveness of this enforcement tool. We request the Project be revised to avoid impacts, except those caused by uses permitted under Sec. 86.604 of the RPO, to all RPO wetlands and wetland-buffer both on and off-site to provide

consistency with the existing RPO.

4. The Project is also requesting an exemption to the RPO to allow development on Steep Slope Lands. Section 86.602(p) of the RPO, defines “Steep Slope Lands” as, “all lands having a slope with natural gradient of 25% or greater and a minimum rise of 50 feet, unless said land has been substantially disturbed by previous grading”. The development footprint of the proposed Project includes 148 acres of Steep Slope Lands. RPO Section 86.604.e.1.cc allows encroachment into Steep Slope Lands “to avoid impacts to significant environmental resources that cannot be avoided by other means, provided no less environmentally damaging alternative exists”. As discussed above, the enforceability of the RPO is critical to the success of the NC-MSCP. The DEIR analyzes several less environmentally damaging alternatives to the proposed Project. Therefore, we recommend that the Project be modified to remove Steep Slope Lands from the development footprint in order to provide consistency with the RPO.
5. The draft NC-MSCP has identified a target level of conservation for lands within the PAMA at 75 percent; however, the project, as proposed, would achieve about 39 percent conservation of the property. We acknowledge that the 75 percent conservation target is an average across the PAMA, where some areas will be conserved at higher levels and others at lower levels. Because anything less than 75 percent conservation on projects occurring in PAMA will require additional cost to the County to make up for that shortfall, we especially advocate for that level of conservation prior to the completion of the NC-MSCP permit. This level of conservation is therefore our starting point as we review each proposed project that is located within the PAMA boundaries. We also consider other factors including the importance of the project area to identified biological core and linkage areas within the preserve, as well as the presence of critical biological resources. As discussed in the Wildlife Agencies NOP response letters for the proposed Project, the balance of any portion of the 75 percent conservation that cannot be achieved on-site should be met by contributing land that adds value to the Merriam Mountains connection, preferably in the same NC-MSCP planning unit.

In order to fulfill the proposed Project’s mitigation requirements and provide the remaining balance of 75 percent conservation, the Project applicant has purchased a 211.8-acre property located within PAMA of the draft NC-MSCP, specifically within the far eastern section of the Ramona Planning Unit. We recognize the value of this property as it provides a block of ~~continuous~~ habitat situated ~~between~~ near segments of the Cleveland National Forest and San Diego County Parks land, supports high value habitat and sensitive species such as Engelmann Oak, and aides in the build out of the NC-MSCP Preserve. However, this property does not provide comparable habitat to that which would be impacted by the proposed Project, and, importantly, does not off-set the loss/reduction of connectivity created by the Newland Sierra project or further the conservation efforts in the Merriam Mountains vicinity pursuant to NC-MSCP goals.

Commented [WS3]: Near? This kind of implies that it actually connects these lands, however it is actually is not contiguous with either

Furthermore, the elevation of the coastal sage scrub on the proposed mitigation property is too high to support gnatcatchers, thus its preservation cannot be considered compensatory for impacts to gnatcatcher occupied and potentially occupied habitat on-site or to impacts to the coastal sage scrub along the I-15 corridor.

6. The DEIR does not adequately address potential impacts to wildlife from roads and traffic both within the project and offsite from the widening of Deer Springs Road and the potential changes to the Deer Springs interchange at Interstate 15. Wildlife crossing structures as well as associated fencing to reduce mortality effects of the roadways should be included as mitigation measures in the project to ensure that the site is permeable to wildlife and to minimize impacts from the roads and traffic.

6.7. The Project applicant has committed to conserving the biological resources within the on and off-site open space in perpetuity by recording a Biological Open Space Easement (M-BIO-8B). Open space easements generally prohibit a number of potentially harmful impacts, such as grading, clearing vegetation, and building structures, from occurring within the open space. However, the proposed easement, as described in M-BIO-8B of the DEIR, includes an exception for selective clearing of vegetation by hand to the extent required by written order of the fire authorities, pursuant to the February 26, 1997 Memorandum of Understanding (MOU) between us and the fire districts. This MOU only addresses clearing to reduce fire hazards for structures that existed at the time the MOU was signed; it was not intended to extend to future development and therefore is not applicable to the proposed Project. New developments should be conditioned to include all FMZ's within the development footprint. Any future fuel modifications that occur within designated open space would be considered impacts and would require additional compensatory mitigation. We recommend the removal of this exception from the proposed open space easement and the reconfiguration of the open space, if necessary, to reduce the potential need for such clearing to occur. Alternatively, if the applicant does not wish to modify the easement language, the Resource Management Plans (RMPs) for the designated open space should include assurances that compensatory mitigation will be provided for any future impacts that occur because of this exception.

8. The text of the DEIR references several versions of the draft NC-MSCP, including the 2009, 2014, and 2016 versions; however, only the 2009 version is included in the Chapter 5 List of References. We recognize that significant aspects of the draft NC-MSCP, including biological goals and objectives and covered species lists, have changed numerous times throughout the plan's development, thus complicating the evaluation of the proposed Project's impact on the plan. Nonetheless, the DEIR should include citations for all documents referenced in the document. The Environmental findings, that are included in the draft Habitat Loss Permit, state that they are based "upon all of the documents contained in the record for this project" not just the 2009 draft

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Commented [WC4]: I was hoping you could expand on this one. We weren't sure what direction to go in...it wouldn't be productive for them to review the Project only based on the 2009 Plan (last public draft), but I'm not sure we can direct them to the 2017 Plan (and updated species list) since it's not \*officially\* public

~~7.~~ The findings include a discussion of the project’s consistency with the *Interim Project Preserve Design Principles*. The first couple of principles state that the on-site open space should provide a long-term biological benefit and that no isolated pockets of open space should be used for mitigation credit. As described above under comments 1 and 2, preservation of a core block of habitat in this unit of the PAMA is critical to the success of the NC-MSCP. We remained concerned about the long-term viability of the proposed openspace in the southern and eastern blocks of biological open space due to indirect effects from the adjacent development, fuel modification, and access roads. Although the County has proposed this project as a “hardline area” in the draft North County Plan, the conservation analysis has not been completed, nor has the Department agreed to the proposed footprint. Therefore the conclusion that “By identifying the proposed on-site biological open space as a proposed hardline area, the County has determined that the proposed biological open space would provide long-term biological benefit” is not valid.

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~~8-9.~~ The draft NC-MSCP proposes to cover two bat spaces, the pallid bat (*Antrozous pallidus*) and Townsend’s big-eared bat (*Corynorhinus townsendii pallescens*). According to the Biological Resources Technical Report (BTR), focused surveys to locate roosting bats were not performed due to the presumed low potential for bats to forage or roost within trees within the Project site. To ensure that potential impacts to these proposed covered species have been thoroughly evaluated, we recommend that focused daytime surveys for potential roosting spots, including trees and rock outcroppings, as well as nighttime surveys for foraging behavior, be performed.

~~9-10.~~ According to the BTR, western spadefoot toad (*Spea hammondi*, spadefoot) has been detected on-site on two occasions, both within the old quarry and outside of the development footprint. There are no expected impacts within the quarry area; however, the BTR recognizes there is a high potential for spadefoot to occur across the site, and therefore the species has been considered significantly and permanently impacted by the proposed Project. Spadefoot is currently listed as a California Species of Special Concern. In the event that additional spadefoot breeding pools are found within 500 ft. of the development footprint, the Project applicant should consult with us to discuss possible relocation, forced dispersal, or alternative avoidance measures.

~~10-11.~~ The proposed biological mitigation measures require the development of several associated documents, including RMPs, a Relocation Plan for Ramona horkelia (*Horkelia truncata*), a Revegetation Plan for the restoration of temporarily impacted areas, and a Nesting Bird Management, Monitoring, and Reporting Plan. Opportunities for the us to review and comment on these documents prior to their approval is currently limited to the Nesting Bird Management, Monitoring, and Reporting Plan. We request the opportunity to review and provide comments on all above-mentioned documents, as well as the

Ms. Ashley Smith (~~FWS/CDFW SD 15B0150 17CPA0166~~)

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proposed final language for both the biological open space easements and limited-building-zone easements, prior to their approval by County officials.

~~11.12.~~ M-BIO-1 describes the biological monitoring that will occur on-site prior to and during construction activities to ensure adherence to all proposed avoidance, minimization, and mitigation measures. M-BIO-3 states that a final Monitoring Report documenting the monitoring actions will be submitted to the County upon completion of grading activities for each Final Map and prior to rough grading plan final inspection. Given the scale of the proposed Project, we request that the Project Biologist, in addition to preparing the proposed comprehensive final report, circulate monthly updates to us.

We appreciate the opportunity to provide comments on the subject project and look forward to further coordination with the County on this project. If you have questions regarding this letter, please contact Carol Williams of the Department at [Carol.Williams@wildlife.ca.gov](mailto:Carol.Williams@wildlife.ca.gov), (858) 637-5511, or Susan Wynn of the Service at [Susan.Wynn@fws.gov](mailto:Susan.Wynn@fws.gov), (760) 431-9440 ext. 216.

Sincerely,

~~Karen A. Goebel  
Assistant Field Supervisor  
U.S. Fish and Wildlife Service~~

Gail K. Sevens  
Environmental Program Manager  
California Department of Fish and Game

cc:  
State Clearinghouse

**7**

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**From:** Stewart, Mendel <mendel\_stewart@fws.gov>  
**Sent:** Wednesday, December 2, 2015 5:39 PM  
**To:** Rita Brandin  
**Cc:** Karen Goebel; Ed Pert; Mark Wardlaw  
**Subject:** Re: FW: Our Discussion on Friday afternoon, November 20th - Correction on Prior E-Mail

Hi Rita,

Thank-you for trying to capture our conversation. I would like to clarify the following points:

We have no objection to the project applicant's purchase of offsite mitigation lands in support of adding to the overall conservation of the Draft North County MSCP preserve lands; however, from the list of properties provided for our review and support for a potential hard-line agreement, some properties are considered of greater biological value than others. Specifically, we will support acquisition of the Morris Ranch property because the proposed development on the site will sever a key linkage in the Draft North County MSCP, thus conservation of the site has been a priority for conservation for some time. The project applicant's contribution to the acquisition of this critical property would help us make a stronger biological case that the offsite mitigation proposed offsets the loss and fragmentation of the project's onsite PAMA lands. Likewise, we will support the Mountain Gate acquisition because of its size and location within the PAMA and because its purchase will ensure conservation of a large core area of the Draft North County MSCP preserve.

During our conversation, my intent was not to dismiss the value of the Hoospack or Pankey properties' contribution to the Draft North County MSCP preserve system, but only to do what you asked in identifying Service priorities for conservation that would lead to a hard-line agreement. Because the proposed Newland Sierra development will result in a loss of wildlife habitat originally identified to be part of the Draft North County MSCP preserve, acquisition of PAMA lands planned for development helps ensure that there is no net loss of PAMA acreage and that the anticipated size and configuration of the planned preserve can be achieved. Acquisition of one of these properties which both include development would offset the overall loss of existing PAMA acreage that will result from the Newland Sierra development. Conservation of the Hoospack or Pankey properties, while not insignificant, will not assist in maintaining the scope of the PAMA lands needed to assemble the preserve anticipated by the Draft North County MSCP.

I hope this helps clarify our conservation priorities and to dispel any concerns you may have regarding our agency's role in balancing the needs of residential and commercial development with our mission to conserve the nation's important fish and wildlife resources. We believe the section 10 permitting program and regional planning through the MSCP highlight the Service's sincere efforts to work in partnership to achieve this goal.

Marine Corps Base Camp Pendleton is the potential partner for the Morris Ranch property. We let them know that someone might be interested in partnering on this acquisition. Below is the person to contact.

Ken Quigley  
Strategic/Regional Environmental Planner  
Strategic Planning Section, Building 22165  
MCIWEST\_MCB Camp Pendleton  
Box 555008  
Marine Corps Base

Camp Pendleton, CA 92055-5008  
(760) 725-9733  
DSN: 365-9733  
FAX -9722

Please let me know if you have any questions.

<Mendel

On Wed, Dec 2, 2015 at 10:05 AM, Rita Brandin <[rbrandin@newlandco.com](mailto:rbrandin@newlandco.com)> wrote:

Good morning Mendel:

After re-reading the e-mail I sent to you on 11/25, I realized that I put the incorrect date down for our last meeting. Please see those corrections below in red.

Please let me know if you have any further additions or corrections. Also, if you have reached the Morris Ranch contact that was discussed in our meeting.

Thank you.

Rita Brandin

**From:** Rita Brandin  
**Sent:** Wednesday, November 25, 2015 11:58 AM  
**To:** 'mendel\_stewart@fws.gov'  
**Subject:** Our Discussion on Friday afternoon, November 20th  
**Importance:** High

Good morning Mendel:

I appreciate that you called me directly on Friday afternoon to discuss the U.S. Fish and Wildlife agency's stance on offsite acquisition options as a follow up to our Thursday, November 19th meeting at the County. As I have reviewed the discussion with others, I've concluded that it might be important to memorialize our conversation so Newland and our team have clarity moving forward. If I missed any key points or misunderstood any of your comments from the discussion, please feel free to provide those additions or corrections to my summary e-mail. I will attempt to capture the key points as I understood them.

As you know, we had previously proposed a list of off-site parcels at our meeting on November 5th, and we discussed the same list at our meeting on November 19th. We asked that you relook at the biological value of those parcels for acceptable offsite acquisition by Newland in lieu of being limited to only the Morris Ranch and Mtn. Gate parcels as communicated in Karen Goebel's e-mail to me on November 18th. You mentioned you would meet further with your staff to discuss the list.

During our call, you mentioned that as a follow up to our 11/19 discussion, you and your staff had further reviewed the list of parcels, and relooked at two parcels in particular that we had discussed at length – the two we refer to as Hoospack and Pankey. You said that although the California Dept. of Fish and Wildlife wanted to take another look at the biological value of these parcels, that the U.S. Fish and Wildlife Service did not see them as acceptable acquisitions. When I asked why they were not acceptable given our preliminary assessment of their biological value and their core PAMA location, you said they were not “threatened” like the Morris Ranch and Mtn. Gate properties, and these two parcels were of high priority for the agencies. When I asked what you meant by threatened, you said that Hoospack and Pankey are not priority and that you are not worried about them like Morris Ranch or Mt. Gate because neither parcel has significant development potential under the County's General Plan and slopes and terrain didn't make them as viable for development projects. In summary, you said; “[w]e've talked and unless Newland is willing to acquire one of the two options we provided then there will be no hardline”.

I expressed my concern that it appeared the agency's focus on these two tentative map projects as the only acceptable offsite acquisition land for Newland appeared to be having one developer buy another developer's approved project to keep them from being developed. You responded your agency is trying to protect threatened habitat and there are lots of ways to do that.

To close our discussion, I reiterated your comment regarding the limitation of Morris Ranch or Mtn. Gate as the only acceptable options, and wanted to be clear whether there was any opening, in your mind, for further discussions on the other parcels. You indicated that there was not.

I indicated I was still willing to explore a potential joint deal on Morris Ranch with the party that Karen Goebel had mentioned in our November 19th meeting. You indicated that the agency had not been able to get in touch with him as of our call but when you did you would ask him to call me.

Please let me know if I properly captured the key points of our conversation as I want to make sure we are still on the same page moving forward.

Best regards,

Rita Brandin

Newland Sierra, LLC

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May 17, 2017

**VIA EMAIL AND FEDERAL EXPRESS**

The Honorable Dianne Jacob, Chair  
Board of Supervisors  
San Diego County  
1600 Pacific Highway Room 335  
San Diego CA 92101

Re: Investigation Needed into Newland’s Misleading Backroom Dealing For Its “Sierra” Project And Potential Implications For County Staff

Chairwoman Jacob and Members of the Board of Supervisors:

We represent the Golden Door Properties LLC (the “Golden Door”). Adjacent to the Golden Door’s property, the Newland Real Estate Group, LLC (“Newland”) has proposed a revised Merriam Mountains project, known as the “Sierra” project (the “Newland Project” or “Project”). Newland’s proposal includes 2,135 residential units, 81,000 square feet of commercial development, a school, and various parks and equestrian facilities resulting in a population of over 6,000 residents, larger than the City of Del Mar.

***We write today to request that the Board ensure that County staff does not advocate for the approval of the Newland Project with other public agencies, prior to the Board’s own consideration of this previously rejected project.***

Newland proposes to build its Project near Deer Springs Road in rural Twin Oaks Valley (“Project Site”), which is a crucial connection point for east-west and north-south connectivity for wildlife in the North County Multiple Species Conservation Program (“NC MSCP” or “Plan”). The Golden Door opposes the Newland Project and has corresponded extensively with staff members at the County’s Department of Planning and Development Services (“County Planning Staff”) regarding our concerns.

A few weeks ago, we were given documents from the U.S. Fish and Wildlife Service describing efforts by Newland and its allies to surreptitiously evade biological mitigation for the proposed Project and to undermine the NC MSCP. These documents only provide a limited view into Newland’s actions, but they raise significant concerns about Newland’s non-public negotiations with the U.S. Fish and Wildlife Service (“USFWS”), false claims Newland and its allies have made as part of such negotiations, and Newland’s attempts to circumvent the proper channels at USFWS. The documents are attached as Exhibits A through E to this letter.

Newland may have involved in County Planning Staff in its actions, placing staff in a position where they appear to be the developers' advocates rather than neutral land use specialists processing projects for the public's benefit. If that is what has occurred, we do not believe it is appropriate for Newland to force County Planning Staff to advocate for proposed projects, especially where the Newland Project has been previously rejected by the Board, and conflicts with the County's General Plan and Subregional Plan adopted for this site in 2011.

We have only a limited view of these actions through the available documents. Therefore, we request that you ask staff to investigate these matters and determine whether Newland has recruited staff to advocate for its Project with other agencies prior to the Board's own consideration of the Project. It is possible that further investigation will vindicate the parties involved; however, based on the documents we have been able to review—attached to this letter—there is enough information to warrant further fact-finding on this matter.

The proposed Newland Project Site has high value biological characteristics and is an important part of the draft NC MSCP. We want to ensure that the public, including environmental groups and local communities, are part of any process to evaluate and mitigate for the biological impacts Newland's proposed development would cause on the Project Site.

## **I. FACTUAL BACKGROUND**

### **A. Recently Obtained Documents Raise Concerns Regarding Newland's Efforts to Evade Biological Mitigation Outside of Public View**

Our concerns regarding Newland's behind the scenes actions with regard to biological mitigation began when we obtained a copy of a "matrix" apparently prepared by a representative of the San Diego Building Industry Association ("BIA"). See **Exhibit A**. Newland's project manager and Vice-President, Rita Brandin, is also Vice-Chair of the BIA. We understand the BIA Matrix was provided to officials in the USFWS office in Washington, D.C., in an attempt to mislead the agency regarding USFWS's local Carlsbad office's negotiations with Newland regarding mitigation for the Project's biological impacts.

The BIA Matrix also appears intended to intimidate USFWS into refraining from commenting on development project in the California Environmental Quality Act ("CEQA") process—effectively implementing a gag order. It appears that when Newland was unable to convince USFWS's local Carlsbad office to eliminate important biological mitigation requirements for the Project, Newland, or San Diego BIA lobbyists acting on its behalf, attempted to go up the chain at USFWS in an effort to find a decision-maker less familiar with the facts on the ground who might be swayed by Newland's false statements.

Several attachments to the BIA Matrix are also attached here: a memo from Newland's Rita Brandin to the USFWS Regional Director in Sacramento (**Exhibit B**), a compilation of emails between Newland, the County, and USFWS and the California Department of Fish and

Wildlife (“CDFW”) (together with USFWS, the “Wildlife Agencies”) (**Exhibit C**<sup>1</sup>), and letters from the Wildlife Agencies to the County regarding the Newland Project’s Notice of Preparation (“NOP”) (**Exhibit D** [USFWS], **Exhibit E** [CDFW]).

Our concerns about Newland’s efforts to evade biological mitigation appeared to be confirmed by materials provided *by County Planning Staff* at recent stakeholder meetings for the NC MSCP that show the Newland Project Site carved out of the NC MSCP as a “private project.” See **Exhibit F**.<sup>2</sup>

These maps (as proposed by County Planning Staff, apparently at Newland’s behest) show the Newland Project to be the *only unapproved project* and *the only project which conflicts with the County General Plan* to be carved out of the proposed NC MSCP and subject to different rules than the rest of the North County area.

## **B. NC MSCP Preparation and Purpose**

Preparation of the NC MSCP has been ongoing for nearly 20 years now. The NC MSCP’s purposes include providing a regional, inter-connected preserve system and avoiding the need for project-by-project negotiations with multiple permitting processes. As such, it is critical that the NC MSCP be biology-driven and not provide special treatment for any particular developer. As part of the planning process, the County and the Wildlife Agencies have identified land with important biological characteristics, known as Pre-Approved Mitigation Areas (“PAMA”).

Protecting PAMA is critical to ensure conservation of contiguous blocks of habitat. We understand that a draft Plan, as proposed by the stakeholders, may be provided to the public later this year, and a Draft EIR for the NC MSCP may be published in 2018, with final approvals projected for 2020 and 2021. In addition to the County, the Wildlife Agencies must approve the NC MSCP before it takes effect.

During preparation of the Plan, projects proposed in the NC MSCP area are subject to an “interim process” outlined in a 2014 Planning Agreement signed by the County, USFWS, and CDFW. This interim process requires that projects be consistent with the NC MSCP’s preliminary species and habitat preservation goals and requires that project approvals not compromise the successful implementation of the NC MSCP. As such, consideration of NC MSCP consistency and goals is an integral part of any development project’s CEQA review for biological impacts and comments from the Wildlife Agencies—even before the Plan has been completed.

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<sup>1</sup> We do not know the source of the highlighting and hand-written notes throughout the email compilation in Exhibit C or the highlighting in the memorandum in Exhibit B.

<sup>2</sup> Exhibit F is a copy of a slide from a PowerPoint presentation provided by the County showing Newland Project as the only unapproved project being pulled out of the NC MSCP. Exhibit F also contains two draft NC MSCP maps showing the Newland Project Site removed as a “private project.”

### **C. The Merriam Mountains/Newland Project Site**

The proposed Newland Project is located on the same site as the failed Merriam Mountains project—approximately 2,000 acres in rural North County between Deer Springs Road and Gopher Canyon Road along the west side of I-15. The Project Site is located in Planning Unit 9 of the NC MSCP (San Marcos-Merriam Mountains Core Area) and sits on one of only two remaining large blocks of natural habitat west of I-15 in PAMA. A portion of the Project Site is located in Resource Conservation Area 23 of the North County Metro Community Plan. Draft NC MSCP habitat evaluation maps indicate that habitat on and adjacent to the Newland Project Site are moderate, high, and very high quality habitat. *See Exhibit G.*

### **D. The Board of Supervisors' Decisions to Keep the Project Site Rural: The Failed Merriam Mountains and the General Plan Update**

The Merriam Mountains project, considered by the Board in 2010, proposed approximately 2,600 homes on the Project Site, which was zoned for just over 300 homes at that time. In 2005, the Merriam Mountains developer entered into a “Hardline Points of Agreement” with the County, USFWS, and CDFW (then titled California Department of Fish and Game) to allow for that project’s biological impacts. *See Exhibit H.* This 2005 “Hardline Points of Agreement” provided that, among other provisions, (1) the County was required to amend its Resource Protection Ordinance (“RPO”) to allow for the project design, (2) the project’s density would be consistent with the zoning in the General Plan Update, and (3) the developer would purchase an off-site mitigation property known as the “Captains Associates property.”

The Board rejected the Merriam Mountains project and refused to amend the prior General Plan to accommodate the development. Then in 2011, the Board approved its General Plan Update that *down-zoned* the Project Site to accommodate only approximately 100 homes and decided that the area should be preserved as rural lands. In both instances the Board has voted on the density for this site in the past decade, the Board has voted to maintain the site’s rural nature and protect its biological value.

### **E. The Proposed Newland Project’s Background**

Despite the Board’s consistent votes to keep Twin Oaks Valley rural, Newland now seeks a General Plan Amendment to add a development that is larger than the City of Del Mar.

The County published its NOP for the Newland Project in February 2015. The Wildlife Agencies provided comments on the Newland Project’s NOP, emphasizing the importance of the Project Site within the NC MSCP for connectivity purposes. The Wildlife Agencies’ NOP letters raise several specific points regarding the site’s biological importance:

- (1) the Project and areas on all sides are identified as PAMA in the NC MSCP;
- (2) the proposed Project sits on one of only two remaining large blocks of natural habitat west of I-15 in PAMA;

(3) habitat evaluation maps for the draft NC MSCP indicate habitat on and adjacent to the Project Site are moderate, high, and very high quality habitat;

(4) north-south habitat connectivity along I-15 is important for the NC MSCP; and

(5) development on the Project Site could fragment core habitat planned to connect designated preserve areas.

*See Exhibits D, E.* In addition, the Wildlife Agencies proposed alternatives in which Newland would remove its development along the I-15, which would allow for some continued north-south connectivity on the Project Site.

On May 7, 2015, County Planning Staff issued a Scoping Letter for the Newland Project, which addressed the Project's consistency with the NC MSCP as a "major project issue."<sup>3</sup> The Scoping Letter concedes that no hardline agreement has been approved for the Newland Project, noting that "if the Wildlife Agencies Hardline Agreement is not approved, the project would be required to comply with the North County Plan and its requirements for projects in [PAMA], including avoidance of critical populations of sensitive species and adherence to preserve design and linkage principles. If the North County Plan has not been approved prior to the project moving forward, the project will require compliance with the Habitat Loss Permit (HLP) Ordinance and the County and Wildlife Agencies Planning Agreement." Scoping Letter at 4.

Nearly a year after publishing its NOP, Newland submitted a revised Specific Plan and grading plans. The County published these documents on its website but did not issue a new NOP or provide any notice that the Project had been revised. Now, almost two-and-a-half years after publication of the Project's NOP, no further CEQA documentation has been published, and the public is unaware of any further changes the developer may have made.

## **II. NEWLAND'S APPARENT EFFORTS TO EVADE REQUIRED BIOLOGICAL MITIGATION**

Unfortunately, based on available documents, it appears that Newland has used this time to engage in backroom dealing and attempts to weaken environmental protection requirements without any opportunity for public review or comment.

Based on our review of the available documents, it appears that Newland has pursued aggressive negotiations with the Wildlife Agencies to revive the 2005 "Hardline Points of Agreement" even though the Wildlife Agencies agreed, and the County admits, that the Newland Project is a "new" project with no approved hardline agreement. Newland has argued to the

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<sup>3</sup> The Scoping Letter is part of the County's files for the Newland Project and available online at <http://www.sandiegocounty.gov/content/dam/sdc/pds/regulatory/docs/newlandsierra/NewlandSierraScopingLetter.pdf>.

Wildlife Agencies that its Project is the same project as Merriam Mountains and has fought USFWS's mitigation proposals.

Further, the conditions of the 2005 "Hardline Points of Agreement" do not appear to have been fulfilled: (1) the County has not amended its RPO consistent with that agreement, (2) the Project is inconsistent with the 2011 General Plan Update because it proposes more than 20 times the allowed residential density, and (3) there is no evidence Newland has purchased the "Captains Associates property" which was specifically identified in this agreement as essential mitigation.

It appears that Newland's failure to convince the local USFWS office in Carlsbad to rely on an unfulfilled "points of agreement" for the defunct Merriam Mountains project caused Newland's lobbyists to go over the heads of the Carlsbad office to the USFWS Regional Office in Sacramento and to the USFWS office in Washington, D.C. From the material we have reviewed, Newland or lobbyists on Newland's behalf have seemingly fed these offices false information in an attempt to short-circuit the orderly preparation of the NC MSCP and CEQA review of the Newland Project's biological impacts.

In particular, the BIA Matrix and its attachments, which were provided to the USFWS office in D.C., includes multiple false statements about the Newland Project, including:

- (1) that there is an existing hardline agreement for the project (Exhibits B, C);
- (2) that the underlying land use designation on the Project Site is "largely unchanged" from when the Merriam Mountains project was considered and rejected (Exhibit B); and
- (3) that the USFWS Carlsbad office is requiring Newland "suspend" their project. (Exhibit C.<sup>4</sup>)

These assertions are simply false. As described above, there is no valid hardline agreement for the Project. Additionally, the underlying zoning on the Project Site has been cut to one-third of the prior allowance for residential; it is not "largely unchanged." Finally, the USFWS Carlsbad office told Newland they could go through the typical permitting process if they did not want to pursue the proposed off-site mitigation. Exhibit C.<sup>5</sup> Any "suspension" of

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<sup>4</sup> Accusations that the Carlsbad USFWS offices are trying to "suspend" the Newland Project are included in an email exchange between consultant Steve Thompson and USFWS staff member Mendel Stewart on October 10 and 11, 2016.

<sup>5</sup> References to the typical permitting process are included in an email exchange between Steve Thompson and Mendel Stewart on October 10 and 11, 2016. Further, the County's May 7, 2015 Scoping Letter for the Project indicates that Newland will need to obtain a Habitat Loss Permit if the NC MSCP is not completed prior to Project approval.

the Project is due to Newland's refusal to provide adequate on and off-site mitigation, not any action by the local USFWS office.

In fact, the BIA Matrix's false statements about the Newland Project, and about other projects, warranted a letter from the Endangered Habitats League—a long-time stakeholder in the NC MSCP process—titled “Correcting the Record,” which addresses the BIA Matrix's numerous falsehoods, attached hereto as **Exhibit I**.

In addition, it is troubling that the BIA matrix criticizes the local USFWS office for providing NOP comments on the Newland Project. *See* Exhibit A. Any attempt to silence an agency responsible for environmental protection from commenting on a development project is contrary the spirit of open public processes. Why would an expert agency not provide input within its realm of expertise? Moreover, why is Newland so concerned about what these wildlife experts working for the public good would say about their proposed Project?

It is also concerning that County Planning Staff is mentioned in and included on several of the email exchanges between Newland and USFWS, raising the question of the degree to which Newland is attempting to improperly involve County Planning Staff as a project-advocate behind closed doors for a project that contradicts the County's General Plan. Such activity would go far beyond merely processing a project, and any attempt by Newland to drag County Planning Staff into its closed door dealings should be investigated and disclosed to the public.

It is important that the Board and the public understand the process by which Newland has sought to minimize its biological mitigation requirements—and the degree to which Newland involved County Planning Staff in such efforts. Project design and mitigation are supposed to be developed through a public process under CEQA. It is unclear what actions Newland has taken, and forced County Planning Staff to take as advocates of the Project, in the almost two and half years since submitting its application, but the limited records we have been able to review indicate a process that is not transparent. Newland's efforts have attempted to minimize biological protection without the public knowing about it.

We hope you are able to provide additional information and an open and fair public process to evaluate this information.

### **III. NEWLAND'S ATTEMPTS TO OBTAIN SPECIAL TREATMENT IN THE NC MSCP AS A “PRIVATE PROJECT” “CARVE OUT” DESPITE BEING INCONSISTENT WITH THE COUNTY'S GENERAL PLAN**

Materials recently provided to NC MSCP stakeholders by County Planning Staff show the Newland Project Site carved out of the NC MSCP as a “private project.” *See* Exhibit F. The Newland Project is the *only unapproved project* given such treatment. This “carve out” raises questions as to why this project that contradicts the County's General Plan would receive such special treatment when County Planning Staff has already determined in its May 7, 2015 Scoping Letter that the Project must comply with the NC MSCP.

The removal of the Project Site from the draft Plan would pre-determine the analysis and mitigation of biological impacts without an opportunity for public participation. The NC MSCP is not likely to be approved for several years, after the projected date for the Board's consideration of the Newland Project. The County and the Wildlife Agencies are required to consider the consistency of any proposed project with the NC MSCP's principles. Prematurely carving the Newland Project of the draft NC MSCP without any public process, therefore, prejudices consideration of the Project's biological impacts. This cart-before-the-horse approach is improper—especially here where the Board has voted to keep this Project Site rural.

Further consideration of the Newland Project's biological impacts without reference to its connectivity and importance for fulfillment the NC MSCP's goals would be incomplete and not provide adequate information to the public or decision-makers. Newland should not be able to avoid the NC MSCP's protections for PAMA and wildlife connections by seeking special treatment without any opportunity for public review and input before the Board takes any action.

The Wildlife and Habitat Conservation Coalition ("WHCC"), a group of environmental groups including many longtime stakeholders in the NC MSCP process, share this concern, as described more fully in a letter the WHCC submitted to the Board last month. *See Exhibit J.* The WHCC letter emphasizes (1) the need to for County Planning Staff to respect the General Plan in developing the NC MSCP and (2) that the Newland Project Site reverted to PAMA after rejection of the Merriam Mountains project. In accordance with WHCC's concerns, Newland should not be able to avoid the NC MSCP's protections for PAMA and wildlife connections by seeking special treatment without any opportunity for public review and input.

Protection of the Newland Project Site as PAMA carries significant biological importance, because it is one of only two remaining large blocks of natural habitat west of I-15 in PAMA.<sup>6</sup> Carving the Newland Project out of the NC MSCP for a hardline agreement would itself violate the purpose of the NC MSCP. Additionally, carving out the Newland Project Site is particularly contradictory here, because Newland has failed to provide any of the additional biological protection measures that were supposed to accompany the 2005 "Hardline Points of Agreement" for the defunct Merriam Mountains project. Newland has not acquired the specified "Captains Associates" off-site mitigation property, it has not obtained an amendment from the County to the RPO, and its development proposal is not consistent with the County's General Plan. *See Exhibit H.*

Moreover, Newland's efforts to obtain a special carve out from the NC MSCP have occurred out of public view and without the input of local communities, including the County sponsor groups, which exist for the purpose of informing the County's decision-making process for land use matters in their local communities. The Twin Oaks Valley Sponsor Group ("TOVSG")—which is responsible for land use recommendations over most of the Newland Project Site—was left out of the process. In fact, the TOVSG made a special request to the

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<sup>6</sup> *See Exhibits D, E.* In addition, a report prepared by Megan Jennings, Ph.D., at the request of the Golden Door further demonstrates the biological value of the Newland Project Site and its importance for wildlife connectivity throughout North County. The report is attached as **Exhibit K.**

County inquiring about the purported NC MSCP carve out for the Newland Project.<sup>7</sup> If any biological analysis for the Newland Project is occurring outside of the Project's own approval process, there should be a full CEQA review, including the requisite public input, for the Newland Project's biological impacts as part of the NC MSCP—and the Project's EIR should not be approved until the completion of any such separate process.

The County's General Plan was approved by the Board of Supervisors in 2011 after spending millions of dollars and facilitating a decade-long process with significant public input to determine the blueprint for the County's growth and development. Simply put, Newland's proposed project contradicts that blueprint by dropping a population the size of the City of Del Mar in an area with significant biological value that the Board has twice voted should remain rural. To now carve out a special exemption from the NC MSCP—and to do so without any public review or input—would starkly contradict the letter and spirit of the law, smart planning principles, due process, and efficient use of public resources.

We request that the Board direct County Planning Staff not to pursue any proposed special designation for the Newland Project Site in the NC MSCP prior to the Board's own consideration and any County approval or rejection of Newland's Project, and to publicly disclose Newland's efforts to obtain this backroom benefit.

#### IV. NEWLAND'S PATTERN OF OBFUSCATION AND HYPOCRISY

Newland filed its application with the County almost two and a half years ago. Since that time, they have apparently given contradictory statements in public and private and have sought to avoid public disclosure as much as possible.

- A year after filing its initial application Newland submitted a new Specific Plan and new grading plans to the County but refused to recirculate the Project's NOP or provide any public notice.
- Newland insists the re-design and reconstruction of the Caltrans interchange at I-15 and Deer Springs Road be evaluated in a separate process after the County considers the Project, even though the interchange re-design is triggered by Project-generated trips.
- When the Golden Door requested its biologist have supervised limited access to the Project Site, Newland refused, offering only a short, guided in-vehicle tour that could not accommodate biological investigation.

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<sup>7</sup> A letter from the TOVSG to the County requesting clarification of the Newland Project Site's status within the NC MSCP is attached as **Exhibit L**.

- Newland has also omitted from its grading plans critical impacts that are part of Newland's proposed widening of Deer Springs Road.<sup>8</sup>

In short, Newland has provided little information to the public or opportunities for public input over the nearly two and a half years that the County has been processing this Project.

Further, in attempting to negotiate less protective biological mitigation requirements with USFWS, Newland claimed that its project is the same as the Merriam Mountains project and should be able to rely on the 2005 "Hardline Points of Agreement." Yet, in public, Newland has adamantly denied it is the same project as the failed Merriam Mountains project.

In fact, Newland's Vice President and project manager, Rita Brandin, stated in an August 2014 article, "I believe that Newland's approach to planning is distinctly different than the prior developer." *Merriam Mountain Plans Receiving Mixed Reviews*, THE COAST NEWS, INLAND EDITION, Aug. 1, 2014. Yet, in a memorandum from Ms. Brandin to USFWS staff at the regional office in Sacramento, Ms. Brandin complains that Newland "is at an impasse with Service staff" due, in part, to the fact that "[USFWS] staff dismissed the relevancy of the prior Points of Agreement, maintaining that Newland was required to begin the permitting process as a **new project**." Exhibit B at 1-2 (emphasis added).

Now that Newland is telling state and federal wildlife agencies that it is not proposing a "new" project and is instead simply renewing the same project as previously rejected by the Board, why is the County even wasting public resources to process it?

Newland's renewed Merriam Mountains application has the same flaws which caused the Board to reject it in 2010. In explaining his vote against the Merriam Mountains project, Supervisor Roberts noted that the project suffered from too much 20th century planning: "Housing development will become much more urban, providing amenities the communities want and ask for, and transit connections that do more than just a token job of offering people transportation alternatives besides the automobile."<sup>9</sup> Like the failed Merriam Mountains project, the Newland Project is located on the same Project Site far from urban and employment centers, which will require long automobile trips. Even as more transit options have developed County-wide since the Board considered the Merriam Mountains project, including the Bus Rapid Transit program ending in Escondido on I-15, Newland's renewed proposal includes no

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<sup>8</sup> Reports from Delane Engineering demonstrate these issues, have been submitted to the County by the Golden Door, and are on file with County Planning Staff. In addition, Delane presented this work to County Planning and Public Works Staff.

<sup>9</sup> Supervisor Roberts' press release explaining his vote against the Merriam Mountains project is available on his website at <http://www.ronroberts.com/content/d4/en/media/mediacenter/mountain.html>. "My own personal feeling is that the communities of the 21st century are going to be very, very different . . . they are going to have, as an integral part, public transit. They are going to be lower in their impacts in every way shape or form." Alison St. John, *Roberts Votes to Scuttle Merriam Mountain Project*, KPBS.ORG (Mar. 24, 2010).

provision for transit connections. Further, the Project itself is designed with a small commercial center in the extreme southeast corner, but most of the residential units are located far away across steep grades through curving internal loop roads sprinkled with cul-de-sacs.

The Newland Project poses the same 20th century planning problems as the previous Merriam Mountains project, yet Newland (apparently working with County Planning Staff) conveniently emphasizes its differences in public while disingenuously attempting to rely on the prior project's "agreements" to lobby for special benefits behind closed doors with federal and state wildlife agencies.

## V. NEWLAND'S POTENTIAL INVOLVEMENT OF COUNTY PLANNING STAFF

It is unclear from the documents obtained to what degree Newland involved County Planning Staff in its attempts to avoid biological mitigation requirements. It is apparent, however, that Newland included County Planning Staff in some of its email correspondence and meetings with USFWS. *See* Exhibit C.<sup>10</sup> It is also unclear what involvement, if any, County Planning Staff had in preparation or presentation of the false and misleading BIA Matrix. None of these documents were provided to us in our prior public record act requests to County staff about Newland's project.

We hope you will investigate these matters and provide the public additional information as to County Planning Staff's role, if any, in Newland's actions in lobbying these other agencies. County Planning Staff should also be asked to stop any lobbying of other agencies to persuade them to exclude Newland's project from the pending draft NC MSCP. Prior to Board action on the Project and any County approval, it is improper for Newland to place County Planning Staff in the position of project advocates before other agencies. County Planning Staff should not be asked to advocate for an unapproved development proposal that contradicts the County's General Plan and is located in an area that the Board has twice voted to keep rural.

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<sup>10</sup> A November 18, 2015 email from USFWS staff member Karen Goebel is addressed to Rita Brandin and County Planning Director, Mark Wardlaw; a January 15, 2016 email exchange between Mendel Stewart and Rita Brandin copies Mark Wardlaw; a October 10, 2016 email from consultant Steve Thompson refers to a "County rep;" and a September 9, 2015 email from County Planning Staff member Ashely Gungle to Rita Brandin forwards an email from Karen Goebel to Mark Wardlaw.

## VI. CONCLUSION

Thank you for your time and attention to our comments. Please feel free to contact me at (858) 523-5400 or [christopher.garrett@lw.com](mailto:christopher.garrett@lw.com) if you would like to discuss these matters further.

Best regards,

*Christopher W. Garrett*

Christopher W. Garrett  
of LATHAM & WATKINS LLP

cc: Kathy Van Ness, Golden Door  
Mark Wardlaw, County Planning and Development Services  
Darin Neufeld, County Planning and Development Services  
Mark Slovick, County Planning and Development Services  
Ashley Smith, County Planning and Development Services  
Peter Eichar, County Planning and Development Services  
Crystal Benham, County Planning and Development Services  
Karen A. Goebel, USFWS  
Mendel Stewart, USFWS  
Gail K. Sevrens, CDFW  
Tom Kumura, Twin Oaks Valley Sponsor Group Chair  
Margarette Morgan, Bonsall Sponsor Group Chair  
Wayne Dauber, Hidden Meadows Sponsor Group Chair  
Dan Silver, Endangered Habitats League  
Laura Hunter, Wildlife and Habitat Conservation Coalition  
George Courser, Sierra Club San Diego  
Doug Hageman, Newland  
Paul Robinson, Hecht Solberg Robinson Goldberg & Bagley  
Mark Dillon, Gatzke Dillon & Balance  
Stephanie Saathoff, Clay Co.  
Denise Price, Clay Co.  
Andrew Yancey, Latham & Watkins

# **EXHIBIT A**

# HONORING THE MSCP

|                                        | Issue                                                                                                                                                              | Case in Point                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Documentation                                                                                                                                                                                                  |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Honoring Assurances</b>             | Abrogating established procedures and calling plan assurances into question. Coverage is coverage – adaptive management is proper tool for correcting plan issues. | V13 – See Golden Eagle below.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | <a href="#">V13.3</a> –Page 6                                                                                                                                                                                  |
|                                        |                                                                                                                                                                    | MSCP Biological Opinion says effects of impacts on Golden Eagle which are expected to result from the County Subarea Plan are not significant to the species’ long term survival.<br><br>Accordingly, V14 has rights to proceed today under MSCP permit, yet FWS seeks to undermine, renegotiate and even acquire the property under the pretext of “new information.” New Information doesn’t impeach Golden Eagle coverage in County. Wildlife agencies refuse to acknowledge County Circulation Element roads may traverse preserve. | <a href="#">V14.1</a> –Entire Document<br><br><a href="#">V14.5</a> –Entire Document, Page 4<br><a href="#">V14.6</a> –Entire Document<br><a href="#">V14.7</a> –Entire Document                               |
|                                        |                                                                                                                                                                    | Newland Sierra has an existing hardline preserve and development plan. Neither has been honored.                                                                                                                                                                                                                                                                                                                                                                                                                                        | <a href="#">NS.1</a> - Entire Document<br><a href="#">NS.2</a> –Entire Document<br><a href="#">Enclosures</a><br><a href="#">NS.3</a> –Entire Document<br><a href="#">NS.4</a> –Entire Document                |
| <b>Lack of Good Faith Negotiations</b> | Continually “moving the goal posts” so as soon as an issue is addressed, a new one is raised, with no end.                                                         | Village 13 negotiated a separate agreement independent of the regional QCB strategy, which was agreed to by the parties. Then, FWS reneged and asked for an unworkable Alternative D, in addition to still requiring a regional mitigation strategy.                                                                                                                                                                                                                                                                                    | <a href="#">V13.1</a> –Entire Document<br><a href="#">V13.2</a> –Entire Document<br><a href="#">V13.3</a> –Page 4<br><a href="#">V13.4</a> –Page 1<br><a href="#">V13.5</a> –Exhibit                           |
|                                        |                                                                                                                                                                    | Village 14 was encouraged to pursue land exchange beneficial to the preserve. V14 spent one year and \$2MM doing biological due diligence and submitted an exhaustive analysis in support.<br><br>After nine months with no response, V14 receives summary denial with factually inaccurate rationale, even when it improves the Golden Eagle status and MSCP preserve. V14 asks FWS for meeting to discuss and was turned down.                                                                                                        | <a href="#">V14.2</a> –Entire Document<br><a href="#">V14.3</a> –Entire Document<br><a href="#">V14.4</a> –Entire Document<br><a href="#">V14.5</a> –Entire Document<br><a href="#">V14.6</a> –Entire Document |
|                                        |                                                                                                                                                                    | Newland project was already included in MSCP North County draft plan as a hardline plan, yet FWS denies that. Newland improved on that hard line, yet FWS arbitrarily changes MSCP design criteria and demands that offsite mitigation land be a development project.                                                                                                                                                                                                                                                                   | <a href="#">NS.1</a> - Page 1<br><a href="#">NS.2</a> –Entire Document<br><a href="#">Enclosures</a><br><a href="#">NS.3</a> –Entire Document<br><a href="#">NS.4</a> –Entire Document                         |

|                                                    |                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                    |                                                                                                                                                                                                                                                          | Fanita has two previously approved footprints which were even validated by the court. Even so, Home Fed improved on those plans. Instead of support and collaboration, FWS seeks to undermine in damaging letter and bad faith negotiations.                                                                                                                                                                                                                                                                                                                                                        | <a href="#">HF.1-Entire Document</a><br><a href="#">HF.3-Entire Document</a><br><a href="#">HF.4-Exhibit</a><br><a href="#">HF.5-Exhibit</a>                                                                                                                                                                              |
| <b>Communication and Actions in Breach of MSCP</b> | Sending damaging comment letters opposing projects that all parties agreed to allow in the MSCP, raising issues over species covered in the MSCP and withholding concerns and information about project impacts until projects go out for public review. | FWS/CDFW Comment letter on V13 EIR.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | <a href="#">V13.3-Page 6</a>                                                                                                                                                                                                                                                                                              |
|                                                    |                                                                                                                                                                                                                                                          | FWS/CDFW Comment Letter on V14 NOP is the wrong venue for MSCP planning issues, which should be separately addressed with the County in the overall context of the MSCP North Plan.                                                                                                                                                                                                                                                                                                                                                                                                                 | <a href="#">V14.2-Entire Document</a>                                                                                                                                                                                                                                                                                     |
|                                                    |                                                                                                                                                                                                                                                          | FWS/CDFW Comment Letter on Newland Sierra NOP is the wrong venue for MSCP planning issues, which should be separately addressed with the County in the overall context of the MSCP North Plan.                                                                                                                                                                                                                                                                                                                                                                                                      | <a href="#">NS.1-Page 1</a>                                                                                                                                                                                                                                                                                               |
|                                                    |                                                                                                                                                                                                                                                          | FWS/CDFW disingenuous comment letter on Fanita arbitrarily changing MSCP design criteria. Unilaterally eliminating the 4 (d) interim loss permit process in Santee without following regulatory procedures.                                                                                                                                                                                                                                                                                                                                                                                         | <a href="#">HF.1-Entire Document</a><br><a href="#">HF.3-Entire Document</a>                                                                                                                                                                                                                                              |
| <b>Golden Eagle</b>                                | Not honoring covered species list and trying to sidestep plan provisions to deal with new information.                                                                                                                                                   | <p>MSCP Biological Opinion says effects of impacts on Golden Eagle which are expected to result from the County Subarea Plan are not significant to the species' long term survival.</p> <p>FWS says new Golden Eagle information puts the County's MSCP permit at risk. USGS info is not anything new. If a real issue, then FWS needs to follow MSCP Implementation Agreement and not send ominous, threatening letters. FWS wrongly asserts that definition of Take is different for ESA and BGEPA.</p> <p>Using new BGEPA regulations to undermine program assurances for both V13 and V14.</p> | <a href="#">GE.1-Entire Document</a><br><br><a href="#">GE.5-Attachment A</a><br><a href="#">GE.2-Entire Document</a><br><a href="#">GE.3-Entire Document</a><br><a href="#">GE.4-Entire Document</a><br><a href="#">GE.5-Entire Document</a><br><br><a href="#">V13.3-Page 6</a><br><a href="#">HF.2-Entire Document</a> |
| <b>Mega-Preserve</b>                               | Ignoring solutions that do not coincide with agency agenda.                                                                                                                                                                                              | If concern over Golden Eagle is real, there are areas with over 100,000 acres which could be used for expanding core conservation areas, but due to an anti-growth agenda by FWS, these solutions are pushed away because of no threat of development. Warner Springs Ranch Resort owners offered a solution to Golden Eagle "problem" and were ignored. Specifically, service promised assigning a person to work on this and never did.                                                                                                                                                           | <a href="#">WSRR.1-Entire Document</a><br><a href="#">WSRR.2-Entire Document</a><br><a href="#">WSRR.3-Exhibit</a><br><a href="#">WSRR.4-Exhibit</a><br><a href="#">WSRR.5-Exhibit</a><br><a href="#">WSRR.6-Exhibit</a><br><a href="#">WSRR.7-Exhibit</a><br><a href="#">WSRR.8-Exhibit</a>                              |

| Documentation & Exhibits | Otay Ranch – Village 13                                                                                                                                                                                                                                                                                                                                           | Otay Ranch – Village 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Newland Sierra                                                                                                                                                                                                                                                                                       | Home Fed – Fanita Ranch                                                                                                                                                                                                                                                                                                                                                             | Golden Eagle                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Warner Springs Mega Preserve                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                          | <p><b>V13.1</b><br/><a href="#">Quino Checkerspot Butterfly Amendment</a></p> <p><b>V13.2</b><br/><a href="#">Biological Resources Technical Report</a></p> <p><b>V13.3</b><br/><a href="#">Draft EIR Comment Letter for Otay Ranch V13</a></p> <p><b>V13.4</b><br/><a href="#">Quino Meeting 6-16-2016</a></p> <p><b>V13.5</b><br/><a href="#">Fig 4.0-3</a></p> | <p><b>V14.1</b><br/><a href="#">Excerpt from Biological Opinion</a></p> <p><b>V14.2</b><br/><a href="#">Proposed Otay Ranch Village 14 Land Exchange</a></p> <p><b>V14.3</b><br/><a href="#">Jackson Pendo Development Company</a></p> <p><b>V14.4</b><br/><a href="#">Denial Letter</a></p> <p><b>V14.5</b><br/><a href="#">Notice of Preparation Letter of EIR</a></p> <p><b>V14.6</b><br/><a href="#">Summary</a></p> <p><b>V14.7</b><br/><a href="#">Excerpt from Implementing Agreement</a></p> | <p><b>NS.1</b><br/><a href="#">USFWS NOP Comments.</a></p> <p><b>NS.2</b><br/><a href="#">CDFW NOP Comments</a></p> <p><a href="#">Enclosures</a></p> <p><b>NS.3</b><br/><a href="#">USFWS/CDFW/County Correspondence</a></p> <p><b>NS.4</b><br/><a href="#">USFWS Coordination Summary Memo</a></p> | <p><b>HF.1</b><br/><a href="#">Karen Goebel - Voicemail</a></p> <p><a href="#">Karen Goebel Voicemail 9-16-16</a></p> <p><b>HF.2</b><br/><a href="#">Proposed Eagle Permits</a></p> <p><b>HF.3</b><br/><a href="#">Draft MSCP Subarea Plan</a></p> <p><b>HF.4</b><br/><a href="#">Home Fed Fanita Ranch Plan</a></p> <p><b>HF.5</b><br/><a href="#">FWS Fanita Ranch's ( 2)</a></p> | <p><b>GE.1</b><br/><a href="#">Excerpt from Biological and Conference Opinions of the MSCP</a></p> <p><b>GE.2</b><br/><a href="#">County MSCP Compliance with BGPEPA Letter</a></p> <p><b>GE.3</b><br/><a href="#">Multiple Species Conservation Program Compliance</a></p> <p><b>GE.4</b><br/><a href="#">Take Coverage for Golden Eagle Under the San Diego MSCP</a></p> <p><b>GE.5</b><br/><a href="#">Multiple Species Conservation Program Compliance Letter</a></p> | <p><b>WSRR.1</b><br/><a href="#">Warner Springs Ranch Resort - Program Synopsis</a></p> <p><b>WSRR.2</b><br/><a href="#">Warner Springs Ranch Letter to FWS</a></p> <p><b>WSRR.3</b><br/><a href="#">San Diego County</a></p> <p><b>WSRR.4</b><br/><a href="#">Rancho San Jose del Valle</a></p> <p><b>WSRR.5</b><br/><a href="#">Regional Setting/Ownership Map</a></p> <p><b>WSRR.6</b><br/><a href="#">Warner Springs Resort Map</a></p> <p><b>WSRR.7</b><br/><a href="#">Comprehensive Conservation and Enhancement Plan Map</a></p> <p><b>WSRR.8</b><br/><a href="#">Video of Warner Springs Ranch Resort</a></p> |
|                          | <p><b>Solutions:</b><br/>Honor agreement identified in V13.2 for modified project. Honor MSCP assurances on Golden Eagle</p>                                                                                                                                                                                                                                      | <p><b>Solutions:</b><br/>Support land exchange. Honor MSCP assurances on Golden Eagle.</p>                                                                                                                                                                                                                                                                                                                                                                                                           | <p><b>Solutions:</b><br/>Honor MSCP North County previous hardline agreement. Support inclusion of revised hardline in current draft of MSCP Plan. Accept mitigation proposal that does not necessarily entail development project.</p>                                                              | <p><b>Solutions:</b><br/>Honor previous two Fanita MSCP Santee hardline agreements. Support inclusion of superior revised hardline in current draft of MSCP plan.</p>                                                                                                                                                                                                               | <p><b>Solutions:</b><br/>Honor MSCP assurances on coverage. Use adaptive management and follow through on mega-preserves.</p>                                                                                                                                                                                                                                                                                                                                             | <p><b>Solutions:</b><br/>Follow through on assembling mega-preserves.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

# **EXHIBIT B**

Newland Sierra, LLC  
4790 Eastgate Mall, Suite 150  
San Diego, CA 92121

## MEMORANDUM

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**To:** Paul Souza, Regional Director, USFWS  
Mike Fris, Assistant Regional Director, USFWS  
**From:** Rita Brandin, Newland Communities  
**Subject:** Newland Sierra – USFWS Coordination Summary  
**Date:** November 11, 2016

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This memo is intended to provide a brief summary of the history of the Newland Sierra project permitting process in northern San Diego County. The project site is located along I-15 just north of Escondido. It was the subject of a prior permitting process in 2008, known as Merriam Mountains. That project had a footprint of 2,327 acres and onsite preservation of 1,305 acres of open space (56% preservation). Open space design and project hardline agreements were reached with several State and federal agencies. The agreements were memorialized through a Points of Agreement document signed by the parties, including the USFWS Carlsbad office.

The project was not approved by the County of San Diego due to unrelated issues. That, combined with the downturn in the economy, resulted in the project's dormancy until 2013, when Newland Communities acquired rights to the project site and redesigned the project. The new design now includes a 1,985-acre footprint and 1,209 acres of onsite open space (61% preservation). In addition, Newland proposed to purchase additional offsite habitat to further its conservation goals. The only listed species impacted by the project will be 1 pair of gnatcatchers that are within a fuel modification zone on the outer edge of the proposed development.

Newland Communities' intention in 2013 was to gain concurrence and support for a significantly enhanced hardline agreement that reduced the project footprint, increased the percentage of open space and added more mitigation components offsite. This consultation was initiated prior to submittal of the formal application of the project to the County of San Diego. As this process progressed, Newland attempted to accommodate USFWS requests for information, analysis, and yet more mitigation. Service staff dismissed the relevancy of the prior Points of Agreement, maintaining that Newland was required to begin the permitting process as a new project. Further, staff insisted that the County's hardline process was inadequate to use to permit the project, regardless of any improvements from the initial project design. Ultimately, Service staff placed

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demands on the Applicant that were financially infeasible, both in project design and acquisition of specific, additional off-site mitigation. Subsequent to offers to use alternative permitting processes, it has become clear that the Applicant is at an impasse with Service staff.

Following is the history of the site and a summary of the efforts undertaken by Newland.

### **HISTORY OF PROJECT SITE – PRIOR PROJECT HARDLINE AGREEMENT**

- A project called Merriam Mountains began planning and coordination with the County and the USFWS in February 2003.
- The initial plan for that project included development in the northern part of the site (referred to as “Neighborhood Five” as part of the Merriam Mountains project).
- During coordination, USFWS requested that the applicant delete key northern neighborhoods in order to create a preserve in a larger block of habitat in the northern part of the site. Staff agreed to support a hardline if the developer would agree to an “All South” development plan (USFWS letter from staff person Susan Wynn is available upon request).
- In exchange for moving development to the South, a hardline agreement was executed between the developer and the USFWS (dated October 2005 – available upon request).
- Subsequent to that hardline agreement, the local fire district imposed strict fuel modification requirements, which was viewed as a “late hit” by the USFWS; however, the project moved forward through the EIR and entitlement process with the hearing on the project occurring December 9, 2009.
- The Merriam Mountains Specific Plan was denied by San Diego County Board of Supervisors on December 9, 2009

### **HISTORY OF PROJECT SITE – NEWLAND SIERRA**

- Newland Communities acquired the project site in 2010.
- Newland began planning for a new project in 2013 (now referred to as Newland Sierra).
- **October 28, 2013** – Newland meets County staff, and USFWS on October 28, 2013 to introduce the project
  - Newland Sierra used Merriam Mountains (“All South” plan) as a baseline, and then improved upon that design from a biological standpoint.

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- Reconfiguring and reducing the footprint of the neighborhoods, deleting ridge line development, creating habitat linkages, and assembled new open space areas by working with the County Fire Authority and fire district to resolve fuel modification requirements
  - Key to providing an undisturbed northern block of habitat was the removal of a secondary access road (Lawrence Welk Court) that previously bisected the large block of open space in the north under the Merriam plan.
- **January 2014** – USFWS staff indicated four issues that needed proof of resolution before a hardline decision could be made:
- Lawrence Welk Court removal
  - Removal of fuel modification along I-15 and within the interior of the project site
  - Identification of access and recreation needs within the Preserve determined
  - Survey for Hermes copper to determine presence or not
- **April 3, 2014** – Newland presented improved site plan and preserve design addressing the items identified by USFWS in January.
- **July 29, 2014** – Property site visit to include USFWS and CDFW.
- **November 14, 2014** – Dudek submits 177-page biological technical memorandum addressing USFWS concerns, for USFWS review (available upon request)
- **November 19, 2014** – Newland presented redesign of trail system and relocation of equestrian access and staging area, as well as overall consistency of open space design with the NC MSCP. USFWS requested a meeting with the fire district to discuss/confirm that no additional fuel modification would be required on the project site.
- **March 5, 2015** – USFWS staff communicates to County staff that they had not reviewed the technical memorandum, and stated they could not support a hardline agreement absent a full project redesign.
- **March 12, 2015 (stamped as received)** – USFWS submits a comment letter during the Newland Sierra NOP Scoping Period to this effect, indicating that they

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did not support the project and requesting that Alternatives be analyzed involving substantial redesign. Additionally, the letter from USFWS did not acknowledge any of the ongoing consultation between Newland, the County, and USFWS.

- **June 17, 2015** – In response to USFWS comments from January 2014 regarding the “changed conditions” since the Merriam Mountains hardline agreement was completed, Newland presents information to USFWS (presentation available upon request) indicating how conditions have not changed:
  - Foundational biological data for the NC MSCP is unchanged
  - Overall goals of the NC MSCP are unchanged
  - PAMA boundaries are largely unchanged
  - General Plan land use designations are largely unchanged from the prior General Plan
  
- **September 9, 2015** – E-mail from Karen Goebel sending a “re-design” of the project to the County via e-mail in preparation for the next day’s meeting.
  
- **September 10, 2015** - Newland discusses project with USFWS and County staff. Mendel Stewart indicates he first heard about this project 6-8 months ago, and that delays on his staff’s review were due to workload, vacations, and other things. Karen Goebel brings up new issues – wildlife undercrossings, dislike of Camino Mayor. Karen also mentions that 4d (HLP) is another option for biological permitting, since the site doesn’t have a lot of coastal sage scrub and “this is not a core gnatcatcher population.” Karen also mentioned that if Newland were to avoid occupied gnatcatcher habitat, the project could move forward with a 4d denial from USFWS. After consultation with County counsel and staff, Newland understands this is not true.
  
- **November 5, 2015** – Meeting between County, USFWS, and CDFW where Newland presents revisions to the site plan to partially accommodate their requests for project redesign (pullback in certain areas based on USFWS requests) and an analysis of acreage and biology for fifteen (15) parcels for potential offsite mitigation. USFWS requests an opportunity to review the analysis and promises to provide feedback. A follow up meeting is scheduled for November 19, 2015.
  
- **November 18, 2015** – Newland receives an e-mail from Karen Goebel indicating that USFWS and CDFW had met on 11/12/15 to review and discuss the proposed offsite acquisition list, and sets forth their position on the amount of acreage overall they would accept for conservation. This e-mail specifically sets forth only

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two properties they would “accept” in order to consider a hardline agreement. Both properties currently have approved tentative maps for development.

- **November 19, 2015** - Meeting between County, USFWS and CDFW to again discuss the list of potential acquisitions.
- **December 2, 2015** – USFWS email indicates that “we will support acquisition of the Morris Ranch property” because it would serve as a linkage, and “we will support the Mountain Gate acquisition” because of its size and location.
- **January 15, 2016** – USFWS email indicates that, even with acquisition of Morris Ranch (which Newland had not yet negotiated awaiting USFWS staff confirmation that no further mitigation was required if the property could be acquired), that USFWS would not move forward with a hardline agreement, for the following reasons:
  - Not enough quality conservation onsite
  - Mitigation being proposed does not adequately make up for the on-site deficiencies
  - Offering a hardline would hinder completion of the NC MSCP
  - Too much time commitment from USFWS and the County to continue down this path

## PERMITTING PROCESS CONCERNS

- Draft North County MSCP underway but not anticipated to be completed in time to allow Newland’s project to be permitted under the final plan given our project schedule. USFWS staff person says “Draft NC MSCP has nothing under the hood” further denigrating the efforts.
- Multiple comments from USFWS indicating that approving a hardline for Newland Sierra project would impact the completion of the NC MSCP (Newland Sierra is only 1,985 acres within the NC MSCP study area of 312,284 acres).
- During Section 7 Consultation USFWS staff person says that regardless of whether Army Corps takes jurisdiction over listed species (gnatcatcher), Newland Sierra will still need a Habitat Loss Permit (HLP) as this covers the “entire site.”
- The 4d/HLP process is guided by a Planning Agreement in place that sets forth process while NC MSCP is still being worked on. The Interim Review Process

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ensures that projects being considered for approval prior to adoption of NC MSCP do not compromise the successful implementation of the plan

- USFWS staff continues to disagree with our team regarding fundamental project design considerations in the context of the Interim Review Process guidelines (reference NOP letter and coordination process summarized above) without providing their own “technical reasoning” for rejection but referencing broad, subjective objections under the guise of “meeting the interim guideline objectives”
- Although USFWS staff have stated on several occasions that the project doesn’t need a hardline as it is “easy” to go through the HLP process (with direct comments that the HLP won’t be an issue), there is history on other projects that indicates that staff uses the HLP process to delay projects by never “getting to resolution”.
- With the delays and endless attempts at coordination and resolution that Newland Sierra has experienced since 2014, there is no confidence that the same treatment with the same staff will not occur when the applicant is ready for a Habitat Loss Permit.

# **EXHIBIT C**

**Rita Brandin**

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**From:** steve@stevethompsonllc.com  
**Sent:** Wednesday, October 12, 2016 3:15 PM  
**To:** Rita Brandin  
**Subject:** FW: Meeting  
**Attachments:** nc ec mscp plan agreemen\_20160802082150.pdf

Rita, does this make sense to you?

Steve

“Confidential Attorney/Client Work Product – PREPARED IN ANTICIPATION OF LITIGATION”

**From:** Stewart, Mendel [mailto:mendel\_stewart@fws.gov]  
**Sent:** Wednesday, October 12, 2016 11:42 AM  
**To:** steve@stevethompsonllc.com  
**Cc:** Ed Pert <ed.pert@wildlife.ca.gov>; Karen Goebel <karen\_goebel@fws.gov>  
**Subject:** Re: Meeting

Steve,

The problem with the Newland/Sierra project is that we don't believe it meets the agreed to framework (at least from our current understanding) of the County's regional plan. As a result, it is up to the county to either modify her plan or the regional plan. At this point, we are waiting to understand what the county intends to do about its regional plan. Rita's project can move forward with their plans anyway they want. It is up to the county as to how it fits their plan because our understanding is that it has almost no impact on listed species. It is strictly about meeting the planning guidelines agreed to in 2014 (attached).

<Mendel

On Wed, Oct 12, 2016 at 10:06 AM, [steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com) <[steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com)> wrote:

Mendel/Ed,

Thanks for the quick response.

The major issue really seems to revolve around what is described in the “draft Endangered Species Act Compensatory Mitigation Policy”, as what the applicant can do as appropriate and practicable avoidance and minimization measures. Ed I’m not familiar with the State process, so not sure if you have a comparable direction or guidance?

"Practicable – available and capable of being done after taking into consideration existing technology, logistics, and cost in light of a mitigation measure's beneficial value and a land use activity's overall purpose, scope, and scale (81 FR 12380; March 8, 2016)."

If the agencies recommendations to gain your support aren't practicable and appropriate to the applicant, then it really doesn't make sense to meet this Friday.

Thanks for your consideration.

Steve

[steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com)

916-600-5227

**From:** Stewart, Mendel [mailto:[mendel\\_stewart@fws.gov](mailto:mendel_stewart@fws.gov)]  
**Sent:** Tuesday, October 11, 2016 4:56 PM  
**To:** [steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com)  
**Cc:** Ed Pert <[ed.pert@wildlife.ca.gov](mailto:ed.pert@wildlife.ca.gov)>  
**Subject:** Re: Meeting

Steve,

Ed and I are available all afternoon on Friday. It will depend on whether Mark can meet and what time he is available. As for authority to tell an applicant to suspend their development process, as far as I know we have none. We have not asked them to suspend their project. My understanding from the meeting with Susan Wynn and the Corps was that we just pointed out that getting the regional HCP/NCCP completed as soon as possible would benefit everyone.

I know that we looked hard at Rita's project and provided recommendations on how to gain our (State and Federal wildlife agencies) support for the project. These same recommendations will be provided as comments

when the draft CEQA document comes out. If this project moves forward in advance of the North County Plan, the only Service regulatory oversight will come from the section 7 consultation with the Corps and 4(d) rule compliance through the County. We cannot comment on the outcome of these processes until the applicant and agencies with oversight (Corps and County) submit the required information to us. The Corps has not initiated consultation on the project and the 4(d) information is usually submitted to the County through the CEQA process. As for ESA Mitigation Strategies and the new HCP handbook, we don't expect delays in the processing the North County Plan due to the draft guidance and policies.

We have provided our recommendations to improve the applicant's project design multiple times. These recommendations were provided to help ensure the proposed project would be consistent with the conservation strategy of the North County plan as proposed to us by the County. We agree there is no reason to meet if the project design is not changing. There is nothing to prevent the applicant or the County from moving forward with the CEQA process.

That said, I'm happy to meet with her anytime to go over it again to make sure I understand her permit concerns. Ed is also happy to meet again.

<Mendel

On Mon, Oct 10, 2016 at 7:49 PM, [steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com) <[steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com)> wrote:

See comments below.

Steve

[steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com)

916-600-5227

**From:** Mendel Stewart [[mailto:mendel\\_stewart@fws.gov](mailto:mendel_stewart@fws.gov)]

**Sent:** Monday, October 10, 2016 5:34 PM

**To:** [steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com)

**Subject:** Re: Meeting

Steve,

I checked with Ed and he is available as I am on Friday afternoon. Both Ed and I have a meeting with the Corps of Engineers and many others on the San Elijo Lagoon restoration project in the morning on Friday. It will be just Rita and I. Can I make it back to airport for a 4:50 pm flight? What time can you guys meet in the afternoon? Will ask Rita if she is available.

If the afternoon works for you, I recommend that you and Rita ask Mark Wardlaw from the county to attend. We would also need to know who from Rita's group will attend. If she's going to bring other consultants Ed and I would need to bring our staff because we don't really know all the details they know. Rita will ask Mark Wardlaw at the county if he can attend. It will just be Rita and I.

Steve, I also need to know what the subject is. We have already been through discussion about her project as you know. The county, state and our focus should be on getting the regional HCP/NCCP completed. Going over her project again just delays that. *this is a stretch*

Mendel the topic is how to work together to get the needed permits from the Department and FWS for the proposed project. I'm not sure what authority you and Ed have to tell the applicant to suspend the existing permit process and force them to complete a regional HCP/NCCP, of which they are very small player in the conservation strategy, have no control over the agencies performance or ability to complete an HCP, that has been in the works for years. In addition the FWS is apparently hard at work on ESA Mitigation Strategies and a new several hundred page HCP handbook, that if implemented will make it almost impossible to finish an HCP/NCCP. An HCP of this complexity could take up to 50 months according to the draft handbook headed to final.

I haven't seen, maybe I missed it, any analysis of the conservation strategy by the agencies. If the only answer is to make them complete the Regional HCP/NCCP, which they have no control over, then is no real reason to meet locally.

Mendel

Sent from my iPhone

G. Mendel Stewart

U.S. Fish and Wildlife Service

Mobile (760) 533-5976

On Oct 10, 2016, at 11:12 AM, "[steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com)" <[steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com)> wrote:

Ok how about Rita and I meet Friday morning with Ed, you and the county rep?

I have a meeting with Chuck Bonham, Thursday afternoon, then fly down Thursday night, Fly back late Friday.

Steve

[steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com)

916-600-5227

**From:** Stewart, Mendel [[mailto:mendel\\_stewart@fws.gov](mailto:mendel_stewart@fws.gov)]  
**Sent:** Tuesday, October 4, 2016 10:52 AM  
**To:** [steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com)  
**Subject:** Re: Meeting

Steve,

I spoke with Ed Pert, Regional Manager for the Department of Fish and Wildlife, about meeting with Rita. He reminded me that they and the County are each involved in this proposed project and should also be involved in any meetings. He also asked me exactly what the subject of the meeting was and I had trouble describing it.

I request that any meetings we have about this project include both the County and the State so that each party is kept informed equally. It would also be helpful to have a better understanding of the specific topic.

Thank you.

<Mendel

On Fri, Sep 30, 2016 at 12:50 PM, [steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com)  
<[steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com)> wrote:

## Rita Brandin

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**From:** Stewart, Mendel <mendel\_stewart@fws.gov>  
**Sent:** Friday, August 5, 2016 5:37 PM  
**To:** Rita Brandin  
**Subject:** Re: Corps Meeting

**Follow Up Flag:** FollowUp  
**Flag Status:** Flagged

Rita,

I'm sorry for the delay in responding. I do not plan to attend this. I have a conflict but even if not, our staff should work with you and your team on this.

I am still working on my understanding of the 4d Rule and hope to get answers for you soon.

<Mendel

On Wed, Aug 3, 2016 at 9:39 AM, Rita Brandin <rbrandin@newlandco.com> wrote:

Hi Mendel: Susan Wynn has responded that August 18th at 2:00 works for her to meet with Shanti and our team.

Your participation is very important as well. Please confirm that this date and time work for you as well?

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Carlsbad Fish and Wildlife Office  
Field Supervisor  
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Region 8 Facebook page: <https://www.facebook.com/usfwspacificsouthwest>

Region 8 Twitter page: <https://twitter.com/USFWSPacSWest>

## Rita Brandin

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**From:** Stewart, Mendel <mendel\_stewart@fws.gov>  
**Sent:** Friday, July 29, 2016 4:31 PM  
**To:** James Whalen  
**Cc:** Rita Brandin; Adams, Matt (matt@biasandiego.org); Karen Goebel; Scott Sobiech  
**Subject:** Re: FW: Soitec Admin Record

Jim,

Thanks for providing this information. We will be in contact to discuss it. Have a great weekend.

<Mendel

On Fri, Jul 29, 2016 at 10:06 AM, James Whalen <james@jwhalen.net> wrote:

Thanks for getting together Tuesday, Mendel. While we have other matters to follow up on, I wanted to take this opportunity to address a comment you made about a “requirement” for 75% open space and 25% limit on development in the North County MSCP’s planning. I also wish to elaborate on BIA concerns about not following the required conservation planning steps in the preparation of the MSCP Subarea plans, in this case, the MSCP North County.

As you can see in the attached, executed Planning Agreement for the North and East County plans, there is no requirement for 75%-25%. I don’t know where staff came up with that notion, but it is not required and Newland shouldn’t be asked to adhere to it.

The same Planning Agreement requires the County and agencies to deploy a steering committee to participate in the process, and unfortunately, we don’t have that yet. I predict this will cause problems because we will be getting a draft plan that is more “cooked” than it should be at this point in the process given no stakeholder review for seven years.

Additionally, you can see in Section 6.2.1 of the Planning Agreement that there are discrete, defined methods that need to be followed for the Service and Department to make the findings to issue take authorizations. Steps 6.2.1 c, e, f, and g *require* that the preparation of the conservation analysis supporting those findings be done using species point locations and species modeling with gap analyses to ensure accuracy in the determination of coverage. In other words, we must prepare MSCP Subarea Plans this way. On other hand, arbitrary or subjective “lines on paper” cannot be supported without such analysis being done. Any litigation brought on a project or subarea plan will be successful challenging the issuance of permits without such analysis.

Accordingly, hardlined boundaries showing what open space will be in a Subarea Plan are a critical precursor of the baseline to achieving an adequate conservation analysis and if changed in either a draft or approved plan

without analysis , the effects ripple throughout through those draft and approved MSCP plans. By the way, I also attached an updated version of the graphic I shared with you Tuesday—it was pointed out the term “landowner” more accurately represents the meaning. The point of that graphic is clear—we have a three-footed stool that is needed for these plans to work. With any of the three missing, no plan.

Please let me know if you have any questions. Thanks again, JimW

—  
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Field Supervisor  
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## Rita Brandin

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**From:** Stewart, Mendel <mendel\_stewart@fws.gov>  
**Sent:** Friday, January 15, 2016 5:45 PM  
**To:** Rita Brandin  
**Cc:** Ed Pert (EPert@dfg.ca.gov); Karen Goebel; Mark Wardlaw; Scott Sobiech  
**Subject:** Re: FW: Follow Up from Telephone Discussion Yesterday -

Rita,

Your request for confirmation that no further offsite mitigation would be requested was because Karen had indicated in her 11/18/2015 email see excerpt below, that the Wildlife Agencies would need to determine whether additional offsite mitigation would be required if Newland Sierra entered into a partnership, where mitigation credit would be shared, to acquire the Morris Ranch property rather than purchase the property outright, where full credit would be given to the Newland Sierra property. You indicated in our 12/9 telephone conversation that Newland Sierra would not be willing to purchase additional acreage.

From our 11/18/2015 email:

"The Morris Ranch site is approximately 230 acres in size. Full conservation of the site by the Applicant would result in a 66/34 conservation to impact goal for the project and because of this area's importance to the draft North Coast MSCP, the Wildlife Agencies would agree to a hard-line agreement even at this lower conservation to impact ratio. If the property was purchased in coordination with another entity, the Wildlife Agencies would need to determine the amount of additional offsite acreage that may or may not be needed for a hard-line agreement. We understand that any purchase at this site represents greater risk for the Applicant; however, this is the property that will bring the Applicant greatest support from the Wildlife Agencies, and its conservation could potentially gain support for the project from other conservation groups."

Below are our reasons for not going forward with hardline agreements:

1. We don't believe the necessary quality conservation is designed on site. This includes not only acreage but also the conservation design. We cannot publicly defend what is being proposed as sound conservation meeting the intent of the proposed North County MSCP.
2. We also don't believe the mitigation being proposed, even what would come from your partnership with Camp Pendleton for purchase of Morris Ranch, adequately make up for the on-site deficiencies.
3. We are also concerned about how providing this hardline would impact the completion of the North County MSCP. We are concerned that to continue to provide hardlines that we are reducing the incentive for completing the N. County Plan.

4. Finally, the time commitment required from the wildlife agencies and the county is not well spent. By continuing to address individual project requests for a hardline, we are just encouraging others in the future to make similar requests. It is in all of our best interests to put our efforts toward completing the plan.

I hope this helps clarify our position.

<Mendel

On Tue, Jan 12, 2016 at 1:05 PM, Rita Brandin <[rbrandin@newlandco.com](mailto:rbrandin@newlandco.com)> wrote:

Mendel:

I thought it important to document our conversation yesterday, and I've copied Ed on the communication since Gail was on the call as well.

As a follow up to the joint meeting in late November between the Agencies, the County and Newland, I had a call with you and Karen Goebel on 12/9 wherein we discussed the potential offsite acquisition of Morris Ranch, and I requested confirmation from both agencies that if I were able to jointly acquire Morris Ranch that no further mitigation requirements would be required in order to agree to a hard-line. I wanted this assurance before I started discussion with the contact Karen had given me from the Marine Corps.

Our call yesterday was for you to relay the mutual decision of both agencies that a hard-line will no longer be considered by either agency. This decision was arrived at during the joint meeting between both on 1/11/16. When I asked you why you were no longer willing to consider a hard-line even with the directed offsite acquisition, you indicated that the project design is an issue, that the plan doesn't offer enough acreage for conservation and that entering into a hard-line put the future of the North County MSCP at risk. You also indicated that the time commitment to work with individual applicants was not time well spent for the agencies, and that entering into a hard-line with Sierra would potentially open the door to other applicants wanting the same thing.

You indicated that you had communicated this to the County as well.

This is my understanding of our telephone call. I would appreciate your confirmation or corrections so that we have a record of our communication and the Agencies' decision.

Thank you,

Rita Brandin

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## Rita Brandin

---

**From:** Rita Brandin  
**Sent:** Tuesday, January 12, 2016 1:05 PM  
**To:** 'mendel\_stewart@fws.gov'  
**Cc:** Ed Pert (EPert@dfg.ca.gov)  
**Subject:** FW: Follow Up from Telephone Discussion Yesterday -

Mendel:

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Rita Brandin

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**Rita Brandin**

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**From:** Goebel, Karen <karen\_goebel@fws.gov>  
**Sent:** Wednesday, December 16, 2015 5:33 PM  
**To:** Rita Brandin  
**Subject:** Telephone Number

Requested # to  
call and tell me  
that the agencies (USFWS  
& CDFW)

Rita,

Can you call me or resend me your telephone number(s). I have misplaced them.

Karen

would not be  
meeting to discuss  
our proposal  
until Jan. 8

Karen Goebel  
Assistant Field Supervisor  
Carlsbad Fish and Wildlife Office  
2177 Salk Avenue, Suite 250  
Carlsbad, California 92008  
760/431-9440, ext. 296  
760/431-9624 Fax

**Rita Brandin**

Please review  
entire email

**From:** Stewart, Mendel <mendel\_stewart@fws.gov>  
**Sent:** Wednesday, December 2, 2015 5:39 PM  
**To:** Rita Brandin  
**Cc:** Karen Goebel; Ed Pert; Mark Wardlaw  
**Subject:** Re: FW: Our Discussion on Friday afternoon, November 20th - Correction on Prior E-Mail

chain

Hi Rita,

Thank-you for trying to capture our conversation. I would like to clarify the following points:

We have no objection to the project applicant's purchase of offsite mitigation lands in support of adding to the overall conservation of the Draft North County MSCP preserve lands; however, from the list of properties provided for our review and support for a potential hard-line agreement, some properties are considered of greater biological value than others. Specifically, we will support acquisition of the Morris Ranch property because the proposed development on the site will sever a key linkage in the Draft North County MSCP, thus conservation of the site has been a priority for conservation for some time. The project applicant's contribution to the acquisition of this critical property would help us make a stronger biological case that the offsite mitigation proposed offsets the loss and fragmentation of the project's onsite PAMA lands. Likewise, we will support the Mountain Gate acquisition because of its size and location within the PAMA and because its purchase will ensure conservation of a large core area of the Draft North County MSCP preserve.

During our conversation, my intent was not to dismiss the value of the Hoospack or Pankey properties' contribution to the Draft North County MSCP preserve system, but only to do what you asked in identifying Service priorities for conservation that would lead to a hard-line agreement. Because the proposed Newland Sierra development will result in a loss of wildlife habitat originally identified to be part of the Draft North County MSCP preserve, acquisition of PAMA lands planned for development helps ensure that there is no net loss of PAMA acreage and that the anticipated size and configuration of the planned preserve can be achieved. Acquisition of one of these properties which both include development would offset the overall loss of existing PAMA acreage that will result from the Newland Sierra development. Conservation of the Hoospack or Pankey properties, while not insignificant, will not assist in maintaining the scope of the PAMA lands needed to assemble the preserve anticipated by the Draft North County MSCP.

I hope this helps clarify our conservation priorities and to dispel any concerns you may have regarding our agency's role in balancing the needs of residential and commercial development with our mission to conserve the nation's important fish and wildlife resources. We believe the section 10 permitting program and regional planning through the MSCP highlight the Service's sincere efforts to work in partnership to achieve this goal.

Marine Corps Base Camp Pendleton is the potential partner for the Morris Ranch property. We let them know that someone might be interested in partnering on this acquisition. Below is the person to contact.

Ken Quigley  
Strategic/Regional Environmental Planner  
Strategic Planning Section, Building 22165  
MCIWEST\_MCB Camp Pendleton  
Box 555008  
Marine Corps Base

Camp Pendleton, CA 92055-5008  
(760) 725-9733  
DSN: 365-9733  
FAX -9722

Please let me know if you have any questions.

<Mendel

On Wed, Dec 2, 2015 at 10:05 AM, Rita Brandin <[rbrandin@newlandco.com](mailto:rbrandin@newlandco.com)> wrote:

Good morning Mendel:

After re-reading the e-mail I sent to you on 11/25, I realized that I put the incorrect date down for our last meeting. Please see those corrections below in red.

Please let me know if you have any further additions or corrections. Also, if you have reached the Morris Ranch contact that was discussed in our meeting.

Thank you.

Rita Brandin

**From:** Rita Brandin  
**Sent:** Wednesday, November 25, 2015 11:58 AM  
**To:** 'mendel\_stewart@fws.gov'  
**Subject:** Our Discussion on Friday afternoon, November 20th  
**Importance:** High

Good morning Mendel:

I appreciate that you called me directly on Friday afternoon to discuss the U.S. Fish and Wildlife agency's stance on offsite acquisition options as a follow up to our Thursday, November 19th meeting at the County. As I have reviewed the discussion with others, I've concluded that it might be important to memorialize our conversation so Newland and our team have clarity moving forward. If I missed any key points or misunderstood any of your comments from the discussion, please feel free to provide those additions or corrections to my summary e-mail. I will attempt to capture the key points as I understood them.

As you know, we had previously proposed a list of off-site parcels at our meeting on November 5th, and we discussed the same list at our meeting on November 19th. We asked that you relook at the biological value of those parcels for acceptable offsite acquisition by Newland in lieu of being limited to only the Morris Ranch and Mtn. Gate parcels as communicated in Karen Goebel's e-mail to me on November 18th. You mentioned you would meet further with your staff to discuss the list.

During our call, you mentioned that as a follow up to our 11/19 discussion, you and your staff had further reviewed the list of parcels, and relooked at two parcels in particular that we had discussed at length – the two we refer to as Hooshpack and Pankey. You said that although the California Dept. of Fish and Wildlife wanted to take another look at the biological value of these parcels, that the U.S. Fish and Wildlife Service did not see them as acceptable acquisitions. When I asked why they were not acceptable given our preliminary assessment of their biological value and their core PAMA location, you said they were not “threatened” like the Morris Ranch and Mtn. Gate properties, and these two parcels were of high priority for the agencies. When I asked what you meant by threatened, you said that Hooshpack and Pankey are not priority and that you are not worried about them like Morris Ranch or Mt. Gate because neither parcel has significant development potential under the County's General Plan and slopes and terrain didn't make them as viable for development projects. In summary, you said; “[w]e've talked and unless Newland is willing to acquire one of the two options we provided then there will be no hardline”.

I expressed my concern that it appeared the agency's focus on these two tentative map projects as the only acceptable offsite acquisition land for Newland appeared to be having one developer buy another developer's approved project to keep them from being developed. You responded your agency is trying to protect threatened habitat and there are lots of ways to do that.

To close our discussion, I reiterated your comment regarding the limitation of Morris Ranch or Mtn. Gate as the only acceptable options, and wanted to be clear whether there was any opening, in your mind, for further discussions on the other parcels. You indicated that there was not.

I indicated I was still willing to explore a potential joint deal on Morris Ranch with the party that Karen Goebel had mentioned in our November 19th meeting. You indicated that the agency had not been able to get in touch with him as of our call but when you did you would ask him to call me.

Please let me know if I properly captured the key points of our conversation as I want to make sure we are still on the same page moving forward.

Best regards,

Rita Brandin

Newland Sierra, LLC

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## Rita Brandin

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To close our discussion, I reiterated your comment regarding the limitation of Morris Ranch or Mtn. Gate as the only acceptable options, and wanted to be clear whether there was any opening, in your mind, for further discussions on the other parcels. You indicated that there was not.

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Please let me know if I properly captured the key points of our conversation as I want to make sure we are still on the same page moving forward.

Best regards,

Rita Brandin  
Newland Sierra, LLC

## Rita Brandin

---

**From:** Rita Brandin  
**Sent:** Thursday, November 19, 2015 10:29 AM  
**To:** mendel\_stewart@fws.gov  
**Cc:** Rita Brandin  
**Subject:** FW: Review of Conservation Options for the Newland Sierra Project

Mendel: I realize we are going to discuss this in today's meeting, but I since I didn't see you copied on Karen's e-mail, I wanted to make sure you've seen what she has proposed.

Karen has not provided a "ranking" of all the potential off-site parcels like we requested but has chosen instead to push us on acquiring the two MOST difficult parcels, and the most costly parcels. This does not bode well for what I would have anticipated to be a move in the right direction towards an amicable negotiation/discussion today.

I was very clear in our last meeting, that in order to provide Newland with the ability to get to a good offsite result, that we needed flexibility on both the **percentage achieved and the parcels** - given that there are no guarantees that option agreement discussions will be successful as we make our way through the discussions. However, given Karen's e-mail below, it appears that both of those requests went unheeded as the two agencies met to discuss this.

I understand that the agencies' first priority is the realization of conservation, and that concern about cost to private owners is not something that rises to importance. We are respectful of the agencies' desire which is why we are willing to explore offsite acquisition to get to a hardline agreement. That being said, there ARE financial constraints that end up making projects infeasible that should be considered, and ham-stringing Newland on viable parcel acquisitions that the agencies are willing to accept is not in good faith.

Hopefully there will be an opportunity today to have a broader discussion about this and we can move toward something that is more of a negotiated agreement versus a dictated agreement?

Rita

**From:** Goebel, Karen [mailto:karen\_goebel@fws.gov]  
**Sent:** Wednesday, November 18, 2015 4:54 PM  
**To:** Mark Wardlaw; Rita Brandin  
**Cc:** Albright, Brian; Ed Pert; Sevrens, Gail@Wildlife  
**Subject:** Review of Conservation Options for the Newland Sierra Project

*sent the day before meeting*

Mark and Rita:

On November 12, 2015, the Department and Service (Wildlife Agencies) met to review and discuss the information and conservation options presented to us during a meeting with the County and the Applicant on November 5, 2015, regarding a potential hard-line agreement for the Newland Sierra project.

In order to move the discussion forward at our next meeting, the Wildlife Agencies have given consideration to the Applicant's effort to increase the value of the Block 3 area for wildlife resources as live in habitat by removing 14 acres of development and reducing the amount of fuel modification necessary in this block of

habitat. However, with the present configuration of the residential and commercial development, the Block 3 habitat area remains fragmented, is not connected to the larger block of functional habitat to the north, and is not inclusive of habitat across gradients that would be more conducive to wildlife movement.

Because of these limitations, we will agree to "credit" 1/2 of the total acres ( $189/2=94.5$  acres) to the conservation acreage totals for the project provided that the entire Block 3 area is managed by the County (or other conservation organization) consistent with the goals of the draft North County MSCP. Should future project modifications require grading or fuel modification within Block 3, the acreage credited to the project's agreed to conservation goal would be reduced and additional offsite acreage expected for conservation.

With the agreed to functional block of core habitat to the north (1,024 acres) and the habitat credit acknowledged for Block 3, the conserved onsite acreage would represent 56% of the site ( $1024+94.5/1985$ ); to reach the draft North County MSCP's 75/25 conservation to impact goal, offsite conservation of an additional 371 acres ( $1024+94.5+371/1985$ ) would be needed. The conserved acreage offsite needs to include 70 acres of coastal sage scrub (CSS) to meet the 4(d) guidelines, and funding (e.g., endowment) for long-term management and monitoring of all offsite preserved lands (i.e., mitigation) needs to be assured by the Applicant.

The Wildlife Agencies recommend that the Applicant pursue either of the following two alternatives for consideration of a hard-lined agreement for the project.

1) Morris Ranch Property. Conservation of this property is a high priority for the Wildlife Agencies because the anticipated development of this area within the Pre-Approved Mitigation Area (PAMA) will sever connectivity between the Merriam/San Marcos Mountains and the San Luis Rey River. While we understand that the Applicant considered this option as not financially viable, the Wildlife Agencies are aware of efforts to purchase the property and may be able to facilitate inclusion of the Applicant into these discussions.

The Morris Ranch site is approximately 230 acres in size. Full conservation of the site by the Applicant would result in a 66/34 conservation to impact goal for the project and because of this area's importance to the draft North Count MSCP, the Wildlife Agencies would agree to a hard-line agreement even at this lower conservation to impact ratio. If the property was purchased in coordination with another entity, the Wildlife Agencies would need to determine the amount of additional offsite acreage that may or may not be needed for a hard-line agreement. We understand that any purchase at this site represents greater risk for the Applicant; however, this is the property that will bring the Applicant greatest support from the Wildlife Agencies, and its conservation could potentially gain support for the project from other conservation groups.

2) Mountain Gate. Conservation of the Mountain Gate property is of interest to the Wildlife Agencies because of its overall size and location (mostly PAMA) within the Draft North County MSCP. Conservation of 371 acres of this site would result in a 75/25 conservation to impact goal for the project. With conservation of this acreage, the Wildlife Agencies would agree to a hard-line agreement for the project provided that the site is

confirmed by the Wildlife Agencies to include at least 70 acres of coastal sage scrub and the entire acreage is guaranteed for purchase. For example, to reduce the risk of the entire option failing, the Applicant would need to guarantee to assist The Escondido Conservancy (TEC) with purchase of any remaining acreage TEC is unable to secure funds to purchase.

Finally, the total acreage and habitat composition for the Mountain Gate habitat block needs confirmation. We have information stating the total acreage of the site is 692.8 acres, while the information provided for our review indicates a total acreage of only 558 acres, including 113 acres of CSS. We have information indicating only 17.4 acres of CSS on the Mountain Gate site, including 5 acres within an SDG&E easement that could not be included as mitigation for the Newland Sierra project.

Again, we are providing this information in advance in hopes that it will lead to a productive meeting tomorrow. We look forward to seeing you then. Please forward on to others on your teams as I have not copied everyone at the last meeting.

Sincerely,

Karen

Karen Goebel  
Assistant Field Supervisor  
Carlsbad Fish and Wildlife Office  
2177 Salk Avenue, Suite 250  
Carlsbad, California 92008  
760/431-9440, ext. 296  
760/431-9624 Fax

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## Rita Brandin

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**From:** Goebel, Karen <karen\_goebel@fws.gov>  
**Sent:** Wednesday, November 18, 2015 4:54 PM  
**To:** Mark Wardlaw; Rita Brandin  
**Cc:** Albright, Brian; Ed Pert; Sevrens, Gail@Wildlife  
**Subject:** Review of Conservation Options for the Newland Sierra Project

Mark and Rita:

*Sent the day before  
the meeting*

On November 12, 2015, the Department and Service (Wildlife Agencies) met to review and discuss the information and conservation options presented to us during a meeting with the County and the Applicant on November 5, 2015, regarding a potential hard-line agreement for the Newland Sierra project.

In order to move the discussion forward at our next meeting, the Wildlife Agencies have given consideration to the Applicant's effort to increase the value of the Block 3 area for wildlife resources as live in habitat by removing 14 acres of development and reducing the amount of fuel modification necessary in this block of habitat. However, with the present configuration of the residential and commercial development, the Block 3 habitat area remains fragmented, is not connected to the larger block of functional habitat to the north, and is not inclusive of habitat across gradients that would be more conducive to wildlife movement.

Because of these limitations, we will agree to "credit" 1/2 of the total acres ( $189/2=94.5$  acres) to the conservation acreage totals for the project provided that the entire Block 3 area is managed by the County (or other conservation organization) consistent with the goals of the draft North County MSCP. Should future project modifications require grading or fuel modification within Block 3, the acreage credited to the project's agreed to conservation goal would be reduced and additional offsite acreage expected for conservation.

With the agreed to functional block of core habitat to the north (1,024 acres) and the habitat credit acknowledged for Block 3, the conserved onsite acreage would represent 56% of the site ( $1024+94.5/1985$ ); to reach the draft North County MSCP's 75/25 conservation to impact goal, offsite conservation of an additional 371 acres ( $1024+94.5+371/1985$ ) would be needed. The conserved acreage offsite needs to include 70 acres of coastal sage scrub (CSS) to meet the 4(d) guidelines, and funding (e.g., endowment) for long-term management and monitoring of all offsite preserved lands (i.e., mitigation) needs to be assured by the Applicant.

The Wildlife Agencies recommend that the Applicant pursue either of the following two alternatives for consideration of a hard-lined agreement for the project.

1) Morris Ranch Property. Conservation of this property is a high priority for the Wildlife Agencies because the anticipated development of this area within the Pre-Approved Mitigation Area (PAMA) will sever connectivity between the Merriam/San Marcos Mountains and the San Luis Rey River. While we understand that the Applicant considered this option as not financially viable, the Wildlife Agencies are aware of efforts to purchase the property and may be able to facilitate inclusion of the Applicant into these discussions.

The Morris Ranch site is approximately 230 acres in size. Full conservation of the site by the Applicant would result in a 66/34 conservation to impact goal for the project and because of this area's importance to the draft North Count MSCP, the Wildlife Agencies would agree to a hard-line agreement even at this lower conservation to impact ratio. If the property was purchased in coordination with another entity, the Wildlife Agencies would need to determine the amount of additional offsite acreage that may or may not be needed for a hard-line agreement. We understand that any purchase at this site represents greater risk for the Applicant; however, this is the property that will bring the Applicant greatest support from the Wildlife Agencies, and its conservation could potentially gain support for the project from other conservation groups.

2) Mountain Gate. Conservation of the Mountain Gate property is of interest to the Wildlife Agencies because of its overall size and location (mostly PAMA) within the Draft North County MSCP. Conservation of 371 acres of this site would result in a 75/25 conservation to impact goal for the project. With conservation of this acreage, the Wildlife Agencies would agree to a hard-line agreement for the project provided that the site is confirmed by the Wildlife Agencies to include at least 70 acres of coastal sage scrub and the entire acreage is guaranteed for purchase. For example, to reduce the risk of the entire option failing, the Applicant would need to guarantee to assist The Escondido Conservancy (TEC) with purchase of any remaining acreage TEC is unable to secure funds to purchase.

Finally, the total acreage and habitat composition for the Mountain Gate habitat block needs confirmation. We have information stating the total acreage of the site is 692.8 acres, while the information provided for our review indicates a total acreage of only 558 acres, including 113 acres of CSS. We have information indicating only 17.4 acres of CSS on the Mountain Gate site, including 5 acres within an SDG&E easement that could not be included as mitigation for the Newland Sierra project.

Again, we are providing this information in advance in hopes that it will lead to a productive meeting tomorrow. We look forward to seeing you then. Please forward on to others on your teams as I have not copied everyone at the last meeting.

Sincerely,

Karen

Karen Goebel  
Assistant Field Supervisor  
Carlsbad Fish and Wildlife Office  
2177 Salk Avenue, Suite 250  
Carlsbad, California 92008  
760/431-9440, ext. 296  
760/431-9624 Fax

## Rita Brandin

---

**From:** Rita Brandin  
**Sent:** Wednesday, September 9, 2015 2:54 PM  
**To:** Brian Grover (bgrover@dudek.com); 'brice@bosslergroup.com'  
**Subject:** FW: Newland Sierra Proposed Project Alternative  
**Attachments:** Newland MSCP Alternative.jpg

Need to look at this and have a conversation this afternoon --- I am available any time ---

**From:** Gungle, Ashley [mailto:Ashley.Gungle@sdcountry.ca.gov]  
**Sent:** Wednesday, September 09, 2015 2:28 PM  
**To:** Rita Brandin; brice@bosslergroup.com  
**Cc:** Slovick, Mark  
**Subject:** FW: Newland Sierra Proposed Project Alternative

Rita, Brice,

The following was received this afternoon.

Thanks,

Ashley

**Ashley Gungle**, Land Use/ Environmental Planner  
COUNTY OF SAN DIEGO | Planning & Development Services  
T. 858.495.5375

**From:** "Goebel, Karen" <karen\_goebel@fws.gov>  
**To:** "Wardlaw, Mark" <Mark.Wardlaw@sdcountry.ca.gov>  
**Cc:** "Ed Pert" <Ed.Pert@wildlife.ca.gov>, "Mendel Stewart" <mendel\_stewart@fws.gov>  
**Subject:** Newland Sierra Proposed Project Alternative

Hi Mark,

As promised, we have attached a map depicting a proposed alternative for the Newland Sierra project that gets us closer to the 75/25 conservation to development goals of the draft North County Plan under the MSCP. We have made a sincere effort to listen to the project proponent's desire to maintain their commercial center and considered topography of the site in development of this alternative.

The proposed alternative reduces development by about 106 acres to address our prior concerns and specifically minimizes edge effects, increases functionality of core wildlife habitat areas, allows wildlife connectivity across the site and to the south, and provides a range in topographical gradients to support live in habitat and wildlife movement. As noted on the map, we would also like to discuss alternative access routes and incorporation of wildlife movement features into the roadway design.

With these changes the project will achieve a 68/32 conservation to development ratio. The anticipated offsite mitigation of coastal sage scrub will move the project closer to achieving the

75/25 goal of the draft North County Plan. Offsite mitigation should be located within the Pre-Approved Mitigation Area of the draft North County Plan and contribute to the San Marcos-Merriam Mountain Core (Planning Unit 9).

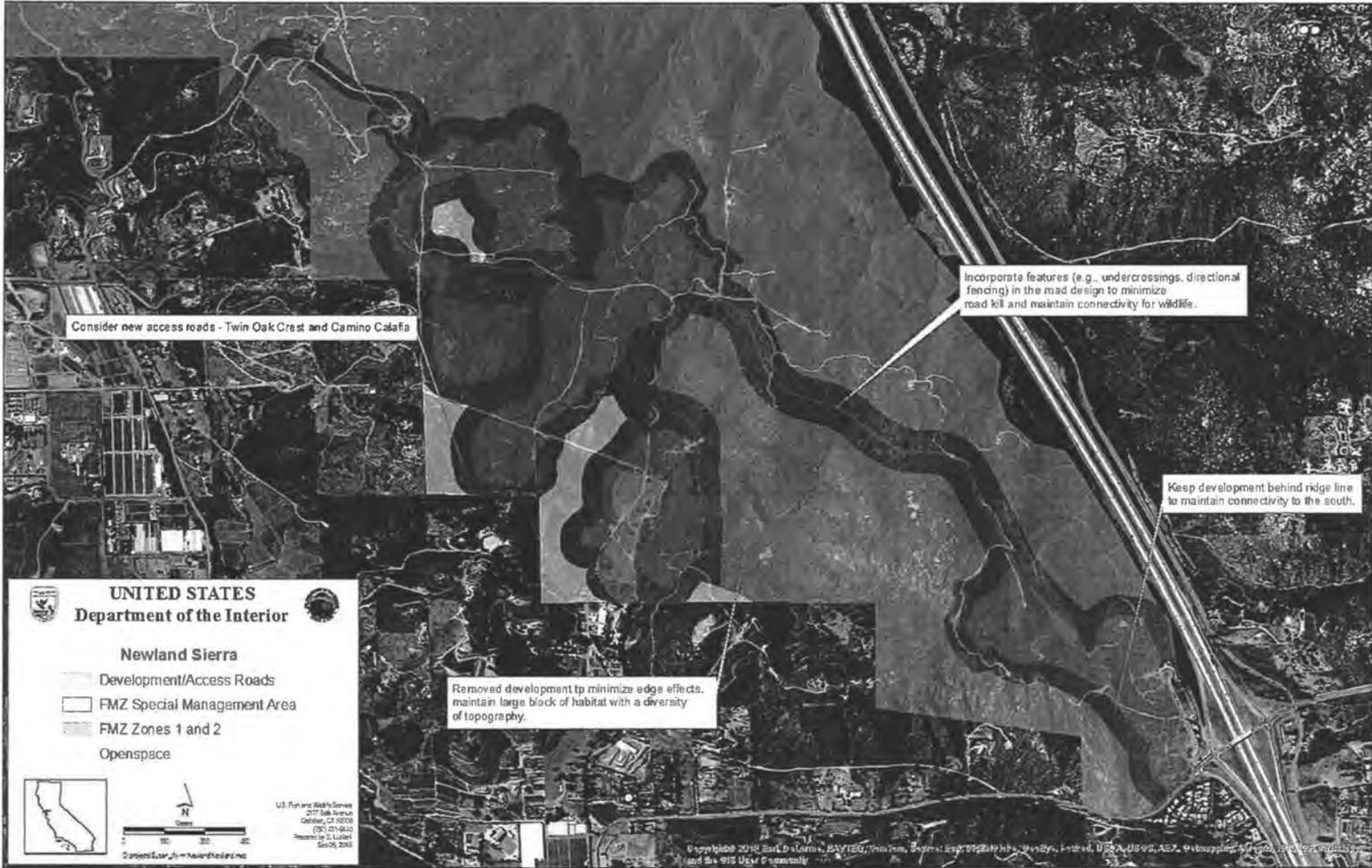
We look forward to our meeting tomorrow to discuss this proposed alternative and its potential to achieve our support for a proposed hardline agreement for inclusion in the draft North County plan.

Sincerely,

Karen

Karen Goebel  
Assistant Field Supervisor  
Carlsbad Fish and Wildlife Office  
2177 Salk Avenue, Suite 250  
Carlsbad, California 92008  
760/431-9440, ext. 296  
760/431-9624 Fax





## Monthly Batching Meeting With U.S Fish and Wildlife Service and Department of Fish and Game

Date: August 18, 2016

Project Name: Newland Sierra

Project Number:

Name of Note Taker: Kimberly Davis

Name of County Staff Presenting Case: Mark Slovick

Name of USFWS Staff: Doreen Stadtlander, Becca Reeves, Emily Cate

Name of CDFG Staff: Dave Mayer

Other Attendees: County staff: Alex Elias, Darin Neufeld, Kimberly Davis

### Reason for Agenda Item:

The purpose of the meeting was to inform the agencies that a draft EIR will be out for public review soon. The biological technical report is almost complete and will be submitted to agencies for review within 4 weeks (and before public review); the applicant will request either an HLP or a Section 7 consultation. Numerous meetings discussing this project have been held and the agencies have previously been provided biological information including survey results.

### Discussion:

1. Were there specific concerns raised by the USFWS?
  - Were there update CAGN surveys?
  - Uncertainty regarding a project of this size and effect on the PAMA being appropriate for the HLP process, i.e. it may not fit into the 4d category. Section 10 permit is an option should incidental take authorization be needed
  - Request agency opportunity for review/coordination before public draft
  - Although this is a batching meeting, HLP findings were not provided prior to the today's meeting and are not being reviewed.
  - County indicated that the issue of an HLP had been discussed with the USFWS (Karen Goebel) at previous meetings and that Karen stated that while she was not being "predecisional" she did not know of any reason the findings could not be made. Will need to follow up on comments made regarding HLP with Karen G. when she returns
  
3. Were there specific concerns raised by DFG?

- Question of off-site mitigation for CSS
  - Request 75%/25% conservation consistent with NC MSCP, or additional lands conserved in PAMA to reach the 75%
  - Open space is fragmented
  - Require better discussion for how project is consistent with NC MSCP preserve
  - Connectivity will be precluded
4. Were determinations made? County to check date of last California gnatcatcher surveys. Last surveys were conducted in 2013.
5. Does the project need to be presented at a subsequent batching meeting? No, the biological technical report and HLP findings will be provided to the agencies prior to public review.

# **EXHIBIT D**



# United States Department of the Interior

## FISH AND WILDLIFE SERVICE

Ecological Services  
Carlsbad Fish and Wildlife Office  
2177 Salk Avenue, Suite 250  
Carlsbad, California 92008



In Reply Refer To:  
FWS-SDG-15B0150-15CPA0175

MAR 12 2015

Mr. Mark Slovick  
County of San Diego  
Department of Planning and Development Services  
5510 Overland Avenue, Suite 110  
San Diego, California 92123

Subject: Notice of Preparation of an Environmental Impact Report for the Newland Sierra Project, Unincorporated San Diego County, California

Dear Mr. Slovick:

We have reviewed the subject Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR), dated February 12, 2015, which we received on March 5, 2015. The proposed Newland Sierra project encompasses 1,985 acres located west of Interstate 15, north of Deer Springs Road, and east of Twin Oaks Valley Road within unincorporated San Diego County (County). The proposed project would include the development of a new master planned community consisting of 2,135 homes, general commercial uses, school site, 37 acres of parks, and 1,202 acres of biological open space. In addition, the project would include an extensive trail system consisting of: 7.1 miles of multi-purpose pathways along the main road; 8.7 miles of internal pathways and trails within neighborhoods; and 3.3 miles of trails through the open space areas (2 miles of multi-purpose trail and 1.3 miles of secondary trails).

The primary concern and mandate of the U.S. Fish and Wildlife Service (Service) is the protection of public fish and wildlife resources and their habitats. The Service has legal responsibility for the welfare of migratory birds, anadromous fish, and endangered animals and plants occurring in the United States. The Service is also responsible for administering the Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*), the Migratory Bird Treaty Act (16 U.S.C. 703), and the Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c). Our comments are based on the information provided in the NOP, our knowledge of sensitive and declining vegetation communities in the County, and our participation in regional conservation planning efforts.

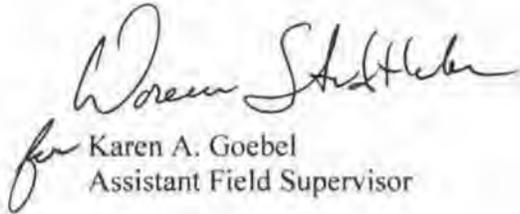
One of our primary concerns is the potential impacts of the proposed project to assembling a subregional preserve system. The proposed project site is located within the planning area for the North County Multiple Species Conservation Program (NCMSCP). The NCMSCP is a comprehensive habitat conservation planning program that attempts to preserve native habitats for a multitude of sensitive species for which the County, Service, and California Department of Fish and Wildlife entered into a Planning Agreement (Revised and Amended May 12, 2014). The proposed project site and areas to the north, south, east, and west are identified as "Pre-approved Mitigation Area" (PAMA) in the draft NCMSCP plan. More specifically, the proposed project site is located

within Planning Unit 9 (San Marcos-Merriam Mountains Core Area) and represents one (Merriam Mountains) of only two remaining large blocks of natural habitat west of Interstate 15 in the PAMA. In addition, the habitat evaluation maps of the County's draft NCMSCP plan indicates that habitats on and adjacent to the project site are "moderate", "high", and "very high" habitat quality.

To ensure that the proposed project is consistent with the conservation goals of the draft NCMSCP as well as Planning Unit 9 of the draft PAMA, we recommend that the DEIR fully analyze a project alternative that would remove the three development bubbles identified as Towncenter, Terraces, and Hillside (see Figure 1 which was provided to us by the County) and associated access roads. The re-design would minimize project impacts to the draft PAMA, provide for a large, contiguous block of open space in the eastern and northern portion of the property thereby contributing to assemblage of the San Marcos-Merriam Mountains Core Area, and maintain connectivity between on and offsite areas designated as draft PAMA and to other conservation efforts outside the NCMSCP planning area. To further assist you in evaluating the proposed project, we have provided the enclosed recommendations for inclusion in the DEIR.

We appreciate the opportunity to comment on the subject NOP and request that a copy of the DEIR be provided to our office upon its release. If you have any questions regarding this letter or require additional information, please contact Michelle Durflinger of our office at 760-431-9440, extension 356.

Sincerely,

  
for Karen A. Goebel  
Assistant Field Supervisor

Enclosure

cc: David Mayer, California Department of Fish and Wildlife, San Diego, California



Figure 1. Newland Sierra Conformed Plan. Provided by San Diego County

## ENCLOSURE

To assist our review of the project and to assist the County in compliance with pertinent Federal statutes and laws, we recommend that the DEIR for the proposed Newland Sierra project contain the following information.

1. A complete discussion of the purpose and need for, and description of, the proposed project, including all ancillary facilities, staging areas, and access routes to the construction and staging areas.
2. A complete analysis of the effect that the project may have on completion and implementation of regional and/or subregional conservation programs including the County of San Diego's draft North County MSCP. We recommend that the County ensure that the development of this and other proposed projects do not preclude long-term preserve planning options.
3. A complete list and assessment of the flora and fauna within and adjacent to the project area, with particular emphasis upon identifying federally listed threatened, endangered, or proposed candidate species, and any locally unique species and sensitive habitats. Specifically, the DEIR should include:
  - a. Discussions regarding the regional setting with special emphasis on resources that are rare or unique to the region that would be affected by the project. This discussion is critical to an assessment of environmental impacts.
  - b. A current inventory of the biological resources associated with each habitat type on site and within the area of impact.
  - c. A thorough assessment of rare plants and rare natural communities.
  - d. A current inventory of rare, threatened, and endangered species on site and within the area of impact.
  - e. Discussions regarding seasonal variations in use by sensitive species of the project site as well as the area of impact on those species, using acceptable species-specific survey procedures as determined through consultation with the Service and the California Department of Fish and Wildlife, collectively the Wildlife Agencies. Focused species-specific surveys, conducted in conformance with established protocols at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required.
4. A thorough discussion of direct, indirect, and cumulative impacts expected to adversely affect biological resources. All facets of the project should be included in this assessment. Specifically, the DEIR should provide:
  - a. Specific acreage and descriptions of the types of wetlands, scrub, and other sensitive habitats that will or may be affected by the proposed project or project alternatives. Maps and tables should be used to summarize such information.

- b. Detailed discussions, including both qualitative and quantitative analyses, of the potentially affected listed and sensitive species (fish, wildlife, plants), and their habitats on the proposed project site, area of impact, and alternative sites, including information pertaining to their local status and distribution. The anticipated or real impacts of the project on these species and habitats should be fully addressed.
  - c. Discussions regarding indirect project impacts on biological resources, including resources in nearby public lands, open space, adjacent natural habitats, riparian ecosystems, and any proposed Natural Community Conservation Planning (NCCP) protected lands.
    - i) Impacts to wildlife corridor/movement areas, including access to undisturbed habitats in adjacent areas, should be fully evaluated.
    - ii) Discussions of potential adverse impacts from lighting, noise, human activity, exotic species, and drainage. The latter subject should address: project-related changes on drainage patterns on and downstream of the project site; the volume, velocity, and frequency of existing and post-project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-project fate of runoff from the project site.
  - d. Discussions regarding possible conflicts resulting from wildlife-human interactions at the interface between the development project and natural habitats. The zoning of areas for development projects or other uses that are nearby or adjacent to natural areas may inadvertently contribute to wildlife-human interactions.
5. A thorough discussion of mitigation measures for adverse project-related impacts on sensitive plants, animals, and habitats. Specifically, the DEIR should include/address:
- a. Where avoidance is infeasible, mitigation measures that emphasize minimization of project impacts. For unavoidable impacts, onsite habitat restoration or enhancement should be discussed in detail. If onsite mitigation is not feasible or would not be biologically viable (e.g., it would not adequately mitigate the loss of biological functions and values), offsite mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed.
  - b. Mitigation measures to alleviate indirect project-related impacts on biological resources, including measures to minimize changes in the hydrologic regimes on site, and means to convey runoff without damaging biological resources, including the morphology of onsite and downstream habitats.
  - c. Where proposed grading or clearing is within 100 feet of proposed biological open space, or otherwise preserved sensitive habitats, a requirement for temporary fencing. Fencing should be placed on the impact side and should result in no vegetation loss within open space. All temporary fencing should be removed only after the conclusion of all grading, clearing, and construction activities.

- d. A requirement that a County-approved biological monitor to be present during initial clearing, grading, and construction in sensitive habitat areas and/or in the vicinity of biological open space areas to ensure that conservation measures associated with resource agency permits and construction documents are performed. The biological monitor should have the authority, and responsibility, to halt construction to prevent or avoid take of any listed species and/or to ensure compliance with all avoidance, minimization, and mitigation measures. Any unauthorized impacts or actions not in compliance with the permits and construction documents should be immediately brought to the attention of the County and the Wildlife Agencies.
- e. Plans for restoration and revegetation, to be prepared by persons with expertise in southern California ecosystems and native plant revegetation techniques. Each plan should include, at a minimum: (a) the location of the mitigation site; (b) the plant species to be used, container sizes, and seeding rates; (c) a schematic depicting the mitigation area; (d) planting schedule; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation on site; (g) specific success criteria (e.g., percent cover of native and nonnative species; species richness); (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and (j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity.
- f. Measures to protect, in perpetuity, the targeted habitat values of proposed preservation and/or restoration areas from direct and indirect negative impacts. The objective should be to offset the project-induced qualitative and quantitative losses of wildlife habitat values. Permanent fencing should be installed between the impact area and biological open space and be designed to minimize intrusion into the sensitive habitats from humans and domestic animals. There should be no gates that would allow access between the development and biological open space. Additional issues that should be addressed include proposed land dedications, monitoring and management programs, control of illegal dumping, water pollution, etc.
- g. Development and implementation of a management and monitoring plan (MMP), including a funding commitment, for any on and/or offsite biological open space easements, if applicable. An appropriate natural lands management organization, subject to approval by the County and Wildlife Agencies, should be identified. The MMP should outline biological resources on the site, provide for monitoring of biological resources, address potential impacts to biological resources, and identify actions to be taken to eliminate or minimize those impacts. A Property Analysis Record (PAR) or similar analysis should be completed to determine the amount of funding needed for the perpetual management, maintenance, and monitoring of the biological conservation easement areas by the natural lands management organization. It should be demonstrated that the proposed funding mechanism would ensure that adequate funds would be available on an annual basis to implement the MMP. The natural lands management organization should submit a draft MMP, PAR results, and proposed funding mechanism to the County and Wildlife Agencies for review and approval prior to initiating construction activities; the resulting final plan should be submitted to the County and Wildlife Agencies and the funds for implementing the MMP transferred within 90 days of receiving approval of the draft plan.

- h. To avoid impacts to nesting birds, the DEIR should require that all clearing and grubbing occur outside the avian breeding season. The general breeding season for nesting birds occurs approximately February 15 through September 15; however, raptors may begin breeding as early as January 1. If project construction is necessary during the avian breeding season, a qualified biologist should conduct a survey for nesting birds within 3 days prior to the work in the area to ensure no nesting birds in the project area would be impacted by the project. If an active nest is identified, a buffer shall be established between the construction activities and the nest so that nesting activities are not interrupted. The buffer shall be a minimum width of 300 feet (500 feet for raptors), shall be delineated by temporary fencing, and shall remain in effect as long as construction is occurring or until the nest is no longer active. No project construction shall occur within the fenced nest zone until the young have fledged, are no longer being fed by the parents, have left the nest, and will no longer be affected by the construction.

# **EXHIBIT E**



State of California – Natural Resources Agency  
DEPARTMENT OF FISH AND WILDLIFE  
South Coast Region  
3883 Ruffin Road  
San Diego, CA 92123  
(858) 467-4201  
www.wildlife.ca.gov

EDMUND G. BROWN JR., Governor  
CHARLTON H. BONHAM, Director



March 12, 2015

Mr. Mark Slovick  
County of San Diego, Planning & Development Services  
5510 Overland Avenue, Suite 110  
San Diego, CA 92123-1239  
mark.slovick@sdcounty.ca.gov

**Subject: Comments on the Notice of Preparation of a Draft Environmental Impact Report for the Newland Sierra General Plan Amendment, Specific Plan, Rezone and Tentative Map Project (PDS2015-GPA-15-001, PDS2015-SP-15-001, PDS2015-REZ-15-001, PDS2015-TM-5597, LOG NO. PDS2015-ER-08-001), County of San Diego, California (SCH#2015021036)**

Dear Mr. Slovick:

The California Department of Fish and Wildlife (Department) has reviewed the above-referenced Notice of Preparation (NOP) for a draft Environmental Impact Report (DEIR) for the Newland Sierra Project (SCH#2015021036) (Project) dated February 12, 2015. The comments provided herein are based upon information provided in the NOP for the DEIR (and associated reference materials including Dudek's December 2013 Memorandum), our knowledge of sensitive and declining vegetation communities, and ongoing regional habitat conservation planning in the County of San Diego (County). The Department is a Trustee Agency and a Responsible Agency pursuant to the California Environmental Quality Act (CEQA; §§15386 and 15381, respectively) and is responsible for ensuring appropriate conservation of the State of California's biological resources, including rare, threatened, and endangered plant and animal species, pursuant to the California Endangered Species Act (CESA, Fish and Game Code §2050 *et seq.*) and other sections of the Fish and Game Code. The Department is also responsible for the administration of the Lake and Stream Alteration Agreement Program (Fish and Game Code §1600 *et seq.*). The Department also administers the Natural Community Conservation Planning (NCCP) program (NCCP, Fish and Game Code §2800 *et seq.*). The County is a participant in the Natural Community Conservation Planning (NCCP) program. Currently, the County has an adopted South County Multiple-Species Conservation Program (MSCP), and is actively pursuing its draft North County MSCP (NC-MSCP). The NC-MSCP is a comprehensive habitat conservation planning program that attempts to preserve native habitats for a multitude of sensitive species for which the County, Fish and Wildlife Service, and California Department of Fish and Wildlife entered into a Planning Agreement (County of San Diego, 2014).

The Project site consists of 51 parcels totaling approximately 1,985 acres located west of Interstate 15, north of Deer Springs Road, and east of Twin Oaks Valley Road within the Twin Oaks Valley and Hidden Meadows Communities of the North County Metropolitan Subregional Plan area (southern portion) and the Bonsall Community Planning area (northern portion) of the unincorporated San Diego County (County). The project would include the development of a

new master planned community consisting of 2,135 dwelling units, 81,000 square feet of general commercial uses, a six-acre charter school site, approximately 37 acres of parks and 1,202 acres of biological open space. Overall, the master-planned development would consist of seven planning areas focused around a town center located off Deer Springs Road in the southeastern corner of the site and include an extensive trail system including: 7.1 miles of multi-use pathways along the main road; 8.7 miles of internal pathways and trails within neighborhoods; two miles of multi-purpose trails through the open space area; and, 1.3 miles of secondary trails through the open space area. The project would require several County approvals, including a General Plan Amendment, Specific Plan, Rezone, Tentative Map and habitat loss permit (HLP). Access to the project site would be provided by two main access points along Deer Springs Road, with an additional access point provided at Camino Mayor off of Twin Oaks Valley Road. Earthwork for the Project is estimated to consist of 10,700,000 cubic yards of balanced cut/fill with construction anticipated to occur in three phases over a 5 to 10 year period. The project would require the extension of fire protection services (Deer Springs Fire Protection District), sewer and water utilities [Vallecitos Water District (VWD)] and natural gas and electricity utilities [San Diego Gas & Electric Company (SDG&E)].

The project site is located within the northern portion of the Merriam Mountains range, a narrow 8.5-mile-long chain of low mountains generally running north-south with a variety of east-west trending ridgelines and scattered peaks. The property is primarily undeveloped with on-site topography composed mostly of hills and valleys dominated by rock (granodiorite) outcroppings with moderate to steeply sloping terrain, with elevations ranging from approximately 660 feet above mean sea level (AMSL) near the northwestern end to approximately 1,750 feet AMSL in the west central portion of the Project site. Various dirt roads and trails that provide access to each parcel and service roads for existing water infrastructure traverse the project site. An abandoned quarry is located in the northwest portion of the project site and an abandoned private landing strip is located in the north central portion. Surrounding land uses to the north, west, and south of the project site include large-lot, single-family residential development, agricultural uses and conserved open space.

The project site is also located within the NC-MSCP planning area, within Planning Unit 9 (San Marcos-Merriam Mountains Core Area) and the Pre-Approved Mitigation Area (PAMA) and represents one (Merriam Mountains) of only two remaining large blocks of natural habitat west of Interstate 15 in the PAMA. Vegetation on the project site consists of large blocks of Southern Mixed Chaparral with interspersed patches of

Mr. Mark Slovick  
County of San Diego, Planning & Development Services  
March 12, 2015  
Page 3 of 3

Diegan Coastal Sage Scrub, Coast Live Oak Woodlands, and Southern Willow Scrub. The South Fork of Moosa Canyon also runs from the northern to northeastern area of the project site. In addition, the habitat evaluation mapping for the County's draft NC-MSCP plan indicates that habitats on and adjacent to the project site are "moderate", "high", and "very high" habitat quality, and areas to the north, south, east, and west are also identified as PAMA.

The Department offers the comments and recommendations in the enclosure to assist in avoiding, minimizing, and adequately mitigating Project-related impacts to biological resources, and to ensure that the Project is consistent with ongoing regional habitat conservation planning efforts (i.e. that it would not preclude the preserve assembly or prevent the achievement of the biological goals anticipated under the NC-MSCP Subregional Plan). We appreciate the opportunity to comment on this NOP and look forward to further coordination with the County on this Project. If you have questions regarding our letter, please contact Randy Rodriguez (858) 637-7111 or [Randy.Rodriguez@wildlife.ca.gov](mailto:Randy.Rodriguez@wildlife.ca.gov).

Sincerely,



Gail K. Sevens  
Environmental Program Manager  
South Coast Region

Enclosure: (9 pages)

cc: State Clearinghouse, Sacramento  
Karen A. Goebel, U.S. Fish and Wildlife Service ([Karen\\_Goebel@fws.gov](mailto:Karen_Goebel@fws.gov))  
Mindy Fogg, County of San Diego ([Mindy.Fogg@sdcounty.ca.gov](mailto:Mindy.Fogg@sdcounty.ca.gov))  
Eric Lardy, County of San Diego ([Eric.Lardy@sdcounty.ca.gov](mailto:Eric.Lardy@sdcounty.ca.gov))

## ENCLOSURE

California Department of Fish and Wildlife Comments and Recommendations:  
NOP for the DEIR for the  
Newland Sierra Project

### **NOP Comments**

1. To enable the Department to adequately review and comment on the proposed Project from the standpoint of the protection of plants, fish, wildlife, and other biological resources, we recommend the following information be included in the DEIR:

A. A complete discussion of the purpose and need for, and description of, the proposed Project, including all staging areas and access routes to the construction and staging areas.

B. Analyses of a range of feasible alternatives to ensure that alternatives to the proposed Project are fully considered and evaluated. The analyses must include alternatives that avoid or otherwise minimize impacts to sensitive biological resources, particularly wetlands. Specific alternative locations should be evaluated in areas with lower resource sensitivity, where appropriate. For example, to provide for a larger, contiguous block of open space in the eastern and northern portion of the property, to minimize edge effects to onsite biological open space areas, and to maintain connectivity between on- and offsite areas designated for conservation, we recommend that the draft EIR include the following alternatives: 1) one that would remove the three easternmost development bubbles (i.e., areas identified by the County in a prior meeting as Towncenter, Terraces, and Hillside) and associated access roads; 2) another possible alternative to consider would remove the easterly half of the Mesa development area (located just northwest of Hillside) and the Terraces and Hillside areas (but retain the Towncenter area); and, 3) a third alternative that would move some of the development proposed in the central and eastern areas of the site to the old quarry locations (also see Comment No. 3).

C. A complete assessment of the flora and fauna within and adjacent to the project area; specifically, the DEIR should include:

- a) Discussions regarding the regional setting, pursuant to CEQA Guidelines, section 15125(c), with special emphasis on resources that are rare or unique to the region that would be affected by the Project. This discussion is critical to an assessment of environmental impacts.
- b) A current inventory of the biological resources (to include rare, threatened, and endangered, and other sensitive species) associated with each habitat type on site and within the area of potential effect. Species to be addressed should include all those which meet the CEQA definition (see CEQA Guidelines, § 15380). This should include sensitive fish, wildlife, reptile, and amphibian species. The Department's California Natural Diversity Data Base in Sacramento should be contacted at [www.wildlife.ca.gov/biogeodata/](http://www.wildlife.ca.gov/biogeodata/) to obtain current information on any previously reported sensitive species and habitat, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code.
- c) Discussions regarding seasonal variations in use of the project area and vicinity by sensitive species, and acceptable species-specific survey procedures as determined through consultation with the Wildlife Agencies. Focused species-specific surveys, conducted in conformance with established protocols at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required.

D. A thorough discussion of direct, indirect, and cumulative Project-related impacts expected to adversely affect biological resources. All facets of the Project should be included in this assessment. Specifically, the DEIR should include:

- a) Specific acreages and descriptions of the types of wetlands, coastal sage scrub, and other habitats that would potentially be affected by the proposed Project or project alternatives. Maps and tables should be used to summarize such information.
- b) Detailed discussions, including both qualitative and quantitative analyses, of potential direct effects on listed and other sensitive species (fish, wildlife, plants) and their habitats within the area of impact of the proposed and alternative projects.
- c) Discussions regarding indirect Project impacts on biological resources, including resources in nearby public lands, open space, adjacent natural habitats, riparian ecosystems, and any designated and/or proposed or existing reserve lands (*e.g.*, preserve lands associated with a NCCP).
- d) Impacts to wildlife corridor/movement areas, including access to undisturbed habitats in adjacent areas, should be fully evaluated.
- e) Discussions of potential adverse impacts from lighting, noise, human activity, exotic species, and drainage. The latter subject should address: Project-related changes on drainage patterns on and downstream of the project site; the volume, velocity, and frequency of existing and post-project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-project fate of runoff from the Project site.
- f) If applicable, a discussion of the effects of any Project-related dewatering or ground water extraction activities to the water table and the potential resulting impacts on the wetland/riparian habitat, if any, supported by the surface and groundwater.
- g) Discussions regarding possible conflicts resulting from wildlife-human interactions at the interface between the development Project and natural habitats.
- h) A cumulative effects analysis as described under CEQA Guidelines, section 15130, assessing the impacts of the proposed Project in conjunction with past, present, and anticipated future projects, relative to their impacts on native plant communities and wildlife.

E. A thorough discussion of mitigation measures for adverse Project-related impacts on sensitive plants, animals, and habitats. Specifically, the DEIR should include/address:

- a) Measures to fully avoid and otherwise protect Rare Natural Communities from Project-related impacts. The Wildlife Agencies consider these communities as threatened habitats having both regional and local significance.
- b) Where avoidance is infeasible, mitigation measures that emphasize minimization of Project impacts. For unavoidable impacts, on-site habitat restoration or enhancement should be discussed in detail. If on-site mitigation is not feasible or would not be biologically viable (*e.g.*, it would not adequately mitigate the loss of biological functions and values), off-site mitigation through habitat creation and/or acquisition and preservation in perpetuity should be addressed. The Wildlife Agencies generally do not encourage the use of relocation, salvage, and/or transplantation as mitigation for impacts on rare, threatened, or endangered species. Studies have shown these efforts are experimental in nature and do not provide for the long-term viability of the target species.
- c) Mitigation measures to alleviate indirect Project-related impacts on biological resources, including measures to minimize changes in the hydrologic regimes on site, and means to convey runoff without damaging biological resources, including the morphology of on-site and downstream habitats.

- d) Where proposed grading or clearing is within 100 feet of proposed biological open space, or otherwise preserved sensitive habitats, a requirement for temporary fencing. Fencing should be placed on the impact side and should result in no vegetation loss within open space. All temporary fencing should be removed only after the conclusion of all grading, clearing, and construction activities.
- e) A requirement that a qualified biological monitor to be present during initial clearing, grading, and construction in sensitive habitat areas and/or in the vicinity of biological open space areas to ensure that conservation measures associated with resource agency permits and construction documents are performed. The biological monitor should have the authority to halt construction to prevent or avoid take of any listed species and/or to ensure compliance with all avoidance, minimization, and mitigation measures. Any unauthorized impacts or actions not in compliance with the permits and construction documents should be immediately brought to the attention of the Lead Agency and the Wildlife Agencies.
- f) Measures to protect, in perpetuity, the targeted habitat values of proposed preservation and/or restoration areas from direct and indirect negative impacts. The objective should be to offset the Project-induced qualitative and quantitative losses of wildlife habitat values. Permanent fencing should be installed between the impact area and biological open space and be designed to minimize intrusion into the sensitive habitats from humans and domestic animals, particularly cats. There should be no gates that would allow access between the development and biological open space. Additional issues that should be addressed include proposed land dedications, monitoring and management programs, control of illegal dumping, water pollution, etc.
- g) Development and implementation of a management and monitoring plan (MMP), including a funding commitment, for any on- and/or off-site biological open space easements, if applicable. An appropriate natural lands management organization, subject to approval by the County and Wildlife Agencies, should be identified. The MMP should outline biological resources on the site, provide for monitoring of biological resources, address potential impacts to biological resources, and identify actions to be taken to eliminate or minimize those impacts. A Property Analysis Record (PAR) or comparable method should be completed to determine the amount of funding needed for the perpetual management, maintenance, and monitoring of the biological conservation easement areas by the natural lands management organization. It should be demonstrated that the proposed funding mechanism would ensure that adequate funds would be available on an annual basis to implement the MMP. The natural lands management organization should submit a draft MMP, PAR results, and proposed funding mechanism to the Wildlife Agencies for review and approval prior to initiating construction activities; the final plan should be submitted to the Wildlife Agencies and the funds for implementing the MMP transferred within 90 days of receiving approval of the draft plan.

2. The Department recommends that measures be taken to avoid Project impacts to nesting birds. Migratory nongame native bird species are protected by international treaty under the Federal Migratory Bird Treaty Act (MBTA) of 1918 (50 C.F.R. Section 10.13). Sections 3503, 3503.5, and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests including raptors and other migratory nongame birds (as listed under the Federal MBTA). Proposed Project activities (including, but not limited to, staging and disturbances to native and nonnative vegetation, structures, and substrates) should occur outside of the avian breeding season which generally runs from February 1 - September 1 (as early as January 1 for some raptors) to avoid take of birds or their eggs. If avoidance of the avian breeding season is not feasible, the Department recommends surveys by a qualified biologist with experience in conducting breeding bird surveys to detect protected native birds occurring in suitable nesting habitat that is to be disturbed and (as access to adjacent areas allows) any other such habitat within 300 feet of the disturbance area (within 500 feet for raptors). Project personnel, including all contractors working on site, should be instructed on the sensitivity of the area. Reductions in the nest buffer distance may be appropriate depending on the avian species involved, ambient levels of human activity, screening vegetation, or possibly other factors.

3. The County and the Wildlife Agencies have met multiple times to discuss the proposed Newland-Sierra Project site, formerly known as Merriam Mountains, including the following dates: January 23rd, 2014; March 27th, 2014 (Site Visit); April 3rd, 2014; July 29th, 2014 (Site Visit); November 19th, 2014; and, most recently on February 19th, 2015. Based on our past meetings with the County, the Department has provided the following tenets that will guide any hardlined agreement negotiations for the Project:

- a) Though this is a new project, it is very similar to the Merriam Mountains project; however, all parties agree that it will be evaluated independent of the previous Merriam Mountains Project;
- b) Potential hardline discussion will be based on current conditions at the project site, in the North County Plan area, and in the County as a whole, as conditions have changed;
- c) A suite of species, not the coastal California gnatcatcher alone, is the driver for preservation at this location;
- d) The project should achieve a 25 percent development and 75 percent preservation ratio on-site to the maximum extent practicable; initial proposals only showed an approximate 60:40 ratio. For any portion of the 75 percent conservation that cannot be achieved on-site, the balance should be met by contributing land that adds value to the Merriam Mountains connection, preferably in the same NC-MSCP planning unit. Additional off-site conservation, if part of the proposal, should emphasize additional conservation of coastal sage scrub habitat. For example, at prior meetings, there were discussions about potentially acquiring excess Caltrans rights-of-ways along the easterly project boundary to enhance the proposed open space configuration and wildlife connections along the eastern border of the Project;
- e) The north-south habitat connectivity along I-15 is important for the NC Plan;
- f) Internal open space (e.g., block 3) is not acceptable for preservation credit;
- g) Removal of the northern access road to Lawrence Welk Court would improve preservation in the northern open space; however, there needs to be commitment by the County/Fire that a secondary access road would not be required at any time for the Project;
- h) Proposed trails need to be compatible with habitat preservation for wildlife.
- i) It must be demonstrated that restoration of the old quarry site can be achieved, considering the slope, soils and other factors in the area;
- j) Where vineyards are proposed in areas adjacent to proposed open space, best management practices that are effective and can be enforced should be included as part of any hardline agreement; and,
- k) Drought conditions have worsened and the site is old growth chaparral and prime for wildfire. The wildlife agencies need proof of fire district agreement or accepted Fire Protection Plan [also see 3.f)].

Based on our February 19<sup>th</sup>, 2015 meeting with the County, to ensure that the proposed project is consistent with the conservation goals of the draft NC-MSCP (see comment No. 4), we recommend that the DEIR fully analyze the following project alternatives: 1) an alternative that would remove the three easternmost development bubbles (i.e., areas identified by the County in a prior meeting as Towncenter, Terraces, and Hillside) and associated access roads; 2) an alternative that would be to remove the easterly half of the Mesa development area (located just northwest of Hillside) and the Terraces and Hillside areas (but retain the Towncenter area) to open up the easterly corridor and provide better connection along the northern and eastern portions of the property and to the south, while maximizing the conservation of coastal sage scrub; and, 3) an alternative that move some of the development proposed in the central and eastern areas of the site to the old quarry locations. The first two alternatives recommended for inclusion in the DEIR would substantially minimize project impacts to the draft PAMA, provide for a large, contiguous block of open space in the eastern and northern portion of the property, minimize edge effects to onsite biological open space areas, and maintain connectivity between on and offsite areas designated as draft PAMA within Planning Unit 9 and to other conservation efforts outside the NC-MSCP planning area. The last alternative would have the same benefits of the first two, but also conserve more coastal sage scrub and provide a better preserve design in the central area of the site while locating development in an existing disturbed area, closer

to access and eliminate the need to expend resources on restoration that may or may not be successful (see Comment No. 1).

4. As stated above, the proposed Project is located primarily within the PAMA, within the San Marcos-Merriam Mountains Core Area (Planning Unit 9) and is identified as a large block of habitat (typically 500 acres or more) that supports a viable population of multiple wildlife species and represents one of only two remaining large blocks of natural habitat west of Interstate 15 (I-15) in the PAMA. Site conditions and size currently facilitate the movement of small and larger mammals to traverse across to adjacent mostly undeveloped areas, such as the San Marcos Mountains located northwest of the project site. The draft NC-MSCP plan anticipates that approximately 75 percent of lands designated as PAMA would be conserved with 25 percent utilized for development and anticipates the following conservation goals for the San Marcos-Merriam Mountains Core Area (Planning Unit 9):

- a) Conserve oak woodlands, coastal sage scrub (particularly in Twin Oaks) to maintain populations and connectivity of coastal California gnatcatcher and other coastal sage scrub-dependent species, and chaparral on mafic or gabbro soils that support sensitive plant species, such as chaparral beargrass and Parry's tetradymium, San Diego thornmint (particularly in San Marcos Mountains), or California adolphia;
- b) Ensure that a core community of coastal California gnatcatcher and other coastal sage scrub-dependent species remains in the coastal sage scrub block in Twin Oaks;
- c) Conserve the north-south connectivity of coastal California gnatcatcher habitat along I-15 between the Riverside County line and the City of Escondido. Maintain the east-west connectivity of natural habitats on either side of I-15 for dispersal of coastal sage scrub community birds;
- d) Conserve the riparian and upland habitats of Gopher Canyon Creek for water quality and sensitive species, such as southwestern pond turtle and least Bell's vireo; and,
- e) Ensure the San Diego thornmint population in the Palisades open space preserve is maintained and enhanced, if practicable.

Current project proposals have shown only about 60 percent conservation of lands designated as PAMA, which would not be consistent with the NC-MSCP reserve assembly targets and would fragment a core block of habitat that is planned to connect designated preserve areas with high value habitat within the NC-MSCP PAMA, including areas currently conserved to mitigate impacts to gnatcatchers and gnatcatcher habitat. Fragmentation reduces habitat quality and promotes increased levels of nest predation and brood parasitism, and ultimately, increased rates of local extinction (Wilcove 1985, Rolstad 1991, Saunders *et al.* 1991, Soulé *et al.* 1988). Connectivity among habitat reserve areas (i.e., connectivity among gnatcatcher habitat within the NC-MSCP PAMA) is essential for long-term maintenance of the viability of gnatcatcher in this area. Maintaining connectivity among these patches of gnatcatcher habitat serves to: (1) allow exchange of genetic material among populations; (2) allow recolonization of habitat patches from which gnatcatchers have been extirpated; and (3) allow relatively safe travel for gnatcatchers moving from one area to another. Fragmentation of habitat within core habitat areas and the narrowing of connections among blocks of remaining habitat for gnatcatchers are expected to reduce the function and value of these areas.

The DEIR should evaluate direct and indirect impacts the proposed development would have on the planned San Marcos-Merriam Mountains Core Area linkage and NC-MSCP planning unit goals, as well as north-south and east-west wildlife movement through/across the site (e.g., from open space Block 3 to other conserved areas on-site and designated PAMA off-site and from areas east of I-15, through the site and across Twin Oaks Valley/Deer Springs Road), including impacts to wildlife movement (including gnatcatchers, mammals and herpetofauna), loss of and fragmentation to habitat patches/blocks, corridor length/width, connectivity, etc.

5. The Department recommends a 100-foot buffer from the riparian habitat in the major drainage of Moosa Canyon Creek. This habitat is expected, either currently or in time, to support sensitive riparian species such as the endangered least Bell's vireo. We further recommend that any limited encroachment (necessitated by site topography) from on-site trails not approach any closer than 50-feet to riparian/wetland habitat. The DEIR should include a map showing the location of all proposed trails.

6. The current project description includes several parks and fuel modification zones within the open space acreage. Parks and fuel modification zones are considered fully impacted by the Wildlife Agencies and cannot be included in biological open space proposed for conservation to offset impacts to sensitive resources and must be mitigated appropriately. The DEIR should clearly differentiate between biological open space that would be used as mitigation to offset Project impacts (natural open space) and open space (i.e., parks and fuel modification zones) that would be routinely impacted.

7. The Section 10 of the CEQA Initial Study (Environmental Checklist Form) indicates that the Project would require issuance of a County Habitat Loss Permit (HLP, Ordinance Nos. 8365, 8380, 8608, 8846, 9457, and 9671), which implements the interim 4(d) rule of the federal Endangered Species Act and the state Natural Community Conservation Planning (NCCP) Process Guidelines for loss of coastal sage scrub habitat during preparation of a NCCP-HCP. To approve an interim habitat loss application, the local agency must make the following findings:

- a) The proposed habitat loss is consistent with the interim loss criteria in the Conservation Guidelines and with any subregional process if established by the subregion;
- b) The habitat loss does not cumulatively exceed the 5% guideline;
- c) The habitat loss will not preclude connectivity between areas of high habitat values;
- d) The habitat loss will not preclude or prevent the preparation of the subregional NCCP (e.g., the loss would not foreclose future reserve planning options);
- e) The habitat loss has been minimized and mitigated to the maximum extent practicable;
- f) The habitat loss will not appreciably reduce the likelihood of the survival and recovery of listed species in the wild; and,
- g) The habitat loss is incidental to otherwise lawful activities.

The NC-MSCP Planning Agreement also establishes guidelines for interim projects while the Plan is being completed (Section 6.6, Interim Project Processing Interim Review Process and Exhibit B). The Interim Review guidelines identify that where a project will not affect CSS but will negatively affect (a) biological resources in areas mapped as "high value" and "very high value" based on the County's habitat evaluation models that utilize the best available information at the time, (b) areas mapped as "moderate" or "low" value that may be important for preserve assembly, and/or (c) proposed Covered Species or their habitat based on current biological surveys, the NCCP/4(d) findings shall be considered and preserve design principles shall be applied to the project including the following:

- a) On-site open space should provide a long-term biological benefit;
- b) On-site open space must protect habitat of equal or greater value as that being impacted. No isolated pockets of open space should be used for mitigation credit;
- c) Separate lots should be used whenever possible for on-site open space to help protect the biological value of the preserved areas;
- d) On-site open space shall contribute to regional conservation efforts;
- e) Open space design, to the extent known, should not reduce the biological diversity found on the site;
- f) Open space design shall maintain habitat connectivity between areas of high quality habitat;
- g) The most sensitive resources shall be protected to maximize long-term viability; and,
- h) Edge effects and habitat fragmentation shall be minimized by maximizing the surface area to perimeter ratio, preserving large blocks of contiguous open space. Edge effects shall be further

minimized by establishing buffers, providing fencing and/or permanent signs, and limiting trails and/or lighting.

The DEIR should include sufficient information and analysis to demonstrate how the project is consistent with the preliminary conservation objectives of the NC-MSCP (including the planning units goals for the San Marcos-Merriam Mountains Core Area, see Comment No. 4) and the Planning Agreement Exhibit B guidelines for interim projects and how it would meet the NCCP/4(d) findings required for the County to issue a HLP for impacts to coastal sage scrub (which are subject to Wildlife Agency approval).

8. The proposed Project is located adjacent to various lands that have been or are planned to be conserved for biological resources, including lands owned by the City of Oceanside located immediately to the north of the Project. The DEIR should evaluate the direct and cumulative effects that the proposed development would have on the adjacent existing and proposed conservation located in both jurisdictions. The analysis should include effects on these lands from the proposed Project, including direct and indirect impacts from: (a) increased public use of these open space areas from the Project's population; (b) lighting; (c) noise; (e) drainage; (f) landscaping and introducing vegetation, etc.

9. All plans for restoration/revegetation associated with the Project should be prepared by persons with expertise in southern California ecosystems and native plant revegetation techniques. Each plan should include, at a minimum: (a) the location of the mitigation site; (b) the plant species to be used, container sizes, and seeding rates; (c) a schematic depicting the mitigation area; (d) planting schedule; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation on site; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity. The plan for restoring coastal sage scrub on 4.9 acres onsite and 4.7 acres offsite would require approval by the Wildlife Agencies as part of the federal/state authorization(s) for impacts to coastal sage scrub.

10. The Department is concerned about the potential direct and indirect effects to biological resources associated with the construction of pedestrian trails in areas proposed for designation as open space on site. We recommend that trails in open space be located to not bisect intact areas and instead be placed along the perimeter or edge of open space areas. The following information should be included in the DEIR regarding any proposed pedestrian trail: an aerial photograph with an overlay of the proposed alignment of the trail in relation to designated or proposed open space; specifications of the trail design; specification that the trail would be for hiking only; measures to avoid/minimize impacts related to hikers straying off-trail and/or trail use by unauthorized vehicles including bicycles; and a discussion of how the proposed location and use of the trail would be consistent with the County's draft NC-MSCP.

11. To increase potential habitat and functionality of on-site wildlife corridors, we recommend that any Project-graded slopes and fuel clearing areas requiring replanting be planted with compatible, low-fuel natives (e.g., cacti and other succulents) to minimize the potential for invasive species to spread into the proposed on-site mitigation/open space areas and into adjacent natural lands.

12. The County should ensure that all development-related landscaping proposed adjacent to on- or off-site habitat does not include exotic plant species that may be invasive to native habitats. Exotic species should be removed and replaced with native or non-invasive exotic species based on the California Invasive Plant Council's (Cal-IPC) "Invasive Plant Inventory" list that can be obtained from Cal-IPC's web site at <http://www.cal-ipc.org>. This list includes such species as pampas grass, fountain grass, myoporum, black locust, capeweed, tree of heaven, sweet alyssum, English ivy, French broom, Scotch broom, and Spanish broom. In addition, landscaping should not use plants that require intensive irrigation, fertilizers, or pesticides adjacent to preserve areas and water runoff from landscaped areas should be directed away from

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County of San Diego  
March 11, 2015  
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the biological conservation easement area and contained and/or treated within the development footprint. The applicant should submit a draft list of species to be included in the landscaping to the Wildlife Agencies for approval at least 60 days prior to initiating Project impacts. Additionally, the applicant should also submit to the Agencies the final list of species to be included in the landscaping within 30 days of receiving approval of the draft list of species.

13. The NC-MSCP is still in-progress, and is expected to be completed in 2017. Until the NC-MSCP is completed and permit issued, the Department considers adverse impacts to a species protected by the California Endangered Species Act (CESA), for the purposes of CEQA, to be significant without mitigation. As to CESA, take of any endangered, threatened, or candidate species that results from the Project is prohibited, except as authorized by state law (Fish and Game Code, §§ 2080, 2085). Consequently, if the Project, Project construction, or any Project-related activity during the life of the Project will result in take of a species designated as endangered or threatened, or a candidate for listing under CESA, the Department recommends that the Project proponent seek appropriate take authorization under CESA prior to implementing the Project. Appropriate authorization from the Department may include an incidental take permit (ITP) or a consistency determination in certain circumstances, among other options [Fish and Game Code §§ 2080.1, 2081, subds. (b) and (c)]. Early consultation is encouraged, as significant modification to a project and mitigation measures may be required in order to obtain a CESA permit. Revisions to the Fish and Game Code, effective January 1998, may require that the Department issue a separate CEQA document for the issuance of an ITP unless the Project CEQA document addresses all Project impacts to CESA-listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of an ITP. For these reasons, biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA ITP.

14. The Department has regulatory authority with regard to activities occurring in streams and/or lakes that could adversely affect any fish or wildlife resource. For any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of a river or stream, or use material from a streambed, the project applicant (or “entity”) must provide written notification to the Department pursuant to section 1600 *et seq.* of the Fish and Game Code. The project area supports aquatic, riparian, and wetland habitats. The DEIR should include a jurisdictional delineation of the creeks/drainages and their associated riparian habitats. The delineation should be conducted pursuant to the Service wetland definition adopted by the Department (Cowardin *et al.* 1979). Based on this notification and other information, the Department then determines whether a Lake and Streambed Alteration (LSA) Agreement is required. The Department’s issuance of a LSA for a project that is subject to CEQA will require CEQA compliance actions by the Department as a Responsible Agency. As a Responsible Agency under CEQA, the Department may consider the City’s DEIR for the project. We recommend that all wetlands and watercourses on-site, whether ephemeral, intermittent or perennial, should be retained and provided with substantial setbacks to preserve the riparian and aquatic values and maintain their value to on-site and off-site wildlife and plant populations. Moreover, to minimize additional requirements by the Department pursuant to section 1600 *et seq.* and/or under CEQA, the document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring, and reporting commitments for issuance of an SAA.<sup>1</sup>

#### REFERENCES

Atwood, J. L. 1990. Status review of the California gnatcatcher (*Poliopitila californica californica*). Unpublished technical report, Manomet Bird Observatory, Manomet, Massachusetts. 79 pp.

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<sup>1</sup> A notification package for a SAA may be obtained by accessing the Department’s web site at [www.wildlife.ca.gov/habcon/1600](http://www.wildlife.ca.gov/habcon/1600).

County of San Diego. 1997. South County Multiple Species Conservation Program. Section 4.2.3 (Linkages) - Goals and Criteria for Linkages and Corridors, Page 4-9 and Biological Mitigation Ordinance (2010) - Attachment H (Design Criteria for Linkages and Corridors).

County of San Diego. 2014. Planning Agreement By and Among the County of San Diego, the California Department of Fish and Wildlife, and the United States Fish and Wildlife Office Regarding the North and East County Multiple Species Conservation Plans: Natural Community Conservation Program Plans and Habitat Conservation Plans. November 15, 2013. Revised and Amended May 12, 2014.

Cowardin, Lewis M., et al. 1979. Classification of wetlands and deepwater habitats of the United States. U.S. Department of the Interior, Fish and Wildlife Service.

Dudek. 2013. Memorandum for Newland Sierra: Proposed Open Space Design and Relationship to Draft North County MSCP. December 11, 2013.

ERC Environmental and Energy Services (ERCE) (Ogden). 1990. Phase I report, Amber Ridge California gnatcatcher study. Prepared for Weingarten, Siegel, Fletcher Group, Inc. April 1990. 26 pp.

Quinby, P.A. and T. Lee. 2002. The Temagami-Algonquin wildlife corridor. Forest Landscape Baselines. Vol. 22.

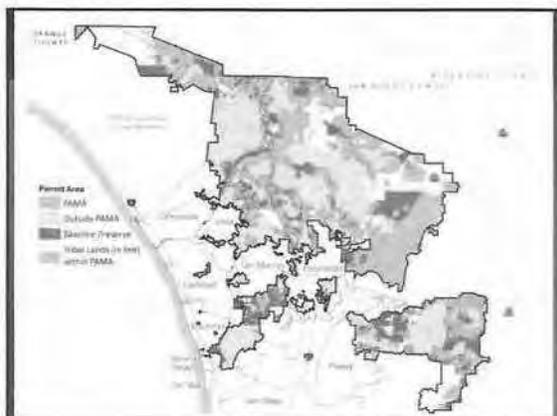
Rolstad, J. 1991. Consequences of forest fragmentation for the dynamics of bird populations: conceptual issues and the evidence. M. E. Gilpin and I. Hanski (eds.), Metapopulation dynamics: empirical and theoretical investigations Academic Press, London, UK. Pp. 149-163.

Saunders, D. A., R. J. Hobbs, and C. R. Margules. 1991. Biological consequences of ecosystem fragmentation: A review. Conservation Biology Vol. 5, No. 1. Pp. 18-32. Soulé, M. E., D. T. Bolger, A. C. Roberts, R. Sauvajot, J. Wright, M. Sorice, and S. Hill. 1988. Reconstructed dynamics of rapid extinctions of chaparral-requiring birds in urban habitat islands. Conservation Biology. Vol. 2. Pp. 75-92.

Sproul, F., T. Keeler-Wolf, P. Gordon-Reedy, J. Dunn, A. Klein, and K. Harper. 2011. Vegetation classification manual for Western San Diego County. Prepared by AECOM, California Department of Fish and Game, Vegetation Classification and Mapping Program, and Conservation Biology Institute. Prepared for San Diego Association of Governments. Five sections + appendices and figures.

Wilcove, D.S. 1985. Nest predation in forest tracts and the decline of migratory songbirds. Ecology. Vol. 66. Pp. 1211-1214.

# **EXHIBIT F**




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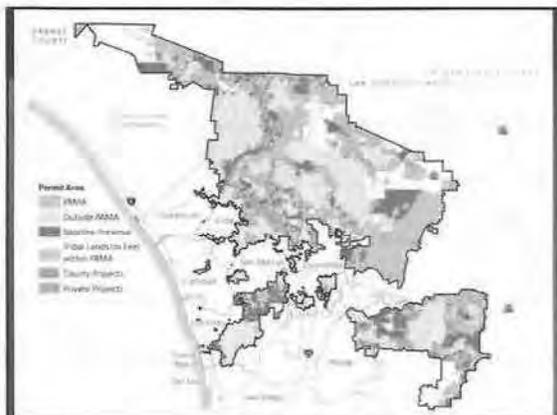
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**Private Projects**

Board Approved/Concurrence Pending from Wildlife Agencies:

- Butterfield Trails Ranch
- Campus Park West
- Meadowood
- Orchard Run
- Cumming Ranch
- Montecito Ranch

Pending Board Approval/Pending Concurrence from Wildlife Agencies:

- Newland Sierra

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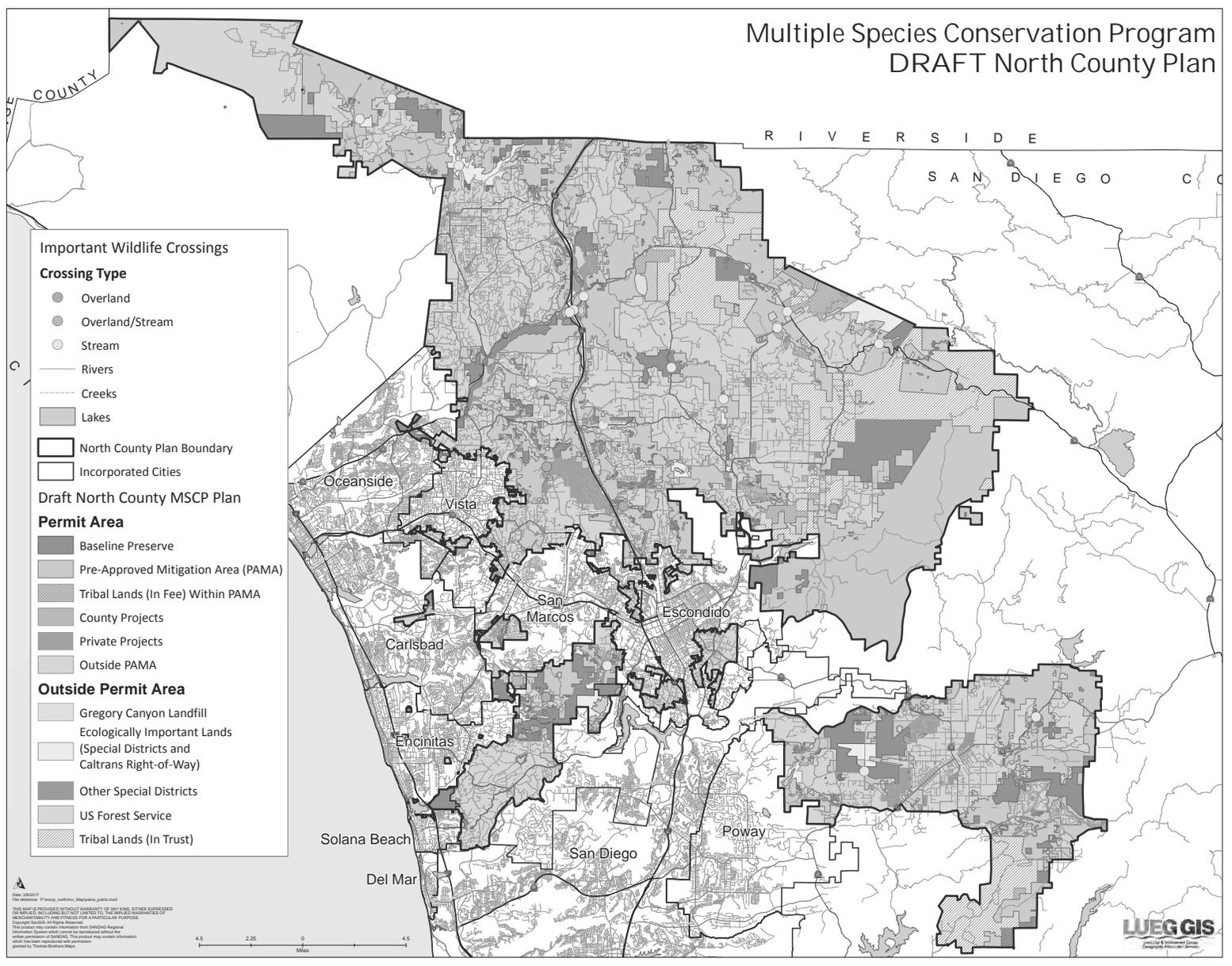
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*Newland Sierra* ⊕

# Multiple Species Conservation Program DRAFT North County Plan



### Important Wildlife Crossings

#### Crossing Type

- Overland
- Overland/Stream
- Stream

- Rivers
- - - Creeks
- Lakes

- North County Plan Boundary
- Incorporated Cities

### Draft North County MSCP Plan

#### Permit Area

- Baseline Preserve
- Pre-Approved Mitigation Area (PAMA)
- Tribal Lands (In Fee) Within PAMA
- County Projects
- Private Projects
- Outside PAMA

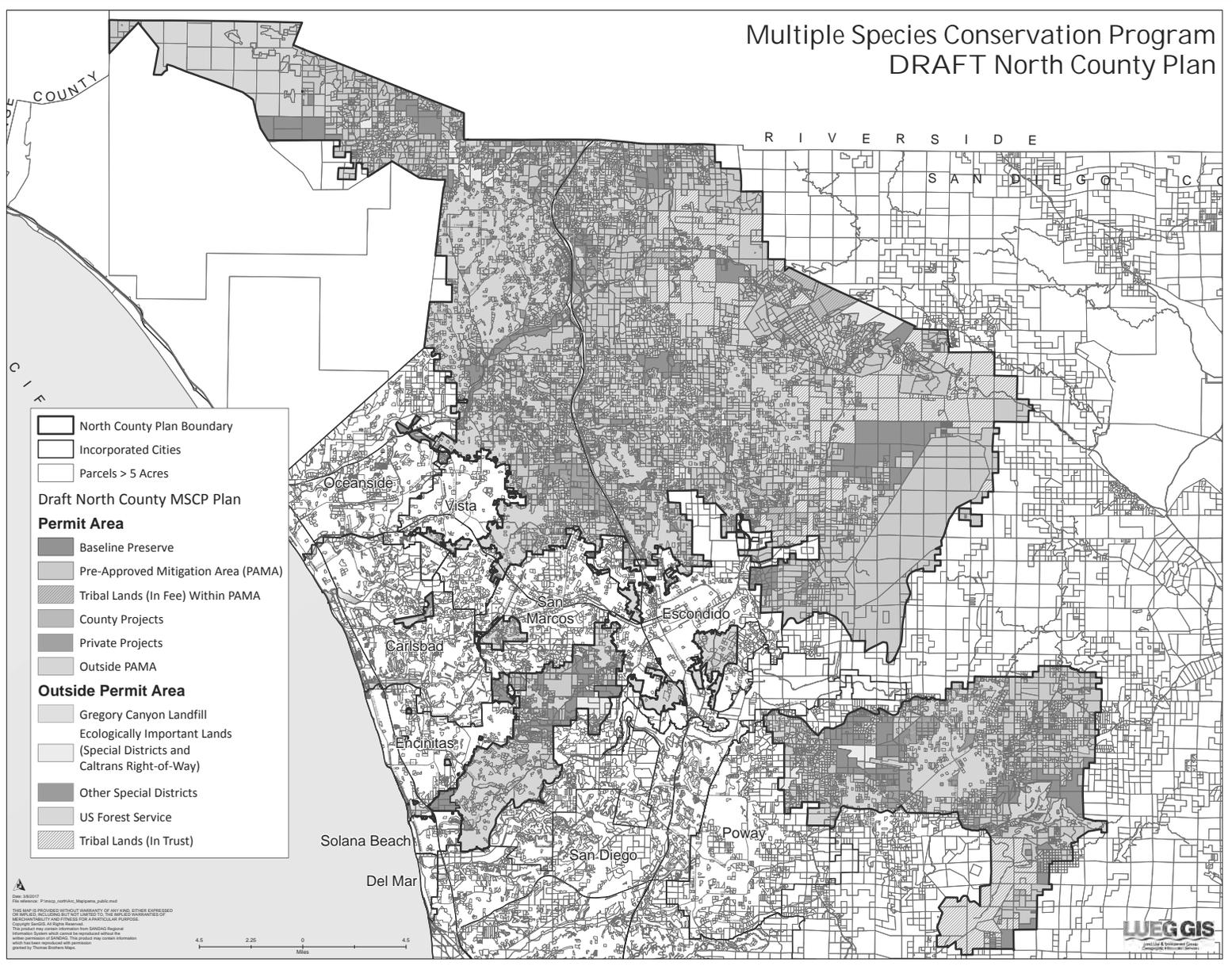
#### Outside Permit Area

- Gregory Canyon Landfill
- Ecologically Important Lands (Special Districts and Caltrans Right-of-Way)
- Other Special Districts
- US Forest Service
- Tribal Lands (In Trust)

Date: 8/20/07  
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# Multiple Species Conservation Program DRAFT North County Plan



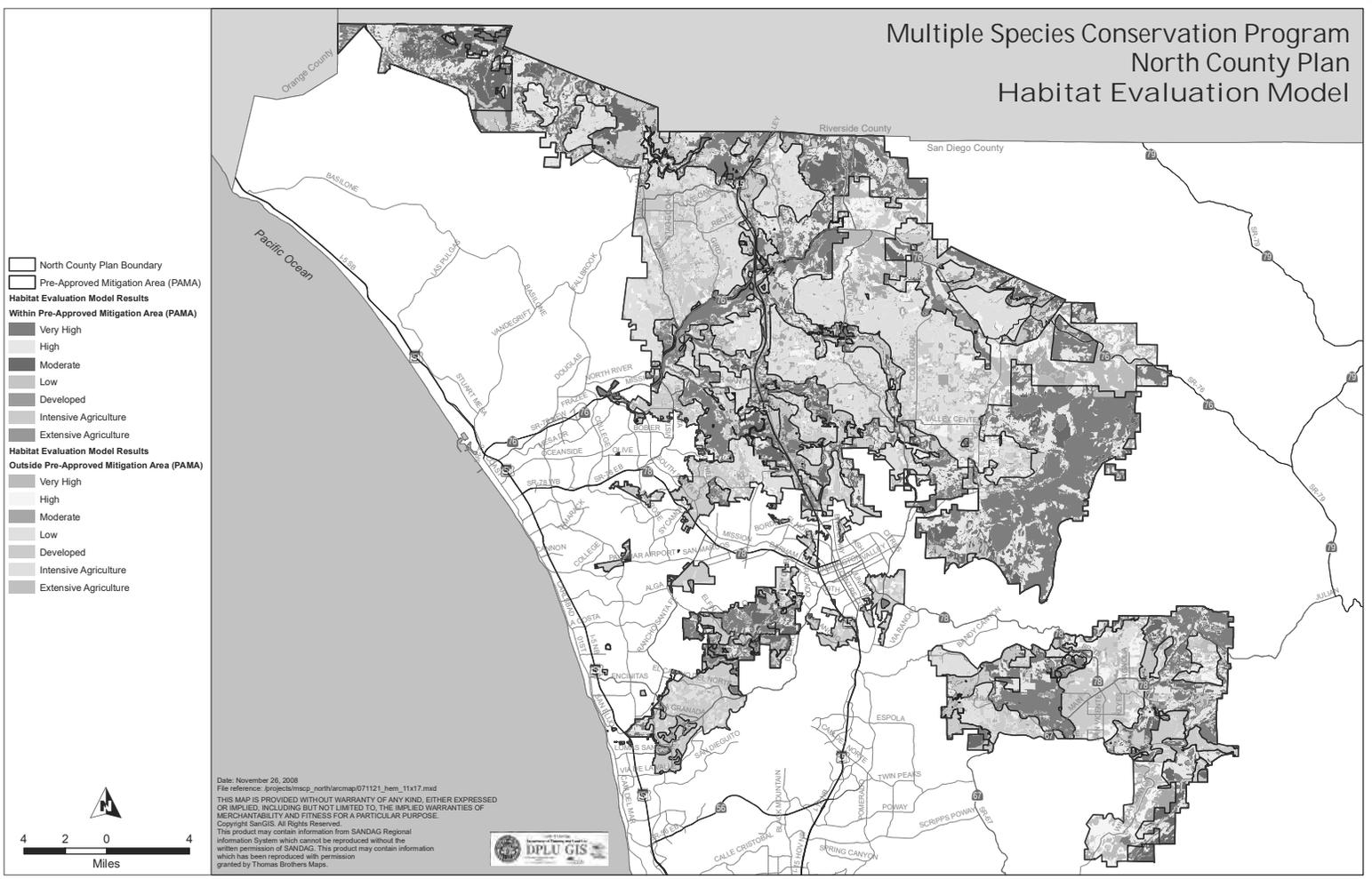
- North County Plan Boundary
  - Incorporated Cities
  - Parcels > 5 Acres
- Draft North County MSCP Plan**
- Permit Area**
- Baseline Preserve
  - Pre-Approved Mitigation Area (PAMA)
  - Tribal Lands (In Fee) Within PAMA
  - County Projects
  - Private Projects
  - Outside PAMA
- Outside Permit Area**
- Gregory Canyon Landfill
  - Ecologically Important Lands (Special Districts and Caltrans Right-of-Way)
  - Other Special Districts
  - US Forest Service
  - Tribal Lands (In Trust)

Date: 8/20/07  
File: mscdp\_northcounty.dwg  
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# **EXHIBIT G**

# Multiple Species Conservation Program North County Plan Habitat Evaluation Model



# **EXHIBIT H**

# **MERRIAM MOUNTAINS SPECIFIC PLAN**

## **APPENDIX V**

### **HARDLINE POINTS OF AGREEMENT**

GPA 04-06; SP 04-006; R04-013; VTM5381; S04-035, S04-036, S04-037,  
S04-038; Log No. 04-08-028; SCH No. 2004091166

*for the*

### **DRAFT ENVIRONMENTAL IMPACT REPORT**

**August 2007**

**MERRIAM MOUNTAINS SPECIFIC PLAN**

**HARDLINE POINTS OF AGREEMENT**

**September 2005**



Life | Land | Community

**Points of Agreement of September 20, 2005  
For the Merriam Mountains Project (SP04-006, FWS/CSFG-SDG-4514.1)**

A meeting was held on September 20, 2005 to discuss and agree to basic project and preserve designs and MSCP hardlines for the Merriam Mountains project ("Merriam" or "Project"), including the Specific Plan and any approvals required to implement the Specific Plan. The applicant, NNP-Stonegate Merriam, LLC ("Stonegate"), presented a draft alternative referred to as the September 20, 2005 "All South" development plan ("All South Plan"), for review by the U.S. Fish and Wildlife Service, Department of Fish and Game (collectively "Wildlife Agencies"), and County of San Diego staff ("County Staff") and to facilitate discussion and concurrence on the following Points of Agreement.

**Summary of Fundamental Points of Agreement**

- A. County Staff and the Wildlife Agencies concur with the hardlines presented in the All South Plan, including location of a portion of the Merriam trail system in the preserve area to be described in the Merriam habitat management plan;
- B. The Wildlife Agencies agree to consider the Captains' Associates parcel as adequate MSCP mitigation for CSS impacts resulting from the All South Plan;
- C. County Staff and the Wildlife Agencies agree to cooperate in processing an HLP, if necessary, that will not require further avoidance of CSS habitat impacts currently shown on the All South Plan; and
- D. County Staff agrees to address the County RPO in a way that allows the All South Plan to proceed as proposed in the interest of creating an ecologically superior plan.

Specifically, the Wildlife Agencies and County Staff agree to the following points:

**MSCP/4(d) Compliance**

- 1. County Staff and the Wildlife Agencies concur with the All South Plan as the agreed-upon hardline for Project and agree to proceed with the MSCP analysis using the hardline shown on the All South Plan;
- 2. County Staff and the Wildlife Agencies concur that a portion of the Merriam trail system may be located within designated biological open space (the MSCP preserve) and is a compatible use within the MSCP. The trail system will be designed to County joint use standards and will be presented to County Staff and the Wildlife Agencies for review;
- 3. Impacts to California gnatcatchers on the southeastern portion of the Project will be fully mitigated by purchase of the offsite Captains' Associates property as referenced in the Wildlife Agencies' July 13, 2005 letter; and



4. Should the Project be approved prior to issuance of MSCP permits, the County and the Wildlife Agencies will process an HLP to be included as a discretionary action in the Merriam EIR (with HLP findings included in the EIR). While it is understood that the Service cannot provide pre-decisional permit assurances as it pertains to 4(d) or Section 7 processes, the Wildlife Agencies will take into consideration that the Captains' Associates property satisfies mitigation requirements for impacts to CSS under the MSCP. The Wildlife Agencies further agree not to require further avoidance of CSS habitat other than that shown in the All South Plan.

#### Mitigation for Impacts to Biological Resources

1. MSCP/4(d) compliance will constitute full mitigation for direct, indirect and cumulative impacts with respect to sensitive habitats, sensitive species, and preserve design; and
2. The Wildlife Agencies will acknowledge in writing their acceptance of the All South Plan preserve design as full mitigation for all biological impacts and will not propose or recommend additional avoidance or minimization of impacts to wetland (jurisdictional) or other resources when future wetland permits (CDFG Streambed Alteration Agreement, ACOE 404, RWQCB 401) are submitted and processed for the Project. The Department of Fish and Game agrees specifically not to require further avoidance measures during processing of a 602 Streambed Alteration Agreement for the Project.

#### RPO Compliance

1. County Staff and the Wildlife Agencies agree that the All South Plan is not feasible to implement if the County RPO is strictly applied to areas outside of the designated biological open space (the MSCP preserve). Amendment of the RPO or allowance of an exemption for the Project is necessary to implement the All South Plan.
2. County Staff will support amendment of the RPO to allow impacts to RPO jurisdictional features (sensitive habitat, wetlands, slopes, cultural resources, floodplains) when such impacts allow a design that provides ecological benefits superior to a design that strictly complies with the RPO.
3. County Staff will support findings that impacts to RPO jurisdictional features resulting from the All South Plan are necessary to enhance the overall conservation values of the Project and to provide superior ecological benefits;
4. County Staff will submit the proposed amendment to the RPO for formal review and approval as soon as possible after execution of this Agreement.

#### GP 2020

1. County Staff concur that the All South Plan, including dwelling units, density, and proposed commercial uses, is consistent with GP 2020 and will be incorporated into the Staff Alternative of the GP 2020 Working Copy;
2. Project processing will not be delayed during preparation of GP 2020; and

3. County Staff and the Wildlife Agencies will not support any reduction in density or intensity in the All South Plan without a corresponding reduction in the size of the biological open space.

**Wildlife Agencies' Requests**

1. A fire management plan for the Project, including amount and location of fire management buffers, will be presented to County Staff and the Wildlife Agencies once the plan is approved by the Fire Marshall; and
2. The Wildlife Agencies recognize and accept the fire roads through the biological preserve as proposed, but strongly encourage the County to develop a biologically superior access plan utilizing existing private roads through the private property to the west of the All South Development Area and to also eliminate the access to Lawrence Welk Drive.

If, by November 15, 2005, the County is successful in obtaining the necessary access rights, the alternative plan is acceptable to the Deer Springs Fire District Fire Marshall and the San Diego County Fire Marshall, and the costs to permit and construct the alternative road are not increased from the currently proposed road, the applicant agrees to amend its plan and construct the access along this alternative route.

**Meeting Participants**

Therese O'Rourke, Susan Wynn, U.S. Fish and Wildlife Service; Larry Eng, David Mayer, Department of Fish and Game; Tom Oberbauer, County of San Diego; Joe Perring, Stonegate Development; June Collins, Elizabeth Candela, Dudek; Eric Armstrong, Bob Chase, Fuscoe Engineering; Brice Bossler, The Bossler Group; Michael McCollum, McCollum Associates.

**Concurrence Initials**

COUNTY OF SAN DIEGO

By: \_\_\_\_\_

Date: \_\_\_\_\_

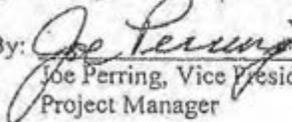
U. S. FISH & WILDLIFE SERVICE

By: \_\_\_\_\_

Date: \_\_\_\_\_

NNP-STONEGATE MERRIAM, LLC

By: Stonegate Merriam Mountains, LLC

By:  \_\_\_\_\_  
Joe Perring, Vice President  
Project Manager

Date: \_\_\_\_\_

DEPARTMENT OF FISH & GAME

By: \_\_\_\_\_

Date: \_\_\_\_\_

Points of Agreement  
Merriam Specific Plan  
September 27, 2005  
Page 3

- 2. Project processing will not be delayed during preparation of GP 2020; and
- 3. County Staff and the Wildlife Agencies will not support any reduction in density or intensity in the All South Plan without a corresponding reduction in the size of the biological open space.

**Wildlife Agencies' Requests**

- 1. All fire management buffers for the Project will be located outside the biological open space. The fire management plan, including amount and location of fire management buffers within the development area, will be presented to County Staff and the Wildlife Agencies once the plan is approved by the Fire Marshall; and
- 2. The Wildlife Agencies recognize and accept the fire roads through the biological preserve as proposed, but strongly encourage the County to develop a biologically superior access plan utilizing existing private roads through the private property to the west of the All South Development Area and to also eliminate the access to Lawrence Welk Drive.

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**Meeting Participants**

Therese O'Rourke, Susan Wynn, U.S. Fish and Wildlife Service; Larry Eng, David Mayer, Department of Fish and Game; Tora Oberbauer, County of San Diego; Joe Perring, Stonegate Development; June Collins, Elizabeth Candela, Dudek; Eric Armstrong, Bob Chase, Fuscoe Engineering; Bruce Bossler, The Bossler Group; Michael McCollum, McCollum Associates.

**Concurrence Initials**

COUNTY OF SAN DIEGO

By: \_\_\_\_\_

Date: \_\_\_\_\_

U. S. FISH & WILDLIFE SERVICE

By: Therese O'Rourke

Date: October 12, 2005

NNP-STONEGATE MERRIAM, LLC

By: Stonegate Merriam Mountains, LLC

By: Joe Perring  
Joe Perring, Vice President  
Project Manager

Date: October 10, 2005

DEPARTMENT OF FISH & GAME

By: \_\_\_\_\_

Date: \_\_\_\_\_

Points of Agreement  
Merriam Specific Plan  
September 27, 2005  
Page 3

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**Wildlife Agencies' Requests**

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**Meeting Participants**

Therese O'Rourke, Susan Wynn, U.S. Fish and Wildlife Service; Larry Eng, David Mayer, Department of Fish and Game; Tom Oberbauer, County of San Diego; Joe Perring, Stonegate Development; June Collins, Elizabeth Candela, Dudek; Eric Armstrong, Bob Chase, Fuscoe Engineering; Briece Bossler, The Bossler Group; Michael McCollum, McCollum Associates.

**Concurrence Initials**

COUNTY OF SAN DIEGO

By: \_\_\_\_\_

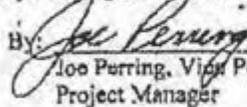
Date: \_\_\_\_\_

U. S. FISH & WILDLIFE SERVICE

By: \_\_\_\_\_

Date: \_\_\_\_\_

NNP-STONEGATE MERRIAM, LLC  
By: Stonegate Merriam Mountains, LLC

By:   
Joe Perring, Vice President  
Project Manager

Date: October 10, 2005

DEPARTMENT OF FISH & GAME

By: 

Date: \_\_\_\_\_

Joe Perring

---

**From:** Michael McCollum [mccollum@mccollum.com]  
**Sent:** Wednesday, October 12, 2005 12:34 PM  
**To:** Larry Eng  
**Cc:** Joe Perring  
**Subject:** Merriam Points of Agreement

Larry:

To further clarify the language in the Points of Agreement of September 20, 2005, on page 2, under the heading "Mitigation for Impacts to Biological Resources", bullet 2:

It is the intent of this language that any mitigation measures associated with the 1602 agreement process, not result in moving roads, units, or facilities, or any other avoidance or minimization measure that results in the need to redesign the project. We acknowledge that normal mitigation measures will be required to achieve no net loss of Department jurisdictional wetland resources resulting from any project impacts, including, as appropriate, recognition of preserved wetlands within the biological open space.

We prefer not to make changes to the Points of Agreement, since the Service and my client have already signed it, and we believe the existing language speaks only to the avoidance issue, not specific mitigation for impacts; however, this message will make it clear of the agreement's intent.

I would appreciate it if you would fax back to me today the signature page with your signature, and send your original signature to me via U.S. Mail at your convenience.

Thank you for your assistance in concluding this process.

Mike

--  
McCollum Associates  
10196 Clover Ranch Drive  
Sacramento, CA 95829-6574  
(916) 688-2040 \* Fax (916) 688-7436  
[www.mccollum.com](http://www.mccollum.com)

TRI Commercial Real Estate Services  
[www.mccollum.com/tri](http://www.mccollum.com/tri)

GARY L. PRYOR  
DIRECTOR



# County of San Diego

## DEPARTMENT OF PLANNING AND LAND USE

5201 RUFFIN ROAD, SUITE B, SAN DIEGO, CALIFORNIA 92123-1666  
INFORMATION (858) 694-2900  
TOLL FREE (800) 411-0017

SAN MARCOS OFFICE  
338 VIA VERA CRUZ - SUITE 201  
SAN MARCOS, CA 92069-2820  
(760) 471-0730

EL CAJON OFFICE  
200 EAST MAIN ST. - SIXTH FLOOR  
EL CAJON, CA 92020-3912  
(619) 441-4030

November 1, 2005

Mr. Joseph Perring  
27071 Cabot Road, Suite 106  
Laguna Hills, California 92653

Dear Mr. Perring:

This letter is in regards to your request to establish a "hard-line" area within the North County Multiple Species Conservation Plan (MSCP) for the Merriam Project.

For MSCP purposes, the Department of Planning and Land Use supports your current proposal to eliminate the northern development node. This represents a significant step forward in implementing the North County Plan. Furthermore, DPLU will continue to work cooperatively and aggressively with the wildlife agencies to address any remaining issues in the southern portions of the site and complete the "hard-line" approval.

We look forward to continuing to work with you and your team on this project.

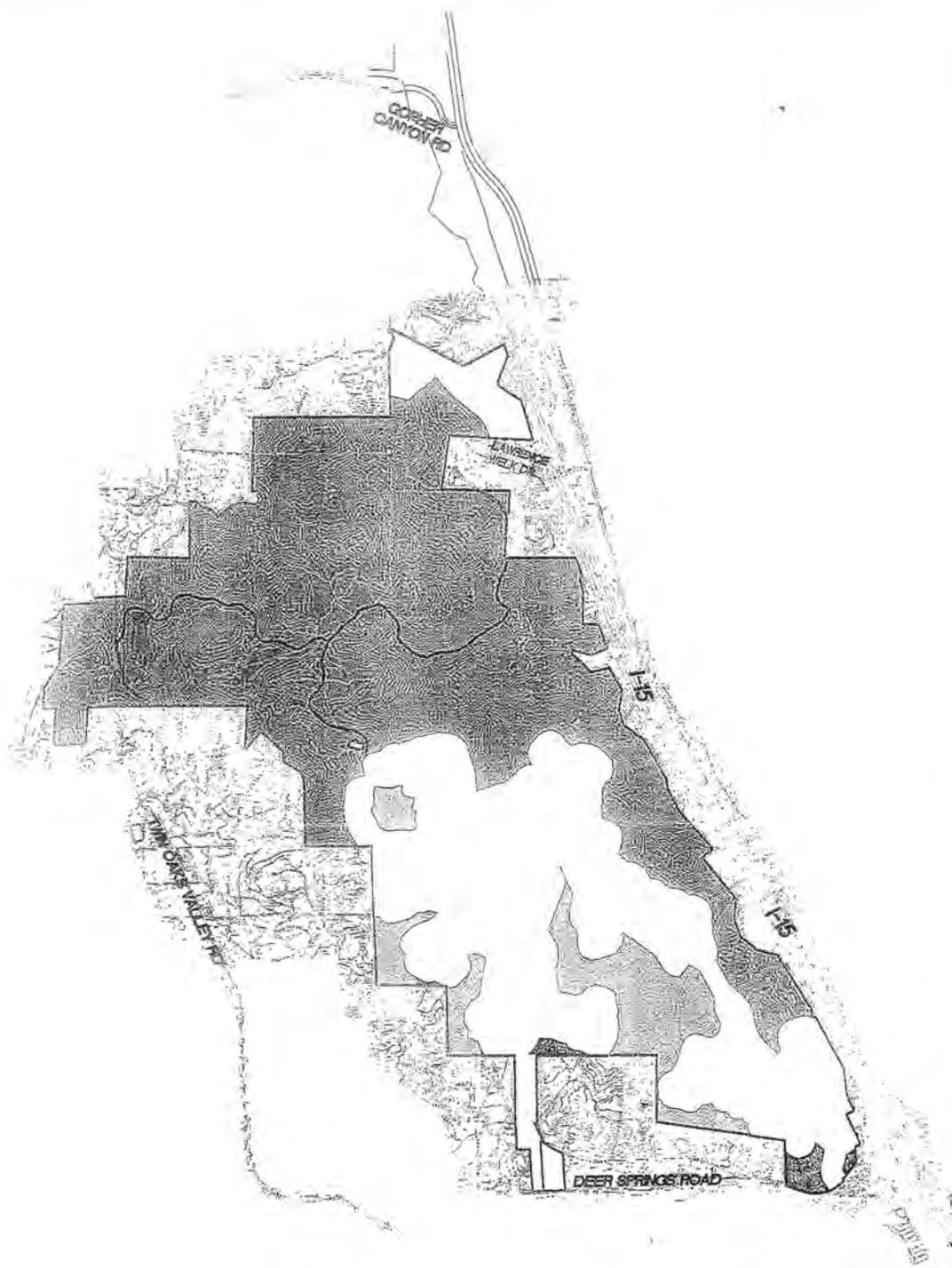
Sincerely,

A handwritten signature in black ink, appearing to read "Ivan Holler".

IVAN HOLLER, Deputy Director  
Department of Planning and Land Use

IH:clc

cc: File



-  BIOLOGICAL OPEN SPACE - 1305 AC
-  NATURAL PARK - 14 AC
-  OTHER OPEN SPACE - 178 AC



**DRAFT ALL-SOUTH ALTERNATIVE  
PRELIMINARY HARDLINE EXHIBIT  
MERRIAM MOUNTAINS**

**SEPT 20, 2005**

# **EXHIBIT I**

## **Honoring the MSCP:**

### ***Correcting the Record***

Endangered Habitats League (EHL) wishes to respond to a matrix titled *Honoring the MSCP*, which was submitted to the US Fish and Wildlife Service and enumerates perceived problems in how the Carlsbad Field Station is handling matters relating to the MSCP. EHL has been a stakeholder from the outset in this precedent setting effort.

We believe that the authors of this matrix – also long-term stakeholders – share a mutual commitment to the MSCP and its successful implementation. That said, we are compelled to correct the many factual errors in its assertions.

More troubling to us than the factual errors is the ascribing of bad motives to Carlsbad, through the use of terms such as “bad faith,” “disingenuous,” “undermine,” “anti-growth agenda,” and “pretext.” Based upon our decades of close work with the Carlsbad personnel, we categorically reject these characterizations. While all parties will at times disagree with FWS judgments or methods—and the need for self examination and improvement is universal among us—we instead find at Carlsbad same mutual commitment to the MSCP as well as honest collaboration.

There is no question that we collectively face challenges to the MSCP, in all the locations referenced. We call for a new round of creative problem solving by stakeholders and agencies alike—the same successful problem solving that led to MSCP adoption over 20 years ago.

This response will track the original matrix.

### **Honoring assurances**

*V13/Golden Eagle*

See below

*V14*

Assertions are false: The MSCP anticipates and indeed *requires* FWS to use the CEQA process to comment on MSCP-related projects. In numerous sections (e.g., 1.15, 1.4, 4.2.3) CEQA is specified as a vehicle for notice and comment. CEQA is therefore a *fully* appropriate venue for the FWS to provide input on MSCP consistency. Furthermore, from the public’s perspective, the CEQA process is the *only* accountable and publicly available way to access and participate in MSCP implementation. Continued such use of CEQA by the wildlife agencies is essential. Specific sections of the Subarea Plan follow:

#### 4.3.1. The Process for County Review and Mitigation Within the Metro-Lakeside-Jamul Segment

The Wildlife Agencies shall fulfill their responsibilities to comment on projects as specified under CEQA and pursuant to their statutory authority under the Federal and State Endangered Species Acts and other applicable state and federal laws and regulations.

##### Section 4.3.2.1 Wildlife Agencies' Role in Project Compliance

The Wildlife Agencies intend to provide comments on specific projects pursuant to their trustee responsibilities and to their statutory authority under the State and Federal laws during the CEQA process.

Regarding the golden eagle, FWS has constructively sought the cooperation of the County and landowners in scientifically examining MSCP adaptive management monitoring data collected by USGS. We are disappointed that these other parties have not, to our knowledge, reciprocated in kind. More specifically, FWS has repeatedly stated that *no determination* has been made as to whether eagle coverage under the MSCP remains biologically valid in light of the monitoring data. It is also important to note that the V14 applicant has proposed not honoring the terms of the Baldwin Agreement, which is part of the MSCP Subarea Plan and Otay Ranch development agreements (and which FWS has respected numerous times where it benefits development interests).

#### *Newland Sierra*

Assertions are false: There is no existing “hardline” for this project. When the former project on the Merriam Mountains site was denied by the Board of Supervisors, the site reverted to PAMA. This understanding between the County and the wildlife agencies is documented in draft meeting notes, dated January 23, 2014, as follows:

##### Background (Merriam Mountains Project)

- a. Mark Slovick summarized the project attributes and hardline that had been established for the Merriam Mountains project, which was denied by the Board of Supervisors in 2010.
- b. After denial, the project reverted to PAMA (Pre-approved Mitigation Area in the the draft NC Plan.

In addition, the fact that any subsequent hardline remained to be negotiated is documented in the NOP comments from the California Dept. of Fish and Wildlife (letter of March 11, 2015 to County of San Diego):

3. The County and the Wildlife Agencies have met multiple times to discuss the proposed Newland-Sierra Project site, formerly known as Merriam Mountains, including the following dates: January 23rd, 2014; March 27th, 2014 (Site Visit); April 3rd, 2014; July 29th, 2014 (Site Visit); November 19th, 2014; and, most recently on February 19th, 2015. Based on our past meetings with the County, the Department has provided the following tenets that will guide any hardlined agreement negotiations for the Project:

- a) Though this is a new project, it is very similar to the Merriam Mountains project; however, all parties agree that it will be evaluated independent of the previous Merriam Mountains Project;
- b) Potential hardline discussion will be based on current conditions at the project site, in the North County Plan area, and in the County as a whole, as conditions have changed;

#### *Fanita Ranch*

Assertions are false: Fanita's prior hardline was mooted—*by the property owner*—when the Fanita Ranch ownership (American General) opted to sell the required Fanita Ranch offsite mitigation to the City of San Diego. Subsequent Fanita Ranch owners chose not to provide the alternative off site mitigation that FWS had offered as an alternative to the original (American General) mitigation package. No other hardline plan has ever been “approved” by the wildlife agencies. In addition, the most recent (Barrett American) project was rejected by the courts as a result of CEQA litigation, and the planning process restarted. In this context, it is our observation that all parties have been treating the site as a “clean slate” from which to re-plan both conservation and development.

#### *Lack of good faith negotiations*

Assertions are false: The Village 13 project *never* obtained an agreement, formal or informal, from FWS on the QCB. FWS CEQA comments make it abundantly clear that the footprint discussions were solely in the context of a *regional* quino plan rather than in the DEIR's context of a stand-alone, project-specific proposal. The latter is far more limited in flexibility. The matrix neglects this vital distinction. In any case, from the public's point of view, and as a legal matter, the DEIR presents alternatives for *comment and consideration* rather than final decisions.

#### *Village 14 land exchange*

Assertions are false: The applicant pursued a land exchange at its own risk. It was denied by the California Department of Fish and Wildlife rather than FWS *per se*. EHL's scientific analysis showed the exchange was neither biologically sound nor advantageous to the golden eagle.

#### *Newland Sierra*

See above discussion.

*Fanita Ranch*

See above discussion.

**Communications and actions in breach of MSCP**

*Villages 13 and 14*

Assertions are false. See above discussion of CEQA comment responsibilities.

*Newland Sierra*

Assertions are false: The wildlife agencies have historically and appropriately met public trust responsibilities by commenting during the CEQA process. This is essential for a public process whose fundamental purpose is disclosure. Otherwise, decision-making occurs in a back room inaccessible to the public at large. Furthermore, the Planning Agreement for the North County MSCP specifically identifies formal CEQA comments from FWS as *one* means for FWS to provide input to the lead agency on plan conformity, mitigation, etc.

Exhibit B to the Planning Agreement for North and East County: Interim Review Process:

The Interim Review Process also ensures early review and consideration of proposed discretionary projects and annexations by the Wildlife Agencies. With respect to discretionary projects and annexations which may have the potential to preclude long-term preservation planning or impact the viability of biological resources, the Wildlife Agencies commit to meet with the County and/or project proponent at the earliest feasible point in the CEQA or NEPA process to review such projects. Early identification of potential impacts will assist in the preparation of environmental documents for the project and provide the opportunity to identify potential project alternatives and mitigation measures for consideration in compliance with Public Resources §21080.3(a).

The Wildlife Agencies will retain the right to provide further comments *during the formal public comment period* or may choose to entirely waive their comments during the Interim Review Process *and reserve them for the public comment period*. (Emphases added.)

*Fanita Ranch*

Assertions are false: The City of Santee's 4(d) benefits were properly ended by FWS when all its coastal sage scrub allocation was used up. (FWS did make an exception to

allow an assisted care facility to go forward by allowing the City of Santee to utilize available County 4(d.)

FWS provides full rationales for preserve recommendations rather than “arbitrary” conclusions (e.g. letter of Dec. 20, 2016). In this regard, the draft Santee Subarea Plan (SAP) requires that the wildlife agencies consider the subregional (MSCP) context when reviewing Santee SAP proposals.

### **Not honoring covered species and sidestepping new information provisions**

Assertions are false: FWS has *appropriately* reviewed new information from the MSCP adaptive management and monitoring program. This is an essential responsibility of permit issuance. FWS has repeatedly clarified what coverage for the eagle means under the MSCP, referring to the Biological Opinion and MSCP Table 3.5, Conditions of Coverage. It has explained the relationship of BGEPA to the MSCP. It is the right of other parties to disagree, of course, but disagreement does not warrant the accusations leveled as to motivation.

No “threatening” letters have been sent regarding the golden eagle. Rather, as noted above, FWS has repeatedly stated that *no determination* has been made as to whether eagle coverage under the MSCP remains biologically valid in light of this information. Instead, it has repeatedly offered to sit down and work through the very real biological issues. Whether permittees themselves have honored golden eagle commitments is another matter, and in point of fact, management actions such as nest monitoring have not been performed.

### **Ignoring solutions inconsistent with agency agenda**

Assertions are false: In regard to the vicinity of Warner Springs, scientific input is that the referenced areas do *not* provide a remedy for golden eagle issues for other parts of the County.

# **EXHIBIT J**

# Wildlife and Habitat Conservation Coalition

*Dedicated to the sustained conservation of native animal and plant species in the Southwest Bioregion.*



April 24, 2017

The Hon. Dianne Jacob, Chair  
Board of Supervisors  
San Diego County  
1600 Pacific Highway, Room 335  
San Diego, CA 92101

## **RE: Newland Sierra project and the North County Multiple Species Conservation Program**

Dear Chairperson Jacob and Members of the Board:

The San Diego Wildlife Conservation Coalition writes to express its concern over how the Department of Planning and Development Services (DPDS) is treating the Newland Sierra proposed project in the context of the North County Multiple Species Conservation Program (NC MSCP). The Coalition consists of 16 San Diego conservation groups representing with over 25,000 members.

First, however, we wish to convey our appreciation to your Board for moving forward on the long delayed and important North County MSCP. Further, we believe that your staff is firm in its commitment to the plan and, at this time, our comments are limited to the Newland Sierra matter.

As a bit of background, earlier this year, DPDS released a list of development projects that would be placed into the draft NC MSCP and also placed into the plan's DEIR for analysis. This list of "private projects" **inappropriately** contained Newland Sierra, a massive proposed development and General Plan amendment (GPA) along I-15 near Twin Oaks. All other projects on this list have already been *approved* by your Board and have substantial concurrence from our partners in the NC MSCP, the state and federal wildlife agencies.

To the contrary, your Board has not approved Newland Sierra, and the site design – which staff would place into the draft plan – has been soundly rejected by the wildlife agencies in numerous letters, due to fragmentation of Pre-Approved Mitigation Area (PAMA) and loss of connectivity.

Our objections are two-fold. First, until such time as *your Board* chooses to amend the General Plan, staff should not effectively pre-judge a GPA and give a "leg up" through environmental analysis and incorporation into the draft NC MSCP. *The adopted General Plan merits a presumption of validity.* In this case, it is noteworthy that a similar project (Merriam Mountains) was actually denied by your Board, and the 2011 General Plan shows the site as Resource Conservation Area, denoting special protection. Especially given previous Board action, we ask that you direct your staff to respect the General Plan.

*Dedicated to the sustained conservation of native animal and plant species in the Southwest Bioregion.*

Second, when the former project on the Merriam Mountains site was denied, the planning process was restarted and the site reverted to PAMA. This understanding between the County and the wildlife agencies is documented in draft meeting notes, dated January 23, 2014, as follows:

“Background (Merriam Mountains Project)

- a. Mark Slovick summarized the project attributes and hardline that had been established for the Merriam Mountains project, which was denied by the Board of Supervisors in 2010.
- b. After denial, the project reversed to PAMA (Pre-approved Mitigation Area in the draft NC Plan.”

In addition, the fact that any subsequent hardline remained to be negotiated is documented in Notice of Preparation comments from the California Dept. of Fish and Wildlife (letter of March 11, 2015 to County of San Diego):

“3. The County and the Wildlife Agencies have met multiple times to discuss the proposed Newland-Sierra Project site, formerly known as Merriam Mountains, including the following dates: January 23rd, 2014; March 27th, 2014 (Site Visit); April 3rd, 2014; July 29th, 2014 (Site Visit); November 19th, 2014; and, most recently on February 19th, 2015. Based on our past meetings with the County, the Department has provided the following tenets that will guide any hardlined agreement negotiations for the Project:

- a) Though this is a new project, it is very similar to the Merriam Mountains project; however, *all parties agree that it will be evaluated independent of the previous Merriam Mountains Project;*
- b) Potential hardline discussion will be based on current conditions at the project site, in the North County Plan area, and in the County as a whole, as conditions have changed . . .” (Emphasis added.)

Given the failure of the parties to reach concurrence on a *new* site design, it is inappropriate for a project footprint that has been rejected by our wildlife agency partners as inconsistent with the NC MSCP preserve to be placed in the draft plan and its DEIR.

The rationale provided by DPDS is that the *former* project of a *former* developer had “hardline” status. However, because the site has clearly reverted to PAMA, no footprint should be prematurely advanced into environmental review. The proper course of action is to develop the NC MSCP and, when and if the project comes to your Board, assess at that time its compatibility with the NC MSCP (or its current draft) as part of your decision-making.

Again, we recognize and appreciate the overall progress the County is making toward completing the plan but wish to let you know of our concern that this good work could be undermined.

*Dedicated to the sustained conservation of native animal and plant species in the Southwest Bioregion.*

In closing, we request that the Board direct staff to remove the proposed project footprints in question from the NC MSCP draft plan and from the plan's DEIR, and to show those areas as PAMA.

Sincerely,

*Joan Herskowitz, Buena Vista Audubon*

*George Courser, Sierra Club San Diego*

*Richard Fowler, Palomar Audubon Society*

*Pamela Heatherington, Environmental Center of San Diego*

*Frank Landis, California Native Plant Society, San Diego Chapter*

*Laura Hunter, Escondido Neighbors United*

*Dan Silver, Endangered Habitats League*

*Richard Fowler, Palomar Audubon Society*

*Jim Peugh, San Diego Audubon Society*

*Marco Gonzalez, Coastal Environmental Rights Foundation*

*Van K. Collinsworth, Preserve Wild Santee*

cc.

Sarah Aghassi

Mark Wardlaw

Mary Kopaskie

Brian Albright

Peter Eichar

LeAnn Carmichael

Crystal Benham

# **EXHIBIT K**

# Merriam Mountains Wildlife Connectivity Review

April 18, 2017



*Megan Jennings, Ph.D.*  
Research Ecologist  
Assistant Adjunct Professor  
San Diego State University

## Importance of Connectivity for Wildlife

Current land management plans throughout the U.S. and Europe are designed to protect biodiversity by establishing a network of core habitat areas that are connected via linkages. The central principle of this large-scale conservation planning is that viable populations and natural communities can be supported by a connected landscape network (Beier *et al.* 2006, Crooks and Sanjayan 2006, Boitani *et al.* 2007, Barrows *et al.* 2011), particularly as the landscape becomes altered by anthropogenic features like roads and housing developments. Landscape connectivity allows for movement among patches of suitable habitat, reduces the chance of extinction and effects of demographic stochasticity on small populations (Brown and Kodric-Brown 1977), and maintains gene flow between populations in patchy landscapes (Simberloff *et al.* 1992) allowing more rapid recovery after events such as fire and disease outbreaks. Over longer time scales, and in the face of changing abiotic conditions, connectivity may also prove critical for range shifts in response to landscape changes caused by changing climate and altered disturbance regimes (Hannah *et al.* 2002, Heller and Zavaleta 2009). In southern California, this landscape-scale network approach has been adopted in response to the widespread habitat conversion and fragmentation that has resulted from development in the region (Riverside County 2003, County of San Diego 1998).

Connectivity is often considered from two different perspectives, physical and functional connectivity. **Physical connectivity** indicates whether there is structure connecting two patches of habitat, whereas **functional connectivity** accounts for how wildlife respond to that structure and the implications of those considerations for the species of concern (Taylor *et al.* 1993, Tischendorf and Fahrig 2000a, 2000b). The distinction between physical connectivity and functional connectivity in fragmented landscapes is critical when implementing conservation and mitigation measures to prevent irreversible habitat fragmentation. There are a variety of factors that can affect this response, including but not limited to, life history traits of the affected species, habitat configuration, degree of habitat fragmentation, and type of fragmenting features (*e.g.*, roads, houses). Furthermore, this response will differ among species with some demonstrating a greater sensitivity to these factors than others.

## Wildlife Connectivity in the Merriam Mountains

The Merriam Mountains area is only one of two large habitat blocks that remain west of I-15 that are classified as Pre-Approved Mitigation Area (PAMA) with a goal of 75% conservation under the Draft North County Multiple Species Conservation Plan (NCMSCP). Given the remaining open spaces and known critical movement areas nearby (*i.e.*, the San Luis Rey River to the north), the Merriam Mountains area serves as a critical area for wildlife movement and connectivity at a local scale. The area offers drainages and ridgelines, features known to support wildlife movement, running in both east-west and north-south directions. Based on my research on connectivity in San Diego County (Jennings and Lewison 2013) and what prior research efforts have learned about wildlife movement and connectivity in the region (Crooks 2002, Lyren *et al.* 2009, 2008, 2006), it appears that the Merriam Mountains are situated in a critical location that currently allows it to serve as a stepping stone between habitat patches north of Escondido, San Marcos, and Vista to the Merriam and San Marcos Mountains, Moosa Canyon, and the San Luis Rey River.

Although east-west movement is undoubtedly challenged by Interstate 15 (I-15) to the east of the Merriam Mountains, some species may be able to cross through the concrete box culvert located under I-15 (Figure 1). The length and height of this structure<sup>1</sup> likely deter crossings by larger species like mountain lion (*Puma concolor*) and southern mule deer (*Odocoileus hemionus fuliginatus*), but smaller species may be able to traverse the crossing (Figure 2). A suite of small to medium mammals, such as raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), coyote (*Canis latrans*), bobcat (*Lynx rufus*), as well as a host of small mammals, may be most likely to use this structure. Furthermore, the location of this structure is such that connectivity could be enhanced with improvements to the structure design.

There are also locations to the north and south of the Merriam Mountains that allow for east-west movement past the freeway (*e.g.*, Moosa Canyon). North-south connectivity is likely more important for wildlife movement in the area. The quality of undeveloped lands in the area is high and the current development intensity and agricultural activities are not likely to be acting as an impediment to wildlife movement. In a recent update to the connectivity section of the Management Strategic Plan for Conserved Lands in Western San Diego County,<sup>2</sup> the San Diego Management and Monitoring Program identified the Merriam Mountains as a key area connecting core linkages to the north, south, east, and west (Figure 3). Additionally, the proposed designation of area to the north as PAMA under the NCMSCP will further enhance the importance of the open space in the Merriam Mountains and connectivity to and from this area that will serve as a stepping stone, provide source populations of many species, and support ecological resilience in this part of San Diego County.

From a broader regional perspective on connectivity, the connections available for wildlife to move through this area are crucial for maintaining connectivity to the Santa Ana Mountains. The Santa Ana-Palomar linkage is a wildlife corridor that has been highlighted in numerous connectivity studies to date (*e.g.*, South Coast Wildlands 2008, Spencer *et al.* 2010); however, this linkage remains unrealized due the difficulty in getting animals across the I-15 to the north in Temecula. Currently, one of the few areas where it is currently feasible for a movement corridor is in the vicinity of the Merriam Mountains. This is an especially important issue for mountain lions, which have experienced a decline in genetic diversity and led to inbreeding and concerns about long term persistence of the apex predator in the Santa Ana Mountains (Ernest *et al.* 2014), as well as additional effects to the San Diego population of mountain lions.

Without adequate habitat quality or structure, the effective distance<sup>3</sup> among preserved lands in this part of San Diego County would more than double, as negotiating additional roads and development would limit the species that could successfully traverse the distance. By fragmenting this area, it may no longer serve as suitable habitat for viable populations of southern mule deer, key predators such as bobcats or coyotes (Crooks 2002), or as a critical stepping stone for dispersing mountain lions searching for larger blocks of suitable habitat. Furthermore, the type of stepping-stone connectivity that this area provides is critical for the

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<sup>1</sup> Structure measures approximately 5 feet high x 7.5 feet wide x 900 feet long.

<sup>2</sup> [https://portal.sdmmp.com/view\\_threat.php?threatid=TID\\_20160304\\_1454](https://portal.sdmmp.com/view_threat.php?threatid=TID_20160304_1454) (last accessed Apr. 17, 2017).

<sup>3</sup> Effective distance accounts for both the physical distance and the barriers and resistance of moving through the landscape.

movement of avifauna with limited dispersal abilities, such as the federally threatened California gnatcatcher (*Poliophtila californica californica*). Connectivity between suitable patches of coastal sage scrub habitat is necessary if the gnatcatcher is to not only persist, but recover in coastal southern California, particularly in San Diego County where coastal sage scrub habitats continue to be constrained at a rapid rate. The proposed development may result in the physical and genetic isolation of populations of mule deer, bobcat, coyote, and other species on either side of Deer Springs Road and west of I-15, a phenomenon that has been demonstrated in other areas of southern California where roads and development have fragmented habitats for these species in a similar fashion (Riley *et al.* 2006, Lee *et al.* 2012). These effects would result in cumulative impacts to connectivity and wildlife corridors in the area, and require that existing lands providing connectivity be considered more carefully in broader subregional and temporal contexts.

### **Wildlife Connectivity and the Proposed Newland-Sierra Development**

#### *Design Configuration*

Although the proposed design configuration of the Newland Sierra project is intended to preserve the core habitat on Merriam Mountain, it will rather serve to further isolate that area and limit its function in providing habitat that will contribute to regional biodiversity. Even though the project design appears to incorporate a number of areas of open space, the configuration of those spaces is such that roughly only 400 hectares (<1,000 acres) will remain as suitable core habitat or a major movement corridor for those species. Reducing that block to an effective size less than 1,000 acres and cutting off movement to and from the east and south would substantially reduce its functionality as preserved lands under California's Natural Community Conservation Planning (NCCP) program.

The 2009 Draft Environmental Impact Report for the previously proposed project on this site notes that much of the evidence for wildlife movement on the site was observed along existing dirt roads and trails but assumed agricultural lands and dense chaparral would not be used by most species. The use of these dirt roads is not an indicator of unsuitability of the site, but rather of the adaptable nature of many of the medium to large mammals that are likely to occur on site. Furthermore, agricultural lands, particularly avocado orchards, are known to provide important habitat for mammalian carnivores (Nogeire *et al.* 2013) and should be considered an important component of the conservation design for this area of the County. Additionally, a review of aerial imagery of the proposed project area revealed that, although there are areas of dense chaparral on site, the density is not uniform across the project area, nor does that make it impenetrable to wildlife. As is common across the region, the south- and east-facing slopes of the project area are substantially less dense than north- and west-facing slopes. Further, ongoing disturbance (such as dirt roads and trails) throughout the project area have created many areas of lower density open patches among the chaparral. Finally, dense chaparral is not a barrier to movement for many species and provides important cover for many small and medium species.

The proposed configuration of the Newland Sierra Project focuses on providing opportunities for east-west movement between the Merriam Mountains and San Marcos Mountain. While connectivity to San Marcos Mountain to the west is an important habitat linkage to conserve and

manage, it is not the only critical wildlife corridor in the region. In fact, focusing only on that linkage could create a connectivity dead-end, limiting any movement to the east or south from the Merriam Mountains or into the area from the east and south. These east-west and north-south corridors (Figure 4) are critical for maintaining adequate wildlife movement and consequently, ecological functioning, in the western part of the North County. Furthermore, to adequately ensure there is functional connectivity for wildlife to move to and from the open space in the San Marcos Mountains, appropriately sited and designed wildlife crossing structures need to be installed along Twin Oaks Valley Road. These structures should consider a range of species from large to small and be placed along existing movement paths to encourage use and reinforced with directional fencing to limit at-grade crossing by wildlife, which can lead to increased wildlife-vehicle collisions.

### *Road Impacts*

The proposed increase in the size of Deer Springs Road, the improvements to the I-15 interchange, as well as the expansion of the footprint of development in the immediate vicinity of the I-15 interchange would be exceptionally difficult to plan so that wildlife could continue to move through the area, particularly given the importance of north-south movement through this area. The increase in the size and traffic load along Deer Springs Road is a serious concern for both resident and migrating/dispersing wildlife moving through the area. In its current state, Deer Springs Road, a two-lane secondary road, is most likely a source of mortality for wildlife, but not a barrier to movement as the I-15 is for long stretches. Although it is certain that some proportion of animals that attempt to cross Deer Springs Road do not successfully make the crossing, the road currently only serves to reduce functional connectivity and affect the movement of individuals rather than having a barrier effect on entire populations. A wider and more heavily traveled road in this location would be more likely to impede wildlife movement and affect resident and dispersing populations in the area. Appropriately sized, spaced, sited, and designed structures must be included in the design of the road to allow for wildlife movement to avoid increasing the mortality effect of the road and limit the degree of the barrier effect that will occur when the road is widened. Furthermore, incorporating the addition of wildlife crossing structures along I-15 could facilitate movement for a suite of species, enhancing east-west connectivity.

Other roads of concern in the proposed project are Camino Mayor and the proposed section of Mesa Rock Road that would bisect the proposed central section of “open space”. These two roads would also need to incorporate appropriate wildlife crossing structures to limit the impacts of these roadways on habitat and movement. In particular, the design of these latter two roads lends itself to the greatest degree of wildlife-vehicle collisions as secondary roads often seem passable by wildlife but excessive speeds and limited sight distance can result in roadkill hotspots along roads that bisect natural areas as proposed in the Newland Sierra project.

### *Edge Effects*

The areas designated as “open space” within the interior of the proposed development, notably the area identified as “Block 3” in some planning documents, cannot be considered core habitat nor movement corridors for wildlife as they will be impacted both directly and indirectly by the development and activities therein, once built and occupied by residents. This area of habitat will

be surrounded by roads on all sides and development on three sides with only a narrow opening to the south. Any wildlife present in this area will be susceptible to edge effects such as human-wildlife conflict, reduced habitat quality and quantity from fuels clearance, and exposure to a greater risk of predation, disease, and toxins from the human environment. In fact, lower probabilities of occurrence of wildlife species such as bobcats or gray fox has been documented at distances less than 1,500 to 2,000 meters (4,920 to 6,560 feet) from urban edges (Ordeñana *et al.* 2010) which would eliminate most, if not all, of “Block 3” as habitat for those species. Many smaller species are also likely to experience edge effects in a habitat patch less than 200 acres, such as “Block 3”. Species such as the red diamond rattlesnake (*Crotalus ruber*), which have demonstrated avoidance of roads and development in southern California (Tracey 2000), will be subject to persecution and removal when located next to homes and trails and may also experience higher mortality rates on surrounding roads. The San Diego coast horned lizard (*Phrynosoma coronatum blainvillii*) may also face increased mortality from roadkill, collection, and lack of food if Argentine ants (*Linepithema humile*) colonize the site (Fisher *et al.* 2002), displacing the native harvester ants (*Pogonomyrmex* spp.) the lizard’s primary food resource. When there are factors likely to introduce edge effects such as these into an area of core habitat, buffers and expanded core areas are the most appropriate mitigation for those effects. Buffers ranging from 230 to 300 meters (755 to 984 feet) have been recommended to mitigate these edge effects (Environmental Law Institute 2003). If such a buffer is applied, the remaining habitat in “Block 3” would equate to roughly 16 hectares (40 acres).

To the east, the swath of habitat remaining between the proposed development and I-15 should not be considered a suitable movement corridor as the barrier or deterrent effect of a road of that magnitude will be well beyond the immediate footprint. For example, in modeling movement habitat for bobcats in San Diego County based on GPS telemetry data, the effect of roads such as I-15 on the species occurs at as much as 1,000 meters (3,280 feet) away (Jennings, *unpublished data*). Effects of developed areas were strongest at 519 meters (1,703 feet), and in sparse or disturbed habitats, 1,000 meters. A functional wildlife corridor that would allow for north-south movement to the west of I-15 would need to be shielded from the freeway. The area with the highest probability of movement in this area is the first canyon to the west of I-15 where the commercial area and neighborhood access via Mesa Rock Road are proposed.

The proposed trail system throughout the open space would also contribute to edge effects, as human recreation in the form of dog walking, hiking, mountain biking, horseback riding, and bird watching all affect wildlife activity patterns (George and Crooks 2006, Reed and Merenlender 2008, Reed and Merenlender 2011). The design of the proposed trails in the 2016 Newland Sierra Specific Plan (Figure 62, p. 187) displays a number of dead-end or loop trails. These are likely to result in additional volunteer trails and off-site exploration. In addition, trails leading from the backs of the neighborhoods that are adjacent to the open space (*e.g.*, Summit and Mesa) are also likely. Furthermore, design features for the project such as the proposed Oak Grove Park (Figure 63, p. 189) may become an ecological trap for wildlife, drawing them in with shade, trees, and providing water sources but located adjacent to a major intersection and high levels of traffic that pose a danger to wildlife.



Figure 1. Box culvert location under Interstate 15.



Figure 2. Photographs of I-15 drainage culvert. Left: Creek on east side flowing into culvert; Upper right: east entrance to culvert; Lower right: View to west end of culvert from inside east end.

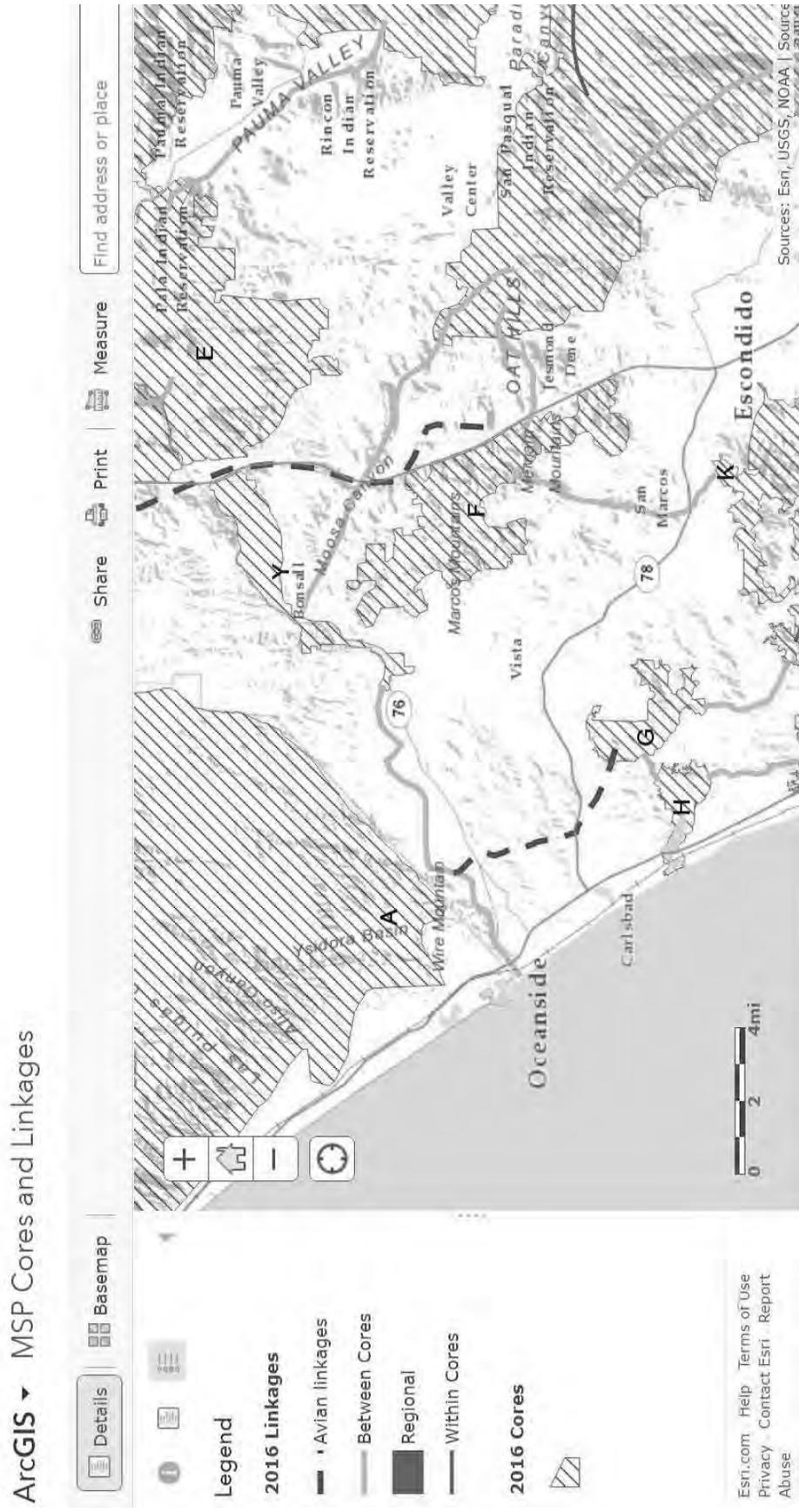


Figure 3. Map of Management Strategic Plan core areas and linkages in the vicinity of the Merriam Mountains.



Figure 4. Putative movement zones in the vicinity of the Merriam Mountains

## References

- Barrows, C.W., K.D. Fleming, and M.F. Allen. 2011. Identifying habitat linkages to maintain connectivity for corridor dwellers in a fragmented landscape. *The Journal of Wildlife Management* 75(3): 682-691.
- Beier, P., K. Penrod, C. Luke, W. Spencer, and C. Cabañero. 2006. South Coast missing linkages: restoring connectivity to wildlands in the largest metropolitan area in the United States. Pages 555–586 in K. R. Crooks and M. A. Sanjayan, editors. *Connectivity conservation*. Cambridge University Press, Cambridge, United Kingdom.
- Boitani, L., A. Falcucci, L. Maiorano, and C. Rondinini. 2007. Ecological networks as conceptual frameworks or operational tools in conservation. *Conservation Biology* 21(6): 1414-1422.
- Brown, J. H., and A. Kodric-Brown. 1977. Turnover rates in insular biogeography: effect of immigration on extinction. *Ecology* 58: 445-449.
- County of San Diego. 1998. Final Multiple Species Conservation Program MSCP Plan. <http://www.sandiegocounty.gov/content/dam/sdc/pds/mscp/docs/SCMSCP/FinalMSCPProgramPlan.pdf>
- Crooks, K.R. 2002. Relative sensitivities of mammalian carnivores to habitat fragmentation. *Conservation Biology* 16: 488-502.
- Crooks, K.R. and M.A. Sanjayan. 2006. *Connectivity Conservation*. Cambridge University Press, Cambridge, UK.
- Environmental Law Institute. 2003. *Conservation thresholds for land use planners*. Environmental Law Institute, Washington, D.C. Available from [www.elistore.org](http://www.elistore.org) (accessed December 2013).
- Ernest, H.B., T.W. Vickers, S.A. Morrison, M.R. Buchalski, and W.M. Boyce. 2014. Fractured genetic connectivity threatens a southern California puma (*Puma concolor*) population. *PloS one* 9(10): p.e107985.
- Fisher, R.N., A.V. Suarez, and T.J. Case. 2002. Spatial patterns in the abundance of the coastal horned lizard. *Conservation Biology* 16(1): 205-215.
- George, S.L. and K.R. Crooks. 2006. Recreation and large mammal activity in an urban nature reserve. *Biological Conservation* 133: 107-117.
- Hannah, L., G.F. Midgley, and D. Millar. 2002. Climate change-induced conservation strategies. *Global Ecology and Biogeography* 11: 485–495.
- Heller, N.E., and E. S. Zavaleta. 2009. Biodiversity management in the face of climate change: a review of 22 years of recommendations. *Biological Conservation* 142:14–32.
- Jennings, M.K. and R.L. Lewison. 2013. Planning for connectivity under climate change: Using bobcat movement to assess landscape connectivity across San Diego County's open spaces. Final Report to the San Diego Foundation. 50 p. [Technical Report]
- Lee, J.S., E.W. Ruell, E.E. Boydston, L.M. Lyren, R.S. Alonso, J.L. Troyer, K.R. Crooks, S. VandeWoude. 2012. Gene flow and pathogen transmission among bobcats (*Lynx rufus*) in a fragmented urban landscape. *Molecular Ecology* 21(7):1617-1631.
- Lyren, L. M., G. M. Turschak, E. S. Ambat, C. D. Haas, J. A. Tracey, E. E. Boydston, S. A. Hathaway, R. N. Fisher, and K. R. Crooks. 2006. Carnivore activity and movement in a Southern California protected area, the North/Central Irvine Ranch. U.S. Geological Survey Technical Report, 115 p. [Technical Report]

- Lyren, L. M., R. S. Alonso, K.R. Crooks, and E. E. Boydston. 2008. GPS telemetry, camera trap, and mortality surveys of bobcats in the San Joaquin Hills, Orange County, California. U.S. Geological Survey Report, 134 p. [Administrative Report]
- Lyren, L. M., R. S. Alonso, K. R. Crooks, and E. E. Boydston. 2009. Evaluation of functional connectivity for bobcats and coyotes across the former El Toro Marine Base, Orange County, California: Administrative report delivered to cooperator Jan. 20, 2009, 179 p. [Administrative Report]
- Nogeyre, T.M., F.W. Davis, J.M. Duggan, K.R. Crooks, and E.E. Boydston. 2013. Carnivore use of avocado orchards across an agricultural-wildland gradient. *PloS one* 8(7): p.e68025.
- Ordeñana M.A., K.R. Crooks, E.E. Boydston, R.N. Fisher, L.M. Lyren, S. Siudyla, C. Haas, S. Harris, S.A. Hathaway, G.M. Turschak, A.K. Miles, and D.H. Van Vuren. 2010. Effects of urbanization on carnivore species distribution and richness. *Journal of Mammalogy* 91: 1322–1331.
- Reed, S.E. and A.M. Merenlender. 2008. Quiet, nonconsumptive recreation reduces protected area effectiveness. *Conservation Letters* 1(3): 1-9.
- Reed, S.E. and A.M. Merenlender. 2011. Effects of management of domestic dogs and recreation on carnivores in protected areas in northern California. *Conservation Biology* 25(3): 504-513.
- Riley, S.P.D., Pollinger, J.P., Sauvajot, R.M., York, E.C., Bromley, C., Fuller, T.K., and Wayne, R.K. 2006. A southern California freeway is a physical and social barrier to gene flow in carnivores. *Molecular Ecology* 15:1733-1741.
- Riverside County. 2003. Western Riverside Multiple Species Habitat Conservation Plan Documents. <http://wrc-rca.org/about-rca/multiple-species-habitat-conservation-plan/>
- Simberloff, D., J. Farr, J. Cox, and D. Mehlman. 1992. Movement corridors: Conservation bargains or poor investments? *Conservation Biology* 6(4): 493-504.
- South Coast Wildlands. 2008. South Coast Missing Linkages: A Wildland Network for the South Coast Ecoregion. Produced in cooperation with partners in the South Coast Missing Linkages Initiative. Available online at <http://www.scwildlands.org>.
- Spencer, W.D., P. Beier, K. Penrod, K. Winters, C. Paulman, H. Rustigian-Romsos, J. Strittholt, M. Parisi, and A. Pettler. 2010. California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California. Prepared for California Department of Transportation, California Department of Fish and Game, and Federal Highways Administration.
- Taylor P.D., L. Fahrig, K. Henein, G. Merriam. 1993. Connectivity is a vital element in landscape structure. *Oikos* 68: 571–73
- Tischendorf L., and L. Fahrig. 2000a. How should we measure landscape connectivity? *Landscape Ecology* 15: 633–41.
- Tischendorf L., and L. Fahrig. 2000b. On the usage and measurement of landscape connectivity. *Oikos* 90: 7–19.
- Tracey, J.A., 2000. *Movement of Red Diamond Rattlesnakes (Crotalus ruber ruber) in Heterogeneous Landscapes in Coastal Southern California*. [MS Thesis]

# Curriculum Vitae

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## Professional Preparation

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|                                                               |                                                              |                                   |
|---------------------------------------------------------------|--------------------------------------------------------------|-----------------------------------|
| Dartmouth College                                             | Environmental and Evolutionary Biology                       | B.A., 2000                        |
| University of California, Davis<br>San Diego State University | Ecology                                                      | Ph.D., 2013                       |
| San Diego State University                                    | Institute for Ecological<br>Monitoring and Management (IEMM) | Postdoctoral Fellow,<br>2014-2016 |

## Appointments

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|              |                                                                                                              |
|--------------|--------------------------------------------------------------------------------------------------------------|
| 2016–present | Research Ecologist, Institute for Ecological Monitoring and Management, San Diego State University           |
| 2016–present | Adjunct Assistant Professor, San Diego State University                                                      |
| 2016–present | Science Program Manager, Climate Science Alliance – South Coast                                              |
| 2014–2016    | Postdoctoral Research Fellow, Institute for Ecological Management and Monitoring, San Diego State University |
| 2013–2014    | District Wildlife Biologist, Descanso Ranger District, Cleveland National Forest                             |
| 2007–2013    | Wildlife Biologist, Student Career Experience Program, Cleveland National Forest                             |
| 2008–2010    | Graduate Student Lecturer, San Diego State University, Experimental Ecology                                  |
| 2003–2007    | Assistant Biologist, Cleveland National Forest, Palomar Ranger District                                      |

## Selected Publications and Presentations

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- Kalansky, J., **M. Jennings**, D. Cayan, R. Clemesha, A. Gershunov, K. Guirguis, D. Lawson, A. Pairis, D. Pierce, J. Randall, E. Stein, A. Syphard, and S. Vanderplank. 2017. San Diego County: The ecological impacts of climate change on a biodiversity hotspot. California Climate Summit (Poster)
- Jennings, M.K.** and R.L. Lewison. *In Review*. Why do animals cross the road?: Characterizing wildlife crossing structures. *Biological Conservation*.
- Jennings, M.K. *In Press*. Bobcat. In: S. Tremor, W. Spencer, and J. Diffendorfer (eds), *The San Diego County Mammal Atlas*.
- Jennings, M.K. *In Press*. Gray fox. In: S. Tremor, W. Spencer, and J. Diffendorfer (eds), *The San Diego County Mammal Atlas*.

## Curriculum Vitae

- Jennings, M.K. *In Review*. Faunal diversity in chaparral ecosystems. In: E.C. Underwood, H.D. Safford, N. Molinari, J.E. Keeley, and J. Hooper (eds), *The Ecological Value of Chaparral Landscapes: Ecosystem Services and Resource Management*.
- Foley, J., L.E.K. Serieys, N. Stephenson, S. Riley, C. Foley, **M. Jennings**, G. Wengert, W. Vickers, E. Boydston, L. Lyren, J. Moriarty, and D. Clifford. 2016. A synthetic review of notoedres species mites and mange. *Parasitology* 143(14):1847. DOI: 10.1017/S0031182016001505
- Jennings, M.**, R. Lewison, W. Vickers, and W. Boyce. 2016. Puma response to the effects of fire and urbanization. *Journal of Wildlife Management* 80(2):221-234.
- Jennings, M.** Planning for wildlife movement in a changing climate. 2016 Annual Meeting of the Western Section of The Wildlife Society. February 22-26, 2016. Pomona, CA.
- Carver, S., S. Bevins, M. Lappin, E. Boydston, L. Lyren, M. Alldredge, K. Logan, L. Sweanor, S. Riley, L. Serieys, R. Fisher, W. Vickers, W. Boyce, R. McBride, M. Cunningham, **M. Jennings**, J. Lewis, K. Crooks, S. VandeWoude. 2016. Pathogen exposure varies widely among sympatric populations of wild and domestic felids across the United States. *Ecological Applications* 26(2):367-381.
- Jennings, M.** and R. McCreary. 2016. An Overview of San Diego County's Ongoing Feral Pig Eradication Project. Proceedings of the 27<sup>th</sup> Vertebrate Pest Conference, Newport Beach, CA.
- Jennings, M.** and R. Lewison. 2013. Planning for connectivity under climate change: Using bobcat movement to assess landscape connectivity across San Diego County's open spaces. Technical Report.
- Jennings, M.** 2013. Landscape dynamics in southern California: Understanding mammalian carnivore response to fire and human development. Doctoral Dissertation
- Jennings, M.** R. Lewison, L. Lyren, E. Boydston. Assessing Connectivity in Ecological Networks: Effects of Land Use and Climate Change. 2014 Annual Meeting of the Western Section of The Wildlife Society. January 27-31, 2014. Reno, NV.

## Synergistic Activities

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1. International Urban Wildlife Conference 2017, Host Committee Member
2. Symposium Organizer – International Urban Wildlife Conference 2017: Connectivity in the Urban Environment; Natural Areas Conference 2016: Climate Change Impacts on Ecosystem Services and Climate Change Adaptation in Southern California
3. Climate Science Alliance – South Coast: Vision Team and Advisory Team Member, 2015 – present
4. California Landscape Conservation Cooperative: Stakeholder Committee Member (Representing Climate Science Alliance – South Coast), 2016 – present
5. San Diego State of the Science Assessment Team for California's 4<sup>th</sup> Climate Assessment: Co-organizer with Dan Cayan and Julie Kalansky (SIO), 2016 – present
6. Southern California Climate Adaptation Project: Stakeholder Advisory Committee Member, 2014 – 2016

## Curriculum Vitae

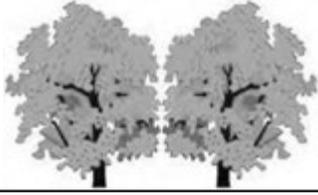
7. San Diego Monitoring and Management Program: Regular meeting attendee and workshop participant (Connectivity Strategic Plan Science Session, July 2014; Genetics for Monitoring and Management Workshop, December 2013; Fire and Wildlife Strategic Plan Workshop, March 2013)
8. Climate Kids: Featured scientist and developed Carnivores module for Climate Kids program in San Diego County, 2016 – present
9. National Center for Ecological Analysis and Synthesis: Open Science for Synthesis Training Participant, July – August 2014
10. San Diego Intergovernmental Feral Pig Working Group: Project Lead, 2013–2014
11. Invited lectures: Riparian Restoration Workshop – November 2016; Caltrans Connectivity Planning Workshop – January 2016; Buena Vista Audubon Society – January 2015; The 2<sup>nd</sup> Southern California Chaparral Symposium – June 2015; Fund for Animals Wildlife Center - November 2014; The Escondido Creek Conservancy – June 2014; San Diego Zoo Institute for Conservation Research - November 2013, May 2014; Friends of Hellhole Canyon – January 2014; Environmental Mitigation Program Working Group Meeting – November 2013, July 2015, November 2016; San Diego Tracking Team – September 2013; Torrey Pines Docent Association – June 2013; Friends of Los Peñasquitos Canyon – April 2013; San Diego Monitoring and Management Program – May 2012

## Grants and Awards

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- 2016-2019 California Department of Fish and Wildlife State Wildlife Grant – Climate Resilient Connectivity for the South Coast Ecoregion (\$180,000)
- 2016-2019 Wildlife Conservation Board – Climate Resilient Connectivity for the South Coast Ecoregion (\$250,000)
- 2016-2017 San Diego Association of Governments – SR-67 Connectivity Assessment (\$188,405)
- 2014-2017 California Department of Fish and Wildlife – Feral Pig Monitoring Grant (\$77,401)
- 2014-2015 Caltrans – Contract for Wildlife Monitoring of SR-67 (\$96,000)
- 2011-2012 Blasker-Miah-Rose Fund for Climate Change Research (\$68,000)
- 2010-2012 Achievement Rewards for College Scientists (ARCS) Scholar (\$14,000)
- 2009-2010 UC Davis School of Veterinary Medicine Wildlife Health Center Fellow (\$5,000)
- 2009-2010 San Diego State University – University Grants Program (\$9,970)
- 2008-2009 Collaborator funding, NSF – Emerging Infectious Disease Grant under co-PIs Dr. Kevin Crooks and Dr. Sue VandeWoude at Colorado State University (\$10,000)

# **EXHIBIT L**



# Twin Oaks Valley Community Sponsor Group

**P.O. Box 455**  
**San Marcos, Ca. 92079**

Mr. Mark Wardlaw, Director  
San Diego Co. Planning & Dev.  
5510 Overland Ave. Suite 310  
San Diego, CA 92123

Board of Supervisors  
San Diego County Board of Supervisors  
1600 Pacific Highway, Room 335  
San Diego, CA 92101

April 22, 2017

RE: Multiple Species Conservation Program (MSCP)

Dear Director Wardlaw and Board of Supervisors,

The Twin Oaks Valley Sponsor Group would like the County to clarify the status of the proposed Newland Sierra development project in the North County (NC) MSCP. The Newland Sierra project is located in the Twin Oaks area and we have been told the draft EIR will be published soon. We have also attended recent meetings regarding the NC MSCP to better understand that planning process between the County and state and federal wildlife agencies. We have been told by County staff members that the Newland Sierra project will be part of the NC MSCP, but we have concerns that the project may be excluded as a private project. Please see the attached maps showing this.

At our regularly scheduled meeting on April 19, 2017, the sponsor group board voted unanimously (5-0-0) to send a letter to the County asking for clarification about this topic. We are formally asking if there are any pending or new private projects such as the Newland Sierra project and/or Lilac Hill Ranch project has been excluded from the NC MSCP? If yes for any project, what is the reasons why. Have the other agencies involved in the NC MSCP agreed with this? We would appreciate your clarification about the status of the Newland Sierra project and other development projects and the discussions between the agencies involved.

Thank you for looking into this topic. We look forward to your response.

Sincerely,

Tom Kumura, Chairman  
Twin Oaks Valley Sponsor Group





# County of San Diego

**MARK WARDLAW**  
DIRECTOR

PLANNING & DEVELOPMENT SERVICES  
5510 OVERLAND AVENUE, SUITE 310, SAN DIEGO, CA 92123  
(858) 694-2962 • Fax (858) 694-2555  
[www.sdcounty.ca.gov/pds](http://www.sdcounty.ca.gov/pds)

June 5, 2017

Latham & Watkins LLP  
Christopher W. Garrett  
12670 High Bluff Drive  
San Diego, CA 92130

## **RESPONSE TO "INVESTIGATION NEEDED INTO NEWLAND'S MISLEADING BACKROOM DEALING FOR ITS 'SIERRA' PROJECT AND POTENTIAL IMPLICATIONS FOR COUNTY STAFF"**

Dear Mr. Garrett,

At the request of the County Board of Supervisors and Chief Administrative Officer Helen Robbins-Meyer, Planning & Development Services (PDS) is responding to your May 17, 2017 letter titled "Investigation Needed into Newland's Misleading Backroom Dealing for Its 'Sierra' Project and Potential Implications For County Staff."

### **Background**

As you know, the County is currently processing an application submitted by Newland Sierra LLC for a proposed development project (Project) located north of Deer Springs Road, directly west of Interstate 15 in the North County Metropolitan Subregional Plan and Bonsall Community Plan areas, within unincorporated San Diego County. The Project includes a General Plan Amendment, Specific Plan, Rezone, and Tentative Map to subdivide approximately 1,985 acres into 2,135 dwelling units, 81,000 square feet of commercial space, a 6-acre school site, approximately 36 acres of public and private parks, 19 miles of trails and approximately 1,209 acres of biological open space. While the Project is located on a site similar to that on which the former Merriam Mountains project was proposed, it is a new application and includes a new project description.

### **County's Role in the Process**

As the lead agency, PDS completes an independent evaluation of private land development applications, including the Project, for compliance with applicable County, State and Federal laws, regulations and ordinances. As such, PDS is not an advocate for or against the Project, but acts in an independent regulatory capacity as the lead agency for the Project. Based on its independent evaluation of the Project's compliance with applicable requirements, PDS will

formulate a recommendation for the Planning Commission and then the Board of Supervisors (Board) who has the ultimate authority to (i) certify or decline to certify an Environmental Impact Report (EIR) for the Project; and (ii) approve or deny the Project. In addition, and as described more fully below, during the processing of the Project by the County, there will be extensive opportunities for public review and comment, including input from the appropriate community/ sponsor group, public review and comment of the Draft EIR, and public hearings held by both the Planning Commission and the Board about the Project and the evaluation. This is in addition to the public EIR scoping meeting and Notice of Preparation (NOP) public review period that have already occurred for the Project.

As part of the County's independent evaluation of projects, PDS consults with other agencies which may have additional permitting authorities. Your letter raises concerns that PDS staff are included on emails between the United States Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW) (collectively referred to as Wildlife Agencies) and the applicant. However, it is common practice for the County, a project applicant, and the Wildlife Agencies to communicate where a project will require approvals and/or concurrence from both the County and the Wildlife Agencies. It is also standard practice for the County to elevate issues within an agency to pursue issue resolution. The County's role in communicating with other agencies does not include advocating or lobbying these agencies to approve projects. The County has not traveled to the USFWS Regional Office in Sacramento or to the USFWS office in Washington, D.C. on behalf of the project applicant to circumvent working with the local USFWS Carlsbad Office.

While the County facilitates the public input process and consults with outside agencies, it should be clarified that the Building Industry Association (BIA) is independent from the County. None of the analysis or determinations made by PDS were based on the BIA matrix nor did the County have any involvement in its preparation. Lastly, PDS recovers the full cost of services related to the processing land development permit applications through deposit accounts that are paid for by project applicants. PDS does not use public funds to process permit applications.

### **Public Participation in the Process**

A Draft EIR is being prepared for the Project by the applicant and will be released for a 60-day public review and comment period. All public comments received during the comment period are responded to and included in a Final EIR to be presented to the Planning Commission and Board at noticed public hearings for consideration and action. The Project will also likely require permits from the California Regional Water Quality Control Board and the U.S. Army Corps of Engineers and will, therefore, also likely undergo public review in accordance with the National Environmental Policy Act (NEPA).

Impacts to biological resources are studied as part of the California Environmental Quality Act (CEQA) and NEPA processes and appropriate mitigation is required to be provided. Through analysis of the biological resources onsite, it has been determined that the Project will result in impacts to Diegan coastal sage scrub (CSS) and result in the need for "take" of the California gnatcatcher, a federally listed threatened species. In accordance with the Endangered

Species Act (Act), there are currently three options for the Project to pursue take authorization for the California gnatcatcher including: (i) obtaining a Section 7 permit; (ii) obtaining a Section 10 permit; or (iii) through the issuance of and concurrence on a Habitat Loss Permit (HLP) in accordance with Section 4(d) of the Act, State Natural Community Conservation Planning (NCCP) Act Conservation Guidelines and Process Guidelines, and the County's HLP Ordinance implementing the 4(d) process. The applicant's pursuit of these permits requires the County's involvement with and determinations by the Wildlife Agencies.

#### **Multiple Species Conversation Program – Draft North County Plan (Draft Plan)**

The Project is also located within the planning area for the Multiple Species Conservation Plan – Draft North County Plan (Draft Plan), a regional multi-species Habitat Conservation Plan (HCP) and NCCP currently being prepared for consideration and approval by the Board and the Wildlife Agencies. Should the Draft Plan be approved, it would provide a fourth option for the Project to pursue take authorization for the California gnatcatcher.

As part of the effort to develop the Draft Plan, the County is conducting stakeholder outreach and engagement to gather input and feedback from interested parties as we work with the Wildlife Agencies to develop the Draft Plan. The County intends to release a public review of the Draft Plan and kick-off scoping for the environmental documentation process by the end of 2017, including the issuance of a NOP.

Currently, the County shows the Project site as a proposed “hardline” (preserve and development area defined) project within the Draft Plan. As was done in the previous public review of a prior iteration of the Draft Plan that was released in 2009, the anticipated public review of the Draft Plan will include supplemental information within an appendix that explains and justifies why certain projects were included as proposed hardlines. Information provided below indicates some of the rationale for including proposed hardline projects, which will be fully articulated in the public review of the Draft Plan that is anticipated for release at the end of 2017. It should also be noted that although the Wildlife Agencies accepted a hardline for the former Merriam Mountains project, this Project does not propose to revise or rely upon that hardline, but instead proposes a new hardline based on the current proposed Project.

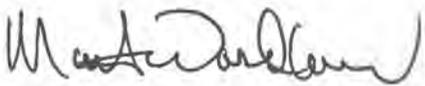
In order for a project to be included as a hardline within the approved Multiple Species Conservation Plan – North County Plan (Final Plan), the project footprint to be developed and the footprint to be preserved, including any offsite mitigation areas, must be concurred upon by the Wildlife Agencies, the project proponent, and the County. While the Project is the only proposed project included within the current Draft Plan that has not yet received Board approval, inclusion of the Project in the Draft Plan does not, in any manner, indicate County support for the Project or provide the Project with an approval advantage. The Project will separately need Board approval as required by applicable laws and ordinances, and if it is denied by the Board or significantly revised, it will be removed or modified within the Draft Plan. In addition to the Board's required approval of the Project, the Wildlife Agencies will also need to approve take, either through the incidental take permit for the Final Plan or via one of the other options listed above.

The Project's inclusion in the Draft Plan reflects the County's view that the Project's proposed development footprint and open space preserve area should be considered within the conservation analysis for the Draft Plan but does not give the project any preferential treatment or eliminate any mitigation requirements. A fundamental piece of the Draft Plan will be a conservation analysis that forms the scientific basis upon which the Wildlife Agencies will base their biological opinions and findings in order to issue the County an Incidental Take Permit per the Act. The conservation analysis is currently in a working draft form that includes a preliminary analysis of potential impacts in the planning area, as well as an analysis of potential build-out of a preserve through mitigation, avoidance, and land acquisition. In order to complete this analysis, the County conducted an assessment of potential projects that are currently expected to occur within the planning area for the Draft Plan.

The main purpose of identifying projects and including them as proposed hardlines is so they can be properly incorporated in the conservation analysis of the Draft Plan. Inclusion of the Project as a proposed hardline does not exempt the project from or eliminate the need for the Project to provide mitigation for its biological impacts under either the Act or CEQA. In conducting the preliminary conservation analysis, County biologists believe that the open space design and future preservation of the 1,209 acres of land that the Project proposes complements the anticipated preserve and Pre-Approved Mitigation Area for the Draft Plan. As a result, the Project has been included in the Draft Plan and, to be included in the Final Plan, the Wildlife Agencies must concur. The Final Plan will also have to be approved by the Board.

The County appreciates your interest in the evaluation of the Project application and the formulation of the Draft Plan. You have been included on PDS's notification list to receive a notice of the availability of public review of the Draft EIR for the Project. We look forward to receiving additional comments from the Golden Door on the Draft EIR when it is released. If you have any questions about the Project, please contact the Project Manager, Ashley Smith at (858) 495-5375 or [Ashley.Smith2@sdcounty.ca.gov](mailto:Ashley.Smith2@sdcounty.ca.gov) or Planning Manager, Mark Slovick at (858) 495-5172 or [Mark.Slovick@sdcounty.ca.gov](mailto:Mark.Slovick@sdcounty.ca.gov).

Sincerely,



MARK WARDLAW, Director  
Planning & Development Services

cc: County Board of Supervisors  
Helen Robbins-Meyer, Chief Administrative Officer  
Sarah Aghassi, Deputy Chief Administrative Officer  
William Witt, County Counsel  
Victor Avina, Policy Advisor, District 1  
Adam Wilson, Policy Advisor, District 2  
Jason Paguio, Policy Advisor, District 3

Christopher W. Garrett

June 5, 2017

Page 5

Adrian Granda, Policy Advisor, District 4  
Melanie Wilson, Policy Advisor, District 5  
Michael Fris, Assistant Regional Director, USFWS  
Mendel Stewart, Field Supervisor, USFWS  
Karen A. Goebel, Assistant Field Supervisor, USFWS  
Ed Pert, South Coast Regional Manager, CDFW  
Gail K. Sevrens, Environmental Program Manager, CDFW  
Andrew Yancey, Latham & Watkins  
Dan Silver, Endangered Habitats League  
Denise Price, Clay Co.  
Doug Hageman, Newland  
George Courser, Sierra Club San Diego  
Kathy Van Ness, Golden Door  
Laura Hunter, Wildlife and Habitat Conservation Coalition  
Mark Dillon, Gatzke Dillon & Balance  
Paul Robinson, Hecht Solberg Robinson Goldberg & Bagley  
Stephanie Saathoff, Clay Co.  
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Hidden Meadows Community Sponsor Group  
Twin Oaks Valley Community Sponsor Group



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# LATHAM & WATKINS<sup>LLP</sup>

## FIRM / AFFILIATE OFFICES

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June 15, 2018

## VIA EMAIL

Ashley Smith  
Planning and Development Services  
County of San Diego  
5510 Overland Avenue, Suite 310  
San Diego, CA 92123

**Re: Newland Sierra (Log No. PDS2015-ER-15-08-001; SCH No. 2015021036, Project Numbers: PDS2015-GPA-15-001, PDS2015-SP-15-001, PDS2015-REZ-15-001, PDS2015-TM-5597, PDSXXXX-HLP-XXX) – Newland Sierra Project Inconsistency with North County MSCP**

Dear Ms. Smith:

As you are aware, we represent Golden Door Properties, LLC (“Golden Door”), a world-class resort and agricultural operation in rural Twin Oaks Valley. The Golden Door has restored farming and beekeeping, including replanting many new trees, on its property, and shares its products through a community Farm Stand and other retail operations. The Golden Door has raised many concerns with the County about the proposed Newland Sierra Project and the impacts of adding urban density the size of the City of Del Mar in our rural community.

We write today with respect to the Project’s critical inconsistencies with the draft North County Multiple Species Conservation Plan (MSCP), as a follow-up and supplemental comment to our prior correspondence, in particular our letters dated May 21, 2018, May 31, 2018, and June 13, 2018.

We recently obtained documents as a result of a request under the Freedom of Information Act. These documents appear to show that local agency experts were silenced after Newland Sierra proponents exerted political pressure on senior agency officials. These documents also clearly highlight the concerns of expert biologists regarding the Newland Sierra project – in particular, the assumption by the County and other proponents of the project that it is a “hardline” component of the draft North County MSCP.

In particular, these expert agency biologists noted that the inclusion of the Newland project as a “hardline” in the North County MSCP may actually doom the MSCP entirely. The

LATHAM & WATKINS<sup>LLP</sup>

unraveling of the North County MSCP would be a severe blow not only to the County but to development throughout North County.

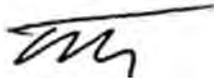
Further, the expert agency biologists' concerns point to the need for a comprehensive cumulative impacts analysis of all the General Plan amendment projects in the North County and how they impact the North County MSCP. In other words, if the County's approval of over 10,000 units of housing in the unincorporated areas cripples the conservation goals of the MSCP, then it seems reasonably likely that the federal and state wildlife agencies will not approve any MSCP at all. We urge the County to reconsider this self-destructive path and postpone consideration of the Newland project until these serious issues are resolved.

Finally, in these newly released documents, the federal agencies clearly requested updated gnatcatcher surveys, but Newland has chosen that it will not perform those surveys until next year. If that is the case, then the processing of Newland's EIR must be delayed until next year, when those surveys can be performed.

Additional detail regarding this issue and others is set forth in the enclosure.

Thank you for your time and attention to our comments. Please do not hesitate to contact us should you have any questions or comments.

Best regards,



Taiga Takahashi  
of LATHAM & WATKINS LLP

Enclosure

cc: Darin Neufeld, County Planning and Development Services  
Mark Slovick, County Planning and Development Services  
William W. Witt, Office of County Counsel  
Claudia Silva, Office of County Counsel  
Dan Silver, Endangered Habitats League  
George Courser, Sierra Club  
Stephanie Saathoff, Clay Co.  
Denise Price, Clay Co.  
Christopher Garrett, Latham & Watkins  
Kathy Van Ness, Golden Door

1. **The Newland Sierra project risks dooming the North County MSCP.** In December 2016, U.S. Fish & Wildlife staff made the following comments regarding the Newland project:

- “The Newland Sierra project fragments a large core area of habitat proposed under the North County Plan.
- Because it is unclear how the County will account for the loss of this core area, it is unclear how the project could gain approval under the draft North County Plan as we know it.
- The Wildlife Agencies could not come to agreement with the project proponent on the off-site mitigation because the acreage proposed for conservation was insufficient to offset the acreage lost to development from the Newland Sierra project within the pre-approved mitigation area or PAMA (i.e., the offsite mitigation proposed neither removed a development area from the PAMA or increased the area of preserve outside of the PAMA).
- The Newland Sierra Project as proposed results in a net loss in preserve acreage over what is anticipated for mitigation in the Draft North County Plan.
- The County did not present a logical method to make up for this loss in mitigation.
- ***Should the County Board of Supervisors approve the project without fully addressing our concerns, including our potential objection to issuance of a 4(d) permit, the Service would need to evaluate the benefits to conservation of moving forward with the North County Plan.***
- ***By approving the Newland Sierra Project and others through the 4(d) rule without addressing inconsistencies with preserve assembly, the potential exists for the 4(d) rule to undermine the very process (i.e., regional NCCP/HCP development) it was aimed at supporting.***” (See Enclosure 1 [emphasis added].)

In other words, it appears as if federal agency biologists considered the Newland project to be so fundamentally incompatible with the goals of the North County MSCP that its approval would jeopardize the North County MSCP itself.

2. **Newland must perform a comprehensive cumulative impacts analysis of all the General Plan amendment projects in the North County, in order to evaluate how the County’s potential approval of all these projects will impact the North County MSCP.** If the approval of the Newland project or others essentially precludes the establishment of the North County MSCP, then the consequences of that decision must be analyzed and disclosed to the public.

3. **Newland must ensure that surveys for fairy shrimp are done in a scientifically valid manner.** In January 2017, a federal agency biologist noted that initial surveys for fairy shrimp were inadequate and new surveys were required:

Given the amount of rain we have already had this year, there may be more ponding on site than was observed in previous years - Please consider this email our approval for you to commence wet season surveys at this location according to the accepted survey guidelines for the listed large branchiopods, dated May 31, 2015, and pursuant to the conditions of your [respective] recovery permit[s]. Be aware that these surveys missed the first rains of the season therefore the results may be inconclusive. You will want to make sure you are able to substantiate any statements in your 90-day report by providing rain gauge and/or in-field observation information to demonstrate that you are meeting protocol requirements that: "Surveyors should visit sites after initial storm events

to determine when known or potential listed large branchiopod habitat has become inundated. Appropriate habitat is considered to be inundated when it holds greater than 3 cm of standing water 24 hours after a rain event." Please note that the LA County Natural History Museum encourages deposition of all collected fairy shrimp, not only listed species.

(Enclosure 2.) The project's biological analysis should therefore not only include new surveys for fairy shrimp, but surveys that are performed at the correct time using the correct methodology. Failure to conduct the surveys in this manner renders the analysis necessarily inadequate and must be revised and recirculated for public review and comment before the project may proceed through the CEQA process.

4. **Newland must perform new surveys for California gnatcatcher.** As recently as last month, federal agency biologists recognized that new surveys needed to be done for California gnatcatcher. The risk that new surveys may require additional environmental analysis, public review, and public comment under CEQA is not a valid basis to refuse to do those surveys or postpone them until a later time.

In addition, because it is known that the Newland project requires a new interchange at I-15 and Deer Springs Road, these new surveys are necessary in order to evaluate how the different designs for the interchange (for example, the "diamond" interchange; the "diverging diamond" interchange; the "diamond interchange with roundabout intersections; as described in the "Project Study Report-Project Development Support (PSR-PDS) To Request Scope Approval of Projects-funded-by-others In San Diego County near Escondido on Interstate 15 from 0.6 Mile South to 0.6 Mile North of Deer Springs Road Overcrossing," dated August 2015 [Enclosure 3]) may affect potential habitat and the nesting pair of gnatcatchers in the vicinity of the existing interchange.

Federal agency biologists expressed substantial concern about the project's potential impacts on gnatcatchers and habitat, writing in March 2017: "From the preliminary information we have received, the project will remove occupied CSS near the I-15 corridor supporting 1 gnatcatcher pair. ... Although unoccupied CSS exists in the southern interior section of the project site, this CSS also falls within the development footprint. Thus, birds displaced from existing occupied habitat cannot be expected to disperse to nearby unoccupied habitat onsite. Likewise, CSS within the northern portion of the site is already occupied. Based on this preliminary assessment, take of the gnatcatcher pair near the I-15 corridor is likely." (Enclosure 4.)

Accordingly, the Newland project must conduct updated gnatcatcher surveys before it may continue under the CEQA process in order to assess the potential for take and to analyze and/or recommend mitigation. Failure to do so is a violation of CEQA.

5. **The failure to conduct updated gnatcatcher surveys violates the General Plan.** Failure to update the gnatcatcher surveys violate the following General Plan goals and policies, as set forth below.

**GOAL COS-1**

**Inter-Connected Preserve System.** A regionally managed, inter-connected preserve system that embodies the regional biological diversity of San Diego County.

**Policies**

**COS-1.1 Coordinated Preserve System.** Identify and develop a coordinated biological preserve system that includes Pre-Approved Mitigation Areas, Biological Resource Core Areas, wildlife corridors, and linkages to allow wildlife to travel throughout their habitat ranges.



Gnatcatcher

**COS-1.2 Minimize Impacts.** Prohibit private development within established preserves. Minimize impacts within established preserves when the construction of public infrastructure is unavoidable.

**COS-1.3 Management.** Monitor, manage, and maintain the regional preserve system facilitating the survival of native species and the preservation of healthy populations of rare, threatened, or endangered species.

**COS-1.4 Collaboration with Other Jurisdictions.** Collaborate with other jurisdictions and trustee agencies to achieve well-defined common resource preservation and management goals.

**COS-1.10 Public Involvement.** Ensure an open, transparent, and inclusive decision-making process by involving the public throughout the course of planning and implementation of habitat conservation plans and resource management plans.

**COS-2.1 Protection, Restoration and Enhancement.** Protect and enhance natural wildlife habitat outside of preserves as development occurs according to the underlying land use designation. Limit the degradation of regionally important natural habitats within the Semi-Rural and Rural Lands regional categories, as well as within Village lands where appropriate.

**COS-2.2 Habitat Protection through Site Design.** Require development to be sited in the least biologically sensitive areas and minimize the loss of natural habitat through site design.

As noted, the federal agencies have requested updated surveys, but Newland has chosen that it will not perform those surveys until next year: “The Applicant is aware that updated surveys will need to be done. They can’t do those this year because of their EIR process doesn’t want updated surveys. So they plan on conducting updated surveys next year.” (See Enclosure 5.) If that is the case, then the processing of Newland’s EIR must be delayed until next year, when those surveys can be performed. Clearly, the failure to update the gnatcatcher surveys is inconsistent with COS-1.1, 1.2, 1.3, 1.4, 2.1, and 2.2. In addition, the active attempts by lobbyists to exclude and sideline expert biologists in the Fish and Wildlife Service is inconsistent with COS-1.10. (See Enclosure 6a and 6b.) And, even though much of the Newland site is designated as “critical habitat” for the gnatcatcher by the U.S. Fish and Wildlife Service, no effort has been made to avoid this critical habitat or even avoid occupied areas of gnatcatcher habitat. The draft EIR fails to include an alternative to keep development out of designated critical habitat or occupied gnatcatcher habitat.

5. **Newland should be required to acquire adequate mitigation lands to account for the loss of PAMA.** In December 2015, expert biologists at the U.S. Fish and Wildlife Service noted that mitigation lands should be of adequate biological value: “[S]ome properties are considered of greater biological value than others ... Because the proposed Newland Sierra development will result in a loss of wildlife habitat originally identified to be part of the Draft North County MSCP preserve, acquisition of PAMA lands planned for development helps ensure that there is no net loss of PAMA acreage and that the anticipated size and configuration of the planned preserve can be achieved. ... Conservation of the Hoospack or Pankey properties, while not insignificant, will not assist in maintaining the scope of PAMA lands needed to assemble the preserve anticipated by the Draft North County MSCP.” (Enclosure 7.) Newland later claimed that the Service’s requests were “financially infeasible, both in project design and acquisition of specific, additional off-site mitigation.” However, the Applicant’s conclusory assertion of economic infeasibility is insufficient under CEQA. (See, e.g., *County of San Diego v. Grossmont-Cuyamaca Community College* (2006) 141 Cal.App.4th 86, 108.) Accordingly, Newland must acquire comparatively valuable land in terms of biological conservation and preservation of PAMA acreage to avoid fatally prejudicing the North County MSCP. Failure to do so without substantial evidence of “financial infeasibility” would mean that the County could not approve this project, due to the requirements of CEQA. (See, e.g., *Woodward Park Homeowners Assn., Inc. v. City of Fresno* (2007) 150 Cal.App.4th 683; *Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587, 599, 602.)





- COS-1.4 Collaboration with Other Jurisdictions.** Collaborate with other jurisdictions and trustee agencies to achieve well-defined common resource preservation and management goals.
- COS-1.5 Regional Funding.** Collaborate with other jurisdictions and federal, state, and local agencies to identify regional, long-term funding mechanisms that achieve common resource management goals.
- COS-1.6 Assemblage of Preserve Systems.** Support the proactive assemblage of biological preserve systems to protect biological resources and to facilitate development through mitigation banking opportunities.
- COS-1.7 Preserve System Funding.** Provide adequate funding for assemblage, management, maintenance, and monitoring through coordination with other jurisdictions and agencies.
- COS-1.8 Multiple-Resource Preservation Areas.** Support the acquisition of large tracts of land that have multiple resource preservation benefits, such as biology, hydrology, cultural, aesthetics, and community character. Establish funding mechanisms to serve as an alternative when mitigation requirements would not result in the acquisition of large tracts of land.
- COS-1.9 Invasive Species.** Require new development adjacent to biological preserves to use non-invasive plants in landscaping. Encourage the removal of invasive plants within preserves.
- COS-1.10 Public Involvement.** Ensure an open, transparent, and inclusive decision-making process by involving the public throughout the course of planning and implementation of habitat conservation plans and resource management plans.
- COS-1.11 Volunteer Preserve Monitor.** Encourage the formation of volunteer preserve managers that are incorporated into each community planning group to supplement professional enforcement staff.

## GOAL COS-2

**Sustainability of the Natural Environment.** Sustainable ecosystems with long-term viability to maintain natural processes, sensitive lands, and sensitive as well as common species, coupled with sustainable growth and development.

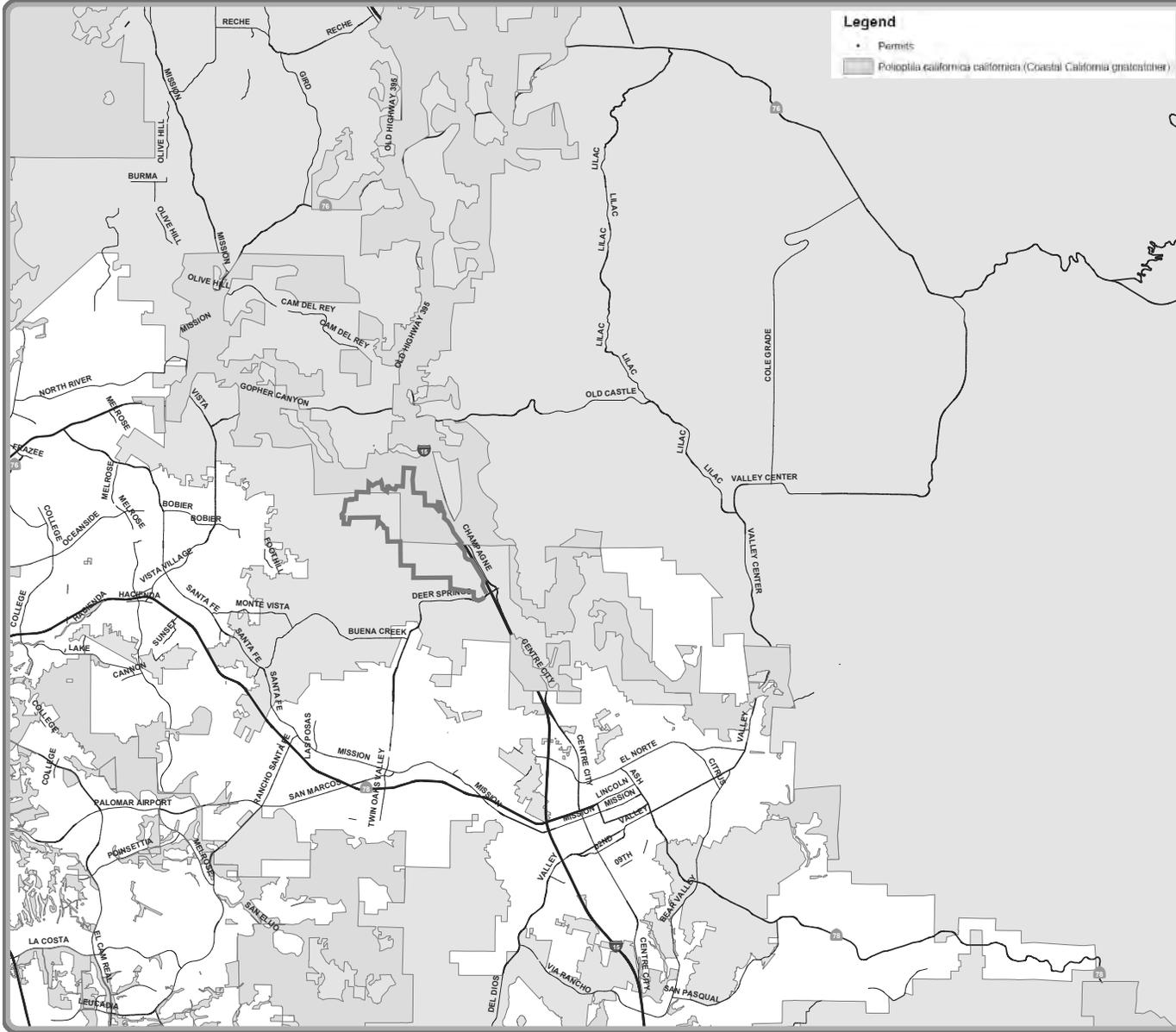
### Policies

- COS-2.1 Protection, Restoration and Enhancement.** Protect and enhance natural wildlife habitat outside of preserves as development occurs according to the underlying land use designation. Limit the degradation of regionally important natural habitats within the Semi-Rural and Rural Lands regional categories, as well as within Village lands where appropriate. *The preservation of existing native plants and the planting of a variety of native (genetically locally adapted) or compatible non-native, non-invasive plant species enhance wildlife habitat areas.*
- COS-2.2 Habitat Protection through Site Design.** Require development to be sited in the least biologically sensitive areas and minimize the loss of natural habitat through site design.

## GOAL COS-3

**Protection and Enhancement of Wetlands.** Wetlands that are restored and enhanced and protected from adverse impacts.

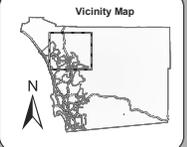




**Legend**

- Permits
- Polioptila californica californica (Coastal California gnatcatcher)

**San Diego County**



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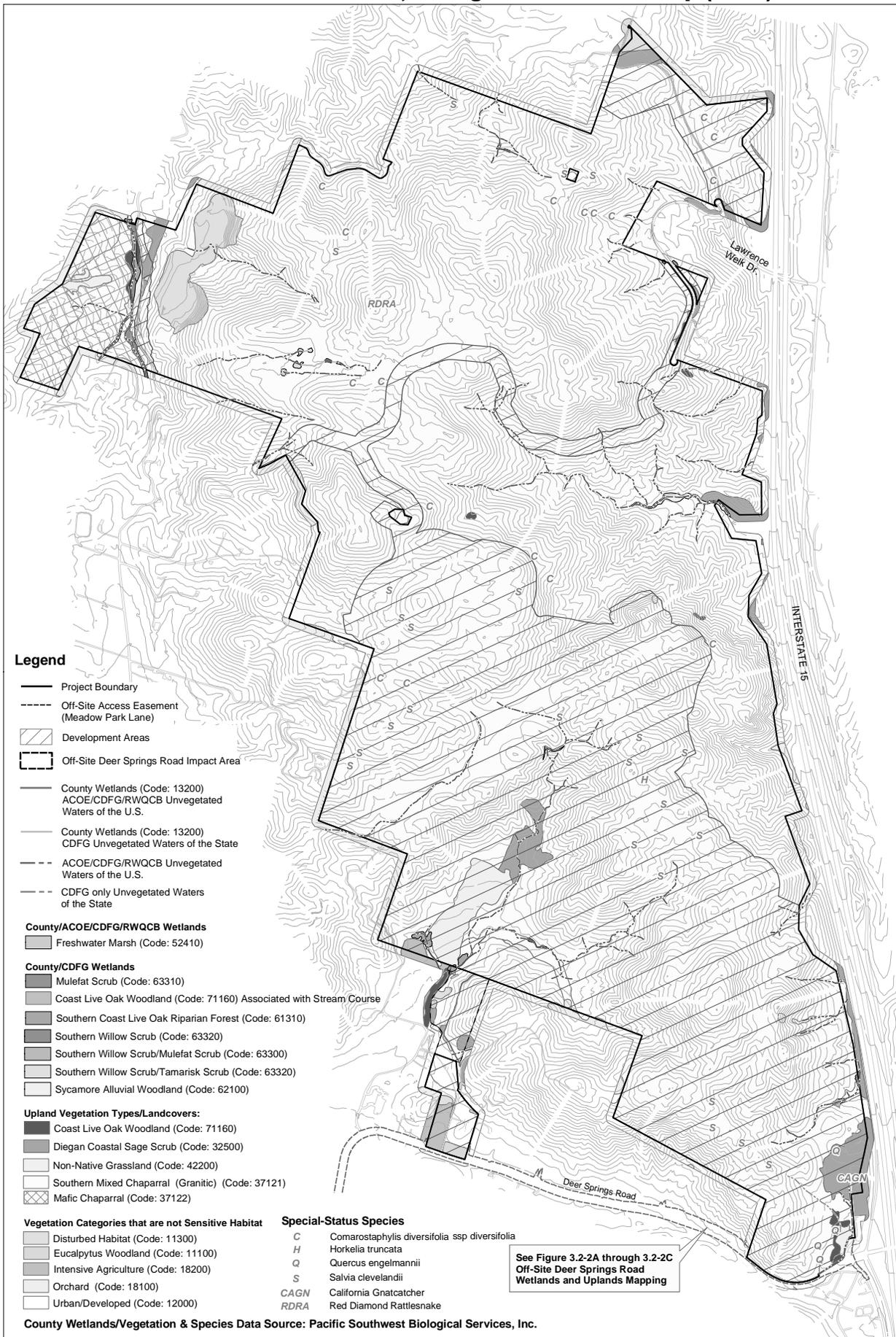
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Print Date: 01/16/18

# Merriam Mountains' EIR, Biological Resources Map (2009)



## Biological Resources Map - OnSite

MERRIAM MOUNTAINS  
SPECIFIC PLAN EIR

0 0.125 0.25 0.5  
Miles



FIGURE  
3.2-1



**Coastal California Gnatcatcher (*Polioptila californica californica*)**  
**Presence/Absence Survey Protocol**  
**Revised - July 28, 1997**

The coastal California gnatcatcher (*Polioptila californica californica*) was listed as threatened on March 25, 1993, under the Endangered Species Act of 1973, as amended (Act). The final rule for this action was published in the Federal Register on March 30, 1993 (58 Federal Register 16742). On December 10, 1993, pursuant to section 4(d) of the Act, the U.S. Fish and Wildlife Service (Service) defined specific conditions associated with certain land use activities under which incidental take of coastal California gnatcatchers and their habitat would not be a violation of section 9 of the Act (58 Federal Register 65088).

The coastal California gnatcatcher, a small gray songbird, is a resident of scrub dominated plant communities from southern Ventura County southward through Los Angeles, Orange, Riverside, San Bernardino, and San Diego Counties, California into Baja California, Mexico, to approximately 30 degrees North latitude near El Rosario (American Ornithologists' Union 1957; Atwood 1980, 1990; Jones and Ramirez 1995). The coastal California gnatcatcher is strongly associated with sage scrub in its various successional stages.

The majority of plant species found in sage scrub are low-growing, drought-deciduous shrubs and sub-shrubs, including California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), and sages (*Salvia mellifera*, *S. apiana*) (Holland 1986, Sawyer and Keeler-Wolf 1995). Other commonly occurring species include lemonadeberry (*Rhus integrifolia*), coast goldenbush (*Isocoma menziesii*), laurel sumac (*Malosma laurina*), boxthorn (*Lycium* spp.), cliff spurge (*Euphorbia misera*), and jojoba (*Simmondsia chinensis*). Succulent species, such as cacti (*Opuntia littoralis*, *O. prolifera*, *Ferocactus viridescens*), and *Dudleya* spp. are represented in maritime succulent and southern coastal bluff scrubs. Sage scrub often occurs in a patchy, or mosaic, distribution pattern throughout the range of the coastal California gnatcatcher. Coastal California gnatcatchers also use chaparral, grassland, and riparian plant communities where they occur adjacent to or intermixed with sage scrub. Although existing quantitative data may reveal relatively little about coastal California gnatcatchers use of these other habitats, these areas may be critical during certain times of year for dispersal or as foraging areas during inclement conditions (e.g., drought). Breeding territories also have been documented in non-sage scrub habitat (e.g., chaparral and grassland/ruderal habitat). The breeding season of the coastal California gnatcatcher extends from about February 15 through August 30, with the peak of nesting activity occurring from mid-March through mid-May. Incubation takes 14 days. The young fledge at 8 to 13 days of age and are dependent upon their parents for as little as three to four weeks (ERCE 1990), but fledglings may associate with their parents for several months.

This protocol is based on the best available scientific information regarding the detectability of the coastal California gnatcatcher and is subject to change pending receipt of additional pertinent scientific data. Information used to create this protocol included: Braden and Woulfe (1995a, 1995b), Brussard et al. (1992), Mock et al. (1990), and other unpublished information in the Service files.

The following protocol is issued as guidance to section 10(a)(1)(A) permittees. A section 10(a)(1)(A) permit under the Act shall be obtained prior to initiating any field surveys. Any surveys not conducted under a valid 10(a)(1)(A) permit will not be accepted by the Service. Failure to obtain a scientific permit prior to survey work may result in violation(s) of section 9 of the Act.

- I. Coastal California gnatcatcher surveys shall be completed by permitted biologists if proposed projects are located within the historic range of this species and contain sage scrub plant communities including, but not limited to, Venturan coastal sage scrub, Diegan coastal sage scrub, Riversidean sage scrub, maritime succulent scrub, and/or alluvial fan sage scrub vegetation; chaparral and native/non-native grasslands when intermixed or ecotonal with sage scrub vegetation; and riparian vegetation when ecotonal to sage scrub vegetation.
- II. The permittee shall notify the Recovery Permit Coordinator, Carlsbad Field Office, in writing, of the intent to conduct coastal California gnatcatcher surveys at least 10 working days prior to the anticipated start date. Information provided with this notification should include the location of the survey area on a 1:2000 U.S. Geological Survey topographic quadrangle map and the names and permit numbers of the survey personnel. Surveys shall be conducted according to survey protocol unless changes are authorized, in writing, by the Service. Protocol surveys are valid for a period of one year. Issues relative to the suitability of habitat and the need for surveys as indicated in the protocol or proposed revisions to said protocols should be raised at the time of the 10-day notice as the Service is available to discuss individual circumstances.
- III. Jurisdictions participating in the NCCP interim section 4(d) process:

The number of surveys conducted within active NCCP areas is based on the prior recommended guidelines and the fact that, through the interim section 4(d) process, loss of coastal sage scrub requires mitigation on a habitat basis, regardless of whether habitat is occupied by coastal California gnatcatchers. In circumstances where this protocol differs from an approved NCCP or signed implementing agreement, the survey requirements in the approved plan will override.

  - Surveys may be conducted throughout the year within active NCCP areas, however, surveys conducted from February 15 and August 30 are preferred. A minimum of **three (3)** surveys shall be conducted at least one week apart, to determine presence/absence of coastal California gnatcatchers.
- IV. All other jurisdictions:

Survey protocol for presence/absence of coastal California gnatcatchers in non-NCCP areas are as follows:

- From March 15 through June 30, a minimum of **six (6)** surveys shall be conducted at least one week apart. The protocol for the breeding season was designed to provide a 95% confidence level of detecting coastal California gnatcatchers at a site when they are present. Note that the duration of breeding season surveys (i.e., March 15 through June 30) is different because the coastal California gnatcatcher's detectability was determined within this fourteen week time period.
  - From July 1 through March 14, a minimum of **nine (9)** surveys shall be conducted at least two weeks apart.
- V. Surveys shall be conducted between 6:00 a.m. and 12:00 p.m. Surveys shall avoid periods of excessive or abnormal heat, wind, rain, fog, or other inclement weather.
- VI. Taped coastal California gnatcatcher vocalizations shall be used only until individuals have been initially located. Tapes shall not be used frequently or to elicit further behaviors from the birds.
- VII. Surveys shall be conducted by slowly walking survey routes. Sites with deep canyons, ridge lines, steep terrain, and thick shrub cover should be surveyed more slowly. Prevailing site conditions and professional judgment must be applied to determine appropriate survey rates and acreage covered per day. These factors may dictate that the maximum daily coverage specified below is not prudent under certain conditions.

Jurisdictions participating in the NCCP interim section 4(d) process:

- No more than 100 acres (40 ha) of suitable coastal California gnatcatcher habitat shall be surveyed per biologist per day.

All other jurisdictions:

- No more than 80 acres (32 ha) of suitable California gnatcatcher habitat shall be surveyed per biologist per day.
- VIII. No attempts shall be made to closely approach or examine coastal California gnatcatcher nests unless authorized by Service permits.
- IX. The permittee shall provide the following information in a report to the appropriate Service Fish and Wildlife Office, described above, and the California Department of Fish and Game within 45 days following the field surveys.
- a. The location of the survey area delineated on a 7.5 minute U.S. Geological Survey topographic map at 1:24,000 and 1:200 scale.

- b. Names of all biologists and associated personnel with reference to their section 10(a)(1)(A) permit number. A complete description of survey methods, including, the number of acres surveyed per biologist per hour and how many total acres surveyed per day per biologist, the number and dates of surveys, start and stop time of surveys, survey routes delineated on maps, the temperature and weather conditions at the beginning and end of each survey, and how frequently taped vocalizations were used.
- c. Written and mapped qualitative descriptions of plant communities (including dominant species and habitat quality) on and adjacent to the area surveyed.
- d. The number, age (adult, independent juvenile, dependent juvenile, recently fledged juvenile, nestling, unknown), sex of all coastal California gnatcatchers, and color band information (from top to bottom and from left to right) if any. These data also shall be plotted on 1:24,000 and 1:200 scale maps of the survey area.
- e. Copies of all reports or other documents that include information gathered under the authority of Service permits (e.g., reports for clients prepared by consulting firm) shall be submitted to the Carlsbad Field Office immediately upon completion. Raw/field data, notes, and other information resulting from work conducted under this permit shall be submitted to the Service immediately upon request.

This protocol was prepared by the Service's Carlsbad Field Office, 6010 Hidden Valley Road, Carlsbad, California 92009. If you have any questions regarding the protocol please Call (760) 431-9440.

Revised: July 28, 1997

**Literature Cited**

American Ornithologists' Union. 1957. Checklist of North American birds. 5th ed. American Ornithologists' Union, Washington, D.C.

Atwood, J. 1980. The United States distribution of the California black-tailed Gnatcatcher. *Western Birds* 11: 65-78.

Atwood, J. 1990. Status review of the California gnatcatcher (*Polioptila californica*). Manomet Bird Observatory, Manomet, Massachusetts.

Braden, G. and M. B. Woulfe. 1995a. *Observations on breeding season detectability and surveys for the California gnatcatcher (Polioptila californica californica)*. Unpublished manuscript submitted to Western Riverside Multiple Species Reserve Management Committee.

Braden, G. and M. B. Woulfe. 1995b. *Observations on non-breeding season detectability and surveys for the California gnatcatcher (Polioptila californica californica)*. Unpublished manuscript submitted to Western Riverside Multiple Species Reserve Management Committee.

Brussard, P. F., M. S. Gilpin, J. F. O'Leary, D. D. Murphy, and R. F. Noss. 1992. Coastal Sage Scrub Survey Guidelines. Southern California Coastal Sage Scrub Scientific Review Panel.

Environmental and Energy Service Company. 1990. Phase I Report Amber Ridge California Gnatcatcher Study. Report for the County of San Diego Department of Planning and Land Use Environmental Quality Division. San Diego, California.

Holland, R. 1986. A Description of the Terrestrial Natural Communities of California. California Department of Fish and Game, October.

Jones, C. and R. Ramirez. 1995 Sighting of California Gnatcatcher in Ventura County. Poster presented at the Symposium on the Biology of the California Gnatcatcher held 15-16 September, 1995, University of California, Riverside.

Mock, P. J., B. L. Jones, and J. Konency. 1990. California Gnatcatcher Survey Guidelines. ERC Environmental and Energy Service Company, San Diego, California.

Sawyer, J. and T. Keeler-Wolf. 1995. A Manual of California Vegetation. California Native Plant Society.