Harmony Grove Village South

Revised Final Environmental Impact Report

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READERS GUIDE TO
THE 2025 FINAL ENVIRONMENTAL IMPACT REPORT
FOR THE HARMONY GROVE VILLAGE SOUTH PROJECT

The 2025 Final Environmental Impact Report (FEIR) was partially recirculated in 2024 to document County compliance with the California Court of Appeal (Court) companion decisions that found the HGV South Project (HGV South Project; Project) 2018 FEIR to be adequate in all respects except for one environmental element: the greenhouse gas (GHG) mitigation relative to the purchase of offset credits (location, registry confirmation, and approval by the Director of Planning & Development Services [PDS]).[1] The following information summarizes the actions and changes that have been made to the 2018 FEIR, consistent with the California Environmental Quality Act (CEQA) and replaces the Information for the Reader provided in the 2018 FEIR.

Project Background

The Project Draft EIR (DEIR) was circulated for public review from April 20 to June 20, 2017. The HGV South Project was approved, and 2018 FEIR was certified, by the County Board of Supervisors on July 25, 2018. The 2018 FEIR incorporated an updated GHG EIR section and supporting technical data (Appendix J to the EIR) that had been recirculated for public review from February 22 to April 9, 2018 as a Revised Draft EIR (RDEIR).

The 2018 FEIR also contained additional updated information focused on the technical review of two topics: transportation/traffic and biological resources. Part of the 2018 transportation/traffic analyses update included confirmation of the conservative disclosure of average daily traffic (ADT) associated with the Project (the EIR traffic modeling discloses approximately 4,500 ADT, but the actual Project-specific number would be 4,010 ADT) as described and provided in the 2018 Final *Traffic Impact Analysis* (TIA; Appendix D to the FEIR). Also, following the 2016/2017 rainy season that ended a drought cycle and to take advantage of optimal environmental conditions, additional field visits were undertaken to update botanical inventory and rare plants surveys as well as confirmation of Hermes copper butterfly absence. These updated surveys supplemented and confirmed previous surveys and were documented in the 2018 Final *Biological Technical Report* (BTR; EIR Appendix E). The updates confirmed Project analyses and validated the findings of draft technical documents. The information did not change DEIR CEQA significance findings, and no changes were made to DEIR conclusions on these topics.

In addition, the 2018 FEIR Chapter 8.0, *Letters of Comment on the Draft and Revised Draft EIR and Responses*, included each of the comment letters received on the DEIR and RDEIR and responses to them, as well as eight global responses ("topical" responses addressing issues that were questioned by a number of commenters). The global responses addressed issues related to County General and Community Plans and policy conformity, fire hazards and evacuation, baseline conditions, and GHG issues.

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[1] Elfin Forest Harmony Grove Town Council et al. v. County of San Diego and RCS, 37-2018-00042927, Court of Appeal, Fourth Appellate District (Division One), filed October 14, 2021. See also Sierra Club v. County of San Diego and Integral Communities, LLC, et al., 37-2018-00043084-CU-TT-CTL, Court of Appeal, Fourth Appellate District (Division One), filed December 21, 2021.

The 2018 FEIR, along with the supporting technical reports and data prepared by third parties, are all on the County Planning & Development Services (PDS) website under Harmony Grove Village South at: https://www.sandiegocounty.gov/content/sdc/pds/ceqa_public_review.html.

Litigation Background

After the County approval and certification, the Project was challenged in the two CEQA actions referenced above. Following litigation and appeal, the first Court decision found that the 2018 FEIR was adequate in all respects except for one environmental element: the GHG mitigation relative to credit purchase (location, registry confirmation, and approval by the Director of PDS) as noted above.[2]

The following matrix summarizes the various topics involving the 2018 FEIR resolved by the first Court decision described above. Where text is bolded, it indicates emphasis added, similar to the bullet points below. The phrases under the heading "Conclusion" mean the following:

- "Resolved" indicates that the topical issue was raised in the CEQA challenge and at the conclusion of the litigation was **determined compliant with CEQA**
- "Not Contested" means that **no CEQA issue** was raised on that topic during CEQA challenge
- "Invalidated" means that the specific issue was found **non-compliant with CEQA** by the Court (subsequently addressed by the County in the 2024 recirculation)

2018 FEIR TOPICS	CONCLUSION
Alternatives	**Resolved -** 2018 FEIR Found Adequate by Superior Court (SC) SC rejected petitioners' arguments regarding the 2018 FEIR's discussion of alternatives. **Not appealed**
Aesthetics	**Not Contested**
Agricultural Resources	**Not Contested**
Air Quality	**Resolved -** 2018 FEIR Found Adequate by Appellate Court (AC; in Appellate Decision; AD) AD, p. 3**:** "[T]he EIR properly evaluated the Project's impact on air quality…". *Also,* AD, p. 60 "Respondents did not challenge those air quality impact findings by a cross-appeal." *Also,* AD, p. 61 "[T]he EIR adequately discussed the Project's inconsistency with the RAQS."
Biological Resources	**Not Contested**
Cultural Resources	**Not Contested**
Energy	**Not Contested**
Geology/Soils	**Not Contested**
Greenhouse Gas (GHG) Analysis (including approach and traffic generation information [average daily trips, VMT, and associated roadway effects])	**Resolved** - 2018 FEIR Found Adequate by SC 2018 FEIR **"adequately considered the cumulative effect of GHG emissions."** (SC Judgment July 21, 2020)
GHG Mitigation	**Invalidated**

[2] See references in footnote 1, above.

2018 FEIR TOPICS	CONCLUSION
Growth Inducement	**Not Contested**
Hazards & Hazardous Materials (in general)	**Not Contested**
Hazards & Hazardous Materials (fire safety)	**Resolved** - 2018 FEIR Found Adequate by AC AD, p. 40: ***We conclude the EIR contains a CEQA-compliant discussion of the potential wildland fire risks or exacerbation caused by the Project and the fire risks in the Project's vicinity, and that substantial evidence supports its conclusion that the Project measures would reduce them to a level of insignificance***. (Also, AD, p. 51"**We conclude the EIR's discussion of evacuation routes and timing satisfies CEQA requirements**."
Hydrology/Water Quality	Not Contested
Land Use/Planning/Regional Plans	**Resolved** - 2018 FEIR Found Adequate by AC AD, p. 66: [*W]e must conclude the Project is consistent: the EIR evaluated the associated land uses; reflects County's effort to move future development closer to cities, shopping and employment centers;* ***shows the Project is consistent with vehicle mileage projections;*** *and encourages local walking in keeping with the plan*.
Mineral Resources	**Not Contested**
Noise	**Not Contested**
Paleontological Resources	**Not Contested**
Population/Housing	**Not Contested**
Public Services	**Not Contested**
Recreation	**Not Contested**
Transportation/Traffic (including VMT/trip length and consistency discussion)	**Not Contested**
Utilities/Public Services	**Not Contested**
Mandatory Findings of Significance	**Not Contested**

The Project's entitlements also were determined by the Court to be consistent with the County's General Plan, except for the issue of affordable housing. Although this latter issue is not related to the environment, the Project is now conditioned to provide affordable housing, as discussed below.

In a related but separate case ("Sierra Club case") the Court focused solely on the Project's GHG mitigation measures. The Appellate Court left it to the County to reexamine the type of mitigation measure needed in that regard, whether additional alternatives were feasible or must be analyzed, or if a new mitigation measure might also require revisions to the other sections of the EIR.

Both matters were sent back to the Trial Court to issue a revised writ of mandate based on the Appellate Decisions. On October 19, 2022, the Trial Court issued a revised order (Revised Order) requiring the County to rescind the Project's entitlements and the 2018 FEIR because of the remaining issue related to CEQA (the GHG mitigation measure) and the affordable housing issue pertaining to the General Plan. On December 14, 2022, the Board adopted a resolution to comply with the lower court's Revised Order.

Compliance with the Superior Court Order

CEQA requires that a court's order includes only those mandates that are necessary to achieve compliance with CEQA and only those specific project activities in noncompliance with CEQA (see Public Resources Code [PRC] Section 21168.9[b]). Because the Court only took issue with the FEIR with respect to the GHG mitigation measure as related to credit purchase (location, registry confirmation, and approval by the Director of PDS), the law assumes that the 2018 FEIR is adequate in all other respects (PRC Section 21005[c], directing a court to address each alleged ground of non-compliance).[3] Therefore, other than this specific issue, no other portion of the 2018 FEIR must be revised.

Recirculation is Not Required

Because the County was directed to set aside the certification of the 2018 FEIR and approval of the Project, the status of the environmental review process for the Project is analogous to when a previously circulated full draft EIR has been determined to require a partial recirculation to deal with a discrete set of issues. Thus, the legal principles applicable in such a situation are relevant, as are the above-described principles governing judicial remedies in CEQA litigation. PRC Section 21092.1 provides that when "significant new information" is added to an EIR after release of a draft EIR but "prior to certification," the public agency shall undertake additional public review of such significant new information.

CEQA Guidelines (14 California Code of Regulations, Chapter 3) Section 15088.5 provides criteria considered by a lead agency when deciding what information must be recirculated. Recirculation is required when "significant new information" is added to an EIR after public notice of the availability of the Draft EIR is given but before document certification (CEQA Guidelines, Section 15088.5[a]).

Under Section 15088.5(a):

> *[n]ew information added to an EIR is not 'significant' unless the EIR is changed in a way that deprives the public of a meaningful opportunity to comment upon a substantial adverse environmental effect of the project or a feasible way to mitigate or avoid such an effect (including a feasible project alternative) that the project's proponents have declined to implement.*

Recirculation is not required where "the new information added to the EIR merely clarifies or amplifies or makes insignificant modifications in an adequate EIR" (CEQA Guidelines, Section 15088.5[b]). Recirculation is also not required simply because new information is added to the EIR. Indeed, new information is often added to Final EIRs due to CEQA's public/agency comment and response process, as well as CEQA's post-Draft EIR requirement that proposed responses to public agency comments be circulated to those agencies.

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[3] See also Federation of Hillside and Canyon Assns v. City of Los Angeles (2004) 126 Cal.App.4th 1180, 1204 ("Federation II") [where appellate court directed superior court to order limited relief, city had no obligation to update analysis of impacts in its adequate EIR.

The County carefully considered whether recirculation of the Project's EIR would be required by CEQA. Table 8.7.2-1, in Global Response: Lack of Need for Recirculation, demonstrates that the criteria for recirculation of an EIR were not met. The County relies on its technical expertise, and information that includes the previous record expert memos, technical reports, and the information provided in the response to comments for its conclusion that recirculation of the entire 2018 FEIR is not required and its determination as stated above; that most of the changes fall within the scope of the initial environmental review of the 2018 FEIR. Therefore, the County is only required to correct (and recirculate) the portion of the document that was not compliant with CEQA, even though the County vacated certification of the Project's FEIR.

Res Judicata Applies to All Other Issues

Moreover, all other issues have been fully resolved, and res judicata bars such issues from further litigation. The decertification of the entire 2018 FEIR does not alter the fact that the 2018 FEIR was litigated, and all issues were resolved. Res judicata is applied even if an agency rescinds approval of a project and decertifies the entire EIR. (Citizens for Open Government v. City of Lodi [2012] 205 Cal.App.4th 296 [the court applied res judicata even though the city rescinded approval of the project and decertified the prior EIR].) Finally, res judicata bars the litigation of both issues that were actually litigated or could have been litigated. (Citizens for Open Government v. City of Lodi [2012] at 324-325.) The matrix above summarizes the various topics that were raised in or omitted from the litigation involving the Project, as well as the Courts' decisions.

Revisions to the 2018 FEIR

GHG Mitigation

The sole GHG issue to be addressed per the Court consisted of mitigation measures addressing the emissions during construction and operational periods. Three elements of GHG mitigation required revision based on Court findings, documented in the matrix on page 6.

The revised mitigation measure was detailed in both EIR Subchapter 2.7, *Greenhouse Gas Emissions*, and the 2024 *Global Climate Change* Report prepared by Ldn Consulting, Inc., circulated for public review from August 22 through October 7, 2024. The 2024 mitigation measure requires that all GHG emissions not offset through on-site Project design features (PDFs) be mitigated through installation of a photovoltaic (PV) system on an existing commercial/industrial building(s) located in the County of San Diego. The installation of this PV system will also be required to qualify for a CEQA exemption, such as for a ministerial action under the County Zoning Code, Section 6954, Solar Energy System, or under California PRC Section 21080.35.[4] In no event can GHG mitigation implementation move forward without qualifying for such an exemption.

Consistent with PRC Section 21080.35, environmental analysis of the off-site mitigation is specifically exempted as follows: "Except as provided in subdivision (d), this division does not apply to the installation of a solar energy system on the roof of an existing building or at an existing

[4] Should the initial location of mitigation installation fail to meet exemption criteria in PRC Section 21080.35, another exemption would be required.

parking lot." Regardless, to be conservative the 2024 recirculation also included brief discussions of the anticipated one-month construction period using an anticipated crew of nine workers. This would result in a minimal (0.16 metric tons [MT] carbon dioxide equivalent [CO_2e] per year) change to total emissions already disclosed for the Project and does not change the significance determination. That information, as well as discussion of why mitigation elements would not trigger an exclusion from the exemption, was discussed in the recirculation and are incorporated into this 2025 FEIR.

Court Identified Issue	Resolution	Location within Current Subchapter 2.7 and Technical Report (TR)*
The 2018 FEIR mitigation proposed credits from a qualified registry. The PDS Director was allowed to approve any "reputable" alternative agency with no reference to a standard by which the Director must evaluate a registry's reputation.	Mitigation has been revised to delete references to credit purchase—net zero will be obtained via direct action in San Diego County.	FEIR Summary, Section 2.7.5, Chapter 7.0, and Chapter 8.0 Technical Report (TR) pp xiv-xvii, TR pp 51-54
There was no assurance that the chosen registry's credits would be legitimate.	Please see above.	FEIR as noted above TR as noted above
Companion Writ: Mitigation Measure M-GHG-1 failed to ensure that the GHG offsets would occur within the County in accordance with Policy CO-20.1 of the General Plan.	The requirement for in-County location of mitigation is an integral component of the new mitigation measure. It is spelled out in current M-GHG-1, along with identification of specific feasible methodology.	FEIR as noted above TR as noted above

The 2018 FEIR conclusion as to pre-mitigation CEQA significance (significant and mitigable) remains the same. The post-mitigation conclusion of less than significant also remains the same, as emissions would be assessed as net zero based on implementation of proposed PDFs and off-site PV installation.

The County also finds that changes made to EIR Subchapter 2.7 have not changed CEQA conclusions in other sections of the 2018 FEIR because: (1) GHG emissions from all Project sources would remain at net zero, (2) on-site Project footprint remains the same and therefore impacts have not changed from those previously assessed, and (3) potential off-site impacts associated with mitigation implementation would be both minimal as documented in Subchapter 2.7, and the installation of the off-site solar panels must qualify for an exemption from CEQA in accordance with state law. Potential changes (or lack thereof) to 2018 FEIR Project description and technical analyses are addressed below by topic.

The 2024 recirculated GHG section wholly replaced 2018 FEIR Subchapter 2.7 and is included in this 2025 FEIR. Similarly, technical documents included in the 2024 recirculation replace and

augment analogous 2018 documents, although the earlier report is retained on the County website under the Project for reference. The new reports are identified as FEIR Appendices J1 and J2. Appendix J1 incorporates the *Global Climate Change* technical report by Ldn Consulting, Inc., including the 2024 updated ConSol evaluation, and the Off-site Solar Panel Installation for GHG Mitigation Set Aside Fund Review, as attachments.

The Court's decision stated that the "EIR adequately considered the cumulative effect of GHG emissions." Topical elements of the 2018 analyses that were assessed as adequate during CEQA litigation included elements related to vehicle miles traveled (VMT), construction period elements, sequestration, and CEQA significance thresholds, as detailed in the matrix beginning on page 2, above.

Finally, although not required as part of the judgment, the County took the opportunity to update legislative discussion, GHG modeling with a more recent and conservative model, and re-confirmation of the amount of on-site solar that the Project roofs would support, in addition to the mitigation measure. Although not required because this issue has already been resolved in the Project's previous litigation, Appendix J2 was provided in the 2024-circulated materials related to the infill screening analysis for VMT by Intersecting Metrics.

Affordable Housing Condition

The Project will also be required to provide affordable housing. As a condition of approval, the Project will provide 10 percent of the Project's total dwelling units as on-site affordable housing (as defined by California Health and Safety Code Sections 50052.5 and 50053). This will consist of five percent reserved as affordable for low-income households and five percent reserved as affordable for moderate income households.

Implementation of this condition will not result in changes to Project design (i.e., the number of units, the number of structures, the need for associated infrastructure, the design style, and/or the footprint). These all remain as previously proposed and approved. As a result, no physical changes would occur to the Project as part of the condition. Consistent with CEQA Guidelines Appendix G, the significance thresholds in the "Land Use and Planning" discussion (2018 FEIR Section 3.1.5) concern policies to protect environmental concerns, community character, and potential division of communities. The inclusionary housing condition addresses only economic concerns, and no physical changes would occur to the Project. Thus, no EIR analytical modifications were required for this issue, and FEIR modifications were not made. The condition of approval has been included in the appropriate Project documents, including the Staff Report List of Conditions, and will be represented on the Vesting Tentative Map, as applicable.

Comments Received During 2024 Recirculation

Pursuant to the legal principles described above and CEQA Guidelines Section 15088.5(f)(2), the County requested that reviewers limit their comments to 2024 Subchapter 2.7 revisions and appended supplemental documents (e.g., the *Global Climate Change* Report*)* and, although not required by CEQA, to the proposed affordable housing condition referenced above. All interested persons and organizations had an opportunity during the public review period to submit their written comments on the revised FEIR to the County of San Diego.

Relatively few comments were received on the topics recirculated in conformance with the Court findings. Rather, numerous comment letters were provided on a number of topics that were not part of the recirculation. As appropriate, and in the spirit of clarification, the County has responded to comments received. Additional global responses also have been prepared for issues raised by commenters relative to potentially new information/regulations/thresholds relevant to the Project, which supplement global responses prepared for the 2018 FEIR. The new global responses address detailed information regarding res judicata principles specifically as applicable to the Project and new information, lack of need for additional recirculation, General Plan consistency (including affordable housing), and fire and evacuation. The list of commenters, the comment letters received during the 2024 public review period, and both the individual and global responses to them, are located in FEIR Volume III.

All responses are provided for purposes of clarification. The additional information provides clarification and additional documentation, but does not contain significant new information changing any CEQA conclusions from the 2018 FEIR or otherwise requiring recirculation. The remainder of this Readers Guide addresses each Chapter/Subchapter/Section in the FEIR, providing clarification regarding whether or not changes have been made to 2018 FEIR text.

Discussion of 2025 FEIR Modifications and Clarifications to 2018 FEIR Text

As appropriate, the 2025 FEIR reflects analogous changes throughout the document as related to the 2024 recirculation. More specifically, references to GHG mitigation have been changed as appropriate, and PDFs feeding into GHG analyses have been updated as appropriate. The County has determined that the portions of the 2018 EIR that were not found deficient will not be recirculated as they have been through the CEQA process and have withstood legal challenge.

Text below summarizes for each FEIR Chapter/Subchapter/Section whether the 2024 recirculation and comments received as a result of that recirculation required textual changes to the 2018 FEIR, and if so, where track changes text associated with those changes is located. The remainder of the substantive text is as approved in 2018 and confirmed as adequate by the Court. Changed text is very limited in extent, as explained below. The reader is also referred to Global Response: Res Judicata and New Information for both general discussion of the principle of res judicata and specific referencing of topical elements that do not require additional analysis and documentation thereof. *That global response is relevant to each of the subject areas discussed below.*

FEIR discussions below contain repetitive elements. This has been done so that readers interested in only one topical analysis can read that issue alone and understand FEIR changes, without having to read the entire Readers Guide.

Table of Contents

The Table of Contents has been updated in the 2025 FEIR to incorporate current Subchapter 2.7 and associated technical report appendices listing consistent with the 2024 recirculation and incorporate one section deletion in Volume II, as well as elements associated with Volume III of the 2025 FEIR (2024 comments and responses to comments). The list of abbreviations and acronyms also has been amended to include 2018 and 2025 FEIR references. Pagination has been updated as appropriate.

Summary

With the exception of focused mitigation measure language, the Summary stands as circulated in 2018. Consistent with the 2024 recirculation documents, Table S-1, *Summary of Significant Effects*, has been modified to delete 2018 GHG mitigation measures for construction and operational periods (see Chapter 7.0 for full deleted text) and incorporate the 2024-circulated mitigation measure on FEIR pages S-51 though S-58. Additionally, a 2018 footnote to Table S-1 on page S-58 noting that reductions in CO_2e totals were conservative as they did not include Project landscaping benefits has been deleted (2018 sequestration analysis totals were confirmed and incorporated into the 2024 emissions totals as detailed in the recirculation). No other changes were made to Project elements as described in the Summary or to other mitigation measures summarized on Table S-1. No changes were required to Table S-2, *HGV South Full-Build Alternatives Comparison of Impacts*.

Project Description, Location, and Environmental Setting

The physical Project design is identical to the design analyzed in the 2018 FEIR, with no changes to footprint, number of residences, roads, Project amenities, etc. Similarly, the nearby surrounding area, including buildout of adjacent HGV as a baseline condition, is consistent with those assumed in the original EIR analyses.

Changes to this chapter are contained within Table 1-2, *Project Design Features*. As described in the 2024 recirculation of GHG information, PDFs were revised and/or added to further clarify, update, and strengthen PDFs that were included in the 2018 FEIR. The changes are shown on Table 1-2, pages 1-48 through 1-51. Some changes were made to utilize the latest building and energy Codes, increase the number of EV charging stations required on site, or reflect future changes in building requirements such as prohibiting the use of wood burning fireplaces or natural gas. Where PDFs have solely been renumbered to match Subchapter 2.7 and *Global Climate Change* Report numbering (i.e., no change to PDF substance), only the number is shown in track changes. Text is shown in track changes where certain PDF elements have been modified between the 2018 and 2025 FEIR documents. These amendments strengthen or update the noted PDFs but do not result in changes to the GHG CEQA conclusions (less than significant post-mitigation), or to any other CEQA significance conclusions discussed in the FEIR. Analogous consistency changes regarding 2016 Title 24 and CALGreen to match the circulated revised PDFs were made on page 1-25, which has been updated consistent with 2024 Subchapter 2.7 recirculation and to delete an outdated Title 24 comparison.

2.1 Aesthetics

No changes have been made to this subchapter as approved in 2018. Comments received on visual elements during 2018 public review were responded to, were part of the 2018 FEIR and remain part of this FEIR. There was no CEQA challenge to the 2018 analyses for this issue and Project design relative to visual resources has not changed since 2018 circulation. Development design and impact footprint remain the same. The nearby surrounding area, including buildout of adjacent HGV as a baseline condition, is consistent with those assumed in analyses.

Implementation of the off-site GHG mitigation measure would occur under a CEQA exemption such as PRC Section 21080.35, and therefore would be exempt from environmental analysis. For purposes of clarity, however, it is noted that consistent with 2018 less than significant findings for solar installation on the Project itself, as well as with 2024 recirculation of Subchapter 2.7, Section 2.7.5.1, potential visual effects would be less than notable as modern panels are not largely reflective, and they would be installed on an existing commercial/industrial building, within a developed setting.

A few comments made in response to 2024 GHG recirculation variously noted grading into steep slopes, community character concerns, and the County's dark sky policy. None of the comments provided new information varying from 2018 Project analyses. Although responses were authored for purposes of clarity, the comments do not change any CEQA conclusions in the 2018 FEIR and are immaterial to this FEIR as they are neither new nor substantial.

No revisions to the aesthetic topics, analysis, or CEQA conclusions are required.

2.2 Transportation/Traffic

No changes have been made to this subchapter as approved in 2018. Comments received on traffic/transportation during 2018 public review were responded to, were part of the 2018 FEIR and remain part of this FEIR. There was no CEQA challenge to the 2018 analyses for this issue, and Project uses and related traffic generation assumptions for purposes of Project-related traffic effects remain identical to that analyzed.

It is noted, however, that as disclosed in Attachment H to Appendix D of the 2018 FEIR, Project trip generation was determined to be 4,010 ADT, not the 4,530 originally cited in the 2018 FEIR, or over 500 fewer daily trips on area roads. It is also noted that a major upgrade to Citracado Parkway in the City of Escondido, which was originally discussed in the 2018 FEIR, has since been completed and is now open. Regardless, no adjustment is required to impact analyses or required mitigation.

It is also noted that the County's Transportation Guidelines relevant to VMT were updated in September 2022 in compliance with SB 743. CEQA Guidelines Sections 15007 and 15064.3 (the sections requiring use of VMT to analyze traffic impacts). However, subsequent changes to CEQA guidelines such as VMT are not considered "significant new information" that would trigger additional review because the underlying information was otherwise known or should have been known when the 2018 FEIR was certified. (Olen Properties Corp v. City of Newport Beach, 93 CA5th at 280-281.) Because VMT (and the adoption of VMT guidelines) were already well known when the 2018 FEIR was prepared, the public was not deprived of a meaningful opportunity during the preparation of the 2018 FEIR to comment upon any potential adverse environmental effect that the Project would have regarding VMT (see CEQA Guidelines Section 15088.5[a]). In fact, the issue of VMT was raised by commenters, litigated, and resolved by the courts and res judicata applies. Finally, CEQA Guidelines Section 15064.3(c) directly addresses "Applicability," stating: "The provisions of this section shall apply prospectively… Beginning on July 1, 2020, the provisions of this section shall apply statewide."

Clarification on this issue is provided in both global and individual responses to comments.

CEQA impact conclusions also do not change based on implementation of the off-site GHG mitigation measure. For purposes of clarity, however, it is noted that consistent with the 2024 recirculation of Subchapter 2.7, PV system installation is anticipated to require no more than six loaded semi delivery trucks for delivery, construction assumes a crew of nine people to install systems over a period of one month, and this would occur in an area already supporting commercial/industrial activities. This short term and limited additional traffic would not result in any change to assessed CEQA impacts related to transportation.

Some comments made in response to 2024 GHG recirculation generally mentioned "traffic" but provided no additional information. As a specific response could not be provided, the commenter was referred to the comprehensive discussion in FEIR Subchapter 2.2. More specific traffic comments received during 2024 GHG were largely repetitive with prior contentions, or identified issues that were either not new, not substantial, or were immaterial. Queries about overall volumes and impact locations, inclusion of HGV (and other cumulative projects) in Project analyses, etc. were addressed in responses to comments, reminding the reader that traffic generation rates used in impact modeling were conservative (i.e., assumed higher numbers than necessary as disclosed in the 2018 FEIR) and that all significant Project direct and cumulative impacts had mitigation identified. Other traffic-mentioning comments had to do with either VMT or evacuation congestion/concerns (addressed in the paragraph above and/or, respectively, under GHG and Hazards discussions below). Although responses were authored for purposes of clarity, the comments do not change any CEQA conclusions in the 2018 FEIR and are immaterial to this FEIR as they are neither new nor substantial.

No revisions to the transportation/traffic topics, analysis, or CEQA conclusions are required.

2.3 Biological Resources

No changes have been made to this subchapter as approved in 2018. Comments received on biological resources during 2018 public review were responded to, were part of the 2018 FEIR, and remain part of this FEIR. There was no challenge to the 2018 analyses for this issue and Project design relative to biological resources has not changed since 2018 circulation; impact footprint remains the same.

Implementation of the off-site GHG mitigation measure would occur under a CEQA exemption such as PRC Section 21080.35, and therefore would be exempt from environmental analysis. For purposes of clarity, however, it is noted that consistent with 2018 less than significant post-mitigation findings for the Project, with the 2024 recirculation of Subchapter 2.7, Section 2.7.5.1, conclusions would be the same. Several items relevant to biological resources are identified as

excluded from the general exemption provided by PRC Section 21080.35.[5] None of those potential exclusions, however, pertains to the mitigation proposed for the Project because solar panels would be installed upon an existing building on existing impervious surface (a roof) within a developed site. No impact to stream courses or water resources would occur. No take permits for species protected under the federal ESA or California ESA are anticipated. No trees at all would be removed. Potential biological effects would be minor as actions would take place within developed areas and within a limited timeframe for construction, after which installation effects would be relatively passive.

Comments in response to 2024 GHG recirculation suggest need for Hermes copper butterfly, Western spadefoot toad, *Brodiaea filifolia* (thread-leaved Brodiaea) and *Calandrinia breweri* (Brewer's Calandrinia), surveys as well as for "other species." Pre-construction and permitting requirements in the 2018 FEIR will address sensitive species associated with habitat addressed within Habitat Loss Permit requirements. Appropriate habitat for the toad is absent from the site. The single comment as to plant species is not relevant as it appears to be a cut and paste from a 2018 comment previously responded to, topically identified as adequate by the court, and not raised in CEQA challenge to the Project. The butterfly, toad, and brodiaea were addressed in the 2018 documents and no impacts were identified. Brewer's Calandrinia would have been identified if present during comprehensive vegetation inventories. One comment contends that the butterfly and toad categories were changed conditions based on listing categories and expiration of survey period applicability. Both were already considered in the 2018 FEIR analysis, however, and the shifting of a species up or down in terms of sensitivity listing would not change whether the species was identified or the mitigation recommended. Comments regarding alternative site use (purchase and permanent set-aside), and concern over Escondido Creek watershed were also received. Some comments also noted that the Project site is within draft pre-approved mitigation area (PAMA), although that does not directly require conservation. None of the comments received would materially change Project analyses (i.e., result in identification of a new significant impact or deletion of a prior mitigation measure). Readers are referred to more detailed response in the responses to comments to the current FEIR. Although responses were authored for purposes of clarity, the comments would not change any CEQA conclusions in the 2018 FEIR and are immaterial to this FEIR as they are neither new nor substantial.

No revisions to the biological resources topics, analysis, or CEQA conclusions are required.

2.4 Cultural Resources and Tribal Cultural Resources

No changes have been made to this subchapter as approved in 2018. Comments received on cultural and tribal cultural resources during 2018 public review were responded to, were part of

[5] Potential exclusions include: (d.1) An individual federal permit pursuant to Section 401 or 404 of the federal Clean Water Act (33 U.S.C. Sec. 1341 or 1344) or waste discharge requirements pursuant to the Porter-Cologne Water Quality Control Act (Division 7 (commencing with Section 13000) of the Water Code);(d.2) An individual take permit for species protected under the federal Endangered Species Act of 1973 (16 U.S.C. Sec. 1531 et seq.) or the California Endangered Species Act (Chapter 1.5 (commencing with Section 2050) of Division 3 of the Fish and Game Code); (d.3) A streambed alteration permit pursuant to Chapter 6 (commencing with Section 1600) of Division 2 of the Fish and Game Code; if (e) installation of a solar energy system occurs at an existing parking lot and involves: (e.1) The removal of a tree required to be planted, maintained, or protected pursuant to local, state, or federal requirements, unless the tree dies and there is no requirement to replace the tree, or (e.2) The removal of a native tree over 25 years old.

the 2018 FEIR, and remain part of this FEIR. There was no challenge to the 2018 analyses for this issue and Project design relative to cultural resources and Tribal cultural resources has not changed since 2018 circulation. Development design and impact footprint remain the same. The Project site and nearby surrounding area remains in similar condition to that analyzed; and HGV buildout is consistent with that assumed in baseline conditions.

Implementation of the off-site GHG mitigation measure would occur under a CEQA exemption such as PRC Section 21080.35, and therefore would be exempt from environmental analysis. For purposes of clarity, however, it is noted that consistent with 2018 less than significant post-mitigation findings for the Project, as well as with 2024 recirculation of Subchapter 2.7, Section 2.7.5.1, potential adverse cultural resources/Tribal cultural resources effects would not occur. Panels would be installed on an existing rooftop of a commercial/industrial building without historical sensitivity. No ground disturbance (which otherwise could result in location of currently unknown resources) would occur.

No revisions to the cultural resources and tribal cultural resources topics, analysis, or CEQA conclusions are required.

2.5 Noise

No changes have been made to this subchapter as approved in 2018. Comments received on noise analyses during 2018 public review were responded to, were part of the 2018 FEIR, and remain part of this FEIR. There was no challenge to the 2018 analyses for this issue. The Project site and abutting/nearby surrounding development remains in similar condition to that analyzed; no grading or building has taken place on site and HGV buildout is consistent with that assumed in baseline conditions.

Implementation of the off-site GHG mitigation measure would occur under a CEQA exemption such as PRC Section 21080.35, and therefore would be exempt from environmental analysis. For purposes of clarity, however, it is noted that consistent with 2018 less than significant post-mitigation findings for the Project, as well as with 2024 recirculation of Subchapter 2.7, Section 2.7.5.1, potential noise associated with mitigation implementation would be minimal. Panels would be installed on an existing rooftop of a commercial/industrial building in an existing developed setting and construction would occur within construction-period windows allowed by ordinance.

A few comments made in response to 2024 GHG recirculation generally mentioned “noise” but provided no specific concern. As no specific response could be provided, commenters were referred to the comprehensive discussion in FEIR Subchapter 2.5.

No revisions to the noise analyses topics, analysis, or CEQA conclusions are required.

2.6 Air Quality

No changes have been made to this subchapter as approved in 2018. Comments received on air quality analyses during 2018 public review were responded to, were part of the 2018 FEIR, and remain part of this FEIR. The discussion retains a single reference to natural gas fireplaces in the analysis on page 2.6-9.

Issues related to air quality modeling and Regional Air Quality Strategy analyses were specifically litigated as part of the CEQA challenge to the 2018 Project approval. Construction and operational period emissions were identified as less than significant in the 2018 FEIR and the analyses were upheld by the Court. The Project remains the same, nearby surrounding development remains substantially the same to that analyzed, and HGV buildout was assumed in the prior baseline conditions. Current deletion of natural gas use would incrementally lower the less than significant operational emissions shown in Tables 2.6-7 and 2.6-8, but would not result in any change to the less than significant CEQA conclusions and no reduction is taken. This results in a more conservative (assuming greater impact) assessment, but as noted, the conclusion remains less than significant related to operational emissions.

Implementation of the off-site GHG mitigation measure would occur under a CEQA exemption such as PRC Section 21080.35, and therefore would be exempt from environmental analysis. For purposes of clarity, however, it is noted that consistent with 2018 less than significant findings for Project emissions, potential air quality effects would be minimal. Potential daily construction activities would fall well within those assumed in the 2018 EIR. Criteria pollutants emissions would need to be magnified by 4 to 500 times to reach the analyzed threshold for all emissions but VOCs, which is primarily related to architectural coatings. Architectural coatings would not be part of solar panel installation, so no adverse effect would occur. It is also noted that the Project assumed use of Tier III construction equipment where available. Tier IV is now available in some instances, which could further lower the already less than significant impacts identified for the Project in 2018.

A few comments made in response to 2024 GHG recirculation mentioning "air," pollution, or that "GHG emissions would affect air quality" etc., provided no specific concern, and the commenter was referred to the comprehensive discussion in FEIR Subchapter 2.6.

No revisions to the air quality analyses topics, analysis, or CEQA conclusions are required.

2.7 Greenhouse Gas Emissions

GHG comments received during 2018 public review were responded to, were part of the 2018 FEIR, and remain part of this FEIR. One exception consists of comments received on credit purchase, which is no longer part of the Project. The Project site and abutting/nearby surrounding development remain in substantially the same condition as previously analyzed in 2018; no changes have been made to the Project and HGV buildout is consistent with that assumed in baseline conditions.

During the CEQA challenge and appeal process, the 2018 FEIR GHG analysis was expressly found to have "adequately considered the cumulative effect of GHG emissions."[6] As indicated on the matrix beginning on page 2 above, 2018 GHG elements assessed as adequate during CEQA litigation include: approach and analysis (including traffic generation information such as ADT and VMT, as well as associated roadway effects); a three-year construction period, with duration of specific construction efforts and specified associated construction equipment; sequestration

[6] See references in footnote 1, above.

effects during construction and subsequent landscaping; and CEQA thresholds of significance (net zero GHG emissions taking into consideration GHG reduction measures).

The current GHG text replaces text provided in the 2018 FEIR and was circulated for public review and comment from August 22 through October 7, 2024. The County updated the regulatory discussion, strengthened PDFs, remodeled impacts with a more recent version of the California Emissions Estimator Model (CalEEMod), and assumed the use of more updated and effective PV panels.

The 2024 GHG recirculation also expressly addressed mitigation measure issues identified as inadequate by the Court. A detailed new mitigation measure addressing installation of solar panels on an existing commercial/light industrial building in the County that would not otherwise be required to install such a system was identified; including detail as to timing, responsibility, funding, reporting, insurance, maintenance/repairs, actions in the event that the property changes hands, a necessary covenant to run with the mitigation property land, and details as to required elements in the HGV South Homeowners Association Covenants, Conditions and Restrictions, etc.

The 2018 FEIR conclusion as to pre-mitigation CEQA significance (significant and mitigable) remains the same. The post-mitigation conclusion of less than significant also remains the same, as emissions would be assessed as net zero based on implementation of proposed PDFs and off-site PV installation. No change to CEQA impact conclusions would occur based on off-site GHG mitigation measure implementation. (Implementation would occur with a CEQA exemption such as PRC Section 21080.35.) Consistent with the 2024 recirculation of Subchapter 2.7, Section 2.7.5.1, it is noted that construction emissions during that one month would generate 4.72 MT CO_2e and after a 30-year amortization, would generate 0.16 MT CO_2e annually. Operationally, the system would avoid 603.61 MT CO_2e annually. Therefore, total avoidance after construction would be 603.45 MT CO_2e (603.61 minus 0.16) annually per megawatt, or 0.60345 MT CO_2e annually per kW of solar installed.

Two clarifying edits are provided. One is in a footnote on page 2.7-20, text addressing track changes text from the 2024 recirculation has been updated to address the current subchapter. The second is provided on page 2.7-29 relative to reductions in GHG emissions related to use of charging stations, where the recirculated section identified the number only for the Center House stations (rather than the Project as a whole and consistent with Table 2.7-5). In addition, administrative references to technical appendix elements circulated with the 2024 GHG analysis have been renamed from 2024 Appendix 1 and 2, to be Appendices J1 and J2, which is consistent with the overall FEIR appendix naming protocol.

Although the 2018 FEIR was found to be legally adequate and sufficient in respect to the Transportation/Traffic analysis, including VMT and the consistency discussion, the Project prepared an Infill Analysis to determine if the Project also met the County's "Infill" requirements, as outlined in Section 3.3.1 of the 2022 TSG. Subsequent to the preparation of Subchapter 2.7 and Attachments, the Court, Division One, held that the evidentiary record developed by the County failed to support the adopted VMT thresholds for: (1) "infill" projects proposed to be built within the County's unincorporated villages (the infill threshold), and (2) projects expected to generate no more than 110 automobile trips per day.

The Project's preparation of an Infill Analysis and its inclusion in Subchapter 2.7 does not change the conclusion that the issue of VMT was raised, litigated, and resolved by the courts, and res judicata applies. As stated by the Appellate Court, "According to the EIR, SANDAG's average trip length is 7.9 miles, and the average distance for Project trips was calculated to be 7.88 miles." Also, "the analysis of the Project's efforts to reduce vehicle emissions through design, location, and minimization of off-site vehicle trips complied with the County's efforts to reduce sprawl and associated emissions" (Appellate Decision, pages 63-64). Moreover, VMT (and the adoption of VMT guidelines) were already well known when the 2018 FEIR was prepared, and the public was not deprived of a meaningful opportunity during the preparation of the EIR to comment upon any potential adverse environmental effect that the Project would have regarding VMT (see CEQA Guidelines Section 15088.5[a]). In fact, VMT was an active topic of discussion during preparation of the 2018 FEIR.

Therefore, comments received on GHG analysis circulated in 2024 and as related to VMT were addressed and were either not substantial, or immaterial (incorrect or previously approved by the Court), as detailed in the responses to comments provided for clarification as part of this FEIR.

No additional revisions to the GHG analyses topics, analysis, or CEQA conclusions are required.

2.8 Significant Irreversible Environmental Changes Resultant from Project Implementation

A single element of this summary discussion has been changed from the 2018 approved FEIR. A reference to use of natural gas has been deleted, as natural gas use is no longer proposed for the Project. This potentially significant adverse effect is now deleted, as shown in track changes on page 2.8-2.

As described throughout this Readers Guide, off-site mitigation proposed under 2024-recirculated M-GHG-1 would not result in significant off-site impacts. In addition, implementation of the off-site GHG mitigation measure would occur under a CEQA exemption such as PRC Section 21080.35, and therefore would be exempt from environmental analysis. See Section 2.7.5.1, *Potential Subsequent Environmental Impacts Related to Mitigation Measure Implementation and CEQA Exemption*.

No additional revisions to the summary of irreversible environmental changes presented in this subchapter are required.

3.1.1 Energy

No changes have been made to this section as approved in 2018. The update to GHG modeling conducted for revised Subchapter 2.7 would result in even lower less than significant impacts related to energy. As a result, no changes are needed to Section 3.1.1, which reflects a more conservative less than significant CEQA conclusion. Comments received on energy use during 2018 public review were responded to, were part of the 2018 FEIR, and remain part of this FEIR. There was no CEQA challenge to the 2018 analyses for this issue and Project use categories and acreages remain identical to those analyzed.

Existing site conditions have not changed relative to energy use. Future site energy demands, however, have been lessened. The 2018 FEIR analyzed energy based on 2018 Project GHG PDFs and 2018 modeling. That text, which supported a less than significant CEQA impact finding, has been retained. As detailed in Subchapter 2.7 of the 2025 FEIR, the overall amount of CO_2e emissions post PDF implementation in Subchapter 2.7 has been lowered from the totals disclosed in the 2018 FEIR. On-site natural gas use assumed in 2018 is no longer part of the Proposed Project. Additionally, more electrical generation would occur on site through improved PV systems. Also, the recirculated Subchapter 2.7 updated PDFs to require use of Title 24 and CALGreen in effect at the time of building permit issuance. This results in the 2018 Court-approved analysis being conservative relative to current conditions and potential Project effects. The CEQA conclusion of less than significant energy impacts remains the same. No comments were received on energy specific to Section 3.1.1 following recirculation in 2024.

The current Project also would lower use of community-wide available electrical resources by providing an existing off-site use with PV panels, thereby reducing its reliance on the grid. Project GHG mitigation would be implemented with a CEQA exemption such as PRC Section 21080.35. The mitigation would not require changes to any transmission or distribution facility or connection, which can constitute an exception to the exemption. Rather, mitigation would install solar panels on an existing commercial/industrial building within a developed setting that is already served by such connections. It is also noted that, consistent with the 2024 recirculation of Subchapter 2.7, the mitigation would result in energy use avoidance, with energy operational effects therefore being beneficial.

Consistent with CEQA Guidelines Section 15088.5, recirculation is not required simply because new information is added, or where new information clarifies an adequate discussion, which is the case here. The *lessening* of less than significant energy impacts that would occur if the Project is approved does not meet thresholds for recirculation. There would be: (1) no new significant energy impact, or (2) no substantial increase in the previously identified less than significant energy impact (in fact, the reverse would occur).

No revisions to the energy section analyses topics, analysis, or CEQA conclusions are required.

3.1.2 Geology and Soils

No changes have been made to this section as approved in 2018. Comments received on geotechnical issues during 2018 public review were responded to, were part of the 2018 FEIR, and remain part of this FEIR. There was no challenge to the 2018 analysis for this issue. The Project site remains the same and nearby surrounding area remains substantially the same to that analyzed; no grading or building has taken place.

Implementation of the off-site GHG mitigation measure would occur under a CEQA exemption such as PRC Section 21080.35, and therefore would be exempt from environmental analysis. For purposes of clarity, however, it is noted that consistent with 2018 less than significant findings for the Project, as well as with 2024 recirculation of Subchapter 2.7, Section 2.7.5.1, potential geological/soils effects would not occur. GHG mitigation would install solar panels on an existing commercial/industrial building within a developed setting, with no ground disturbance or change

to the existing building structure. There would therefore be no change to susceptibility to geotechnical issues.

No revisions to the geology/soils analyses topics, analysis, or CEQA conclusions are required.

3.1.3 Hazards and Hazardous Materials

No changes have been made to this section as approved in 2018. Comments received on hazards/wildfire/emergency evacuation analyses during 2018 public review were responded to, were part of the 2018 FEIR, and remain part of this FEIR. In addition to Section 3.1.3, detailed global responses were provided in the 2018 FEIR (Sections 8.3.3, *Fire Hazards Impact Analysis* and 8.3.4, *Adequacy of Emergency Evacuation and Access*). The Project site and abutting development remain substantially the same to that analyzed; no grading or building has taken place on site and HGV buildout is consistent with that assumed in baseline conditions. The Project footprint design and use categories and build components remain identical to that analyzed relative to these issues, and issues raised during CEQA challenge of the Project were not successful. Among other issues, topics related to fire starts, evacuation and secondary access were specifically litigated during CEQA challenges to the Project. The challenges to the 2018 analyses for this topic were not successful. The Court found that:

> "the EIR contains a CEQA-compliant discussion of the potential wildland fire risks or exacerbation caused by the Project and the fire risks in the Project's vicinity, and that substantial evidence supports its conclusion that the Project measures would reduce them to a level of insignificance"

and also concluded that:

> "the EIR's discussion of evacuation routes and timing satisfies CEQA requirements" (Appellate Decision pages 40 and 51, respectively).

Implementation of the off-site GHG mitigation measure would occur under a CEQA exemption such as PRC Section 21080.35, and therefore would be exempt from environmental analysis. For purposes of clarity, however, it is noted that consistent with 2018 less than significant findings for the Project, as well as with 2024 recirculation of Subchapter 2.7, Section 2.7.5.1, potential hazards/hazardous materials effects would be minimal. GHG mitigation would install solar panels on an existing commercial/industrial building within a developed setting, with no change to existing associated hardscape, landscape, or non-roof existing building structure. Potential fire and (any potential current) hazardous materials handling issues would not be changed. Following the short-term installation period, personnel would be on site only for maintenance as necessary. There would therefore be virtually no change to susceptibility to fire, fire starts, etc. issues.

Comments received during 2024 GHG review were largely repetitive with prior contentions, or identified issues that were either not new, not substantial, or immaterial. These included allegations of general fire risk, evacuation concerns (including assertions regarding worst-case assumptions of numbers of cars on the road), existence of "new" regulations, guidance, etc., and references to a Fire Safe and Low VMT Alternative in the 2024 CAP. None of the queries raised resulted in changes to 2018 CEQA significance conclusions. For clarification purposes, each of these issues

was addressed in current responses to comments, both individually and in global responses, as appropriate.

No revisions to the hazards/wildfire/emergency evacuation analyses topics, analysis, or CEQA conclusions are required.

3.1.4 Hydrology / Water Quality

No changes have been made to this section as approved in 2018. Comments received on hydrology/water quality analyses during 2018 public review were responded to, were part of the 2018 FEIR, and remain part of this FEIR. There was no challenge to the 2018 analyses for this issue. The Project site remains in a similar condition to that analyzed; no grading or building has taken place.

Implementation of the off-site GHG mitigation measure would occur under a CEQA exemption such as PRC Section 21080.35, and therefore would be exempt from environmental analysis. For purposes of clarity, however, it is noted that consistent with 2018 less than significant findings for the Project, as well as with 2024 recirculation of Subchapter 2.7, Section 2.7.5.1, potential hydrology/water quality effects would be minimal. Solar panels would be installed upon an existing building on existing impervious surface (a roof) within a developed site. No impact to stream courses or water resources would occur. Because there would be no grading, there would not be any discharge or fill material associated during roof-top installation and long-term PV system operation. Runoff would continue to flow from the rooftop with no change to volume or water quality as under existing conditions. Potential exclusions from the exemption therefore do not apply, and adverse hydrology/water quality effects are not expected.

Some comments received during GHG recirculation review mentioned impacts on "water" but did not identify specific concerns. As specific responses could not be provided, the commenter was referred to the comprehensive discussion in FEIR Section 3.1.4. Another comment mentions water supply. The Project does not meet the threshold for Water Supply Assessment preparation (500 residential units), but analysis did project supply need over a 20-year planning period and address availability of water during drought years. None of the comments provided new information varying from 2018 Project analyses. Although responses were authored for purposes of clarity, the comments would not change any CEQA conclusions in the 2018 FEIR and are immaterial to this FEIR as they are neither new nor substantial.

No revisions to the hydrology/water quality analyses topics, analysis, or CEQA conclusions are required.

3.1.5 Land Use and Planning

No substantive changes have been made to this section as approved in 2018. Comments received on land use and planning analyses during 2018 public review were responded to, were part of the 2018 FEIR, and remain part of this FEIR. In addition to Section 3.1.5, detailed global responses were provided in the 2018 FEIR (Sections 8.3.1, *Project Consistency with General Plan Policy LU-1.4* and 8.3.2, *General Plan/Community Plan Amendments CEQA Impact Analysis*). The Project site and nearby surrounding area remains similar to that analyzed; no grading or building has taken place on site and HGV buildout is consistent with that assumed in baseline conditions.

Issues related to village expansion/boundary line and plan conformance, conformity with San Diego Forward, as well as a contention that HGV South was subject to Elfin Forest septic restrictions, were explicitly litigated during the CEQA challenge to the 2018 Project. Challenges to the 2018 analyses for this topic have withstood legal challenge. The analyses were not found deficient and recirculation was not required. See also Global Response: Res Judicata and New Information.

Implementation of the off-site GHG mitigation measure would occur under a CEQA exemption such as PRC Section 21080.35, and therefore would be exempt from environmental analysis. For purposes of clarity, however, it is noted that consistent with 2018 less than significant findings for the Project, as well as with 2024 recirculation of Subchapter 2.7, Section 2.7.5.1, potential off-site adverse land use and planning effects would not occur. GHG Mitigation would install solar panels on an existing commercial/industrial building within a developed setting that would not already be required to support solar panels (i.e., on an existing building that would not require a permit as part of other improvements). As shown throughout the associated focused discussions on mitigation implementation, no notable environmental impacts would occur as a result of off-site mitigation.

In fact, mitigation implementation would provide a benefit in line with County planning efforts to decrease use of non-renewable energy sources, increase use of renewable energy sources, and add solar capability to existing structures that would not otherwise be mandated, which is also consistent with CARB's Scoping Plan, Appendix D.

Comments received during GHG recirculation review again suggest Project inconsistencies with planning document policies; including development patterns, development outside village boundaries, land use designations, land use density, sprawl, adequacy of public services, policies included within other elements of the General Plan (e.g., Safety), and both Project specific and General Plan Amendment concerns, as well as concern over perceived commitments by the County regarding potential for additional development in the Harmony Grove area. None of the comments provided new information varying from 2018 Project analyses. Although responses were authored for purposes of clarity, the comments would not change any CEQA conclusions in the 2018 FEIR and are immaterial to this FEIR as they are neither new nor substantial. One clarification has been made consistent with recirculated Subchapter 2.7. On page 3.1.5-38, an outdated year reference relative to CALGreen has been deleted and the appropriate reference for current PDFs has been restricted to Table 1-2. These minor clarifications are for purposes of consistency and do not affect the conservative nature of the analysis, or affect the less than significant CEQA conclusions.

No additional revisions to the land use and planning analyses topics, analysis, or CEQA conclusions are required.

3.1.6 Paleontological Resources

No changes have been made to this section as approved in 2018. Comments received on paleontological resources analyses during 2018 public review were responded to, were part of the 2018 FEIR, and remain part of this FEIR. There was no challenge to the 2018 analyses for this issue. The Project site and nearby surrounding area remain in a similar condition to that analyzed;

no grading or building has taken place on site and HGV buildout is consistent with that assumed in baseline conditions.

Implementation of the off-site GHG mitigation measure would occur under a CEQA exemption such as PRC Section 21080.35, and therefore would be exempt from environmental analysis. For purposes of clarity, however, it is noted that consistent with 2018 less than significant findings for the Project, as well as with 2024 recirculation of Subchapter 2.7, Section 2.7.5.1, potential adverse paleontological effects would not occur. Solar panels would be installed on an existing rooftop of a commercial/industrial building. No ground disturbance would occur; the GHG mitigation location would therefore lack potential paleontological sensitivity.

No revisions to the paleontological resources analyses topics, analysis, or CEQA conclusions are required.

3.1.7 Population and Housing

No changes have been made to this section as approved in 2018. Specific comments on the population and housing section were not received in 2018. There was no challenge to the 2018 analyses for this issue. The Project site and nearby surrounding area remain in a similar condition to that analyzed; no grading or building has taken place on site and HGV buildout is consistent with that assumed in baseline conditions.

Implementation of the off-site GHG mitigation measure would occur under a CEQA exemption such as PRC Section 21080.35, and therefore would be exempt from environmental analysis. For purposes of clarity, however, it is noted that consistent with 2018 less than significant findings for the Project, as well as with 2024 recirculation of Subchapter 2.7, Section 2.7.5.1, potential adverse population and/or housing effects would not occur. Installation of solar panels on an existing rooftop of a commercial/industrial building would not displace residents or result in housing removal.

No revisions to the population and housing analysis topics, analysis, or CEQA conclusions are required.

3.1.8 Public Services

No changes have been made to this section as approved in 2018. Comments received on public services during 2018 public review were responded to, were part of the 2018 FEIR, and remain part of this FEIR. There was no challenge to the 2018 analyses for this issue. The Project site and nearby surrounding area remain in a similar condition to that analyzed; no grading or building has taken place on site and HGV buildout is consistent with that assumed in baseline conditions.

Implementation of the off-site GHG mitigation measure would occur under a CEQA exemption such as PRC Section 21080.35, and therefore would be exempt from environmental analysis. For purposes of clarity, however, it is noted that consistent with 2018 less than significant findings for the Project, as well as with 2024 recirculation of Subchapter 2.7, Section 2.7.5.1, potential adverse public services effects would not occur. Installation of solar panels on an existing rooftop of a commercial/industrial building would not result in additional population requiring school, fire, or police services.

A number of comments received during GHG recirculation review voice concern over the Harmony Grove fire station not having been built by HGV. The comments do not provide new information varying from 2018 Project analyses, and do not relate to HGV South (which would pay appropriate fees). Although responses were authored for purposes of clarity, the comments would not change any CEQA conclusions in the 2018 FEIR and are immaterial to this FEIR as they do not relate to the HGV South (which would pay appropriate fees) and are neither new nor substantial.

No revisions to the public services analyses topics, analysis, or CEQA conclusions are required.

3.1.9 Recreation

No changes have been made to this section as approved in 2018. Comments received on recreation analyses during 2018 public review were responded to, were part of the 2018 FEIR, and remain part of this FEIR. There was no challenge to the 2018 analyses for this issue. The Project site and nearby surrounding area remain in a similar condition to that analyzed; no grading or building has taken place on site and HGV buildout is consistent with that assumed in baseline conditions.

Implementation of the off-site GHG mitigation measure would occur under a CEQA exemption such as PRC Section 21080.35, and therefore would be exempt from environmental analysis. For purposes of clarity, however, it is noted that consistent with 2018 less than significant findings for the Project, as well as with 2024 recirculation of Subchapter 2.7, Section 2.7.5.1, potential adverse recreation effects would not occur. Installation of solar panels on an existing rooftop of a commercial/industrial building would not result in additional population requiring new, or otherwise affect existing, recreational resources.

No revisions to the recreation analyses topics, analysis, or CEQA conclusions are required.

3.1.10 Utilities and Service Systems

No changes have been made to this section as approved in 2018 except for administrative consistency edits consisting of deletion of a reference to natural gas on page 3.1.10-1 and modification of Title 24 and CALGreen dates on page 3.1.10-7. These have both been updated consistent with 2024 Subchapter 2.7 recirculation and revised PDFs. These focused changes have no effect on the CEQA analysis or less than significant conclusions in this section. Comments received on utilities and service systems related to water supply and wastewater treatment analyses during 2018 public review were responded to, were part of the 2018 FEIR, and remain part of this FEIR. There was no challenge to the 2018 analyses for this issue. The Project site and nearby surrounding area remain in a similar condition to that analyzed; no grading or building has taken place on site and HGV buildout is consistent with that assumed in baseline conditions.

Implementation of the off-site GHG mitigation measure would occur under a CEQA exemption such as PRC Section 21080.35, and therefore would be exempt from environmental analysis. For purposes of clarity, however, it is noted that consistent with 2018 less than significant findings for the Project, as well as with 2024 recirculation of Subchapter 2.7, Section 2.7.5.1, potential adverse effects to utilities and service systems would not occur. Installation of solar panels on an existing

rooftop of a commercial/industrial building would not result in increased water or wastewater generation within the building.

A few comments received during GHG recirculation review noted concern over drought/water use. None of the comments provided new information varying from 2018 Project analyses. Although responses were authored for purposes of clarity, the comments would not change any CEQA conclusions in the 2018 FEIR and are immaterial to this FEIR as they are neither new nor substantial.

No additional revisions to the utilities and service systems analyses topics, analysis, or CEQA conclusions are required.

3.2 Effects Found Not Significant During Initial Study

This subchapter addresses two topics, Agricultural Resources and Mineral Resources. No changes have been made to these sections as initially approved in 2018. There was no CEQA challenge to the 2018 analyses for these issues, and Project footprint remains identical to that analyzed.

Implementation of the off-site GHG mitigation measure would occur under a CEQA exemption such as PRC Section 21080.35, and therefore would be exempt from environmental analysis. For purposes of clarity, however, it is noted that consistent with 2018 less than significant findings for the Project, as well as with 2024 recirculation of Subchapter 2.7, Section 2.7.5.1, potential adverse effects to agriculture or minerals would not occur. Implementation of off-site mitigation associated with M-GHG-1 would occur on a roof of an existing building on an existing developed site, without ground disturbance.

No revisions to the agricultural or minerals analyses topics, analysis, or CEQA conclusions as presented in the Project Initial Study/2018 FEIR are required.

4.0 Alternatives

No substantive analysis changes have been made to this chapter as initially approved in 2018. The Project footprint design and associated uses remain identical to that analyzed, as do the potential analyzed alternatives. The post-mitigation conclusions of less than significant also remain the same, as GHG emissions would be assessed as net zero based on implementation of proposed PDFs and off-site PV installation. Comments received on alternatives analyses during 2018 public review were responded to, were part of the 2018 FEIR, and remain part of this FEIR. Issues related to need for additional alternatives, including the "Harmony Commons Alternative/Council Alternative" were specifically addressed in 2018 RTC O3a-50. Issues related to need for additional alternatives were explicitly litigated during the CEQA challenge to the Project and were not successful. Project 2018 FEIR analyses were upheld by the Court.

Implementation of the off-site GHG mitigation measure would occur under a CEQA exemption such as PRC Section 21080.35, and therefore would be exempt from environmental analysis. For purposes of clarity, however, it is noted that consistent with 2018 less than significant findings for the Project, as well as with 2024 recirculation of Subchapter 2.7, Section 2.7.5.1, potential need for new alternatives would not occur. CEQA Project design alternatives do not change based on

off-site GHG mitigation measure implementation that would not result in significant impacts. This is the case for the HGV South Project, as discussed above for each CEQA FEIR resource topic.

A few comments made on alternatives during the public comment period for the 2024 recirculated GHG analyses have been responded to in 2025 responses to comments. None of the queries raised resulted in changes to 2018 CEQA significance conclusions. Administrative editorial edits have been made on pages 4-8, -13, 20, -27, and -34 to eliminate references to M-GHG-2 (Project mitigation is now accomplished under a single mitigation effort, as opposed to being separated into construction and operational phases). In addition, portions of a page 4-13 footnote relative to proposed credit purchase, also no longer a GHG mitigation element, have been deleted.

No additional revisions to the alternatives analyses topics, analysis, or CEQA conclusions are required.

5.0 References Cited

The list of references cited from 2018 is retained. In addition, four sections preceding the 2018 references have been added on pages 5-1 through 5-4. "References Cited in 2024-recirculated Subchapter 2.7" note updated/new references from Subchapter 2.7, *Greenhouse Gas Emissions*, text circulated for comment in 2024. "References Cited in 2024 by Project Commenters" includes references for items cited in hazards comments received during 2024 GHG text circulation and responded to as part of the 2025 clarifications/responses to comments. "Reference Cited in Response to Public Comments that is Part of the Official County Project Records" includes a reference to one document for a project previously approved and implemented in the County, and "Reference that is Part of the Official Project Records for the 2018 FEIR" includes a citation to the 2018 Planning Commission public hearing transcript.

6.0 List of EIR Preparers and Persons and Organizations Contacted

No new persons or organizations were contacted, but individuals who participated in 2024 recirculation and 2025 FEIR efforts include some additional staff who were not involved in 2018 Project efforts. These individuals have been added to the list of preparers. Ldn Consulting, a previous team member, had an expanded role in recirculation efforts, which is also clarified.

7.0 List of Mitigation Measures and Project Design Features

As described in the 2024 recirculation of GHG information, a new GHG mitigation measure (M-GHG-1) deletes 2018 reliance on credit purchase, and instead requires in-County mitigation through PV system installation on an existing building that would not otherwise be upgraded. That mitigation measure is shown in Section 7.1.7 in track changes. In addition, focused PDFs have been deleted, revised and/or added to further clarify and strengthen PDFs included in the 2018 FEIR. Duplicative of Subchapter 2.7 PDFs, changes are shown in track changes in Sections 7.2.8 through 7.2.11 and include focused applicable Air Quality PDFs as well as GHG PDFs. Identical to Table 1-2 discussed above, where PDFs have only been renumbered to match Section 2.7 and *Global Climate Change* Report numbering, only the number is shown in track changes. Text is shown in track changes where substantive elements have been modified between the 2018 and 2025 FEIR documents. These amendments to the mitigation measure and PDFs do not result in

changes to the GHG CEQA conclusions (less than significant post-mitigation), or to any other CEQA significance conclusions discussed in this FEIR.

8.0 Letters Received on the Draft EIR, Revised Draft EIR, 2024 GHG Recirculation, and Responses

Volume II of this FEIR remains largely as approved in 2018, including the Volume II Information for the Reader provided in the 2018 FEIR. Volume II addresses comments received during circulation of the DEIR in 2017, as well as recirculated Subchapter 2.7 in 2018 following County changes to GHG evaluation. The individuals who commented, responses to their comments, and global responses authored to address common themes in comments submitted remain largely the same. Changes are focused and limited. The 2018 document assumed GHG mitigation measures (M-GHG-1 for construction-period and M-GHG-2 for operational-period emissions) would be offset through purchase of credits from a qualified bank after implementation of proposed PDFs. That is no longer the case. As documented in the 2025 FEIR Summary, Subchapter 2.7, and Chapter 7.0, mitigation now consists of PV panel installation on an existing commercial/industrial structure(s) within the County. As a result, in the Volume II Information for the Reader, a reference to GHG credit purchase has been struck. Similarly, in global responses, a reference to credit purchase offset and reference to Section 8.3.7 in Section 8.3.6 (page 8-58), and all of 2018 Section 8.3.7 of this chapter (pages 8-59 through 8-70) have been struck. Global responses following deleted Section 8.3.7 have been renumbered. One change regarding 2016 Title 24 was made on page 8-73, which has been updated consistent with 2024 Subchapter 2.7 recirculation. Similarly, in addition to direction provided in the Volume II Information for the Reader, references to credit purchase or M-GHG-2, 2016 Title 24, CALGreen, or natural gas in Volume II individual RTCs of this chapter should be read as struck.

Volume III is wholly new and has been added to the FEIR post 2018 circulation based on the 2024 recirculation of Subchapter 2.7 and Attached Documents, comments received during recirculation public review, and responses authored to comments received. It could be shown entirely in track changes. For the ease of reader review, it is shown in clean format. Volume III includes a list of 2024 comment-period commenters, four global responses prepared in response to comments received, and all of the individual comments received during the public comment period as well as responses to them.

The four global responses address:

- Res Judicata and New Information
- Lack of Need for Recirculation
- Reconsideration of General Plan Consistency Determination
- 2024 Fire / Evacuation

The first two global responses support the County in providing clarification regarding the legal concept of res judicata as well as documentation of why additional recirculation is not required. The last two global responses address issues raised consistently in the comments, including topics for which recirculation was not required based on County consideration of Court decisions (the affordable housing condition is also spelled out in Global Response: Reconsideration of General Plan Consistency Determination).

Individual responses were prepared where comments did not fall into the general categories noted above or presented more individualized comment. They are organized into two overall categories, Organizations and Individuals. All responses are identified starting with Re (Recirculation), followed by O or I (Organization or Individual), and then organized in alphabetical order. Where a single commenter submitted more than one comment, they are additionally identified as a, b, etc.

It is noted that two groups of late comments include comments received after close of public review at 4:00 p.m. on October 7, 2024.(and within approximately one week thereafter), as well as a group of letters received in January 2025. Late comments are not included within the body of the FEIR, but both the late comments and responses to them are available on the County website Project files.

FEIR Modifications CEQA Summary

As described within technical discussions and responses to comments as appropriate, each of these focused changes are clarifying in nature, do not constitute significant new information regarding the Project, and are consistent with CEQA significance conclusions reached in the 2018 FEIR as amended by the 2024 recirculation for GHG of Subchapter 2.7 and Attached Documents. No changes were identified to CEQA impact assessments based on these data.

Files Availability. The 2024 revised EIR section, previous 2018 EIR, and 2025 FEIR, as well as all relevant technical reports and attachments are available on the PDS website: https://www.sandiegocounty.gov/content/sdc/pds/ceqa_public_review.html, or at the PDS Project Processing Counter at 5510 Overland Avenue, Suite 110, San Diego, California, 92123.

HARMONY GROVE VILLAGE SOUTH

REVISED FINAL ENVIRONMENTAL IMPACT REPORT

PDS2015-GPA-15-002; PDS2015-SP-15-002
PDS2018-TM-5626; PDS2015-REZ-15-003
PDS2015-MUP-15-008; PDS2015-ER-15-08-006

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July 2025

HARMONY GROVE VILLAGE SOUTH PROJECT
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LIST OF ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
ACM	asbestos containing material
ADT	average daily trips
AEP	Association of Environmental Professionals
af	acre feet
afy	acre feet per year
AGR	agricultural supply
amsl	above mean sea level
APN	Assessor Parcel Number
AQAR	Air Quality Analysis Report
AQIA	Air Quality Impact Assessment
ARRA	American Recovery and Reinvestment Act of 2009
ASCE	American Society of Civil Engineers
ASM	ASM Affiliates, Inc.
AST	aboveground storage tanks
ATS	advanced treatment systems
Basin Plan	San Diego RWQCB Water Quality Control Plan for the San Diego Basin
BAT	best available technology economically achievable
BAU	business as usual
BCT	best conventional pollutant control technology
BIOL	biological habitats of special significance
BMI	benthic macroinvertebrate(s)
BMO	Biological Mitigation Ordinance
BMPs	best management practices
BOD	biochemical oxygen demand
BOS	biological open space
BRCA	Biological Resource Core Area
bsg	below surface grade
BTR	Biological Technical Report
BTU	British thermal units
CA	California
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CadnaA	Computer Aided Noise Abatement
CAFÉ	Corporate Average Fuel Economy
CalARP	California Accidental Release Program
CalEEMod	California Emission Estimator Model
CalEPA	California Environmental Protection Agency
CAL FIRE	California Department of Forestry and Fire Protection
CALGreen	California Green Building Standards
Caltrans	California Department of Transportation
CAP	Climate Action Plan

CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CASQA	California Stormwater Quality Association
CBC	California Building Code
CBI	Conservation Biology Institute
CCAA	California Clean Air Act of 1988
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CDM	Community Development Model
CEC	California Energy Commission
CED	California Energy Demand
CEQA	California Environmental Quality Act
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CESA	California Endangered Species Act
CFs	chlorofluorides
CFCs	chloroflurocarbons
CFC	California Consolidated Fire Code
CFD	Community Facilities District
CFR	Code of Federal Regulations
CFG	California Fish and Game Code
cfs	cubic feet per second
CGS	California Geological Survey
CH_4	methane
CH&SC	California Health and Safety Code
Chang	Chang Consultants
CHHSLs	California Human Health Screening Levels
CHP	California Highway Patrol
CLOMR	Conditional Letter of Map Revision
CMP	Congestion Management Program
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
COA	Conditions of Approval
COD	chemical oxygen demand
COLD	cold freshwater habitat
Construction General Permit	NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Discharges
COPPS	Community Oriented Police and Problem Solving
COS	Conservation and Open Space (Element)
County	County of San Diego
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources

CSA	County Service Area
CSD	San Diego County Sanitation District
CSMP	Construction Site Monitoring Program
CTMP	Community Trails Master Plan
CTP	County Trails Program
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
cy	cubic yards
DAWM	County of San Diego Department of Agriculture, Weights and Measures
dB	decibel(s)
dBA	A-weighted decibel(s)
DDHP	Del Dios Highland Preserve
DDT	Dichlorodiphenyltrichloroethane
DEH	San Diego County Department of Environmental Health
DM	Design Manual
DMA	drainage management area
DOGGR	California Department of Conservation, Division of Oil, Gas and Geothermal Resources
DOT	U.S. Department of Transportation
DPM	diesel particulate matter
DPW	County of San Diego Department of Public Works
Drainage Study	CEQA Preliminary Hydrology/Drainage Study
DRO	diesel range organics
DTSC	Department of Toxic Substances Control
DU/du	dwelling unit(s)
du/ac	dwelling unit(s) per gross acre
DWR	California Department of Water Resources
ECC	Escondido Creek Conservancy
EFHGFD	Elfin Forest/Harmony Grove Fire Department
EFRR	Elfin Forest Recreational Reserve
EO	executive order
EIR	Environmental Impact Report
EPIC	Energy Policy Initiative Center
ERTC	Escondido Research and Technology Center
ESA	Environmental Site Assessment
EST	estuarine habitat
EUHSD	Escondido Union High School District
EUSD	Escondido Union School District
^{o}F	degrees Fahrenheit
FAHJ	Fire Authority Having Jurisdiction
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act

FGC	Fish and Game Code
FHSZ	Fire Hazard Severity Zone
FIRM	Flood Insurance Rate Map
Floodplain Analyses	Hydraulic (Floodplain) Analyses for Harmony Grove Village South
FMMP	Farmland Mapping and Monitoring Program
FMZ	Fuel Modification Zones
FPP	Fire Protection Plan
FRAP	Fire and Resource Assessment Program
g	acceleration due to gravity
General Plan	County of San Diego General Plan
Geocon	Geocon, Incorporated
GHG	greenhouse gas
GIS	Geographic Information Systems
GPA	General Plan Amendment
gpd	gallons per day
gpm	gallons per minute
Groundwater Permit	NPDES General Waste Discharge Requirements for Groundwater Extraction Discharges to Surface Waters Permit
GWh	gigawatt hours
GWP	global warming potential
H&SC	Health and Safety Code
H_2S	hydrogen sulfide
HA	Hydrologic Area
HCM	Highway Capacity Manual
HEC-RAS	Hydrologic Engineering Center – River Analysis System
HFCs	hydrofluorocarbons
HGSA	Harmony Grove Spiritualist Association
HGV	Harmony Grove Village
HI	hazard index
HLP	Habitat Loss Permit
HMBP	Hazardous Materials Business Plan
HMD	Hazardous Materials Division
HMP	Hydromodification Management Plan
HMS	Preliminary Hydromodification Management Study
HOA	homeowners' association
hp	horsepower
HR	House of Representatives Bill
HRS	USEPA Hazard Ranking System
HSA	Hydrologic Subarea
HU	Hydrologic Unit
HVAC	Heating, Ventilating and Air Conditioning

I-15	Interstate 15
IBC	International Building Code
IBI	Index of Biotic Integrity
ICC	International Code Council
IEPR	Integrated Energy Policy Report
in/sec	inches per second
IND	industrial service supply
IOUs	investor owned utilities
IPCC	Intergovernmental Panel on Climate Change
ITE	Institute of Transportation Engineers
ISO	Insurance Services Office
JURMP	Jurisdictional Urban Runoff Management Plan
kg	kilogram
KV	key view
kV	kilovolt
kWh	kilowatt hours
LAFCO	Local Area Formation Commission
LBP	lead based paint
lbs/day	pounds per day
LBZ	limited building zone
LCFS	Low Carbon Fuel Standard
L_{EQ}	equivalent sound level
LF	Landfill
LGOP	Local Government Operations Protocol
LID	Low Impact Development
LLG	Linscott, Law and Greenspan Engineers
LOS	level of service
LPC	County of San Diego Light Pollution Code
LPPA	Local Park Planning Area
LTPP	Long Term Procurement Plan
LUST	leaking underground storage tank
MAR	marine habitat
MBTA	Migratory Bird Treaty Act
MEI	maximum exposed individual
MEP	maximum extent practicable
Metropolitan Water District	Metropolitan Water District of Southern California
MG	million gallons
mg/kg	milligram per kilogram
mg/l	milligrams per liter
mg/m^3	milligrams per cubic meter
mgd	million gallons per day
mpg	miles per gallon

MHCP	Multiple Habitat Conservation Program
MIGR	migration of aquatic organisms
MLD	Most Likely Descendant
MLS	mass loading station
MMT	million metric tons
MMTh	million therms
Montreal Protocol	Montreal Protocol on Substances that Deplete the Ozone Layer
mph	miles per hour
MPO	Metropolitan Planning Organization
MRZ	Mineral Resource Zone
MSCP	Multiple Species Conservation Program
MS4	Municipal Separate Storm Sewer Systems
MUN	municipal and domestic supply
Municipal Permit	NPDES Waste Discharge Requirements for MS4 Permit
MUP	Major Use Permit
MW	megawatt(s)
MWELO	Model Water Efficient Landscape Ordinance
MWh	megawatt hour
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NCCP	Natural Communities Conservation Program
NCTD	North County Transit District
NFPA	National Fire Protection Association
NHPA	National Historic Preservation Act
nm	nanometers
N_2O	nitrous oxide
NO	nitric oxide
NO_2	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NOP	Notice of Preparation
NO_X	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
NPL	National Priority List
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSLU(s)	noise-sensitive land use(s)
O_3	ozone
OAL	Office of Administrative Law
OES	Office of Emergency Services
OEHHA	Office of Environmental Health Hazard Assessment
OPR	California Office of Planning and Research

PACE	Property Assessed Clean Energy
PAMA	Pre-Approved Mitigation Area
Pb	lead
PCBs	polychlorinated biphenyls
pcphpl	passenger car per hour per lane
PDC	Project Design Consultants
PDF	Project Design Feature
PDPs	Priority Development Projects
PDS	(County) Planning and Development Services
PeMS	Caltrans Performance Measurement System
PFCs	perfluorocarbons
PGA	peak horizontal ground acceleration
PG&E	Pacific Gas & Electric
PLDO	Park Land Dedication Ordinance
$PM_{2.5}$	particulate matter smaller than 2.5 microns in diameter
PM_{10}	particulate matter smaller than 10 microns in diameter
POC	point of compliance
Porter-Cologne	State Porter-Cologne Water Quality Control Act
ppb	parts per billion
ppm	parts per million
PPV	peak particle velocity
PRC	Public Resources Code
Project/Proposed Project	Harmony Grove Village South
PV	photovoltaic
PVC	polyvinyl chloride
PWSI	Public Works Standards, Inc.
QSP	Qualified SWPPP Practitioner
RAQS	Regional Air Quality Strategy
RARE	rare, threatened, or endangered species
RCNM	Roadway Construction Noise Model
RCP	Regional Comprehensive Plan
RCRA	Resource Conservation and Recovery Act
REAP	Rain Event Action Plan
RECs	recognized environmental conditions
REC 1	contact water recreation
REC 2	non-contact water recreation
REL	reference exposure level
REZ	rezone
RES	Renewable Electricity Standard/Regional Energy Strategy
RFEIR	Revised Final Environmental Impact Report/2025 FEIR
RHNA	regional housing needs allocation
RMP	Resource Management Plan/Risk Management Plan
rms	root mean square
Rincon MWD	Rincon Del Diablo Municipal Water District

RPO	Resource Protection Ordinance
RPS	Resource Protection Study/ California renewable portfolio standard
RSFFPD	Rancho Santa Fe Fire Protection District
RTP	Regional Transportation Plan, or MOBILITY2030
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
SANTEC	San Diego Traffic Engineers' Council
SANDAG	San Diego Association of Governments
SARA	Superfund Amendments and Reauthorization Act
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SCIC	South Coastal Information Center
SCE	Southern California Edison
SCS	Soil Conservation Service
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SDCFA	San Diego County Fire Authority
SDCFC	San Diego Consolidated Fire Code
SDCWA	San Diego County Water Authority
SDG&E	San Diego Gas and Electric
SDREO	San Diego Regional Energy Office
SE	Sand Equivalent
s.f.	square feet, foot
SF_6	sulfur hexafluoride
SFR	single-family residence
SIP	State Implementation Plan
SLIC	Spills, Leaks, Investigation and Cleanup Program
SO_2	sulfur dioxide
SOI	sphere of influence
SO_X	oxides of sulfur
SP	Specific Plan/service population
SPA	Specific Plan Amendment
SQG	Small Quantity Generators
SR	State Route
SRA	State Responsibility Area
STC	Sound Transmission Class
SWF	Solid Waste Facility
SWPPP	Storm Water Pollution Prevention Plan
SWQMP	Storm Water Quality Management Plan
SWRCB	State Water Resources Control Board
T-BACT	Toxics Best Available Control Technology
TACs	toxic air contaminants
TCU	Transportation, Communication, Utilities and Street Lighting
TDM	Transportation Demand Management

TDS	total dissolved solids
TIA	Traffic Impact Analysis
TIF	Transportation Impact Fee
TIGER	Transportation Investment Generating Economic Recovery
TM	vesting tentative map
TMDL	total maximum daily load
TNM	Traffic Noise Model
TSM	Transportation System Management
TSS	total suspended solids
TWAS	Temporary Watershed Assessment Station
UBC	Uniform Building Code
UDC	Unified Disaster Council
Un	under capacity
Unified Program	Unified Hazardous Waste and Hazardous Materials Management Regulatory Program
U.S.	United States
USC	United States Code
USD	University of San Diego
USDOT	U.S. Department of Transportation
USACE	U.S. Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
UST	underground storage tank
UWMP	Urban Water Management Plan
VAP	Voluntary Assistance Program
V/C	volume-to-capacity ratio
VHFHSZ	Very High Fire Hazard Severity Zone
VIA	Visual Impact Assessment
VMT	vehicle miles traveled
VOCs	volatile organic compounds
vph	vehicles per hour
WARM	warm freshwater habitat
Weston	Weston Solutions, Inc.
WILD	wildlife habitat
WLAs	waste load allocations
WQBELs	water quality based effluent limitations
WRF	Water Reclamation Facility
WSA	Water Supply Assessment
WTWRF	Wastewater Treatment and Water Reclamation Facility
WUI	wildland urban interface
WUS	Waters of the U.S.
ZO	Zoning Ordinance

$\mu g/m^3$	micrograms per cubic meter

SUMMARY

SUMMARY

S.1 Project Synopsis

S.1.1 Location

The Harmony Grove Village South Project (hereafter referred to as "Proposed Project," "Project," or "HGV South") is located in the unincorporated portion of northern San Diego County in the community of Harmony Grove; approximately 2.5 miles west of Interstate 15 (I-15) and approximately 2.6 miles south of State Route 78 (SR-78). Escondido Creek flows east-west just north of the Project, and the City of Escondido is located to the east. County open-space parcels (the Del Dios Highland Preserve [DDHP]) abut the southern boundary of the Project. Primary access to the Project vicinity is provided by Harmony Grove Road (the nearest east-west connector) and Country Club Drive (a north-south connector that abuts the Project's western boundary).

The community of Elfin Forest is located approximately 4 miles to the west. The Proposed Project site vicinity is bordered by more intensive urban development in the cities of San Marcos and Escondido to the north and east, respectively. Palomar Medical Center is located approximately 2 miles to the north and Stone Brewery is located approximately 1.5 miles to the north as a crow flies. Both are part of the Escondido Research and Technology Center (ERTC), an industrial/ commercial, employment and services locus located within 1 mile north-northeast of the Project. The ERTC is accessed by Harmony Grove Road, as are large big box uses, located at Valley Parkway and I-15 and along Auto Park Way. Two transit centers – "Nordahl Road" and "Escondido Transit Center" – are also located nearby. The historic and well-known Harmony Grove Spiritualist Association (HGSA) is located approximately 0.25 mile west of the site, at the terminus of Country Club Drive.

S.1.2 Description

The Proposed Project is located on property that is connected topographically to the Harmony Grove Village (HGV), as it would be sited on the southeastern-most portion of the valley within which HGV is building. It is part of the same drainage basin and is located within the valley viewshed.

A number of overall planning considerations guided development of the HGV South Project plan. These considerations included: contiguity and integration into the HGV development; consolidation of Project footprint to provide the greatest amount of green space; circulation improvements that would benefit the entire Harmony Grove community located south of Harmony Grove Road; support of community-wide necessary services; and Project sustainability.

The Proposed Project consists of a land use plan that includes four use categories on an approximately 111-acre Project Plan Area; including residential, limited retail/commercial/civic, utilities/institutional, and open space/recreation uses, that are predominantly similar to the uses of the approved HGV. The residential portions of the Project would contain 453 residential units in five different home types, which would be clustered to allow for the greatest incorporation of green space. Cottages, Bungalows, and Harmony Court structures would be single-family residences;

Farmhouses and Granaries would be multi-family residences. Structures would range from 28 to 45 feet in height, with some architectural projections to provide visual interest and interrupt structural massing. Home sites have been designed to maximize protection from fires and accommodate a substantial brush management zone. The Project would satisfy 100 percent of its electrical/energy needs through on-site installation of solar photovoltaic (PV) systems on Project residences and the Center House.

The Project overall would contain approximately 75 acres, or 68 percent of the site, in undeveloped uses such as green space. This would include proposed biological open space (BOS), park areas and homeowner's association (HOA) maintenance district areas. The Project proposes to set aside BOS lots totaling approximately 34.8 acres that would be dedicated for permanent preservation on site, and would consist of natural (non-irrigated) areas located beyond the Project brush management zones. Thirteen parks (approximately 4.1 acres) are planned to be developed in HGV South, including seven public parks ranging from approximately 0.08 to 0.54 acre in size, and six private parks ranging from approximately 0.1 to 0.82 acre in size that would be operated and maintained by an HOA. Community gardens may be incorporated into one of the private park areas.

The "Center House" would provide a recreational gathering space and some retail commercial uses just south of the primary Project entry. The total square footage of structures associated with this use is approximately 5,000 square feet (s.f.; with a minimum of 1,500 s.f. of commercial use) to be accommodated within a small footprint and two stories (up to 40 feet, including any architectural projections) in height. This limited commercial land use category is intended to accommodate a private clubhouse that residents can join as well as small public commercial uses. An electric charging station would be provided.

The proposed development is consistent with the County's Community Development Model (CDM) whereby compact development is concentrated in and around a core area and then feathers out into lower density development and open space. The Project is compact enough to encourage residents to walk to amenities and services, as all residences would be within 0.5 mile or less (a less than 10-minute walk) from the Project's commercial and community center at the Center House to the HGV Village Core. The Project generally locates the lower-intensity residential uses around the perimeter of the site, providing transitions into the surrounding Semi-Rural uses.

In addition to the on-site uses, the Proposed Project would require the construction of on- and off-site infrastructure improvements associated with roads, water, and sewer. Circulation improvements include improving Country Club Drive to three lanes and improving the southern portion of the Harmony Grove Road and Country Club Drive intersection; participating in improvements to the crossing of Escondido Creek; and trail, road and pathway amenities as additionally summarized below. A system of public and private multi-use trails and pathways intended to serve pedestrians, equestrians, and other non-motorized forms of travel would weave throughout the Project; providing links to the existing and planned off-site San Diego County trail system and to HGV via the bridge over Escondido Creek.

The Proposed Project would improve the southern leg of the Country Club Drive and Escondido Creek Bridge intersection, meeting the intersection at right angles and providing both left- and right-turn lanes, a through lane for northbound traffic, and a southbound lane. This would

contribute to improvements to the overall intersection functioning, and would benefit all users passing through this intersection.

The improvements to Country Club Drive would continue to the south as the Project also would implement third-lane roadbed improvements from the intersection with Harmony Grove Road to the southern Project entrance, as well as the shoulder and pathway on the east side of the road, where Country Club Drive is sited along Project frontage. This width would accommodate Project traffic, as well as future loading anticipated during equestrian events at the HGV Equestrian Ranch (located contiguous to HGV South on the west side of Country Club Drive). As an ancillary benefit, emergency access (to allow emergency response vehicles in/residents, visitors and animals out) also would be improved for the Project, future HGV Equestrian Ranch and all others south of Escondido Creek.

Country Club Drive also currently includes a crossing of Escondido Creek. The County Department of Public Works (DPW) has reviewed implementation of a bridge at this location. The HGV South Project has taken this parallel planning process into account. The Project analyzes potential impacts associated with bridge construction, providing conservative footprint impacts and/or design detail as necessary. Although exact planning specifics have not been determined, a number of fundamental design items can be assumed. The bridge will need to (minimally) accommodate a 100-year storm as well as the potential for rising waters based on increased runoff relative to global climate change. The bridge also will need to accommodate connections to a planned regional trail identified for Country Club Drive in the County Community Trails Master Plan (CTMP), as well as in the approved HGV project, and a Project pathway on the east side of Country Club Drive. This anticipated design would wholly fit within the footprint of the Project-designed bridge analyzed in the EIR.

The Proposed Project would require the extension of waste water, recycled and potable water pipelines, as well as gas, electric, and phone/cable lines throughout the development and (excluding waste water under the Proposed Project) to off-site connection points. Wastewater treatment facilities needed to accommodate the proposed HGV South development would be built by the Project. The construction of a stand-alone wastewater treatment and water reclamation facility (WTWRF) within the Project would allow for treatment of HGV South sewage within the Proposed Project. The WTWRF would either comprise a wastewater treatment plant to match the HGV wastewater reclamation facility (WRF) in design or a new package membrane bioreactor plant (currently assumed for Project analyses). All Project wastewater is proposed to be reclaimed and reused for irrigation of on-site parks, parkways, and common areas (excluding the community gardens).

Discretionary actions and permits anticipated for the Proposed Project are detailed in the Discretionary Approval/Permit matrix in Chapter 1.0. Approving agencies include the County of San Diego (County), as well as the: U.S. Army Corps of Engineers (USACE), U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), State Water Resources Control Board (SWRCB), San Diego Regional Water Quality Control Board (RWQCB), San Diego Air Pollution Control District (SDAPCD) and Local Agency Formation Commission (LAFCO). Local detachments/attachments or approvals to service districts would occur with regard to Rincon del Diablo Municipal Water District (Rincon MWD), San Diego County Sanitation District, and the Rancho Santa Fe Fire Protection District (RSFFPD). School

district authorizations would be required from the Escondido Union High School District (EUHSD) and Escondido Union School District (EUSD).

S.1.3 Setting

In 2007, the County approved the designation of an approximately 500-acre area of land in the center of Harmony Grove Valley to become a new village to contain 742 single-story and two-story homes in village massing. (HGV's approved entitlements assumed first occupancy as early as 2008, with full build out of the Village occurring as early as 2013). The entire site has been rough graded, and approximately half of the site has been finish-graded. The construction of homes is under way, the WRF that will serve HGV has been constructed, major infrastructure has been installed and homes have been available for sale since May 2015. HGV straddles three sides of the area's literal "crossroads" at Harmony Grove Road and Country Club Drive; providing a focal point/center of the valley. Relative to HGV, the Project completes the fourth quadrant of the crossroads intersection; sited approximately 400 feet south of Harmony Grove Road, it is part of the HG "valley floor," and shares the valley's watershed and viewshed.

The HGV land use plan includes a pedestrian-oriented Village Center of public amenities, convenience retail, and commercial uses surrounded by a variety of single-family residential units, open space, and multi-use trails. HGV will contain an approximately 40,000 s.f. commercial core adjacent to Country Club Drive less than 0.4 mile (approximately 2,100 feet) north of the planned commercial/civic center located in HGV South and within 0.5 mile to its most dense residential uses. HGV's Village Center area is surrounded by a variety of single-family residential uses on lots ranging in size from approximately 2,500 s.f. to 1.5 acres, with residential densities generally decreasing as one moves away from the core. The HGV WRF is located at the northeast corner of Harmony Grove Road and Country Club Drive, approximately 550 feet north of HGV South's northern boundary. All of these uses are planned to be connected via the multi-use trail approved in the HGV EIR and shown on the County Trails Plan, and the improved creek crossing. This would additionally connect through the Project to the major open space recreational uses to the south (DDHP and EFRR). The HGV future Equestrian Ranch is located immediately across the street from Country Club Drive, west of the Proposed Project. That facility will feature a variety of equestrian uses along with limited commercial and residential components. Buildings on that site are anticipated to be one- and two-story structures.

County-owned community park areas built as part of HGV are located south of Harmony Grove Road and west of Country Club Drive. The easternmost of these facilities, which is equestrian themed, is close to the northwest corner of the Project (i.e., located just across the street and within 250 feet) from HGV South. The 2.8-acre site is designated Village Regional Category and provides an additional community gathering place for both HGV and the Project that is focused on equestrian exercise activities. An additional 2.9-acre Community Park area in HGV is located just west of the equestrian facilities and includes active recreation and parking.

Surrounding Areas

Other areas west of the Project include a diverse array of residential uses. The 39-lot Harmony Grove Spiritualist Association (HGSA) includes single-story residences on higher density lots (as small as 1,300 s.f.). One- and two-story homes are located on lots in the 5,000- to 10,000-s.f. range

in the flatter areas of this sector, and multiple story (three- and four-story) residences are present on much larger parcels. Moving easterly from the Proposed Project, there are large residences that can reach up to 40 feet height in terms of massing, even if there are as few as two stories. HGV South is planned to complete HGV; and as the "Village" designation and CDM direct, focus clustered residential and supporting village land uses on the valley floor. The Village is then surrounded by the lower density Semi-rural and Rural land uses, as the CDM directs. HGV South would offer building massing compatible with the overall valley character.

As indicated above, the Proposed Project is sited in the Harmony Grove Valley, located at the eastern foot of Mount Whitney, south of SR-78 and west of I-15. Within the above-referenced mixed residential and topographic setting, the Project is within a few minutes of drive time to the cities of Escondido and San Marcos.

The above-described areas in the Project site vicinity are bordered by more intensive urban development in the cities of San Marcos and Escondido to the north and east, respectively; and large expanses of natural open space to the west, south and southwest (refer to Figure 1-3). Uses within the region include a mix of agricultural, suburban, and urban developments. Palomar Medical Center is located approximately 2 miles to the north and Stone Brewery is located approximately 1.5 miles to the north, and are both part of the ERTC. The overall ERTC, (an industrial/commercial, employment and services locus), is located within 1 mile north-northeast of the Project. It is accessed by Harmony Grove Road. Other opportunities include the large big box uses at Valley Parkway and I-15 and along Auto Park Way and other light industrial and commercial uses between these locales and the Project. As described above, this Project is within 3 miles of the Nordahl Transit Station. That proximity allows residents to walk, bike or drive to the station, before accessing bus service or the SPRINTER light rail line to other points (both within the County, but also points north of the County) and other carriers, such as Amtrak. The SPRINTER light rail line runs every 30 minutes in each direction Monday through Friday, from approximately 4:00 a.m. to 9:00 p.m. The Escondido Transit Center (also with parking available) serves as the current eastern terminus of the North County Transit District's (NCTD's) SPRINTER and the northern terminus of the Breeze Rapid bus rapid transit line. It is also in the Project's general vicinity, being located just east of 1-15 and south of SR-78. Express bus service to downtown San Diego is available at the Center, as is local bus service to inland North County.

The Project site is surrounded on all sides, except to the immediate northwest, by a continuing series of hills and canyons, with approximately 20 ridgetops. Figure 1-5 in Chapter 1.0 shows the ridgelines that surround the valley, and unite all valley areas, including HGV and HGV South. These range from approximately 600 feet above mean sea level (amsl) to a high point of over 1,735 feet amsl at the top of Mt. Whitney, located to the west-northwest. Peaks with elevations approaching 1,300 feet amsl occur to the west and south of the Project site. This transition from ridgetop to valley floor provides a dramatic physical setting to the valley. Lower hills and knolls, ranging up to approximately 1,040 feet amsl, occur due east of the property. The one area that does not contain numerous hills and canyons in close proximity to each other is in the northwest quadrant of the Harmony Grove Road and Country Club Drive intersection.

Escondido Creek, which begins at the upper headwaters in Bear Valley above Lake Wohlford, trends southwesterly through the community, eventually flowing into the San Elijo Lagoon. The creek provides an important link between the unincorporated areas of Harmony Grove,

Questhaven, Elfin Forest, and Rancho Santa Fe. It offers recreational opportunities and numerous existing and planned trails traverse the area.

S.2 Summary of Significant Effects and Mitigation Measures that Reduce or Avoid the Significant Effects

Table S-1, *Summary of Significant Effects*, summarizes the results of the environmental analysis completed for the project. Table S-1 also includes mitigation measures proposed to reduce or avoid the environmental effects, with a conclusion as to whether the impact has been mitigated to below a level of significance. Detailed analyses of significant environmental effects are discussed in Chapter 2.0, and effects found not to be significant during preparation of the EIR or the Initial Study process are found in Chapter 3.0.

Environmental design considerations that have been incorporated into the project include measures to reduce environmental impacts. All of these environmental design measures are detailed in in Table 1-2, *Project Design Features*, of this EIR.

S.3 Areas of Controversy

A Notice of Preparation (NOP) was distributed on August 27, 2015 for a 30-day public review and comment period (refer to Appendix A for the NOP). Public comments were received on the NOP for this EIR and reflect concern or controversy over a number of environmental issues. In addition, a public scoping meeting was held on September 16, 2015 at the Elfin Forest-Harmony Grove Fire Department, located at 20223 Elfin Forest Road. A number of comment forms were collected from that meeting, as well as subsequent comments via e-mail or mail. These forms, e-mails, and letters are also included in Appendix A.

A total of 46 communications were received on the NOP from state agencies, groups and organizations, and individuals. State agencies include the CDFW and the California Department of Transportation (Caltrans). Groups and organizations include the Elfin Forest Harmony Grove Town Council, Escondido Creek Conservancy, San Dieguito Planning Group, and San Luis Rey Band of Mission Indians.

Issues raised in the NOP comment letters include concerns regarding the following issue areas:

- Visual impacts
- Greenhouse gases
- Noise associated with traffic
- Air quality and odor
- Traffic
- Cultural resources and tribal cultural resources
- Land use density
- Biological resources
- Community character
- Fire hazards
- Alternatives
- Geology and liquefaction
- Growth inducing impacts
- Hazards associated with the wastewater reclamation facility
- Water quality and hydrology
- Groundwater
- Water availability
- Wastewater treatment
- Recreation
- School impacts
- Utility districts, annexation for sewer
- Public services and utilities (fire, police, water, sewer)
- Agricultural resources

Issues raised within these letters are evaluated in this EIR in Chapters 2.0 through 4.0.

S.4 Issues to be Resolved by the Decision-making Body

An EIR is an informational document intended to inform the public agency decision makers and the public of the significant effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the Proposed Project. The lead agency (in this case the County) must respond to each significant effect identified in this EIR by making "Findings" for each significant effect. The issues to be resolved include whether or how to mitigate the associated significant effects, including whether to implement a project alternative, the determination of which is to be made by the decision makers. Preparation of a Statement of Overriding Considerations (explaining the overriding value of the Project despite adverse effects) would be required for any remaining significant and unmitigated impacts (i.e., those likely to be associated with short-term aesthetics, air quality impacts related to plan conformance, and traffic effects requiring approval by the City of Escondido, another lead agency under the California Environmental Quality Act [CEQA]).

Issues to be resolved that are directly related to the Proposed Project include the choice among alternatives and whether or how to mitigate the significant effects. In particular, the County must decide if the significant and unmitigated effects identified for the issues of aesthetics, transportation/traffic and air quality can be reduced further, and determine if the significant impacts associated with aesthetics, transportation/traffic, biological resources, cultural resources, and noise have been fully mitigated to below a level of significance. In addition, the County must determine whether any of the Project alternatives would substantially reduce significant aesthetics, transportation/traffic, biological resources, cultural resources, noise, and air quality effects while still meeting key Project objectives.

S.5 Project Alternatives

CEQA requires an EIR to consider a reasonable range of potentially feasible alternatives that would lessen significant impacts identified with the Proposed Project and to foster informed decision making. Chapter 4.0 of this EIR considers a no project (no build) alternative, as well as a total of four full development alternatives and a focused sewer alternative that addresses two sewer options.

The No Project/No Development Alternative evaluates the environmental effects of maintaining the property in its current condition in the long-term. Two development alternatives (the General Plan Consistent with Septic and General Plan Consistent with Sewer alternatives) propose residential uses allowed under existing General Plan land use designations. One alternative would increase density adjacent to the existing HGV Village through a General Plan Amendment (GPA), while being able to substantially reduce impacts associated with traffic (the Senior Care Traffic Reduction Alternative). One alternative proposes increases in density, but would minimize footprint impacts within a consolidated build footprint in order to preserve biological resources to a greater extent than the Proposed Project (the Biologically Superior Alternative). The No Project/No Development Alternative, as well as each of the full build alternatives, lowers impacts from the Proposed Project to a minimum of three resource areas. The Off-site and Combined On-/Off-site Sewer Options Alternative include two potential sewer options in lieu of constructing an on-site full WTWRF and was included to disclose the impacts that would occur if either of these two sewer options were to be approved instead of constructing a stand-alone plant within the Project.

If the environmentally superior alternative is the "no project" alternative, Section 15126.6(e)(2) of the CEQA Guidelines requires identification of another environmentally superior alternative. Based on impact comparison between the Proposed Project and evaluated alternatives, an environmentally superior alternative, other than the no project alternative, has been identified as the General Plan Consistent with Sewer Alternative. The discussion below starts with the environmentally superior alternative and continues with summaries of the remaining alternatives. Full analysis of impact comparisons is provided in Chapter 4.0.

S.5.1 General Plan Consistent with Sewer Alternative

S.5.1.1 *Description*

The General Plan Consistent with Sewer Alternative would allow development in accordance with the General Plan Land Use designation of the Semi-Rural Regional Category. Approximately 110 acres is designated Semi-Rural Residential (SR-0.5) and the remaining portion of the Project site is designated Rural Lands (RL-20). This alternative would implement the County's Conservation Subdivision Program (CSP) over the 110 acres designated as SR-0.5 in conjunction with Planned Development Regulations. The remaining approximately 1 acre would remain outside the CSP and be maintained as open space.

The intent of the CSP is to encourage residential subdivision design that improves the preservation of sensitive environmental resources and community character. Planned Development Regulations allow for reductions in lot size and other design restrictions for conservation subdivisions when a

certain percentage of open space is provided. Under Planned Development regulations, all properties within SR designations must contain a minimum of 40 percent of conservation/group open space. In addition, each lot must contain a minimum of 1,000 s.f. of private usable open space.

As shown on Figure 4-2, *General Plan Consistent with Sewer Alternative*, the CSP and PD Regulations would apply to the 110 acres designated as SR-0.5. This alternative would yield 119 single-family homes constructed on minimum 6,500-s.f. lots and sited to preserve sensitive biological resources. Some lots in the north of the alternative, all along the eastern and southern extents, and along the western site boundary south of the curve in Country Club Drive, would be larger, ranging from approximately 0.5 acre to 2.0 acres in size. Approximately 738,000 cy of cut and fill soil would be required for this alternative. This is approximately 13 percent less than the 850,000 cy assumed for the Proposed Project. This alternative would grade approximately 62 acres (59 percent of the site) and develop approximately 49 acres (approximately 44 percent). Approximately 44 percent of the site (49 acres of open space) also would be dedicated for conservation/preservation, and each of the lots would be required to include 1,000 s.f. of private open space. Also, steep natural slopes outside the development footprint would be preserved to a greater degree than under the Proposed Project. Despite this, a waiver for encroachment into insignificant RPO steep slopes as well as an exception for roadways would be required, similar to the Proposed Project.

Due to the fewer number of units, this alternative would not include trails, a community center or commercial mixed use. Six parks would be provided, however, consistent with the County Park Land Dedication Ordinance (PLDO) and Subdivision Ordinance requirements. Because of the efficient footprint within the heart of the alternative, benching and retaining walls would be required to support alternative pads. All internal roadways would be private and would be constructed to the same standard as proposed by the Proposed Project.

The General Plan Consistent with Sewer Alternative would require connection to a WRF because the smaller lot sizes make individual septic units impossible. Because the HGV Specific Plan and Community Plan currently require that HGV's WRF be used only for HGV to provide sewage service to Village homes, this alternative would require a GPA to allow for connection to the HGV sewage treatment facility and also would require an amendment to the HGV Specific Plan and an Elfin Forest/Harmony Grove Community Plan Amendment to allow sewer services to be provided to Semi-rural designated areas beyond the HGV Village boundaries.

The purpose of this alternative would be to avoid or reduce impacts to sensitive resources (steep slopes and biology) in the block of open space surrounded on two sides by DDHP, as well as steep slope impacts in the northeast portion of the alternative, traffic and aesthetic impacts associated with the Proposed Project. It also would provide consistency with the existing general plan land use designation with a greater number of units through utilization of the CSP and PD regulations.

S.5.1.2 *Environmental Impact Comparison with Proposed Project*

In terms of environmental impacts, the General Plan Consistent with Sewer Alternative would result in less aesthetic, transportation/traffic, air quality, and noise impacts than the Proposed

Project. CEQA conclusions for impacts to cultural and biological resources and greenhouse gas (GHG) emissions would be similar.

Although this alternative would reduce impacts it does not achieve all of the Project objectives to the same degree as the Proposed Project. It would not provide an efficient development pattern in close proximity to an existing village consistent with the CDM that creates one complete and vibrant village community and enhances and supports the economic and social success of the existing village and the alternative. The low density single-family pattern represented in this alternative has limited ability to support the economic and social success of the existing village and the alternative because it would not increase the number and diversity of residents and land uses when compared to the Proposed Project.

The single-family land use pattern represented in this alternative, with its associated reduced number of units and auto-dependent development pattern (no trails and pathways) would not contribute to the establishment of a community that encourages and supports multi-modal transportation. Similarly, this alternative's land use pattern (single family) is inferior to the Proposed Project relative to encouraging a mix of residential units and a broad range of housing choices which result in a diversity of residents. Also as a result of having substantially fewer units when compared to the Project, this alternative is less effective in optimizing the operational effectiveness of public facilities and services of the existing village. When compared to the full range of passive and active recreational opportunities provided by the Proposed Project, including the Center House community area and multiple parks throughout the Proposed Project, as well as trail heads and trails, the alternative would be less effective in providing a variety of passive and active recreational opportunities to support a healthy and active lifestyle. This alternative would not create a destination gathering place with a variety of land uses, such as the Project's Center House, that would encourage walkability, social interaction and economic vitality.

This alternative would develop a larger footprint than the Project because the lots are generally larger, more spread out and under individual owner control. (The Project would cover approximately 32 acres in lots and streets and the alternative would cover approximately 49 acres.) Within the development footprint, the more intensive engineered nature of the grading – with additional benching and retaining walls, and lessened contour/adaptive grading – would not respond to the site's physical variables to the extent of the Proposed Project. Topographic variation and visibility to existing site characteristics would be lessened from that achieved by the Proposed Project because, rather than consolidating development in areas that can be contoured by design, the lots would be uniformly spread across the developed portion of the site; uniformly requiring access and usable pads on each lot. Views to developed lots and streets would be increased under the alternative and sight-lines into the site and between structures afforded by the Proposed Project would be reduced, although balanced somewhat by a reduction in building on steep slopes in the northeastern portion of the property, and the potential for some sight-lines between homes on the larger lots on the central bench. Overall, this alternative would not be as responsive as the Proposed Project in selectively placing development in a manner that visually and physically responds to the site's physical variables.

This alternative would preserve and enhance biological resources, and it would accomplish this to an extent greater than the Proposed Project in the southern area abutting DDHP.

S.5.2 No Project/No Development Alternative

S.5.2.1 *Description*

Under the No Project/No Development Alternative, the Project site would remain in its current condition. The native and non-native habitat throughout the site would remain intact. The above-ground transmission line that currently bisects the property, the paved and dirt roads providing access to single-family residential uses east of the Project, and the unimproved trail access to DDHP, would continue to exist. Some encroachment into the property by abutting parcels along Cordrey Drive, with related uncontrolled runoff into Escondido Creek, also would be likely to continue.

The Proposed Project residential and commercial uses would not be constructed; nor would supporting infrastructure such as improved road elements, the WTWRF, and other utility upgrades. In addition, the Project-proposed BOS preserve, and HOA-maintained landscaped areas (as well as larger community serving amenities such as pathway and trail connections and the destination gathering location at the Center House and multiple park areas) would not be created.

S.5.2.2 *Environmental Impact Comparison with Proposed Project*

As shown in Table S-2, the No Project/No Development Alternative would avoid a number of significant impacts associated with the Proposed Project, including: (1) significant and unmitigated aesthetics, air quality, and transportation/traffic impacts; and (2) significant but mitigated impacts related to aesthetics, biological resources, cultural resources, noise, and transportation/traffic. GHG impacts would be similar to the No Project in that (although there would be emissions associated with the Project that would not occur under the alternative), Project emissions would be mitigated to carbon neutral net zero, with the overall global effect on climate change being similar.

The No Project/No Development Alternative would fail to meet all of the Proposed Project objectives, however, relative to provision of housing and support of facilities and services provided by HGV, provision of mixed residential uses to support diversity of resident and land uses, or creation of a mixed-use development. It also would not provide any of the amenities offered to the community at large relative to support of multi-modal transportation options, provision of a variety of passive and active recreational opportunities, or provision of a destination gathering place for the Project and surrounding areas. Permanent set aside of important and managed biological resources that would contribute to the block of preserved habitat located in the DDHP and EFRR also would not occur. Specifically, the long-term preservation of resources could not be assured as would occur under the Project, which would include dedication of land in permanent open space. Also, the management of conservation values including large segments of coast live oak woodland and southern mixed chaparral (containing wart-stemmed ceanothus), that would result from the permanent preservation of open space on the site, would not occur under this alternative. Improvements to potential wildlife movement by Project implementation of the bridge over Escondido Creek (allowing wildlife to pass under the bridge rather than crossing the vehicular travel way), as well as improvements to creek water quality resulting from removal of the at-grade crossing and underlying culverts and re-creation of a free-flowing creekbed, also would not be expected to occur. In addition, improvement of Country Club Drive roadbed and pathway and

related improvement of emergency access to areas south of the creek, would not occur, and off-sets to the north and south approaches to the Harmony Grove Road and Country Club Drive intersection would continue, retaining this awkward formation.

S.5.3 General Plan Consistent with Septic Alternative

S.5.3.1 *Description*

The General Plan Consistent with Septic Alternative would be consistent with the existing General Plan land use designation of Semi-Rural and would avoid substantially more RPO steep slopes than the Proposed Project. Almost 90 percent of the home pads are sited wholly out of steep slopes. This alternative would not require a GPA. The purpose of this alternative would be to provide consistency with the existing general plan land use designation and avoid, or reduce, traffic and noise impacts associated with the Proposed Project.

This alternative includes 49 single-family residential homes on 1-acre or greater lots. Larger lot sizes are needed in order to meet the County's septic system requirements with respect to the Project's unique geologic/soils characteristics. The residential lots would have approximately 5,000-s.f. pads that would be sited throughout the property parcels in a dispersed, rather than consolidated, pattern that is based upon the soils characteristics found on the site. This alternative assumes an advanced on-site wastewater treatment septic system, requiring approximately 3,500 s.f. per lot.

The manufactured slope located along Country Club Drive south of the WTWRF would not be built, and grading quantities overall are expected to total approximately 660,000 cubic yards (22 percent less than the Proposed Project grading of 850,000 cy), within approximately 25 acres of surface disturbance (approximately 63 percent less surface ground disturbance than would result from the Proposed Project). This alternative would initially grade approximately 56 acres (50 percent of the site), and develop on approximately 56 acres (or 50 percent of the site).

Approximately 55 acres (also approximately 50 percent of the site) would be placed into open space set-aside containing some steep slopes and biological resources associated with the lots. This open space would not be placed into a preserve managed by an independent land manager, but would be restricted in use on each individual lot. This alternative would not include any commercial, parks, or other recreational uses, including a community gathering locale, given the small number of residential units on site. While there are fewer homes under this alternative, larger lots spread over the entire site would still require an extensive road system and utility lines (e.g., potable water).

S.5.3.2 *Environmental Impact Comparison with Proposed Project*

As shown in Table S-2, the General Plan Consistent with Septic Alternative would result in reduced impacts to transportation/traffic, noise and air quality when compared to the Proposed Project. CEQA impact conclusions would be similar for long-term aesthetics, cultural resources and GHG emissions. Biological resources impacts would be less for habitat impacts and greater for biological function.

Although this alternative would reduce some impacts and be consistent with the General Plan, it would not achieve the underlying purpose of the Project of accommodating a portion of the projected population growth and housing needs in San Diego County by expanding an existing village that will further enhance and support the success of that village. Also, the alternative would not meet the Project objectives to the same degree as the Proposed Project, as described below.

The low density, dispersed pattern of development provided in this alternative not provide an efficient development pattern in close proximity to an existing village consistent with the Community Development Model (CDM). The General Plan Consistent with Septic Alternative has a limited ability to support the economic and social success of the existing village when compared to the Proposed Project because the substantial decrease in number of residents would not provide the same level of support to HGV's commercial uses and the alternative would lack the diversity in land uses needed to promote social interaction. Similarly, the alternative's land use pattern (dispersed large-lot single-family) would not provide a mix of residential units and a broad range of housing choices resulting in a diversity of residents and land uses. With substantially fewer units, this alternative would be less effective in optimizing the operational effectiveness of public facilities and services of the alternative or the existing village.

The low density dispersed land use pattern would not contribute to the establishment of a community that encourages and supports multi-modal transportation including walking or bicycling. Similarly, it would not create a destination gathering place with a variety of land uses, such as the Project's Center House, that encourages walkability, social interaction and economic vitality. The alternative would not provide the full range of passive and active recreational opportunities provided by the Proposed Project. The alternative appears to better physically respond to the site's physical variables through use of less grading, but would encroach into visible areas that would be retained as open space by the Proposed Project as a site feature.

Due to reduced grading and surface disturbance, the General Plan Consistent with Septic Alternative would impact fewer acres of habitat than the Proposed Project. It would include lots further to the south than the Proposed Project, however, would result in additional impacts to wart-stemmed ceanothus and potentially coast live oak woodland, and would bring residential units closer to DDHP. This alternative would result in a greater level of fragmentation to preserved open space than the Proposed Project. This is because the retained habitats would contain dispersed housing and roads to access them, resulting in fingers of preserve being located within and throughout the alternative development scenario. These interspersed preserve areas would be subject to greater levels of edge effects than under the Proposed Project. Similar to the Proposed Project, therefore, the General Plan Consistent with Septic Alternative would preserve and enhance biological habitat and landforms in dedicated open space easements. It would not, however, enhance sensitive biological resource function to the same extent as the Proposed Project.

S.5.4 Senior Care Traffic Reduction Alternative

S.5.4.1 *Description*

The Senior Care Traffic Reduction Alternative is intended to substantially reduce impacts associated with traffic in the context of providing a development pattern that would increase density adjacent to the existing HGV Village through a GPA. This alternative consists of a senior

citizen community made up of 266 single-family age-restricted residences and five two-story structures totaling 120 units of managed care facility. The trip generation rates for-age restricted residential units and a managed care facility are substantially less than non-age-restricted residential units. The Proposed Project is projected to result in 4,530 ADT based on 10 trips per residence. The trip rates for age-restricted and managed care facilities are 4 trips per residence and 2.5 trips per unit, respectively. Using this generation rate, development under the Senior Care Traffic Reduction Alternative would result in 1,364 ADT, or 3,166 (70 percent) fewer trips than the Proposed Project per day.

This alternative would incorporate the unique design requirements for this type of development. All 266 single-family residences would be one story due to the age-related nature of the development. Also, given the demand for security features in such projects, the single-family residential units as well as the managed care units would be clustered into discrete gated neighborhoods. Public pedestrian access between the neighborhoods and provision of a sense of connection between the neighborhoods and HGV would be provided. Each of the neighborhoods, including the numerous **(**17) small parks, would be located in a manner that complies with the County's PLDO requirements and allows accessibility to the public.

No commercial uses or community gathering locale would be provided because the fewer number of single-family dwelling units in this alternative would not be able to support such uses on site. This alternative would include an on-site WTWRF and all roads within the community would be private, similar to the Proposed Project. A landscaping plan would be implemented as part of this alternative. Due to the lower-density design (generally single-story residences that appeal to the age-restricted market) the grading footprint would be greater than the Proposed Project. This alternative would grade approximately 82 acres (74 percent of the site), and develop on approximately 66 acres (60 percent) of the site. This alternative also would have greater grading quantities (1,450,000 cy) than the Proposed Project; approximately 71 percent more than the Proposed Project at 850,000 cy. Area retained in undisturbed open space would be approximately 30 acres, or 27 percent, of the site. Combined with parks and other internal landscaped area (approximately 15 acres) would result in a total of approximately 45 acres (41 percent of the site) in open space. In order to accommodate the alternative's more dispersed development design, two of the gated neighborhoods would be extended into a small portion of the area that is preserved as open space by the Proposed Project and on the portion of the project that contains insignificant RPO steep slopes; this would extend into a large block of open space in the southern part of the site that would be avoided by the Proposed Project. The alternative would also require a waiver under RPO. Similar to the Proposed Project, the Senior Care Traffic Reduction Alternative would require a GPA, rezone and approval of a Specific Plan.

S.5.4.2 *Environmental Impact Comparison with Proposed Project*

Overall, the Senior Care Traffic Reduction Alternative reduces several impacts, but also increases several impacts, in comparison to the Proposed Project. The alternative would result in substantially less transportation/traffic, which would result in related decreases in noise, and reduced air quality emissions, from the Proposed Project. Biological resources impacts would be greater than the Proposed Project. Cultural resources and aesthetic impacts would be similar for this alternative in comparison to the Proposed Project. GHG impacts also would be similar to the Proposed Project in that the alternative's emissions also would be mitigated to net zero.

The Senior Care Traffic Reduction Alternative does not achieve all of the Project objectives to the same degree as the Proposed Project. The alternative would not provide an efficient development pattern in close proximity to an existing village because of its dispersed development pattern. Also, when compared to the Proposed Project, the alternative offers a substantially fewer number of units and a singular product type, which limits the ability to fully support the economic and social success of the existing village and this alternative. Although the alternative would be located near regional employment and transit centers, the lower density and dispersed land use pattern represented in this alternative comprises an auto-dependent development pattern that would not contribute to the establishment of a community that encourages and supports multi-modal transportation through walking and bicycling. Similarly, the alternative's limited product offering would not provide a mix of residential units and a broad range of housing choices; encouraging a greater diversity of residents or providing a wider range of housing opportunities to complement the adjacent village's land uses. Also, with substantially fewer units, the alternative is less effective in optimizing the operational effectiveness of public facilities and services of the existing village. When compared to the full range of passive and active recreational opportunities provided by the Proposed Project, this alternative also is less effective in supporting healthy and active lifestyles. The increased grading footprint for the alternative is inferior to the Proposed Project relative to preservation and enhancement of biological resources, as well as increased fragmentation of that open space when compared to the Proposed Project.

This alternative would not create a destination gathering place with a variety of land uses, such as the Project's Center House, that would encourage walkability, social interaction and economic vitality. Finally, the alternative would require modification of 600,000 cy of soil more than the Proposed Project, have a larger grading footprint, and, ultimately, result in more area developed long-term in lots and streets than the Proposed Project. As a result, the amount of topographic variation and visibility to existing site characteristics would be lessened from that achieved by the Proposed Project due to the greater acreage allotted to lots and streets under the alternative, the obscuring of site soils with structures, and the reduced sight-lines into the site and between structures afforded by the Proposed Project.

S.5.5 Biologically Superior Alternative

S.5.5.1 *Description*

The Biologically Superior Alternative utilizes the densities of the Village designation relative to Diegan coastal sage scrub and Diegan coastal sage scrub-dependent species while addressing the issues that were raised by the wildlife agencies during Project batching meetings and an on-site meeting held in 2015. The alternative does not extend the development footprint as far to the east as the Proposed Project, and would preserve a larger portion of Diegan coastal sage scrub than would be preserved by the Proposed Project.

In order to accommodate the densities of the Village designation within a restricted development footprint, the Biologically Superior Alternative would locate a total of 425 multi-family residences within 54 three-story structures. The westernmost of the buildings would be sited closer to Country Club Drive than the Proposed Project. Particularly along the northern portion of the Project, there would be a correspondingly lesser breadth of landscaping between the public street and alternative structures. All of the 54 buildings would be similar in height to the tallest buildings in the Proposed

Project. An HOA building (including a pool and small structure) would be located in the center of the development footprint and would only be available to the residents of the alternative. Landscaping would be provided throughout the alternative site. Public parks would be located within this alternative, and would be consistent with the County PLDO and Subdivision Ordinance, but no public destination gathering space would be provided because of the lack of space afforded this development footprint. All internal roads would be private, the same as the Proposed Project. Assumptions for the WTWRF and off-site utilities also would be the same as for the Proposed Project. Approximately 46.5 acres of BOS (approximately 42 percent of the site) would be permanently preserved under this alternative.

This alternative would reduce steep slope impacts from those of the Proposed Project due to the footprint eliminating some northeastern portions of the Project, and generally being north of most on-site RPO steep slope areas. Despite this, a waiver for encroachment into insignificant RPO steep slopes as well as an exception for roadways would be required, similar to the Proposed Project. This alternative would grade approximately 65 acres (59 percent of the site), and develop approximately 50 acres (45 percent) of the site. Under this alternative, specific development locales would be additionally graded to provide the most efficient use of the limited development footprint on the site. As a result, topographic variation would remain, but not to the same extent as under the Proposed Project. Although this alternative could additionally modify more steep slopes within the development footprint than the Project, the encroachment per lot could be restricted to 10 percent. Similar to the Proposed Project, this alternative would require a GPA, rezone and approval of a Specific Plan.

S.5.5.2 *Environmental Impact Comparison with Proposed Project*

The Biologically Superior Alternative would result in fewer impacts to biological resources, noise, and air quality than the Proposed Project. Impacts to cultural resources would remain the same (unlikely but mitigable if occurring), and GHG emissions impacts also would be similar (mitigated to net zero). Aesthetic impacts would be greater for this alternative in comparison to the Proposed Project.

The Biologically Superior Alternative would not achieve all of the Project objectives to the same degree as the Proposed Project. The number of units and clustering provided in this alternative would provide an efficient development pattern by utilizing a compact form of development that avoids the most sensitive biological resources on the site and is located adjacent to an existing village. However, the alternative would not comply with the CDM because of the consistent massing created by its three-story structures and the lack of notable swaths of landscaped areas, providing no transition into the less dense existing development to the west and east. The alternative also would provide only a singular product type (stacked multi-family flats), with no commercial uses incorporated into the HOA building. Therefore, this alternative would not encourage development of a complete and vibrant community that would enhance and support the economic and social success of HGV village and the Project by providing a diversity of residents and land uses to the same extent as the Proposed Project.

The higher density clustered development pattern of the Biologically Superior Alternative is one attribute of a community that encourages and supports multi-modal transportation. It would be inferior to the Proposed Project, however, due to the lack of alternative trails or inclusion of a

commercial component into the HOA building that would provide additional incentives for biking and walking within the community. This alternative would not provide a mix of residential uses that would which encourages a broad range of housing choices to support a diversity of residents and land uses.

This alternative may contribute to optimizing the operational effectiveness of public facilities and services of the existing village through increasing the number of residents, but would not increase the diversity of its residents, because it would provide only one type of housing product. Nor would it be compatible with existing development to the east and west of the site. The massing created by the alternative's three-story structures would not provide the same transition into existing uses as the Proposed Project. Long-term visual impacts also would result due to the structural massing of buildings located immediately adjacent to Country Club Drive that would be visible from the immediate vicinity of the property.

When compared to the full range of passive and active recreational opportunities provided by the Proposed Project (reduced recreation facilities to accommodate the smaller construction footprint), this alternative would be less effective at supporting healthy and active lifestyles. This alternative would not create a destination gathering place with a variety of land uses, such as the Project's Center House, that would encourage walkability, social interaction and economic vitality. Although the alternative would have a smaller footprint than the Proposed Project, the alternative would have less topographic variation and visibility of existing site characteristics than the Proposed Project. This is the result of greater acreage allotted to development under the alternative, the need for focused additional grading to attain the most efficient development pattern within the reduced site envelope, and the reduced sight-lines into the site and between structures.

The Biologically Superior Alternative would preserve and enhance biological resources to a greater extent than the Proposed Project.

S.5.6 Off-site and Combined On-/Off-site Sewer Options Alternative

S.5.6.1 *Description*

The Off-site and Combined On-/Off-site Sewer Options Alternative provides two sewer scenarios for the Project. It includes an optional design scenario for the provision of sewer service, in lieu of the proposed on-site WTWRF and related facilities, as well as an optional design scenario to provide a combined on-/off-site wastewater treatment program. The full Project WTWRF (approximately 0.4 acre in size) would not be constructed under these scenarios. All other aspects of the Off-site Sewer Options Alternative are the same as the Proposed Project, and the wastewater treatment options would be incorporated within the overall build program. These potential off-site sewer options are summarized below.

<u>Connection to the HGV WRF</u>

Under this option, if use rates at the HGV WRF demonstrate that it could accommodate the flows from both the Proposed Project and HGV as it is currently built, the existing HGV WRF would be used to serve the Proposed Project. The sizing of the existing HGV facility, or its site, would not be increased to accommodate the Proposed Project. This option would only be utilized if it could accommodate both projects under its current design. In order to utilize the same wastewater

treatment facility, HGV South would either annex into HGV's existing community financing district or establish another financing mechanism that would provide additional funding to support the services required for HGV and this project. Project sewage would be transferred to the HGV pump station located west of Country Club Drive on the south side of Harmony Grove Road. The HGV pump station facility sizing and emergency generator also would accommodate the Project. No changes are proposed to the emergency generator at the pump station. From the existing HGV pump station, an existing redundant system (two force mains, only one of which would be active at any one time) extending from the pump station within Harmony Grove Road to Country Club Drive and then northerly along Country Club Drive to enter the Harmony Grove WRF on the east side of Country Club Drive would be utilized. A maximum of 8,127,000 gallons of wet weather storage required for the Project would be provided through use of the on-site storage proposed for the Project. Alternatively, other scenarios could be explored in the future, as appropriate, such as by expanding the existing wet weather storage on HGV, or it could be on another site (e.g., Rincon MWD 3-million gallon tank just north of the Village Road, east of Country Club Drive).

Combined On-/Off-site Wastewater Treatment

Each of the specifics described above regarding the HGV WRF existing facilities and capacities applies to this option as well. This design scenario would integrate HGV South facilities into the existing HGV WRF, but not assume full transfer of all operations to the existing facility. It would increase the efficiencies of both facilities by avoiding redundancies that would result in constructing identical facilities that would not be needed to serve the additional sewage generated by the Project, such as an operations or administration building. Thus, the Project would construct only those facilities that would complement the existing system in place at HGV and that may be needed to serve the additional sewage generated by the Project.

This approach would be able to utilize existing solids processing facilities on the HGV site, reducing the volume of solids to be delivered by truck elsewhere. Under this option, the existing laboratory at the Harmony Grove WRF would also be utilized by the on-site facility (similar to the Proposed Project). A pump station would be included within the on-site facilities, and off-site utilities would include the gravity feed lines to the existing pump station on Harmony Grove Road, as well as a sewage solids line and potential fiber optics line extending from the Project north along Country Club Drive into the HGV WRF.

S.5.6.2 *Environmental Impact Comparison with Proposed Project*

The Off-site and Combined On-/Off-site Sewer Options Alternative was included to disclose the impacts that would occur if either of these two sewer options were to be approved instead of constructing a stand-alone plant within the Project. The analysis of these two options includes all of the issue areas that are needed to allow the decision maker to adopt either of the options in lieu of the stand-alone plant without the need for additional analysis under CEQA.

Potential impacts of the sewage treatment options would be largely short-term (construction-related) in nature and otherwise subsidiary to the larger impacts of the development alternatives. The off-site sewer option, which would replace the on-site WTWRF, as well as the combined on-/off-site option, would be expected to result in generally similar impacts to those described for the Proposed Project when combined with the residentially related portions of the Project.

Specifically, this would include potentially significant and unmitigable impacts related to aesthetics, transportation/traffic and air quality, as well as significant (or potentially significant) but mitigated impacts for the issues of aesthetics, biological resources, cultural resources, noise, GHGs, and transportation/traffic. No additional cumulative GHG impacts would occur.

Potential operational impacts identified for noise associated with operation of the WTWRF, and to non-native grassland impacts, would be eliminated for the off-site option included under this alternative, but would remain for the combined on-/off-site option. Unlikely, but potential cultural resources impacts would remain for both options. A number of these impacts may vary slightly from those identified for the Proposed Project; however, these variations would be relatively minor and would not alter overall Project impact levels or associated need for mitigation or implementation of specified Project Design Features. Both of the sewer options identified under this alternative would meet the identified Project objectives when combined with the Proposed Project and would differ from the Proposed Project to the same level as each of the three development alternatives addressing sewer, if combined with those development alternatives.

S.5.7 Environmentally Superior Alternative

Although the No Project alternative would result in reduced environmental impacts, Section 15126.6(e)(2) of the State CEQA Guidelines requires identification of an alternative other than the No Project as the environmentally superior alternative. Table S-2, *HGV South Full-Build Alternatives Comparison of Impacts*), summarizes each of the full-build alternatives (i.e., those alternatives that would result in substantially different development patterns and uses as a whole for the Project property).[1]

Based on the above CEQA requirement, the General Plan Consistent with Sewer Alternative is identified as the environmentally superior alternative. When compared to the Proposed Project this alternative would have similar or reduced impacts to aesthetics, biological resources, transportation/traffic, cultural resources and tribal cultural resources, noise, air quality and GHGs. It would also reduce the Proposed Project's significant and unavoidable impact to traffic and air quality.

This is the result of the lessened encroachment into sensitive biological habitat both on the southern extent of the Project, minimization of steep slopes impacts associated with eastern and southern extents of the Project, conformance with the 2016 RAQS, and fewer projected daily vehicular trips associated with the alternative, resulting in no significant and unmitigated traffic impacts in the City of Escondido and fewer significant and mitigable impacts in the County.

[1] Because the potential sewer treatment design scenarios are limited in geographic scope, and only would be implemented as part of one of the full-build alternatives, they are not included in Table S-2. They do, however, receive relevant discussion in Chapter 4.0, *Alternatives*, of this EIR.

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Table S-1
SUMMARY OF SIGNIFICANT EFFECTS

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
SIGNIFICANT AND UNAVOIDABLE IMPACTS			
Project-level Impacts			
Subchapter 2.1, Aesthetics			
2.1.2.1 ***Potential Conflict with Important Visual Elements or Inconsistency with Applicable Design Guidelines***			
AE-2	Visual effects during and following the Project construction period related to vegetation removal, grading, bridge construction and vertical development would be substantial until buildout occurs and all vegetation is installed and reaches visual maturity in approximately 10 years.	**None:** No mitigation is available to reduce the short-term visual impacts during and immediately following construction. While temporary in nature and ultimately addressed through Project design and landscaping over the long-term, short-term adverse visual impacts to the Project site's visual character associated with Project construction would be significant and unmitigable.	**Significant and Unmitigable (temporary)**
Subchapter 2.2, Transportation/Traffic			
2.2.2.3 ***Roadway Segments***			
TR-1a	The Proposed Project would have a direct impact at the roadway segment of Country Club Drive from Auto Park Way to Hill Valley Drive in the City of Escondido (LOS D).	**M-TR-1a:** Prior to occupancy of 80 Project units, Country Club Drive shall be widened to provide a paved width of 36 feet consisting of two travel lanes and a 10-foot striped center turn lane starting 220 feet southwest of Auto Park Way for a length of approximately 830 feet. Improvements will include connecting the existing sidewalk along the northern side of this roadway section with a 5-foot sidewalk complete with a 6-inch curb and gutter and providing a 4-foot decomposed granite pathway along the south side of this segment with a 6-inch asphalt berm. With the additional 12 feet added to the paved width, the roadway capacity of this Local Collector would increase to 15,000 ADT.	**Significant and Unmitigated***

Table S-1 (cont.) SUMMARY OF SIGNIFICANT EFFECTS			
Impact No.	**Impact**	**Mitigation**	**Conclusion and Mitigation Effectiveness**
SIGNIFICANT AND UNAVOIDABLE IMPACTS (cont.)			
Project-level Impacts (cont.)			
Subchapter 2.6, Air Quality			
2.6.2.1 ***Conformance to the RAQS***			
AQ-1a	The Proposed Project is proposing an increase in housing units beyond what was included for the site in the RAQS.	**M-AQ-1:** The County shall provide a revised housing forecast to SANDAG to ensure that any revisions to the population and employment projections used by the SDAPCD in updating the RAQS and SIP will accurately reflect anticipated growth due to the Proposed Project.	**Significant and Unmitigated***
Cumulative-level Impacts			
Subchapter 2.2, Transportation/Traffic			
2.2.3.1 ***Existing Plus Cumulative Plus Project Impacts***			
TR-1b	The Proposed Project would have a cumulative impact at the roadway segment of Country Club Drive from Auto Park Way to Hill Valley Drive in the City of Escondido (LOS F).	Mitigation for cumulative impacts to the noted segment of Country Club Drive shall be provided through implementation of roadway improvement as described in M-TR-1a.	**Significant and Unmitigated***
TR-8	The Proposed Project would have a cumulative impact at the intersection of Auto Park Way and Country Club Drive in the City of Escondido (LOS D during the a.m. peak hour).	**M-TR-8:** Prior to occupancy of 293 Project units, the Project shall restripe the eastbound approach of the Auto Park Way/Country Club Drive intersection to provide one left-turn lane, one shared left-turn/through lane, and one right-turn lane with a signal timing modification to change the east/west approach to "split" phasing.	**Significant and Unmitigated***
TR-9	The Proposed Project would have a cumulative impact at the intersection of Valley Parkway and Citracado Parkway in the City of Escondido (LOS D during the a.m. peak hour).	**M-TR-9:** Prior to occupancy of 54 Project units. the Project shall pay a fair share toward the approved Citracado Parkway Extension Project, which would improve the intersection operations with an additional through lane in the southbound direction	**Significant and Unmitigated***

Table S-1 (cont.) SUMMARY OF SIGNIFICANT EFFECTS			
Impact No.	**Impact**	**Mitigation**	**Conclusion and Mitigation Effectiveness**
SIGNIFICANT AND UNAVOIDABLE IMPACTS (cont.)			
Cumulative-level Impacts (cont.)			
Subchapter 2.6, Air Quality			
2.6.3.2 ***Operation***			
AQ-1b	Operation of the Proposed Project would not conform to the RAQS.	Mitigation for cumulative impacts to the RAQS shall be provided through implementation of M-AQ-1.	**Significant and Unmitigated***
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT			
Project-level Impacts			
Subchapter 2.1, Aesthetics			
2.1.2.1 ***Potential Conflict with Important Visual Elements or Inconsistency with Applicable Design Guidelines***			
AE-1	Landform modification associated with blasting/rock breaking is expected to result in newly exposed rocks and horizontal drainage features across cut slopes that would contrast with the adjoining natural hillsides and would be visible from existing and planned trails on and off site.	**M-AE-1:** Exposed newly cut rocks and horizontal drainage features shall be stained in earth tones (through spraying or dripping onto fresh rock face) to soften their contrast on Project cut slopes. Staining of rock shall occur during slope landscape installation and shall be in colors that match the surrounding rock. Application of stain shall be overseen by a qualified expert. Before staining, several test sections will be completed on the rock cut to determine the type of stain that will create the best match with the surrounding rock (i.e., pigmented stains, or creation of new color by leaching minerals from the rock or through photo-reactivity). The slope shall be dry and all loose material and vegetation shall be removed before stain is applied. If necessary, the slope face will be pressure-washed to remove fine-grained particles that could inhibit the stain penetration. Horizontal hillside drainage features will contain color-integrated cement as part of the installation.	**Less than Significant**

Table S-1 (cont.)
SUMMARY OF SIGNIFICANT EFFECTS

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Project-level Impacts (cont.)			
Subchapter 2.2, Transportation/Traffic			
2.2.2.3 ***Roadway Segments***			
TR-2a	The Proposed Project would result in a direct impact to one County signalized intersection, Country Club Drive/Harmony Grove Road (LOS F during the p.m. peak hour).	**M-TR-2a**: Prior to occupancy of 23 Project units, the Project shall widen the northbound approach of Country Club Drive to Harmony Grove Road to provide one left-turn, one through lane, and one dedicated right-turn lane with an overlap phase in order to mitigate this direct impact to the Harmony Grove Road Country Club intersection.	**Less than Significant**
Subchapter 2.3, Biological Resources			
2.3.2.1 ***Special Status Species***			
BI-1a	The Project will result in impacts to 10.4 acres of Diegan coastal sage scrub, a sensitive natural community type.	**M-BI-1a**: Prior to issuance of a grading permit, the Project Applicant shall preserve 34.8 acres of on-site BOS determined to support sensitive species and habitat functions and values contiguous with the Del Dios Highlands Preserve to the south through the establishment of a conservation easement and the preparation of an RMP approved by the County and Wildlife Agencies (U.S. Fish and Wildlife Service and California Department of Fish and Wildlife) to address long-term monitoring, maintenance, management, and reporting directives, in perpetuity, by a qualified entity approved by the County and Wildlife Agencies. The 34.8-acre BOS is depicted on Figure 1-9 and Figure 2.3-5. The habitat types within the BOS are summarized within Table 11 of Appendix E. The RMP shall address the location of the mitigation sites that meet the specific mitigation requirement for	**Less than Significant**

Table S-1 (cont.) SUMMARY OF SIGNIFICANT EFFECTS			
Impact No.	**Impact**	**Mitigation**	**Conclusion and Mitigation Effectiveness**
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Project-level Impacts (cont.)			
Subchapter 2.3, Biological Resources (cont.)			
2.3.2.1 ***Special Status Species (cont.)***			
BI-1a (cont.)		the type of habitat (e.g., in-kind habitat preservation, no net loss, presence of special status species, etc.) within the Project site. The open space easement shall be owned by a conservancy, the County, or other similar, experienced entity subject to approval by the County. Funding shall be provided through a non-wasting endowment, Community Facility District or other finance mechanism approved by the County. Should a regional entity to manage biological open space be formed, the natural habitat areas within the Project site could be dedicated to that entity and managed as part of an overall preserve system for northern San Diego County.	
BI-1b	A single, breeding pair of coastal California gnatcatchers was determined to occupy portions of the on-site Diegan coastal sage scrub that would be impacted by the Project. Impacts to gnatcatcher individuals; occupied habitat; and foraging, migration and dispersal habitat would result in a potentially significant impact to listed species.	**M-BI-1b:** Prior to issuance of a grading permit, mitigation for 10.4 acres of impacts to Diegan coastal sage scrub occupied by coastal California gnatcatcher shall occur at a 2:1 ratio for a total of 20.8 acres of occupied habitat through a combination of on-site preservation of 0.5 acre, on-site restoration and preservation of 1.8 acres, and off-site preservation of 18.5 acres through land acquisition and/or purchase of conservation bank credits, as specified below and approved by the County and Wildlife Agencies as part of the required HLP process. An additional 18.5 acres of occupied, Intermediate Value or High Value coastal sage scrub, and/or other like-functioning habitat as approved by the County and Wildlife Agencies, shall be provided through one or a combination of the following:	**Less than Significant**

Table S-1 (cont.) SUMMARY OF SIGNIFICANT EFFECTS			
Impact No.	**Impact**	**Mitigation**	**Conclusion and Mitigation Effectiveness**
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Project-level Impacts (cont.)			
Subchapter 2.3, Biological Resources (cont.)			
2.3.2.1 ***Special Status Species (cont.)***			
BI-1b (cont.)		• Off-site preservation of mitigation land, through the recordation of a BOS easement, and preparation of an RMP to address long-term monitoring, maintenance, management, and reporting directives, in perpetuity, approved by the County and Wildlife Agencies. To the extent the land is available for preservation, off-site mitigation shall occur within land designated as PAMA in the Draft MSCP North County Plan and located in the Elfin Forest-Harmony Grove Planning Area, northern coastal foothills ecoregion. The location shall be deemed acceptable by the County and Wildlife Agencies. Long-term management shall be funded through a non-wasting endowment in an amount determined through preparation of a PAR or similar method for determining funding amount. The open space easement shall be owned by a conservancy, the County or other similar, experienced entity subject to approval by the County. Should a regional entity to manage biological open space be formed, the natural habitat areas within the Project site could be dedicated to that entity and managed as part of an overall preserve system for northern San Diego County. If demonstrated to the satisfaction of the County and Wildlife Agencies that off-site preservation of mitigation land is not feasible to fulfill all or a portion of mitigation obligations, then the Project shall include purchase of occupied coastal	

Table S-1 (cont.)
SUMMARY OF SIGNIFICANT EFFECTS

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Project-level Impacts (cont.)			
Subchapter 2.3, Biological Resources (cont.)			
2.3.2.1 ***Special Status Species (cont.)***			
BI-1b (cont.)		sage scrub credits at an approved conservation bank, such as the Red Mountain Conservation Bank, Buena Creek Conservation Bank, or other bank deemed acceptable by the County and Wildlife Agencies. To further prevent inadvertent direct impacts to coastal California gnatcatcher individuals during construction, no grading or clearing shall occur of occupied Diegan coastal sage scrub during the species' breeding season (February 15 to August 31). All grading permits, improvement plans, and the final map shall state the same. If clearing or grading would occur during the breeding season for the gnatcatcher, a pre-construction survey shall be conducted to determine whether gnatcatchers occur within the impact area(s). To avoid take under the federal ESA, impacts to occupied habitat shall within riparian habitat during the breeding season of the least Bell's vireo (March 15 to September 15). All grading permits, improvement plans, and the final map shall state the same. If clearing or grading would occur during the breeding season for the least Bell's vireo, a pre-construction survey shall be conducted to determine whether vireos occur within the impact area(s). To avoid take under the federal and California ESAs, impacts to be avoided. If there are no gnatcatchers nesting (includes nest	

Table S-1 (cont.)
SUMMARY OF SIGNIFICANT EFFECTS

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Project-level Impacts (cont.)			
Subchapter 2.3, Biological Resources (cont.)			
2.3.2.1 ***Special Status Species (cont.)***			
BI-1b (cont.)		building or other breeding/nesting behavior) within that area, grading and clearing shall be allowed to proceed. If, however, any gnatcatchers are observed nesting or displaying breeding/nesting behavior within the area, construction in that area shall be postponed until all nesting (or breeding/nesting behavior) has ceased or until after August 31. (See also M-BI-4 for mitigation for indirect noise effects.)	
BI-1c	Least Bell's vireo has been observed using Project-adjacent riparian habitat for foraging and other non-breeding activities. Because there is a potential for use of the area by a breeding pair and for foraging, the Project could result in a potentially significant impact to listed species.	**M-BI-1c:** Prior to issuance of a grading permit, mitigation for impacts to less than 0.01 acre of mule fat scrub and 0.71 acre of southern riparian forest suitable for least Bell's vireo shall occur at a 3:1 ratio through one or a combination of the following: on- and/or off-site establishment, re-establishment, rehabilitation, enhancement and preservation of riparian habitat and/or other like-functioning habitat; and/or off-site purchase of riparian habitat mitigation and/or other like-functioning habitat at an approved mitigation bank in the local area, such as the Brook Forest Mitigation Bank, San Luis Rey Mitigation Bank, or other location deemed acceptable by the County and Regulatory Agencies (USACE, RWQCB, and CDFW), as applicable. The establishment/creation component must be at least 1:1 while the remaining 2:1 can be restoration and enhancement.	**Less than Significant**

Table S-1 (cont.)
SUMMARY OF SIGNIFICANT EFFECTS

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Project-level Impacts (cont.)			
Subchapter 2.3, Biological Resources (cont.)			
2.3.2.1 ***Special Status Species (cont.)***			
BI-1c (cont.)		To further prevent inadvertent direct impacts to least Bell's vireo individuals during construction, no grading or clearing shall occur occupied habitat shall be avoided. If there are no vireos nesting (includes nest building or other breeding/nesting behavior) within that area, grading and clearing shall be allowed to proceed. If, however, any vireos are observed nesting or displaying breeding/nesting behavior within that area, construction shall be postponed until all nesting (or breeding/nesting behavior) has ceased or until after September 15. (See also M-BI-4 for mitigation for indirect noise effects.)	
BI-2a	The Project would impact 7 individuals of summer holly, a County List A plant, and 1,963 wart-stemmed ceanothus, a County List B plant.	**M-BI-2a**: Prior to issuance of a grading permit, mitigation for impacts to seven summer holly and 1,963 wart-stemmed ceanothus individuals shall occur at a minimum ratio of 3:1 for summer holly and 1:1 for wart-stemmed ceanothus through the preservation of at least 21 summer holly and 1,963 wart-stemmed ceanothus within the BOS easement, (which includes preparation of an RMP and monitoring, maintenance, management, and reporting directives) described above in M-BI-1a.	

Table S-1 (cont.)
SUMMARY OF SIGNIFICANT EFFECTS

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Project-level Impacts (cont.)			
Subchapter 2.3, Biological Resources (cont.)			
2.3.2.1 *Special Status Species (cont.)*			
BI-2b	A single red-shouldered hawk was observed perching in a tree near Escondido Creek. This species could nest at off-site locations within 500 feet of Project impact areas and may forage over the site. The Project would impact non-native grassland that serves as raptor foraging habitat. A potentially significant impact was assessed to loss of this habitat, which could impact the survival of a local population of Species of Special Concern.	**M-BI-2b**: Prior to issuance of a grading permit, mitigation for impacts to 44.2 acres of non-native grassland that provides suitable nesting and foraging habitat for several bird species, including raptors, shall occur at a 0.5:1 ratio through the preservation of 0.2 acre on site within the BOS easement, (which includes preparation of an RMP and monitoring, maintenance, management, and reporting directives) as required by M-BI-1a, in addition to one or a combination of the following: off-site preservation of 21.9 acres of grassland habitat and/or other like-functioning habitat through the recordation of a BOS easement, and the preparation of an RMP to address long-term monitoring, maintenance, management, and reporting directives, in perpetuity, approved by the County and Wildlife Agencies. To the extent the land is available for preservation, off-site mitigation shall occur within land designated as PAMA in the Draft MSCP North County Plan and located in the Elfin Forest-Harmony Grove Planning Area, or northern coastal foothills ecoregion. The location shall be deemed acceptable by the County and Wildlife Agencies. The proposed open space easement shall be owned by a conservancy, the County or other similar, experienced entity subject to approval by the County. Should a regional entity to manage BOS be formed, the natural habitat areas within the Project site could be dedicated to that entity and managed as part of an overall preserve system for northern San Diego County. If demonstrated to the	**Less than Significant**

Table S-1 (cont.)
SUMMARY OF SIGNIFICANT EFFECTS

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Project-level Impacts (cont.)			
Subchapter 2.3, Biological Resources (cont.)			
2.3.2.1 ***Special Status Species (cont.)***			
BI-2b (cont.)		satisfaction of the County and Wildlife Agencies that off-site preservation of mitigation land is not feasible to fulfill all or a portion of mitigation obligations, then the Project shall include purchase of 21.9 acres of grassland credits or like-functioning habitat at an approved conservation bank such as the Brook Forest Conservation Bank or other location deemed acceptable by the County. (See also M-BI-9 addressing breeding season avoidance.)	
BI-2c	The Project would result in the significant loss of potential nesting and foraging habitat for yellow-breasted chat, which is designated as State Species of Special Concern and County Group 1 species. A potentially significant impact was assessed to loss of mule fat scrub and willow riparian forest, impacting the survival of a local population of Species of Special Concern.	**M-BI-2c:** Prior to issuance of a grading permit, mitigation for impacts to yellow-breasted chat nesting and foraging habitat, including less than 0.01 acre of mule fat scrub and 0.71 acre of southern riparian forest, shall be provided at a 3:1 ratio through implementation of mitigation M-BI-1c. (See also M-BI-9 addressing breeding season avoidance.)	**Less than Significant**
BI-3a	The Project would result in loss of 44.2 acres of non-native grassland that serves as potential foraging habitat for the barn owl and white-tailed kite. This loss of habitat could significantly affect long-term survival of County Group 2 Animal Species.	**M-BI-3a:** Prior to issuance of a grading permit, mitigation for loss of foraging area that could impact long-term survival of County Group 2 animals shall be provided through implementation of mitigation for impacts to 44.2 acres of non-native grassland at a 0.5:1 ratio, as described in M-BI-2b.	**Less than Significant**

Table S-1 (cont.)
SUMMARY OF SIGNIFICANT EFFECTS

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Project-level Impacts (cont.)			
Subchapter 2.3, Biological Resources (cont.)			
2.3.2.1 ***Special Status Species (cont.)***			
BI-3b	The Project would result in the significant loss of potential nesting and foraging habitat for yellow warbler, which is designated as State Species of Special Concern and County Group 2 species. A potentially significant impact was assessed to loss of mule fat scrub and willow riparian forest, impacting the survival of a local population of Species of Special Concern.	**M-BI-3b:** Prior to issuance of a grading permit, mitigation for impacts to yellow warbler nesting and foraging habitat, including less than 0.01 acre of mule fat scrub and 0.71 acre of southern riparian forest at a 3:1 ratio, shall be provided through implementation of mitigation M-BI-1c. (See also M-BI-9 addressing breeding season avoidance.)	**Less than Significant**
BI-3c	The Project would result in a significant loss of 44.2 acres of non-native grassland that serves as foraging habitat for common species such as red-tailed hawk.	**M-BI-3c:** Prior to issuance of a grading permit, mitigation for loss of raptor foraging habitat shall be provided through implementation of mitigation for impacts to 44.2 acres of non-native grassland at a 0.5:1 ratio, as described in M-BI-2b.	**Less than Significant**
BI-4	Construction-related noise (including the use of heavy equipment, potential blasting, potential use of a rock crusher, and potential use of cast-in-drilled holes or a pile driver) may significantly impact sensitive bird species such as coastal California gnatcatcher and least Bell's vireo, as well as raptors, which may be nesting within an area where construction noise at the nest exceeds 60 dBA.	**M-BI-4:** If operation of construction dozers, excavators, rock crushers, pile drivers or cast-in-drilled-hole equipment occurs during the breeding seasons for the coastal California gnatcatcher (February 15 to August 31), nesting raptors (January 15 to July 15), or least Bell's vireo (March 15 to September 15), pre-construction survey(s) shall be conducted by a qualified biologist as appropriate prior to issuance of a grading permit, to determine whether these species occur within the areas potentially impacted by noise. If it is determined at the completion of pre-construction surveys that active nests belonging to these sensitive species are absent from the potential impact area, construction shall be allowed to proceed. If pre-construction surveys determine the	**Less than Significant**

Table S-1 (cont.)
SUMMARY OF SIGNIFICANT EFFECTS

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Project-level Impacts (cont.)			
Subchapter 2.3, Biological Resources (cont.)			
2.3.2.1 ***Special Status Species (cont.)***			
BI-4 (cont.)		presence of active nests belonging to these sensitive species, then operation of the following equipment shall not occur within the specified distances from an active nest during the respective breeding seasons: a dozer within 400 feet; an excavator within 350 feet; rock crusher equipment within 1,350 feet; a breaker within 500 feet; a pile driver within 2,600 feet; and cast-in-drilled holes equipment within 350 feet. All grading permits, improvement plans, and the final map shall state the same. Operation of construction dozers, excavators, rock crushers, pile drivers, cast-in-drilled-hole equipment and other noise-generating activities shall: (1) be postponed until a qualified biologist determines the nest(s) is no longer active or until after the respective breeding season; or (2) not occur until a temporary noise barrier or berm is constructed at the edge of the development footprint and/or around the piece of equipment to ensure that noise levels are reduced to below 60 dBA or ambient. Decibel output will be confirmed by a County-approved noise specialist and intermittent monitoring by a qualified biologist to ensure that conditions have not changed will be required. If pre-construction surveys identify coastal California gnatcatcher, nesting raptors, or least Bell's vireo, blasting will be restricted to the non-breeding season for the identified birds (September 1 to February 14 for coastal California gnatcatcher; July 16 to January 14 for nesting raptors; and September 16 to March 14 for least Bell's vireo) or be completed using wholly chemical means.	

Table S-1 (cont.)
SUMMARY OF SIGNIFICANT EFFECTS

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Project-level Impacts (cont.)			
Subchapter 2.3, Biological Resources (cont.)			
2.3.2.2 ***Riparian Habitat and Sensitive Natural Communities***			
BI-5a	The Project would result in significant direct impacts to less than 0.01 acre of mule fat scrub and 0.71 acre of southern willow riparian forest.	**M-BI-5a:** Prior to issuance of a grading permit, mitigation for impacts to less than 0.01 acre of mule fat scrub and 0.71 acre of southern riparian forest shall occur at a 3:1 ratio with at least 1:1 creation as specified in M-BI-1c, above.	**Less than Significant**
BI-5b	The Project would result in significant direct impacts to 10.4 acres of Diegan coastal sage scrub (including disturbed).	**M-BI-5b:** Prior to issuance of a grading permit, mitigation for 10.4 acres of impacts to occupied Diegan coastal sage scrub shall occur at a 2:1 ratio as specified in M-BI-1a and M-BI-1b, above.	**Less than Significant**
BI-5c	The Project would result in significant direct impacts to 4.5 acres of coastal sage-chaparral transition.	**M-BI-5c:** Prior to issuance of a grading permit, mitigation for 4.5 acres of impacts to coastal sage-chaparral transition shall occur at a 2:1 ratio through one or a combination of the following: off-site preservation of 9.0 acres of coastal sage-chaparral scrub and/or other like-functioning habitat, through the recordation of a BOS easement, and the preparation of an RMP to address long-term monitoring, maintenance, management, and reporting directives, in perpetuity, approved by the County and Wildlife Agencies. To the extent the land is available for preservation, off-site mitigation shall occur within land designated as PAMA in the Draft MSCP North County Plan and located in the Elfin Forest-Harmony Grove Planning Area, or northern coastal foothills ecoregion. The location shall be deemed acceptable by the County and Wildlife Agencies. The open space easement shall be owned by a conservancy, the County or other similar, experienced entity subject to approval by the County. Should a regional entity to manage biological open space be formed, the natural habitat areas within the Project site could be dedicated to that entity and	**Less than Significant**

Table S-1 (cont.)
SUMMARY OF SIGNIFICANT EFFECTS

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Project-level Impacts (cont.)			
Subchapter 2.3, Biological Resources (cont.)			
2.3.2.2 ***Riparian Habitat and Sensitive Natural Communities (cont.)***			
BI-5c (cont.)		managed as part of an overall preserve system for northern San Diego County. If demonstrated to the satisfaction of the County and Wildlife Agencies that off-site preservation of mitigation land is not feasible to fulfill all or a portion of mitigation obligations, then the Project shall include purchase of 9.0 acres of coastal sage-chaparral scrub credits or like-functioning habitat at an approved mitigation bank such as the Red Mountain Conservation Bank, Buena Creek Conservation Bank, Brook Forest Conservation Bank, or other location deemed acceptable by the County and Wildlife Agencies.	
BI-5d	The Project would result in significant direct impacts to 15.6 acres of southern mixed chaparral.	**M-BI-5d:** Prior to issuance of a grading permit, mitigation for 15.6 acres of impacts to southern mixed chaparral shall occur at a 0.5:1 ratio through the preservation of a minimum 7.8 acres on site within BOS easement (which shall include preparation and implementation of an RMP and monitoring, maintenance, management, and reporting directives), as required by M-BI-1a.	**Less than Significant**
BI-5e	The Project would result in significant direct impacts to 44.2 acres of non-native grassland.	**M-BI-5e:** Prior to issuance of a grading permit, mitigation for 44.2 acres of impacts to non-native grassland shall occur through implementation of M-BI-2b, above.	**Less than Significant**

Table S-1 (cont.) SUMMARY OF SIGNIFICANT EFFECTS			
Impact No.	**Impact**	**Mitigation**	**Conclusion and Mitigation Effectiveness**
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Project-level Impacts (cont.)			
Subchapter 2.3, Biological Resources (cont.)			
2.3.2.2 ***Riparian Habitat and Sensitive Natural Communities (cont.)***			
BI-5f	The Project would result in significant direct impacts to 0.2 acre of upland coast live oak woodland.	**M-BI-5f:** Prior to issuance of a grading permit, mitigation for 0.2 acre of impacts to upland coast live oak woodland shall occur at a 3:1 ratio through the preservation of 0.6 acre on site within BOS easement (which shall include preparation and implementation of an RMP and monitoring, maintenance, management, and reporting directives) as required by M-BI-1a.	**Less than Significant**
BI-6a	The Project would result in significant direct impacts to 0.31 acre of wetland waters of the U.S. (southern riparian forest) and 0.01 acre of non-wetland waters of the U.S. regulated by the USACE.	**M-BI-6a:** Prior to issuance of a grading permit, demonstration that regulatory permits from the USACE and RWQCB have been issued or that no such permits are required shall be provided to the County. Impacts to 0.31 acre of USACE/RWQCB-jurisdictional wetland waters of the U.S./State shall be mitigated at a 3:1 ratio as described in M-BI-1c, above, unless otherwise required by the USACE and RWQCB. Impacts to 0.03 acre of USACE/ RWQCB-jurisdictional non-wetland waters of the U.S./State shall be mitigated at a 1:1 ratio through the preservation of a minimum 0.03 acre on site within BOS easement (which shall include preparation implementation of an RMP and monitoring, maintenance, management, and reporting directives) as described in M-BI-1a, unless otherwise required by the USACE and RWQCB. If required by the USACE and/or RWQCB during regulatory permitting for the Project, alternative mitigation shall be provided through purchase of mitigation credits at the Brook Forest Mitigation Bank, San Luis Rey Mitigation Bank, or other location deemed acceptable by the USACE and RWQCB.	**Less than Significant**

Table S-1 (cont.)
SUMMARY OF SIGNIFICANT EFFECTS

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Project-level Impacts (cont.)			
Subchapter 2.3, Biological Resources (cont.)			
2.3.2.2 ***Riparian Habitat and Sensitive Natural Communities (cont.)***			
BI-6b	The Project would result in significant direct impacts to 0.78 acre of CDFW-jurisdictional vegetated-streambed, comprised of 0.71 acre of southern riparian forest, less than 0.01 acre of mule fat scrub, and 0.05 acre of coast live oak woodland. The Project would also impact 0.02 acre of CDFW-jurisdictional, unvegetated streambed.	**M-BI-6b:** Prior to issuance of a grading permit, demonstration that regulatory permits from CDFW have been issued or that no such permits are required shall be provided to the County. Impacts to 0.80 acre of CDFW-jurisdictional areas will be mitigated as follows. Impacts to less than 0.01 acre mule fat scrub and 0.71 acre southern riparian forest shall be mitigated at a 3:1 ratio, as described in M-BI-1c, unless otherwise required by CDFW. Impacts to 0.05 acre of CDFW-jurisdictional coast live oak woodland and 0.04 acre of CDFW-jurisdictional streambed shall be mitigated at a 1:1 ratio through the preservation of a minimum 0.05 acre of CDFW-jurisdictional coast live oak woodland and 0.04 acre of CDFW-jurisdictional streambed on site within BOS easement (which shall include preparation of an RMP and monitoring, maintenance, management, and reporting directives) as described in M-BI-1a, unless otherwise required by CDFW. If required by CDFW during regulatory permitting for the Project, alternative mitigation shall be provided through purchase of mitigation credits at the Brook Forest Mitigation Bank, San Luis Rey Mitigation Bank, or other location deemed acceptable by CDFW.	**Less than Significant**

Table S-1 (cont.) SUMMARY OF SIGNIFICANT EFFECTS			
Impact No.	**Impact**	**Mitigation**	**Conclusion and Mitigation Effectiveness**
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Project-level Impacts (cont.)			
Subchapter 2.3, Biological Resources (cont.)			
2.3.2.2 ***Riparian Habitat and Sensitive Natural Communities (cont.)***			
BI-6c	The Project would result in significant direct impacts to 0.72 acre of County RPO wetlands comprised of 0.71 acre of southern riparian forest, less than 0.01 acre of mule fat scrub, and 0.01 acre of coast live oak woodland associated with Escondido Creek.	**M-BI-6c:** Prior to issuance of a grading permit, impacts to 0.72 acre of RPO wetland (less than 0.01 acre mule fat scrub, 0.71 acre southern riparian forest, and 0.01 acre RPO-jurisdictional coast live oak woodland) shall be mitigated at a 3:1 ratio with at least 1:1 creation. Impacts to mule fat scrub and southern riparian forest shall be mitigated as described in M-BI-1c, above. Impacts to 0.01 acre RPO coast live oak woodland shall be provided through purchase of establishment or re-establishment mitigation credits at the Brook Forest Mitigation Bank, San Luis Rey Mitigation Bank, or other location deemed acceptable by the County.	**Less than Significant**
BI-7	The Project would result in significant impacts to federally protected wetlands.	**M-BI-7:** Prior to issuance of a grading permit, impacts to 0.31 acre of federal wetlands shall be mitigated at a 3:1 ratio as described in M-BI-1c, M-BI-5a and M-BI-6a, above, unless otherwise required by USACE.	**Less than Significant**
BI-8	The Project would result in significant impacts to County RPO-protected wetlands.	**M-BI-8:** Prior to issuance of a grading permit, impacts to 0.72 acre of RPO-protected wetland shall be mitigated at a 3:1 ratio as described in M-BI-1c, M-BI-5a and M-BI-6c, above.	**Less than Significant**

Table S-1 (cont.)
SUMMARY OF SIGNIFICANT EFFECTS

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Project-level Impacts (cont.)			
Subchapter 2.3, Biological Resources (cont.)			
2.3.2.5 ***Local Policies, Ordinances and Adopted Plans***			
BI-9	If clearing or grubbing takes place in occupied nesting habitat during the avian breeding season, it could result in a significant killing of migratory birds or destruction of their nests.	**M-BI-9:** No grubbing, clearing, or grading shall occur during the general avian breeding season (February 15 to August 31). All grading permits, improvement plans, and the final map shall state the same. If grubbing, clearing, or grading would occur during the general avian breeding season, a pre-construction survey shall be conducted by a qualified biologist to determine if active bird nests are present in the affected areas. If there are no nesting birds (includes nest building or other breeding/nesting behavior) within this area, clearing, grubbing, and grading shall be allowed to proceed. If active nests or nesting birds are observed within the area, the biologist shall flag the active nests and construction activities shall avoid active nests until nesting behavior has ceased, nests have failed, or young have fledged.	**Less than Significant**
Subchapter 2.4, Cultural Resources and Tribal Cultural Resources			
2.4.2.1 ***Archaeological Sites***			
CR-1	There is a potential for significant direct impacts related to undiscovered buried archaeological resources on or off the Project site during Project-related grading. Impacts to these resources would represent significant environmental effects.	**M-CR-1 and 2**: An archaeological monitoring and data recovery program would be implemented to mitigate potential impacts to undiscovered buried archaeological resources on the Project site to the satisfaction of the Director of PDS. This program shall include, but shall not be limited to, the following actions:	**Less than Significant**

Table S-1 (cont.)
SUMMARY OF SIGNIFICANT EFFECTS

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Project-level Impacts (cont.)			
Subchapter 2.4, Cultural Resources and Tribal Cultural Resources (cont.)			
2.4.2.1 ***Archaeological Sites (cont.)***			
CR-1 (cont.)		• Pre-Construction o Provide evidence that a County approved archaeologist has been contracted to implement the Archaeological Monitoring program. o The Project Archaeologist shall contract with a Luiseno Native American monitor. o The pre-construction meeting shall be attended by the Project Archaeologist and Luiseno Native American monitor to explain the monitoring requirements. • Construction o Monitoring. Both the Project Archaeologist and Luiseno Native American monitor are to be on site during earth disturbing activities. The frequency and location of monitoring of native soils will be determined by the Project Archaeologist in consultation with the Luiseno Native American monitor. Monitoring of previously disturbed soils will be determined by the Project Archaeologist in consultation with the Luiseno Native American monitor. o If cultural resources are identified: ▪ Both the Project Archaeologist and Luiseno Native American monitor have the authority to divert or temporarily halt ground disturbance operations in the area of the discovery.	

Table S-1 (cont.) SUMMARY OF SIGNIFICANT EFFECTS			
Impact No.	**Impact**	**Mitigation**	**Conclusion and Mitigation Effectiveness**
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Project-level Impacts (cont.)			
Subchapter 2.4, Cultural Resources and Tribal Cultural Resources (cont.)			
2.4.2.1 ***Archaeological Sites (cont.)***			
CR-1 (cont.)		▪ The Project Archaeologist shall contact the County Archaeologist. ▪ The Project Archaeologist in consultation with the County Archaeologist and Luiseno Native American shall determine the significance of discovered resources. ▪ Construction activities will be allowed to resume after the County Archaeologist has concurred with the significance evaluation. ▪ Isolates and non-significant deposits shall be minimally documented in the field. Should the isolates and non-significant deposits not be collected by the Project Archaeologist, the Luiseno Native American monitor may collect the cultural material for transfer to a Tribal curation facility or repatriation program.	

Table S-1 (cont.)
SUMMARY OF SIGNIFICANT EFFECTS

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Project-level Impacts (cont.)			
Subchapter 2.4, Cultural Resources and Tribal Cultural Resources (cont.)			
2.4.2.1 ***Archaeological Sites (cont.)***			
CR-1 (cont.)		▪ If cultural resources are determined to be significant, a Research Design and Data Recovery Program shall be prepared by the Project Archaeologist in consultation with the Luiseno Native American monitor and approved by the County Archaeologist. The program shall include reasonable efforts to preserve (avoid) unique cultural resources of Sacred Sites; the capping of identified Sacred Sites or unique cultural resources and placement of development over the cap if avoidance is infeasible; and data recovery for non-unique cultural resources. The preferred option is preservation (avoidance). o Human Remains ▪ The Property Owner or their representative shall contact the County Coroner and the PDS Staff Archaeologist. ▪ Upon identification of human remains, no further disturbance shall occur in the area of the find until the County Coroner has made the necessary findings as to origin.	

Table S-1 (cont.) SUMMARY OF SIGNIFICANT EFFECTS			
Impact No.	**Impact**	**Mitigation**	**Conclusion and Mitigation Effectiveness**
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Project-level Impacts (cont.)			
Subchapter 2.4, Cultural Resources and Tribal Cultural Resources (cont.)			
2.4.2.1 ***Archaeological Sites (cont.)***			
CR-1 (cont.)		▪ If the remains are determined to be of Native American origin, the Most Likely Descendant (MLD), as identified by the Native American Heritage Commission (NAHC), shall be contacted by the Property Owner or their representative in order to determine proper treatment and disposition of the remains. ▪ The immediate vicinity where the Native American human remains are located is not to be damaged or disturbed by further development activity until consultation with the MLD regarding their recommendations as required by Public Resources Code Section 5097.98 has been conducted. ▪ Public Resources Code §5097.98, CEQA §15064.5 and Health & Safety Code §7050.5 shall be followed in the event that human remains are discovered. • Rough Grading o Upon completion of Rough Grading, a monitoring report shall be prepared identifying whether resources were encountered.	

Table S-1 (cont.) SUMMARY OF SIGNIFICANT EFFECTS			
Impact No.	**Impact**	**Mitigation**	**Conclusion and Mitigation Effectiveness**
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Project-level Impacts (cont.)			
Subchapter 2.4, Cultural Resources and Tribal Cultural Resources (cont.)			
2.4.2.1 ***Archaeological Sites (cont.)***			
CR-1 (cont.)		• Final Grading o A final report shall be prepared substantiating that earth-disturbing activities are completed and whether cultural resources were encountered. o Disposition of Cultural Material ▪ The final report shall include evidence that all prehistoric materials have been curated at a San Diego curation facility or culturally affiliated Tribal curation facility that meets federal standards per 36 CFR Part 79, or alternatively has been repatriated to a culturally affiliated Tribe. ▪ The final report shall include evidence that all historic materials have been curated at a San Diego curation facility that meets federal standards per 36 CFR Part 79.	
2.4.2.2 ***Human Remains***			
CR-2	There is an unlikely but possible potential for significant direct impacts related to discovery of unknown burials on or off the Project site during Project-related grading. Impacts to these resources would represent significant environmental effects.	Mitigation for potential impacts related to unknown burials shall be provided through implementation of applicable elements of M-CR-1 and 2, above.	**Less than Significant**

Table S-1 (cont.)
SUMMARY OF SIGNIFICANT EFFECTS

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Project-level Impacts (cont.)			
Subchapter 2.5, Noise			
2.5.2.1 ***Transportation Noise Levels***			
N-1	Noise levels could exceed the 60 dBA CNEL maximum allowable noise level for two single-family residences that are located in the westernmost portion of the Project site that face Country Club Drive.	**M-N-1**: Noise levels at exterior use areas for the proposed residences identified as R9 and R10 on Figure 2.5-1 shall be reduced to the most restrictive County Noise Element threshold of 60 dBA CNEL or below. Noise reduction for on-site exterior traffic noise impacts, which could lead to interior noise impacts, could be accomplished through on-site noise barriers. One 5-foot high sound wall along the northern perimeter of the affected lot would be installed, with approximately 20-foot long return walls along the western perimeter of the western residence (R9) and the eastern perimeter of the eastern residence (R10). The sound attenuation fence or wall must be solid. It can be constructed of masonry, wood, plastic, fiberglass, steel, or a combination of those materials, as long as there are no cracks or gaps through or below the wall. Any seams or cracks must be filled or caulked. If wood is used, it can be tongue and groove and must be at least 1-inch total thickness or have a density of at least 3.5 pounds per square foot. Where architectural or aesthetic factors allow, glass or clear plastic ⅜ of an inch thick or thicker may be used on the upper portion, if it is desirable to preserve a view. Sheet metal of 18 gauge (minimum) may be used, if it meets the other criteria and is properly supported and stiffened so that it does not rattle or create noise itself from vibration or wind. Any door(s) or gate(s) must be designed with overlapping closures on the	**Less than Significant**

Table S-1 (cont.) SUMMARY OF SIGNIFICANT EFFECTS			
Impact No.	**Impact**	**Mitigation**	**Conclusion and Mitigation Effectiveness**
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Project-level Impacts (cont.)			
Subchapter 2.5, Noise (cont.)			
2.5.2.1 ***Transportation Noise Levels (cont.)***			
N-1 (cont.)		bottom and sides and meet the minimum specifications of the wall materials described above. The gate(s) may be of 1-inch thick or better wood, solid-sheet metal of at least 18-gauge metal, or an exterior-grade solid-core steel door with prefabricated doorjambs.	
N-2	The second stories of the two residential units identified for Impact N-1 may be exposed to noise in excess of 60 CNEL; given a typical exterior to interior attenuation of 15 CNEL, the interior noise levels of these residents may be exposed to noise levels that exceed the 45 CNEL threshold.	**M-N-2**: In accordance with standard County requirements, additional exterior-to-interior noise analysis shall be conducted for the residential units identified as R9 and R10 (where exterior noise levels may exceed 60 CNEL within the second stories) to demonstrate that interior levels do not exceed 45 CNEL. The information in the analysis shall include wall heights and lengths, room volumes, window and door tables typical for a building plan, as well as information on any other openings in the building shell. With this specific building plan information, the analysis shall determine the predicted interior noise levels at the planned on-site buildings. If predicted noise levels are found to be in excess of 45 CNEL, the report shall identify mitigation shown to be effective in reducing noise levels (e.g., architectural materials or techniques that could be included to reduce noise levels to 45 CNEL in habitable rooms. Standard measures such as glazing with Sound Transmission Class (STC) ratings from a STC 22 to STC 60, as well as walls with appropriate STC ratings (34 to 60), should be considered.	**Less than Significant**

Table S-1 (cont.)
SUMMARY OF SIGNIFICANT EFFECTS

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Project-level Impacts (cont.)			
Subchapter 2.5, Noise (cont.)			
2.5.2.1 ***Transportation Noise Levels (cont.)***			
N-2 (cont.)		Appropriate means of air circulation and provision of fresh air would be provided to allow windows to remain closed for extended intervals of time so that acceptable interior noise levels can be maintained. The mechanical ventilation system would meet the criteria of the International Building Code (Chapter 12, Section 1203.3 of the 2001 California Building Code).	
2.5.2.2 ***Operational Noise Levels***			
N-3	WTWRF equipment would have the potential to create noise in excess of allowable limits to on-site NSLUs. The piece of WTWRF equipment that would generate the most noise would be the standby diesel generator. The generator would produce noise levels ranging from 90 to 105 dBA at 23 feet, and thus noise levels of 45 dBA (the nighttime allowable limit) could be experienced at distances of up to 23,000 feet.	**M-N-3:** The WTWRF shall be enclosed by a solid 6-foot high wall. Final design for the WTWRF and the noise wall shall demonstrate that exterior noise levels generated from all stationary WTWRF equipment combined shall not exceed the one-hour exterior noise level of 45 dBA L_{EQ} at the property line. The Applicant shall be required to provide a final noise impact analysis as part of the facilities design submittal package for the WTWRF and noise wall prepared by a County approved noise consultant. The final noise impact analysis shall demonstrate compliance with the County 45 dBA L_{EQ} property line nighttime limit completed to the satisfaction of the County PDS.	**Less than Significant**

Table S-1 (cont.)
SUMMARY OF SIGNIFICANT EFFECTS

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Project-level Impacts (cont.)			
Subchapter 2.5, Noise (cont.)			
2.5.2.3 *Construction Noise Levels*			
N-4	If a breaker operates within 125 feet of the nearest NSLU, the noise level would exceed the County's impulsive noise limit of 82 dBA L_{MAX}.	**M-N-4**: If a breaker is required as part of Project construction, then it shall not generate maximum noise levels that exceed 82 dBA L_{MAX} when measured at the property line for 25 percent of a one-hour period or be used within 125 feet of the property line for any occupied residence. Material that would require a breaker shall be moved a minimum distance of 125 feet from the nearest residence.	**Less than Significant**
N-5	If a rock crusher operates within 250 feet of the nearest NSLU, the noise level would exceed the County's 8-hour noise level limits of 75 dBA L_{EQ}.	**M-N-5**: If a rock crusher is required as part of Project construction, then it shall not be used within 250 feet of the property line for any occupied residence until a temporary noise barrier or berm is constructed at the edge of the development footprint or around the piece of equipment to reduce noise levels below 75 dBA L_{EQ} at the property line for the occupied residences. If a barrier or berm is used, decibel output will be confirmed by a County approved noise specialist. Otherwise, a rock crusher shall be moved a minimum distance of 250 feet from the nearest residence before use.	**Less than Significant**
N-6	Because project-specific details regarding blasting operations are not available at this time, impacts to off-site residences and other land uses from blasting are conservatively assessed as significant.	**M-N-6**: The following measures would be implemented to reduce impacts from blasting: • The number of blasts would be limited to three blasting events per week. • The Project would also include a blasting management plan due to the blasting that is likely to occur on site. All blast planning must be done by a San Diego County Sheriff approved blaster, with the appropriate San Diego County	**Less than Significant**

Table S-1 (cont.) SUMMARY OF SIGNIFICANT EFFECTS			
Impact No.	**Impact**	**Mitigation**	**Conclusion and Mitigation Effectiveness**
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Project-level Impacts (cont.)			
Subchapter 2.5, Noise (cont.)			
2.5.2.3 ***Construction Noise Levels (cont.)***			
N-6 (cont.)		Sheriff blasting permits, in compliance with the County Consolidated Fire Code SEC. 96.1.5601.2 (County 2014a), and all other applicable local, state, and federal permits, licenses, and bonding. The blasting contractor or owner must conduct all notifications, inspections, monitoring, and major or minor blasting requirements planning with seismograph reports, as necessary. • If boulders must be reduced in size with blasting within 200 feet of the closest residence, the use of chemical expansion via a chemical cracking agent shall be performed instead.	
Cumulative-level Impacts			
Subchapter 2.2, Transportation/Traffic			
2.2.3.1 ***Existing Plus Cumulative Plus Project Impacts***			
TR-2b	The Proposed Project would have a cumulative impact to one County signalized intersection, Country Club Drive/Harmony Grove Road (LOS F during the p.m. peak hour).	Mitigation for cumulative impacts to the noted intersection shall be provided through implementation of roadway improvements as described in M-TR-2a. In addition, the Project shall make a payment toward the County of San Diego Transportation Impact Fee (TIF) program to address cumulative impacts to the Country Club Drive/Harmony Grove Road signalized intersection.	**Less than Significant**

Table S-1 (cont.) SUMMARY OF SIGNIFICANT EFFECTS			
Impact No.	**Impact**	**Mitigation**	**Conclusion and Mitigation Effectiveness**
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Cumulative-level Impacts (cont.)			
Subchapter 2.2, Transportation/Traffic (cont.)			
2.2.3.1 ***Existing Plus Cumulative Plus Project Impacts (cont.)***			
TR-3	The Proposed Project would have a cumulative impact on Country Club Drive from Hill Valley Drive to Kauana Loa Drive (LOS E).[2]	**M-TR-3**: Prior to occupancy of 80 Project units, the Project shall widen Country Club Drive at the Country Club Drive/Eden Valley Lane intersection to provide a dedicated northbound left-turn lane onto Eden Valley Lane.	**Less than Significant**
TR-4	The Proposed Project would have a cumulative impact on Harmony Grove Road from Country Club Drive to Harmony Grove Village Parkway (LOS E).	**M-TR-4:** The Project shall make a payment toward the County of San Diego TIF program to address cumulative impacts to the segment of Harmony Grove Road between Country Club Drive and Harmony Grove Village Parkway.	**Less than Significant**
TR-5	The Proposed Project would have a cumulative impact on Harmony Grove Road from Harmony Grove Village Parkway to Kauana Loa Drive (LOS E).	**M-TR-5:** The Project shall make a payment toward the County of San Diego TIF program to address cumulative impacts to the segment of Harmony Grove Road between Harmony Grove Village Parkway and Kauana Loa Drive.	**Less than Significant**
TR-6	The Proposed Project would have a cumulative impact on Harmony Grove Road from Kauana Loa Drive to Enterprise Street (LOS F).	**M-TR-6:** Project payment toward the County of San Diego TIF program as part of mitigation provided under M-TR-10, below, will mitigate impacts to this segment of Harmony Grove Road between Kauana Loa Drive and Enterprise Street.	**Less than Significant**
TR-7	The Proposed Project would have a cumulative impact on Harmony Grove Village Parkway from Harmony Grove Road to Citracado Parkway (LOS E).	**M-TR-7:** Prior to occupancy of 135 Project units, the Project shall provide a northbound to eastbound right-turn overlap phase at the Harmony Grove Road/Harmony Grove Village Parkway signalized intersection.	**Less than Significant**

[2] Subsequent to Project modeling, the Valiano project (one of the cumulative projects along Country Club Drive) revised a primary project entrance, resulting in additional trips between Hill Valley Drive and Kauana Loa Drive. As a result, the existing plus cumulative plus project loading would be LOS F rather than LOS E. Both LOS E and LOS F comprise significant cumulative impacts and require mitigation. The mitigation identified for Impact TR-3 also adequately mitigates LOS F conditions to acceptable LOS.

Table S-1 (cont.)
SUMMARY OF SIGNIFICANT EFFECTS

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Cumulative-level Impacts (cont.)			
Subchapter 2.2, Transportation/Traffic (cont.)			
2.2.3.1 ***Existing Plus Cumulative Plus Project Impacts (cont.)***			
TR-10	The Proposed Project would have a cumulative impact on Harmony Grove Road/Kauana Loa Drive (LOS E and F during the a.m. and p.m. peak hours, respectively).	**M-TR-10:** The Project shall make a payment toward the County of San Diego TIF program to address cumulative impacts to the Harmony Grove Road/Kauana Loa Drive signalized intersection.	**Less than Significant**
Subchapter 2.7, Greenhouse Gas Emissions			
GHG-1	The Project's total estimated construction and ~~vegetation removal~~operation GHG emissions would be 1,037.72~~4,411~~ MT CO_2e after implementation of all PDFs when taking vehicular emissions into account. Therefore, the Project would generate greenhouse gas emissions that may have a significant impact on the environment.	**M-GHG-1:** Prior to issuance of the first grading permit for the Project, compliance with M-GHG-1 shall be as follows: a. Solar panel(s), capable of generating a total of 1,720 KW, shall be installed on an existing building(s) that does not currently utilize solar energy, located within the County of San Diego, that is not otherwise required by law or regulation through statute, regulation, existing local program, or requirement to install such solar panels. The building shall have an estimated life of at least 30 years as verified by a third-party building inspector. The solar system installation shall be completed by a licensed, bonded and insured installer; and equipped with a monitoring system to notify the property owner upon which the building is located (property owner), the installer, and the HGV South Homeowners Association (HOA) with monitoring data. The solar panels will be registered with an extended warranty for the maximum period of time feasible, not less than 30 years and the panels will be dated at the time of installation. Consistent with the North American Board of Certified Energy Practitioners (NABCEP)	**Less than Significant**
~~**GHG-2**~~	~~The Project's total estimated operational GHG emissions would be 5,222 MT CO_2e. Therefore, the Project would generate greenhouse gas emissions that may have a significant impact on the environment.~~		~~**Less than Significant****~~

Table S-1 (cont.)
SUMMARY OF SIGNIFICANT EFFECTS

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Cumulative-level Impacts (cont.)			
Subchapter 2.7, Greenhouse Gas Emissions (cont.)			
GHG-1 (cont.)		standards, the installation company shall have a minimum of three years' experience. b. The identified building(s) shall be located within the County boundaries. A Covenant shall be recorded against the property, for the benefit of the Project site, stating that the Project-installed solar panel(s) must remain on the building(s) and operational for a period of 30 years. This Covenant runs with the land, not the owner, and will pass with the parcel in the event of a sale. The Covenant shall also require the property owner to allow the HOA or representative (including the County) to conduct annual baseline maintenance inspections, monitor, repair or replace the system as described in e), below, during that 30-year period. The Covenant shall also include the following provisions: i) the property owner shall allow the HOA or County to access the system if maintenance is indicated by the monitoring system or when issues are otherwise noted by the property owner; ii) the property owner shall notify the HOA and County if any repair or maintenance events become known to the property owner;	

Table S-1 (cont.)
SUMMARY OF SIGNIFICANT EFFECTS

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Cumulative-level Impacts (cont.)			
Subchapter 2.7, Greenhouse Gas Emissions (cont.)			
GHG-1 (cont.)		iii) the property owner shall maintain a policy of insurance (or include the addition of such panels to the coverage limits of the building's current insurance policy) to cover against the repair or replacement of the solar system resulting from physical damage (e.g., caused by severe weather conditions, vandalism, fire and other events) and name the HOA and County as additional insureds; iv) the property owner shall maintain and/or replace such panels with an equivalent or higher rated panel as necessary if the repair work is not completed by the HOA; v) if the identified building is vacated or abandoned, or the building is demolished before the 30-year period, the property owner shall be required to install an equivalent unit (and provide insurance for the same) on one or more existing buildings that meet the same criteria identified in a); within the County, that would generate an equivalent amount of solar power for the remaining term of the 30-year period. The property owner shall be required to record a Covenant with the same provisions against the property upon which the new building with the replacement solar unit is located, for the remaining term of the 30-year period and notify the HOA and the County of the same, prior to the vacation, abandonment, or demolition of the existing building; and	

Table S-1 (cont.)
SUMMARY OF SIGNIFICANT EFFECTS

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Cumulative-level Impacts (cont.)			
Subchapter 2.7, Greenhouse Gas Emissions (cont.)			
GHG-1 (cont.)		vi) any new purchaser of the property shall notify the HOA and County that it has acquired the site and acknowledge its obligations under the Covenant, including allowing access for solar panels maintenance for the duration of the 30-year term. c. The Applicant is required to fund and provide a report to the County that provides the following information: i) the address of the specific building(s) upon which the installation of the solar panels required by 2024 M-GHG-1 have been installed; ii) evidence that the building(s) is/are not required by law or regulation through statute, regulation, existing local program, or requirement to install such solar panels (i.e., additional); iii) the amount of GHG emissions that will be reduced by the installation of such panels; iv) a copy of the Covenant recorded against the property that includes the information required by M-GHG-1 b) above; v) a copy of the third-party building inspector (verification) that the life of the building be at least 30 years; and	

Table S-1 (cont.)
SUMMARY OF SIGNIFICANT EFFECTS

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Cumulative-level Impacts (cont.)			
Subchapter 2.7, Greenhouse Gas Emissions (cont.)			
GHG-1 (cont.)		vi) a copy of the Project "Covenants, Conditions, and Restrictions" (CC&Rs or Declaration) of the HOA that include the provisions identified in paragraph e) below, including the HOA's budget that shows the reserve set aside for the purposes described in paragraph f) below, and vii) a copy of the solar installation contract with a licensed and bonded installer, and warranty and insurance policy along with the approved solar permit. The report shall include calculations conducted by a technical GHG expert using County-approved models and/or methodologies. d. The Applicant shall comply with County Code Section 6954, Solar Energy Systems, and obtain any required permits. The installation of such PV system shall be required to qualify for a CEQA exemption, such as PRC 21080.35 at the time of application for installation. e. The CC&Rs for the Project shall be submitted to the County for its review prior to the approval of the first grading permit that includes the following provisions: 1. The HOA shall monitor the solar system using the module-level monitoring application described above for a 30-year period that commences from the Project's start	

Table S-1 (cont.)
SUMMARY OF SIGNIFICANT EFFECTS

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Cumulative-level Impacts (cont.)			
Subchapter 2.7, Greenhouse Gas Emissions (cont.)			
GHG-1 (cont.)		of operations. The HOA shall keep records of solar power production during this period. 2. If any solar equipment is found to need repair or replacement, the HOA shall be responsible for such work being completed as needed in order to maintain the equivalent amount of solar power generated by such panels. The HOA shall work with the property owner, installation company and/or insurance entity to ensure that the repairs are completed in a timely manner. If the repair work is not covered by the warranty or paid for by the insurance carrier, the HOA shall be responsible for ensuring that the repair work is completed. 3. An annual maintenance and monitoring program shall be conducted by a licensed and bonded solar company (the prepared by the solar company with the results of the inspection, including whether any repairs are needed and the amount of solar power generated by such panels. The report will be provided to the HOA, property owner, and County. 4. During maintenance, the HOA or representative shall replace (with an equivalent or higher rated panel) or repair any of the solar panels as needed in order to maintain the equivalent amount of solar power generated by such panels.	

Table S-1 (cont.)
SUMMARY OF SIGNIFICANT EFFECTS

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Cumulative-level Impacts (cont.)			
Subchapter 2.7, Greenhouse Gas Emissions (cont.)			
GHG-1 (cont.)		5. Any revisions to the above-described provisions of the CC&Rs shall be approved by the County, require the consent of 100 percent of the holders of first mortgages or the property owners within the HOA, and require the HOA to retain the same amount of funds set aside by this mitigation measure for the same purposes for the 30-year period. 6. The County shall be named as a party to said Declaration authorizing the County to enforce the terms and conditions of the Declaration in the same manner as the HOA or any owner within the subdivision. 7. The HOA shall maintain the budgeted reserve described in paragraph f) below for the exclusive uses described below. The County may use such funds should it decide to enforce said obligations. 8. These CC&Rs shall be confirmed by the County prior to recording the first subdivision map. f. Applicant shall submit the initial HOA budget, subject to Department of Real Estate (DRE) rules, for review and approval by the County, that includes a set aside fund of $300,000.00, for the purpose of repairing or replacing any solar panels (see Appendix J1), should such work not be	

Table S-1 (cont.)
SUMMARY OF SIGNIFICANT EFFECTS

Impact No.	Impact	Mitigation	Conclusion and Mitigation Effectiveness
SIGNIFICANT IMPACTS MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT (cont.)			
Cumulative-level Impacts (cont.)			
Subchapter 2.7, Greenhouse Gas Emissions (cont.)			
GHG-1 (cont.)		eligible for reimbursement from the property owner's insurance policy or warranty. The set aside funds may also be used to enforce the provisions of the Covenant and any insurance claim if needed. The amount of the set aside funds shall be adjusted each year by the HOA, based on the annual indexed increases in construction costs and expenses consistent with the California Construction Cost Index or similar construction industry standard index, through a reserve study prepared by a qualified consultant, hired by the HOA as required by the DRE, provided however, in no event shall the reserve fund be increased more than three percent (3 percent) in a given year. This budgeted reserve amount shall be designated and restricted exclusively for the sole purposes set forth herein and may be used by the County should it decide to enforce the obligations of the property owner. If any amount of the set aside is used by the HOA or County for such purposes, the HOA shall replenish the fund in an amount equal to what has been withdrawn.	

* Each of the significant and unmitigated impacts identified for transportation/traffic is associated with an impact in the City of Escondido. Mitigation is identified in this EIR that would lower the identified significant impacts to less than significant levels. Because the City is its own lead agency under CEQA, however, and because the County cannot guarantee that the City will allow the applicant to implement this mitigation, it is conservatively assessed as significant and unmitigated in this EIR. Similarly, the inconsistency with the RAQS will be cured upon transmittal by the County of revised housing forecasts and action by the San Diego Air Pollution Control District. Although these actions by other lead agencies are conservatively assessed as unmitigated at this time, it is anticipated that they will be mitigated in the future with actions by those agencies.

~~** As stated in Subchapter 2.7, stated impacts (and required mitigation) are conservative numbers as they do not take into account CO_2e reductions associated with required Project landscaping and native habitat purchase.~~

Table S-2
HGV SOUTH FULL-BUILD ALTERNATIVES COMPARISON OF IMPACTS

Environmental Issue	Proposed Project (453 SFR and MFR)	No Project/ No Development	General Plan Consistent with Septic Alternative (49 SFR)	General Plan Consistent with Sewer Alternative (119 SFR)	Senior Care/ Traffic Reduction Alternative (386 units)	Biologically Superior Alternative (424 MFR)
Aesthetics	SU Construction Period, SM Long-term	Less	Similar	Less	Similar	Greater
Transportation/Traffic	SU (City of Escondido), SM (County of San Diego)	Less	Less	Less	Less	Similar
Biological Resources	SM	Less	Greater	Similar	Greater	Less
Cultural Resources and Tribal Cultural Resources	SM	Less	Similar	Similar	Similar	Similar
Noise	SM	Less	Less	Less	Less	Less
Air Quality	LTS Construction Period, SU Long-term	Less	Less	Less	Less	Less
Greenhouse Gas Emissions	SM	Similar	Similar	Similar	Similar	Similar

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CHAPTER 1.0

PROJECT DESCRIPTION, LOCATION, AND ENVIRONMENTAL SETTING

CHAPTER 1.0 – PROJECT DESCRIPTION, LOCATION, AND ENVIRONMENTAL SETTING

1.1 Project Objectives

The purpose of the Harmony Grove Village South Project (hereafter referred to as "Proposed Project," "Project," or "HGV South") is to expand the contiguous Harmony Grove Village (HGV) to include a residential component that provides a mix of residential opportunities, and community center/limited commercial opportunities that complement existing elements of HGV and contribute to the overall functioning of the village as a whole. Integral considerations are to provide a pedestrian-oriented sustainable community that complements the natural environment, protects the community character, and integrates the residential, recreational, and public uses of both HGV and HGV South in order to create a complete and vibrant village through the development of the fourth quadrant of HGV at the Harmony Grove Road and Country Club Drive intersection. The overall objectives of the Project are to:

1. Efficiently develop property in close proximity to an existing village to create one complete and vibrant community that would enhance and support the economic and social success of the village and Project by increasing the number and diversity of residential opportunities.

2. Contribute to the establishment of a community that encourages and supports multi-modal forms of transportation, including walking and bicycling, by locating near regional employment and transit centers.

3. Preserve and enhance sensitive biological resources, habitats, and landforms in dedicated open space easements.

4. Provide a variety of passive and active recreational opportunities in support of the County's goals to encourage healthy and active lifestyles through the creation of public and private parks, pathways, and trails that provide connectivity to the area's preserved natural lands and nearby village uses.

5. Provide a mix of residential uses that will provide a broad range of housing choices which support a diversity of resident and land uses within the Project.

6. Create a mixed-use development that is compatible with existing and planned development in the immediate vicinity of the property while optimizing the operational effectiveness of public facilities and services of the Project and the existing village by increasing the number and diversity of residents within the Project.

7. Create a destination gathering place that provides a variety of land uses that encourage walkability, social interaction and economic vitality for the Project, and with the existing village and the surrounding areas.

8. Encourage adaptive grading, whenever feasible, that utilizes grading techniques such as selectively placing development in a manner that visually and physically responds to the

site's physical variables (such as steep slopes, views, streams, etc.), preserving significant topographic features and taking advantage of existing site features.

1.2 Project Description

1.2.1 Existing Conditions

The Proposed Project is contiguous to the approved HGV project and is located on property that is connected topographically to the HGV area (Figures 1-1, *Regional Location Map*, and 1-2, *Project Vicinity Map*) as part of the same drainage basin.[1] It is also located within the shared Harmony Grove valley viewshed. The Proposed Project is located southeast of the new County community park on the southern side of Country Club Drive and across Country Club Drive from the planned HGV Equestrian Ranch. The presence of HGV, as well as the improvements already built or committed to as part of HGV, provides the physical context through which to view the Proposed Project. Figure 1-3, *Area Land Uses*, depicts existing and developing uses in the Project vicinity, and illustrates the surrounding development conditions. Figure 1-4, *Project Site Aerial Photograph,* and Figure 1-5, *Harmony Grove Ridgelines and Project Connection to HGV,* provide information as to on-site conditions and the physical relationship to HGV.

Country Club Drive provides the only public access for existing and future residents and property uses south of the Escondido Creek. The existing "Arizona crossing" (an at-grade, concrete pavement, underlain by culverts and supported by substantial rip-rap) exhibits several ongoing problems. When the creek floods, flood waters have historically been high enough that existing residents south of the creek cannot cross it, resulting in concerns regarding the ability to provide emergency services during such events. Similarly, during wildfire (or other emergency) evacuation events, the two-lane crossing provides substantial logistical challenges to providing emergency vehicle access while evacuating residents and large animals from the area. The crossing has also resulted in constrained creek flow which continues to negatively impact the health and proliferation of habitat and species within the creek. Finally, the creek is expected to attract wildlife for water and foraging. To the extent that any animals travel along the creek bed, in this area they have to cross the road travel lanes and can come in contact with vehicles using the roadway.

Separate from the Proposed Project, the County Department of Public Works (DPW) has been reviewing potential implementation of a bridge at this location. For the purposes of this Environmental Impact Report (EIR), a number of fundamental assumptions can be made. At a minimum, the bridge will need to accommodate a 100-year storm. The bridge also will need to accommodate a sidewalk and a regional trail as identified in the County Community Trails Master Plan (CTMP), as well as in the approved HGV project. Therefore, this EIR has assumed a conservative bridge footprint that would encompass the full extent of the anticipated County bridge design, and ensure that all potential environmental impacts are thoroughly evaluated in this EIR.

[1] The 2015 Random House Dictionary of American English defines "contiguous" as "touching, in contact, or being close without touching."

1.2.2 Project's Component Parts

The Project contains parcels with the following Assessor's Parcel Numbers (APNs): 235-011-06-00, 238-021-08-00, 238-021-09-00 and 238-021-10-00.

The Project includes review and proposed approval of a number of discretionary actions, including:

- A vesting tentative map (TM) PDS2018-TM-5626 to subdivide the property;
- A Specific Plan (SP) PDS2015-SP-15-002 to provide detail on proposed uses;
- A rezone (REZ) PDS2015-REZ-15-003 to change the zoning designation from A70 (Limited Agriculture) and RR (Rural Residential) to S88 (Specific Plan);
- A General Plan Amendment (GPA) PDS2015-GPA-15-00 for a portion of the property to redesignate a portion of the property from Semi-Rural Regional Category to Village Regional Category and redesignate the land use designation from Semi-Rural Residential 0.5 to Village Residential 10.9 and Neighborhood Commercial.[2]
- A Community Plan Amendment (PDS2015-CPA-15-00) to add HGV South as an independent but compatible component of the HGV Specific Plan area, revise portions of the Community Plan text for General Plan conformance, and adjust the Village boundary line; and
- A Major Use Permit (MUP) PDS2015-MUP-15-008 to provide detail on the water treatment/water reclamation uses (to be provided as site planning progresses and as appropriate).

The Project site is located within the Elfin Forest and Harmony Grove Planning Area of the larger San Dieguito Community Planning Area. The site is designated within the Semi-Rural Regional Category and the existing land use designations are Semi-Rural Residential (SR-0.5) and Rural Lands (RL-20). The Project site is approximately 111 acres, of which 110.5 acres is designated SR-0.5. Under the existing designation, the Project site could result in a maximum of 220 dwelling units without consideration of environmental constraints.

The Project proposes to redesignate a portion of the property to Village-Regional Category and Village Residential (VR-10.9) and Neighborhood Commercial (NC)-Land Use Designations. The Project proposes to construct 453 dwelling units and 5,000 square feet (s.f.) of commercial/civic uses. The Project would preserve approximately 68 percent of the site in open space; including 34.8 acres of preserved biological open space (BOS), approximately 4 acres of public and private parks, 20 acres of naturalized open space, and 16 acres of landscaped areas. Within the highest intensity residential area (VR-10.9) a density of approximately 8.4 dwelling units is proposed. The proposed density is consistent with the adopted density for the Village Center (Planning Area 1) of the adjacent HGV Specific Plan, (or approximately 8.7 dwelling units per acre). Figure 1-6a,

[2] Approximately 58 acres (more than half) of the property would remain in Semi-rural Residential 0.5 land use designation, as addressed in the Project Specific Plan (PDC 2018).

Site Plan, illustrates the four types of land uses that are proposed within the Project site: residential, limited retail/commercial, utilities/institutional and open space/recreation.

As noted above, the Project site is currently zoned A70 (Limited Agriculture) and RR (Rural Residential) which allows for agricultural, open space, large lot rural residential, etc., uses. The Project is proposing to reclassify the Project site as S-88 (Specific Plan) which would allow for residential, limited retail/commercial, utilities/institutional and open space/recreation uses. The Project also proposes to include a "D1" (Design Review) designator for site plans, which would require a review for conformance with the Project Specific Plan (at the time of site plan submittal) if the Project is approved. As part of this review, County staff will also review site plans for consistency with scenic corridor restrictions (for all site areas visible from Harmony Grove Road). In addition to the on-site uses, the Proposed Project would require the construction of on- and off-site infrastructure improvements associated with roads, water, and sewer (Figure 1-6b, *Off-site Utilities*).

1.2.2.1 *Project Theme*

This section addresses primary themes integrated throughout the Project, including:

1. Contiguity with and integration into HGV (expanding the village to provide compatible additional residential, commercial and recreational amenities);

2. Consolidation of Project footprint to provide the greatest amount of green space, while accommodating housing needs within the County;

3. Circulation improvements that would benefit the entire Harmony Grove community located south of Harmony Grove Road (including improvements to the Harmony Grove Road and Country Club Drive intersection, crossing of Escondido Creek on a bridge and trail, road and sidewalk amenities);

4. Provision and fiscal support of existing community-wide services (fire, sewer, water, sheriff, parks and recreation, and HGV commercial uses); and

5. Incorporation of sustainability features into Project components.

The Project elements that support the identified themes are defined in Table 1-2, *Project Design Features*, and Section 1.2.2.2, below, and are analyzed in Chapters 2.0 and 3.0 of this EIR.

Continuity with HGV

The HGV South development would complement and support the HGV Village Core by diversifying the mix of housing opportunities and providing limited commercial/civic uses that are compatible with the existing and planned elements of HGV. Project design elements, such as lighting, signage, walls, fences, and architecture, are intended to be as consistent as possible with the rural village theme of HGV. While there would be continuity of design, the Proposed Project also would create interest by establishing its own identity; reminiscent of how communities naturally evolve and integrate new development over time.

Bridge improvements over Escondido Creek and upgrades to Country Club Road would enhance the physical connections between HGV and the Project. Ultimately, a future 10-foot wide multi-use trail, designated within the County's Community Trails Master Plan (a Condition of current HGV development plans) will improve important pedestrian links between the commercial/retail uses within HGV's Village Core and the Project. Until this trail is implemented by HGV, this linkage would be provided by the bridge and the Project-built pathway on the east side of Country Club Drive.

A Project analysis was performed to identify the most appropriate location to direct site development based on the natural resources and physical features of the area (refer to Figure 1-5). The ridgeline surrounding Harmony Grove was mapped and the flatter and more gently rolling hillside lands within the valley were identified as most suitable for accommodating an extension of HGV. The Project features clustered development, and a variety of small to larger lot sizes and a mix of residential home types in a compact development footprint. The Project is compact enough to encourage residents to walk to amenities and services, as all residences would be within 0.5 mile or less (a less than 10-minute walk) from the Project's commercial and community center at the Center House or the HGV Village Core.

Preservation of Open Space

The proposed development is consistent with the County's Community Development Model—a land use organization principle that forms the foundation of the General Plan—whereby compact development is concentrated in and around a core area and then feathers out into lower density development and open space. A project's highest residential densities are concentrated in and around the Village Core, and then less-dense portions of the project feather out into the peripheral "Semi-Rural" uses.

It is also noted that the end result of a project's footprint upon the land is ultimately based not just upon overall surface disturbance during construction, but upon the resulting grading pattern — how much or how little it disturbs natural topographic flow, and, ultimately, how much of a developed nature is placed upon the soil. In other words: (1) surficial disturbance extent is less determinative of a project's ultimate grading impact than the depth and modification of topographic rise and fall; and (2) once pads and hardscape such as streets have been installed, what the pattern is of built environment versus open space.

HGV South has been designed to maximize open space (including preserve areas) by clustering development. This would result in the preservation of a large swath of open space in the southern portion of the property, containing approximately 35 contiguous acres of high quality biological resources. Sharp or abrupt grade transitions that do not appear natural would be avoided, general rise and fall in existing slopes would be followed, and the overall grading would conform to existing elevations at north, east and west edges of the Project. Roadways and a continuous network of multi-use trails and pathways would conform to the natural topography and incorporate curvilinear elements. Between these lots, swaths of open space vegetated as part of the Project landscape plan, would provide greenswards containing trees, shrubs and groundcover.

In addition to maximizing open space, the Project is designed to minimize the visual impact of built structures. The 453 residences noted above do not equate to 453 structures. A substantial

number of the residences would be in structures built to accommodate multiple dwellings. Many HGV South lots have been designed to accommodate one to four single- or multi-family (i.e., single-family attached) buildings on the same plot of land; so that ultimately, there are only approximately 50 pads required to accommodate the residential and Center House structures. As noted above, these structures would be aligned with landscaped areas between them, so that there would be visible open areas between built footprints.

Drainage features also have been designed to appear and function more "naturally," consistent with the intent of the most recent water quality regulations. Interior to the development footprint, a remnant drainage may be restored to a naturalized state, which could provide a habitat for birds and other species in the area, enhance aesthetic value, create recreational opportunities, and carry some stormwater. Paving and hardscape areas would be minimized to the extent possible to allow the landscape to retain more of its natural hydrological function. The spacing between buildings would provide for a sense of openness and accommodate landscaping and private parks. Community gardens and edible landscaping could be featured that reflect the agricultural heritage of the area and provide a recreational opportunity for HGV South residents.

Improvement of Connectivity

In the Draft EIR, it was noted that the Project would contribute to or participate in implementation of County plans to improve the connection over Escondido Creek by improving the existing substandard "Arizona" crossing with a bridge (see description of current crossing issues in Section 1.2.1, above). To clarify, the Project includes construction of the bridge as part of mandatory Project design, as shown on the Project TM. Provision of a bridge at this location would address a wide variety of community issues and needs, including: (1) improving important links between the commercial/retail uses within the HGV Village Center, the HGV community park and equestrian park at the intersection of Harmony Grove Road and Country Club Drive, the HGV Equestrian Ranch and HGV South; (2) accommodating a north-south multi-use trail, thereby enhancing non-vehicular access among these uses and other multi-use trails that extend further south and connect to the Del Dios Highlands Preserve (DDHP) and Elfin Forest Recreational Reserve (EFRR); (3) creating a safer wildlife crossing for species traveling east-west along the creek as they would pass under the bridge and not cross vehicular traffic; (4) improving creek health by improving a more natural flow of creek water rather than the artificial ponding that currently exists east of the current crossing; and (5) improving emergency evacuation conditions, as well as emergency vehicle access in case of personal health and/or regional fire.

As described above, the Project would further enhance circulation efficiency by improving Country Club Drive to three lanes, and improving the southern portion of the Harmony Grove Road and Country Club Drive intersection. These Project improvements would provide for better circulation as HGV builds out, especially during horse events once the HGV Equestrian Ranch is developed and also would allow for additional capacity to expedite emergency access out of or into the area.

Community-wide Services

As noted above, the Project identifies seven public parks, as well as a number of public trails that connect to other existing or planned trails in the CTMP. Also, a minimum of 1,500 s.f. of

commercial uses would be open to the public, as described in the Project Specific Plan. The bridge over Escondido Creek also upgrades access to all existing residents south of the creek, as well as to future visitors to the approved HGV Equestrian Ranch events. Finally, this development would make a significant contribution to fire revenues supporting the Harmony Grove Fire Station and its most efficient operation.

Site Sustainability

On-site land would be utilized efficiently through compact development. Existing drainage patterns generally would be maintained and a remnant drainage may be restored. Unlined drainages, permeable pavement, and open space corridors that serve as water quality features are a few of the low impact development (LID) techniques proposed to treat stormwater runoff and provide opportunities to recharge the groundwater aquifer through percolation. Hardscape areas have been minimized to both reduce the urban heat island effect and to maximize pervious surfaces for stormwater infiltration. Drought tolerant, fire wise, and native landscaping would be planted. Opportunities to capture rainwater and recycled water for irrigation purposes and other uses would be integrated into the development. Buildings would be sited (oriented) to benefit as possible from existing passive solar energy and rely on renewable energy sources to the extent possible. An electric car charging station would be provided at the community center.

It is important to note that the County encourages new developments with access to sewer to provide housing opportunities for a range of household incomes by offering both a variety of housing types (multi-family to single-family), and a variety of lot sizes. The Project would be inclusive, providing a mix of housing types to accommodate a range of household size and resident age.

1.2.2.2 *Land Uses*

Community-wide Design

In order to create a unified project design and establish a feeling of place, several design principles have been integrated. The principles emphasize a clustered residential approach that results in increased open space as described above and shown on Figure 1-6a, as well as pedestrian friendly setting, with specific architectural themes, as described below. This results in an emphasis on harmonious development, human-scale architecture and a pedestrian-friendly environment.[3]

The design concept for HGV South would be consistent with HGV, yet provide for a unique Project identity. HGV is designed to include a Western Farmhouse/Cottage architectural theme. The theme for HGV South is based on the Western Farm Village architectural tradition. This theme supports a rural, utilitarian style that reflects historical uses of the site while planning for current uses with a specific reference to the agricultural, rural ranch and equestrian traditions of the surrounding community. The Western Farm Village style emphasizes function and utility, relying minimally on stylistic effects to define its character. It employs ornamentation that is primarily

[3] "Human scale" refers to a building and its details, including: garage doors, pedestrian entries, windows, plate heights, roof lines and balconies as they are in proportion to the height of an average person.

functional rather than merely decorative, such as porches or bay windows adorning the fronts of houses.

It allows the larger Harmony Grove community to retain its rural character, yet adds interest by permitting other building types that contribute to the sense that the community has evolved over time. Larger buildings, such as those that reflect granaries or mills, also allow for a wider range of housing types. These structures would look like agrarian facilities that have been repurposed to serve multi-family housing needs.

Figures 1-7a and b, *Typical Architectural Styles*, illustrate typical elevations of the Proposed Project. These elevations illustrate the design characteristics that make up the Western Farm Village style. The overall size, bulk, and scale of proposed buildings would be minimized through use of techniques such as: breaking up façades through a combination of vertical and horizontal elements: incorporating variation in the roofline through the use of gables, overhangs, etc.; reducing the presence of garage doors from the street scene by locating them on alleys, in cluster courtyards, etc.; varying the height of building segments through incorporation of 1.5-story massing with dormers; staggering setbacks; incorporating projections and recesses that provide shadow and relief; use of accent colors on trim, shutters, and architectural elements to provide visual interest and character; and providing overhead structures at entries, such as porches, trellises, or pergolas. The Project color palette would include creams, tans, and muted colors, as depicted on Figures 1-7.

Roof lines and materials would be particularly important. The Project would incorporate forms indicative of traditional farmhouse architecture with porches, dormers, and simple roof shapes along with a combination of pitched roofs and flat parapet roofs historically inherent to commercial and industrial building designs of the past.

Residential Uses

The Project includes five residential architectural styles. Cottages, Bungalows, and Harmony Court structures would be single-family residences. Farmhouses and Granaries would utilize a multi-family format. The heights of individual structures would be determined by home type, as described below. Planned locations and typical schematics for each of the residential types are provided in Figures 1-6a, and 1-7a and b, respectively, though final locations and design details may vary at site plan submittal.

Cottages would be located at the core of the development, where the topography is relatively flat (less than 25 percent grade). These structures would be detached single-family homes (some minimally attached at the roofline), with garages accessed from alleys/lanes. Incorporating internal site topography into the product design, a change in elevation of approximately 15 feet would be accommodated between the western and eastern extents of each cottage grouping. Typically, cottages would be two stories from the front elevation; however, third story elements are permitted to add interest. The main portions of the structures would be a maximum of 28 feet in height. Intermittent third story elements are limited to a maximum of 35 feet from the front of the homes on the paseos, and up to 35 to 45 feet in height from the low point on the alley. Two-car garages would be accessed from a rear alley which would eliminate the presence of garages along the main private drives.

Bungalows would consist of four clustered single-family detached or attached homes situated around a single private driveway. These homes typically would be a maximum of 28 feet in height. A three-story element within each cluster could be included to provide visual interest and break up vertical massing. Maximum structure height, including any third-story element, would be 35 feet. Two-car garages generally would be accessed from a private driveway.

Harmony Court structures would consist of single-family detached units organized in a group of four. These homes would be slightly larger than the bungalows. Each court would vary up to three stories in height and include an attached two-car garage accessed from a private driveway courtyard. The maximum height of the bulk of the structure would be 28 feet. If a third-story element is provided, it would have a maximum height of 35 feet.

Farmhouses would consist of approximately five dwelling units within a multi-family building. To integrate with the rural theme, these buildings have been designed to appear as large single-family residences rather than a grouping of "flats," or apartments. Farmhouses would range from three to four stories and the maximum structure height would be 42 feet. Non-inhabitable roofline elements such as a chimney may extend up to 4 feet above the highest roof elevation and may not exceed five percent of a structure's roofline.

Granary structures would contain approximately 15 attached single-family homes and have been designed to look as if they are historic farm buildings that have been repurposed from their original use to accommodate residential lofts. The style may take on the characteristics of an old schoolhouse, inn, mill, or other "re-purposed" community building use that is found within a village reflecting a rural agricultural heritage. Residential portions of the buildings would be two- to three stories above a partially underground parking garage. The maximum structure height would be 45 feet. Architectural projections such as gables, outlooks, chimneys, or other non-inhabitable roofline elements, may extend up to 8 feet above the highest roof elevation and may not exceed five percent of a structure's roofline.

A multi-use trail system to accommodate horses, people and non-motorized bikes would link all of HGV South, as well as surrounding neighborhoods in approved HGV and existing adjacent trail systems in recreational areas in the south and to the west in the DDHP and EFRR open space areas. The HGV South neighborhoods would be connected by trails winding around and through them, providing access to HGV South parks and open space areas abutting the Project. As noted above, residents would be able to walk to on-site amenities and services located in the commercial/civic uses at the Center House, as well as within the HGV Village Core (approximately 2,100 feet, or 0.4 mile). Located between the residential and community uses are several existing or proposed parks, including the existing equestrian and pedestrian focused community park uses at the southwest corner of the Harmony Grove Road and Country Club Drive intersection. Upon full development of HGV, HGV residents will be able to walk along the multi-purpose trail to the HGV Equestrian Ranch. HGV South residents would be able to walk across the street to equestrian events at the HGV Equestrian Ranch and to shop at the limited retail proposed for that location. In terms of more regional travel, this Project is within 3 miles of the Nordahl Transit Station. The reader is referred to further discussion in Section 1.4.1, *Project Vicinity*, below.

Limited Retail/Commercial Uses

The Commercial/Civic land uses may include a park, overnight accommodations of up to four rooms that can only be used by HGV South and HGV guests, as well as a gym, an event lawn, and private recreational facilities such as a pool or clubhouse that could be only be used by HGV South. The Commercial/Civic land uses also include a public commercial component that may include food/beverage services (such as a café); administrative and professional services; convenience sales; or personal services (including hair or nail salon, day spa). The Project proposes to construct a small community center with commercial/civic uses (the Center House). The Center House would be sited just south of the primary Project entry. This facility would include a privately maintained (Home Owner Association; HOA) recreational gathering space (see discussion of Common Area Open Space, below), and some retail commercial uses as described above. The total square footage of structures associated with the Center House is approximately 5,000 s.f. (with a minimum of 1,500 s.f. of commercial use); the Center House would be a maximum of two stories (up to 35 feet, including any architectural projections within that height) in height. The building façade may be designed to appear as an authentic historic structure with old faded signage painted on the exterior or other features that contribute to the character of the community. An electric charging station would be provided. A possible design is presented in Figure 1-8, *Center House Concept Plan*.

Open Space/Recreation

Approximately 75 acres, or 68 percent, of the Project site area (Figure 1-9, *Open Space Plan*) would consist of green space, including proposed BOS, park areas and HOA maintenance district areas.

Biological Open Space

The Project proposes to set aside BOS lots totaling approximately 34.8 acres that would be dedicated for permanent preservation on site, and would consist of natural (non-irrigated) areas located beyond the Project brush management zones (see Figure 2.3-5, *Vegetation and Sensitive Resources/Impacts*, in Section 2.3, *Biological Resources,* of this EIR). An additional 0.1 acre is considered "impact neutral.[4]" A limited building zone (LBZ), to contain no habitable structures, and to fit within the overall fuel management zone, also would be provided on site. The fuel management zone would extend a minimum of 100 feet from the BOS toward Project residences. Acreage associated with existing legal easements that are anticipated to remain post-Project implementation (access easements to otherwise landlocked parcels and a County trail easement through BOS from the Project to the DDHP) are not included in the BOS acreage total.

Consistent with the County Resource Protection Ordinance (RPO) Section 86.602, a buffer from sensitive wetlands would be located along the northern portion of the Project site adjacent to Escondido Creek, located in preserve property owned by The Escondido Creek Conservancy. The buffer would provide in excess of 100 feet between the edge of riparian canopy and any Project

[4] "Impact neutral" refers to areas that are located within an existing easement or would be avoided by the Project, and for which no Project-related impacts would occur, but cannot be placed into BOS due to their small size or being surrounded by areas that are otherwise impacted, Impacts are not assessed, but neither is the area included as off-set to/mitigation for impacts.

feature. Also, as noted above, an additional minimum 100-foot wide LBZ would be located between the buffer edge and any on-site uses. The RPO and LBZ buffers would result in a wide separation from any on-site residential uses, and an approximately 200-foot wide buffer between the canopy edge and any built Project structure (a small portion of the wastewater treatment and water reclamation facility [WTWRF] wall and facility area would fall within the 200-foot buffer, as would the northern secondary access road). Steep slopes/scrub and the majority of coast live oak woodland on the Project's southern end also would be protected as part of Project BOS. The proximity of the residential uses to BOS protected through identification of the proposed development hardline could allow for views to natural areas and contribute to an open atmosphere.

BOS areas would be fenced in order to reduce domestic animal access (Figure 2.3-5). In addition, signs would be placed along the edge of the BOS and existing trails crossing the open space to deter human incursion (see Figure 1-6a and the trails shown south of the residential uses, as well as Section 1.2.2.3, *Access and Circulation*, below for more detail about these trails). No development structures would be permitted within this BOS, however multi-use trails (allowing passive recreational uses),[5] and focused drainage maintenance would be permitted in accordance with the Project Resource Management Plan (RMP). Limited nature study and open space enhancement activities would be permitted within the BOS, such as wildlife counts by habitat managers and native habitat revegetation.

On-site BOS would be preserved in perpetuity and actively managed by a conservation entity in accordance with the Project RMP.

Naturalized Open Space

Naturalized Open Space is made up of areas which may be graded during HGV South development but would be revegetated in accordance with fire resistive native and/or drought tolerant plant materials. Revegetated slopes and drainage features fall into this category.

Naturalized open space also includes fuel modification zones and limited building zones. This includes areas of native vegetation that would not be subject to grading, but which would require the introduction of a permanent irrigation system for fire protection purposes as well as areas that require thinning of non-irrigated native vegetation. Some of these areas may require road access and all fuel modification zone (FMZ) areas would be routinely maintained by a homeowner's association. Naturalized open space areas represent approximately 20 acres or about 18 percent of HGV South.

Landscaped Areas

The Project's HOA would maintain landscaped areas, including modified hillsides behind homes, parkways along roadsides, open areas adjacent to roads, and sites that constitute prominent visual features. Landscaped areas would be irrigated permanently and would be planted with a combination of natives and exotics that are not on the Project's Fire Protection Plan's prohibited plant list. Landscaped areas are scattered throughout the Project area and make up approximately 16 acres, or 14 percent of HGV South.

[5] Passive recreation includes activities such as hiking, bird watching, horse-back riding and biking.

Common Area Open Space and Recreation

Thirteen parks (approximately 4.1 acres) are planned to be developed in HGV South (refer to Figure 1-6a and Figure 1-20c, *Conceptual Park Plans*, below). The latter figure identifies each park as public or private, shows the park acreage, and depicts anticipated uses.

Public Parks

Seven public parks are planned, which would range from approximately 0.08 to 0.54 acre in size. A dog park is planned to be developed within the community as well as a basketball court adjacent to the Center House. Other public park uses are anticipated to include a horse shoe pit, barbeque areas, picnic tables, and/or informal play areas. A fitness circuit consisting of various exercise stations will connect the parks both within HGV South and HGV. Public parks would be dedicated to the County for park and recreation purposes only and would be funded through the Community Financing District.

Private Parks

The plan also includes six private parks, which would range from approximately 0.1 to 0.82 acre in size. The Center House includes an approximately 0.82-acre private park with a clubhouse facility. The park may contain a locally known wood-burning fireplace (which may possibly be restored to working order by the Project), as well as a recreation center with a pool/spa area, barbeque/picnic area, play field, restrooms, gazebo, and/or other similar park uses. Other private parks would be developed as dual use (subsurface vault) storm water storage and treatment areas under recreational areas and community gardens. Private parks would be operated and maintained by the Project's HOA.

In addition to the park facilities described above, Project in lieu fees provided to complete Project obligations under the County Parkland Dedication Ordinance requirement would be used to improve parks within the larger existing HGV area.

Multi-Use Trails

As discussed throughout this EIR, a system of public and private multi-use trails intended to serve pedestrians, equestrians, and other non-motorized forms of travel would weave throughout the Project; providing links to the existing and planned off-site San Diego County trail system and to HGV via the bridge over Escondido Creek. In addition to providing an important equestrian and pedestrian circulation framework for the Project, the multi-use trail system would thread an element of landscape detail through the site and complement the open space and recreation areas.

Utilities/Institution

The Proposed Project would require the extension of waste water, recycled and potable water pipelines, as well as gas, electric, and phone/cable lines throughout the development and (excluding waste water) to off-site connection points. All existing public utilities and services would be improved, and new facilities would be constructed and available concurrent with need. All new on-site utility lines would be installed underground within improved roadbeds.

Potable Water

Water service for fire protection and residential use would be provided by Rincon del Diablo Municipal Water District (Rincon MWD). Rincon MWD receives its water from the San Diego County Water Authority (SDCWA). The Project site is located entirely within the boundaries of the Rincon MWD service area, which serves approximately 30,000 people through nearly 8,000 connections in portions of the cities of Escondido, San Marcos and San Diego. The proposed potable water system is shown in Figure 1-10, *Conceptual Potable Water Plan*. All waterlines would be designed in accordance with Rincon MWD standards.

Primary potable water service would be provided via a new 12-inch pipeline connecting to an existing 12-inch potable line in Harmony Grove Road. Potable water would be brought to the Project south from the connection with the Harmony Grove Road line over the Escondido Creek bridge, and then installed within Country Club Drive. For purposes of system redundancy, the Project also would hook into an existing 8-inch water line near the western terminus of Country Club Drive (near the Harmony Grove Spiritualist Center). The connecting pipeline to the Project also would be 8 inches in width and would be sited within roadbed from the Project boundary to the tie-in point. Within the Project, all potable water lines would be located within roadbed, and would extend to serve each residential use (Figure 1-10).

Wastewater

Wastewater treatment facilities appropriate to the proposed HGV South development would be built by the Project.

A stand-alone wastewater treatment plant for treatment of HGV South wastewater would be constructed within the Project footprint. The new plant would be constructed using either a design to match the HGV Water Reclamation Facility (WRF) or a new package membrane bioreactor plant (currently assumed for Project analyses). This would result in two wastewater facilities being located within fewer than 600 feet of each other on either side of Escondido Creek, each of which would perform similar functions and operate in a similar manner. Although duplicative, this conservative assumption was made in order to provide assumptions regarding the largest Project footprint necessary for plant facilities on the Project. The Project also would require an on-site influent pump station. The pump station would be approximately 10 feet in width, 10 feet in length and 20 feet high (all recessed into the ground).

Two design options are described to provide parameters regarding build variation for the on-site facility.

Option 1: This option involves the construction of a new stand-alone Aeromod wastewater treatment plant. Project design includes an enclosed 0.4-acre on-site WTWRF (refer to Figure 1-11, *Footprint for Maximum Aeromod Facility*). This facility would provide treatment for all wastewater generated on site, and would produce reclaimed effluent per applicable regulatory standards for irrigation of on-site landscaping. Based on the loading and design criteria used in the 180,000-gallon per day (gpd) HGV plant design, new treatment processes with similar tank sizes would be constructed at HGV South. These types of plants are in common use and have previously

been approved by County DPW for integration into their system, including storage and use of reclaimed water. A summary of major plant components includes the:

- **Equalization basin** to balance out variations in flow by storing a portion of the peak flows received for treatment in the plant during low-flow periods, and incorporating the **Headworks** to provide fine screening of the influent wastewater.

- **Secondary treatment areas to include** aeration basins and anoxic basins performing the activated sludge process along with biological nitrogen removal as well as clarifier basins to settle most of the solids out of the wastewater to yield a clarified flow that goes to filters for further turbidity removal.

- **Filters** for further removal of turbidity to produce reclaimed water meeting Title 22 standards for effluent clarity.

- **Chlorine contact basins** for disinfection of the reclaimed water by chlorine solution.

- **Residual solids processing**. The Aero-Mod process typically includes digester basins for further reduction of the settled solids produced by the treatment process.

- **Equipment building,** also providing space for employees to store their personal items, restrooms and showers for employees, some desk space and a small laboratory for use in operational control of the plant would be constructed on site.

- **Non-compliant effluent storage tank(s)** to provide 24 hours of storage.

The WTWRF would include each of the facilities noted above as well as a small parking lot within the 0.4-acre footprint. As noted above, the on-site plant would be located in the northwestern portion of the Project. The WTWRF would be enclosed by a solid 6-foot high wall (shown on Figure 1-11), and screened with landscape plantings. The plant would be located adjacent to Country Club Drive but would be separated from the road by slope. That slope, combined with the 6-foot landscaped wall surrounding the facility, would minimize views to WTWRF structures. The treatment basins would be located approximately 8 feet downslope (and southerly) from the plant. The building(s) would be one story, no higher than 18 to 25 feet, and would reflect architectural characteristics consistent with the rest of the Proposed Project. The intent is to create the impression of an out-building cluster of agrarian barn structures. Design details include: varied building massing; gable roof profiles with standing-seam materials to provide textural interest; horizontal siding; exposed, simple beams and columns; carriage style stable and man doors; cupolas and weather vanes; and roof dormers. The structures would be screened by the landscaping, and lighting for the facility would not be any taller than the height of the equipment and only activated when workers are present. All mechanical equipment would be housed within buildings or noise-attenuating covers.

Option 2: This option also involves the utilization of a manufactured package treatment plant (known as the "Ovivo" design), but it would produce Title 22 effluent suitable for unrestricted reuse. Major Ovivo plant elements include the:

- **Compact plant**, measuring 40 feet in length, 8.5 feet in width and 12 feet in height.
- **Liquid sludge storage tank** to accommodate approximately 20,000 gallons of storage.
- **Off-quality effluent storage** (a total of 97,480 gallons) of approximately 25 by 30 feet to provide 24 hours of storage.
- **Building** approximately 20 by 25 feet (no more than 18 feet high) to house the emergency generator and electrical control system (as well as potentially blowers or other equipment).

All of the Ovivo plant elements would easily fit within the footprint identified on Figures 1-6a and 1-11 for Option 1. The architectural design elements described above, as well as the 6-foot encircling wall, would also be applicable to this scenario. An expanded description of the plant (Ovivo design) is included in Appendix A of Appendix Q to this EIR.

Regardless of design option, a waste discharge permit from the Regional Water Quality Control Board (RWQCB) would be required for the WTWRF. The waste discharge permit shall dictate monitoring and testing requirements at the facility, as well as monitoring and testing of effluent (reclaimed water used for irrigation). In addition, the permit shall include guidelines for redundancy (back up or standby equipment) and reliability of the WTWRF. The facility would meet all requirements of RWQCB for unrestricted reuse of the water generated at the facility.

Wet Weather Storage

Regardless of which treatment plant option would be implemented, wet weather storage would be required to accommodate the Project. As stated in Chapter 4 of Appendix Q to this EIR, a maximum of 8,127,000 gallons may be needed. Wet weather storage would be provided on site through use of underground vaults sited beneath the recreational areas of the Project site, including possibly community gardens.

Solids

Biosolids are a byproduct of wastewater treatment. Due to the small size of HGV South, it is likely that the Project would truck solids to another wastewater treatment plant for dewatering. This would require transport to that facility by an estimated one truck per week. Once biosolids are dewatered, they would be trucked to a landfill for final disposal, estimated to require one truck per month.

Recycled Water

Regardless of the location of treatment facility, all Project wastewater is proposed to be reclaimed and reused for irrigation of on-site parks, parkways and common areas (excluding the community gardens) in accordance with standards set by Rincon MWD. Figure 1-12*, Conceptual Reclaimed Water and Sewer Plan*, illustrates reclaimed water lines within the Project streets. All irrigation systems would follow the County's Water Conservation and Landscape Ordinance Design Manual to establish efficient irrigation systems.

Drainage

Currently, there are no drainage improvements on site, and drainage flows overland. The Proposed Project would generally maintain existing drainage patterns (Figure 1-13, *Conceptual Drainage Plan*). A naturalized open space area with a meandering swale, trails and adjacent community gardens may be incorporated through re-creation of a vegetated swale that could carry surface drainage from adjacent slopes and units along its alignment and convey it to a proposed storm drain system.

The Project would ensure that post-Project peak flow rates do not exceed pre-Project peak flow rates. The on-site drainage improvements would include public and private streets, gutters, and curb inlets that tie into underground storm drain systems. As Project grading has been designed to follow the general rise and fall of the on-site topography within the development footprint (refer to Figure 2.1-10 in Subchapter 2.1 of this EIR), water flow patterns would be retained; and the proposed drainage areas generally mimic the existing condition. The ultimate discharge points would be effectively the same as the existing condition; north to Escondido Creek, and west to the defined drainage along the western Project boundary.

The Project would construct two combination water quality/hydromodification/detention vaults, which would detain runoff during storm events and improve water quality by promoting infiltration into natural soils. The vaults would be subsurface, and would be located below Project park areas.

One vault would be located at the northwest extent of the site, adjacent to the WTWRF. This basin would discharge directly to Escondido Creek via an underground storm drain. The second vault, located along the western boundary just south of Country Club Drive, would drain to the defined drainage at the southwest corner of the Project's grading limits (south of Country Club Drive where it turns to the west and east of Cordrey Drive). These vaults would provide flow regulation for post-development drainage control and hydromodification management compliance, as well as water quality treatment. The facilities are designed to accommodate 100-year storm events. Energy dissipation is incorporated into Project design to reduce flow velocities and minimize erosion potential. A series of Integrated Management Practices would be utilized to capture, collect and treat project storm water as close to the source as practical. These and other Best Management Practices (BMPs) are discussed in the Project's Priority Development Project Storm Water Quality Management Plan (Appendix N to this EIR).

The County Watershed Protection Ordinance (WPO) requires that all development projects use LID planning and storm water management techniques to maximize infiltration, provide retention, slow runoff, minimize the impervious footprint and constructed widths of a project, and direct runoff from impervious areas into landscaping (Section 67.806.c.2 of the WPO). LID elements required as part of Project design of HGV South include: use of pervious surfaces wherever appropriate, disconnection of impervious surfaces and design of them to drain into properly designed pervious areas, and implementation of site design BMPs. These required elements can be attained through use of:

- The above-described basins
- Naturally functioning and appearing landscaped slopes and swales

- Permeable pavement such as permeable concrete and pavers

- Discharging roof downspouts directly into landscaped areas via swales or a pipe that daylights some distance from the building foundation

1.2.2.3 *Access and Circulation*

Roadway Improvements

Country Club Drive and Escondido Creek Bridge

The segment of Country Club Drive across the Escondido Creek is unclassified in the County Mobility Element and is currently paved to a width of 20 feet, with two 10-foot travel lanes. This segment is proposed to be improved according to County Public Road Standards to an "enhanced" Residential Collector, with two 12-foot travel lanes, a 12-foot center median, and two 4-foot shoulders, as well as a 10-foot trail on the west side and a 6-foot wide sidewalk on the east side. South of the bridge, the road retains two 12-foot travel lanes, widens the median to a 14-foot travel or turn center lane, includes two 8-foot shoulders, and abuts an existing trail easement (to be improved by others) on the west (10-foot multi-purpose trail and 3-foot wide parkway) and adds a 4 to 5-foot parkway and 5 to 6-foot pathway on the east, as illustrated in Figure 1-14a, *Country Club Drive - Public Enhanced Residential Collector*.

To improve connectivity with the northbound approach, the intersection with Harmony Grove Road would be improved to one through lane, one dedicated right-turn lane, and one dedicated left-turn lane in addition to a southbound lane. Each of these lanes would be 12 feet in width. A 9-foot wide buffer would be located between the multi-purpose trail segment and the southbound travel lane. A 4-foot buffer would be located between the north-bound through lane and the dedicated right turn lane. Additional space would be located between the right-turn lane and a 5-foot pathway segment.

The improvements to Country Club Drive would continue south from the bridge in order to accommodate Project traffic, as well as to accommodate future loading that is anticipated to occur during equestrian events at the HGV Equestrian Ranch (located contiguous to HGV South on the west side of Country Club Drive). The center lane (14 feet in width from the bridge to the southernmost Project entry) would provide opportunities for southbound left turns at the Project entrances (to take slowing cars out of the through lanes), and, as an ancillary benefit, could be converted to a through lane for its total length in an emergency evacuation scenario. South of the southern Project entrance north of Cordrey Drive, the improved road would transition back to the existing two-lane configuration, consistent with County Public Road design standards (see Figure 1-14b, *Country Club Drive Transition from Three to Two Lanes South of Project Entry*).

There are no designated bicycle routes designated for this segment per the Mobility Element, however, Country Club Drive and other internal project roadways may be painted with "sharrows" to indicate that bicyclists do share the roadway with vehicles. Marked crosswalks connecting the east and west sides of Country Club Drive would be located from each of the Project entries to the future multi-use trail on the west side of the road to accommodate pedestrians/equestrians in crossing the road.

As noted above, this EIR analyzes potential impacts associated with the bridge construction assumed as part of this Project and included on the Project TM. Based upon the most conservative design parameters for the bridge, the following assumptions provide the worst-case footprint assessment of bridge environmental effects. The bridge is anticipated to be approximately 250 feet long, and to accommodate three travel lanes, the multi-use trail (10 feet in width), a 6-foot sidewalk, and additional paved shoulder on either side (see Figure 1-15, *Escondido Creek Bridge Schematic*). Connections to the approved HGV multi-purpose trail on the west side of the road, as well as the Project pathway on the east side of the road, are assumed. The bridge is expected to have three spans; i.e., it would be supported on abutments at its northern and southern extents, with two intermediate pier supports. The piers would be spaced at least 100 feet apart, to provide the widest possible section without bridge supports in the portion of the creek with running water. The slopes at the ends of the bridge would be protected by erosion-control measures, such as rock slope protection to protect the abutments scour during storm events.

The bridge superstructure would be a cast-in-place, prestressed concrete box girder. The bridge girder (located below the travel lanes) would be designed to carry utilities north and south of the bridge and would be expected to contain the Project potable water in a 12-inch line, as well having the potential for an 8-inch reclaimed water line. An 8-inch gravity sewer line, a 6-inch pumped sewer line, and a 4-inch sludge line could also be accommodated. It is also expected that any bridge approved for this area would be tall enough to accommodate wildlife crossings within the riparian zone and would also accommodate 100-year flood flows. In the event of construction by others, the Project would make fair share contributions to bridge improvements.

Private Roads

All Project roads have been designed in accordance with County Private Road Standards, with the Fire Protection Plan (FPP), and with consideration to wildfire.

Figure 1-16a, *Circulation Plan*, schematically illustrates internal roadways. The primary point of access to HGV South would be via Country Club Drive. All internal roads would be private. To satisfy fire safety planning, portions of the two main roadways entering the site from Country Club Drive would be three lane roadways (refer to Figure 1-16b and c, *Three-lane Private Drive, Head-in Parking*, and *Three-lane Residential Private Drive*). The remaining private drives are two-lane roadways (see Figures 1-16d through 1-16g).

Internal Project roads would include a looping system connecting to Country Club Drive via Private Drives A and C, combined with seven cul-de-sacs.

The three-lane Residential Private Drive (Figure 1-16c) would be sited on the direct connectors to Country Club Drive (Private Drives A and C). These streets would have a 56-foot-wide right-of-way, and would be 36 feet wide curb to curb (with three travel lanes of 12 feet each). A 10-foot-wide parkway on either side of these roads would incorporate 4 to 6 feet of landscaping and 4 to 6 feet of trail.

The street depicted in Figure 1-16d, *Two-lane Private Drive, Head-in Parking*, would be located in one area, along Private Drive I directly behind the Center House. This street would have a 72-foot-wide right-of-way, and would be 62 feet wide curb to curb (with two travel lanes of 13 feet

each). An 18-foot-wide parking area and 5 feet of trail would be located on either side of the travel lanes.

The street depicted in Figure 1-16e, *Two-lane Residential Private Drive – Parking on Both Sides,* would be located in one area, in the southern loop formed by Private Drives C, B and D, respectively. This street would have a 56-foot-wide right-of-way, and would be 36 feet wide curb to curb (with two travel lanes of 12 feet each). A 6-foot-wide parking area within the roadbed, and 10-foot-wide parkway with 6 feet of landscaping and 4 feet of trail would be located on either side of the travel lanes.

The street depicted in Figure 1-16f, *Two-lane Residential Private Drive - Parking and Trail on One Side*, would be located along one Project road segment, Private Drive K. This design would have a 40-foot-wide right-of-way, and would be 30 feet wide curb to curb (with two travel lanes of 12 feet each). A 6-foot-wide parking area within roadbed would be located on one side of the street, and 5 feet of trail would be located on one side, with 5 feet of utility easement on the other side of the road. A similar scenario would be located on five of the Project cul-de-sacs (E, F, G, H and J), where a design scenario with trails on both sides of the street would have a 50-foot-wide right-of-way, and would be 30 feet wide curb to curb (with two travel lanes of 12 feet each). A 6-foot-wide parking area within roadbed, and 10-foot-wide parkway with 6 feet of landscaping and 4 feet of trail would be located on either side of the travel lanes.

The street depicted in Figure 1-16g, *Two-lane Residential Private Drive, No Parking and Trail on One Side*, would be located along Private Drive K where the road would climb a Project hill and along the northern utility access road. This design would have a 33-foot-wide right-of-way, and would be 24 feet wide curb to curb (with two travel lanes of 12 feet each). A 4-foot-wide pedestrian trail would be located on one side of the road within a 5-foot easement and a 4-foot-wide utility easement would be located on the other side of the travel lanes. Branching off Private Drive K to the east as it climbs the hill would be a retained travel easement for off-site property owners to the east.

Trails and Pathways

A system of trails and pathway would link key open space features of the Project site, as well as provide connection to off-site areas and planned public trails (Figure 1-17, *Trails and Pathways Plan*). Trails would be constructed with decomposed granite or similar soft surface material and would comply with appropriate San Diego County Trail Designation and County Design and Construction Guidelines. Fencing would be used as needed. The existing 2- to 4-foot wide primitive trail located in an existing easement outside of the development footprint identified on Figure 1-6a would be improved to 4 to 6 feet in width. Public multi-use trail easements would be dedicated to the County; private trails internal to the Project would be maintained by the Project HOA.

The primary multi-use trails on site would connect to the future HGV multi-use trail (condition of project approval) along the west side of Country Club Drive. Ultimately, that trail will extend southerly of Harmony Grove Road along Country Club Drive for the length of the HGV Equestrian Ranch improvements. The HGV trail will be 10 feet in width, will be edged by fencing, and will be edged by shade trees and informal landscaping between the road and the trail. The trail will

constitute part of the County-identified Country Club Drive Trail (Trail 04), planned to extend from the northern extent of HGV southerly to where Country Club Drive begins to trend west.

At the southern Project entry, the trail would cross over Country Club Drive and intersect with Trail 13 on-site. On-site portions of Trail 13 would be upgraded to the standard described above for Country Club Drive. A 5-foot pathway (not located within public right-of-way) would also be provided by the Project on Project lands along the east side of Country Club Drive, from Harmony Grove Road to the southern Project entry.

On-site portions of two County trails (Trails 11 and 13), would be built as 6- to 8-foot trails, as depicted on Figure 1-17.[6] These trails would be variously located along internal Project streets, adjacent non-BOS open space, and along the western Project boundary within the overall development-modified footprint. These trail segments would be portions of the:

- Lake Hodges Trail (11), extending across the Project approximately 0.55 mile from Country Club Drive east to the County/Escondido line

- Elfin Forest Trail (13), trending west and then south from the Summit Trail along the western Project boundary to the County/Escondido line.[7]

Outside of the residential development footprint, the route identified for Trail 12 and 13 would enter open space, and would be retained in its current condition. Trail 13, also largely located within the Project parcel in open space, is routinely used by the existing local community and would be retained within a 20-foot trail easement. This unimproved trail continues south to meet the east-west trending Del Dios Highlands Trail in the DDHP, and would be improved from its current 2- to-6-foot width to 4- to 6-foot width.

Private pedestrian trails also would wind through the residential neighborhoods on each residential street. To maintain the rural character of the area, decomposed granite or similar soft surface material is preferred for the walkways along the private drives within the Project site. Light colored, stained, or painted concrete sidewalks also would be permitted.

Parking

All development within HGV South would comply with the County of San Diego's parking regulations, with respect to proximity to residences. The number of parking spaces required for each residential unit and the number of guest parking spaces (including for the Center House) required for the Project are set forth in the approved FPP, which is incorporated as a requirement of the Project Specific Plan (and provided as Appendix L of this EIR). Street parking locations are identified on Figure 1-18, *Visitor Parking Plan*.

[6] The Summit Trail (12), extending southerly approximately 0.21 mile from the Lake Hodges Trail into the heart of the Project does not currently exist and is not part of the Project. This potential trail would adversely affect proposed biological open space and increase edge effects. It was therefore deleted following coordination with Parks and Recreation.

[7] The Trails Master Plan also identifies the Escondido Creek Trail (14), just north of the Project, trending along the Escondido Creek drainage for approximately 2.16 miles. That trail is off site, and no modifications are planned.

The Project would designate the club house parking area as the valet/shuttle staging area for all homeowners' events exceeding 10 guests. Homeowners would need to obtain a parking permit to utilize any of the guest parking overnight from the HOA. "No Parking" signs would be installed on designated streets as required by the Rancho Santa Fe Fire Protection District (RSFFPD). The HOA would contract with a towing company so that any vehicle that is illegally parked would be towed within a short timeframe.

1.2.2.4 *Walls and Fences*

The walls and fences that occur throughout the Project have been designed to provide privacy, as well as a sense of continuity. At the same time, the placement of walls and fences would not preclude or interrupt views, as much as is feasible. Figures 1-19a and b, *Wall and Fence Typicals*, illustrate typical wall and fence styles such as Project identification/entry walls, residential privacy walls, fencing and park walls, and trail fencing. Low entry walls (ranging up to approximately 5 feet in height, as depicted on Figure 1-19a, would be sited on both sides of the Project entry along Country Club Drive. The Dog Park would be fenced and gated as shown on Figure 1-19b.

Eight retaining walls are proposed for the Project. Excluding the southern-most wall, each of these walls would be architecturally enhanced, as depicted for small free-standing walls on Figure 1-19a. These walls generally would range from grade to approximately 8 feet in height, and from approximately 80 to 500 feet in length. A 200-foot long plantable wall ranging from zero to 20 feet in height and then returning to zero height would be sited at the base of the slope southwest of Lots 152 and 153. This wall would be plantable (e.g., concrete geo-grid) and would be covered in self-clinging vines, with irrigation provided at the base of the wall. Please see Section 2.1, *Aesthetics*, for additional discussion.

Based on final design (ultimate structure height and precise setback from top of slope) 6-foot fire-resistant walls may be required along the south development boundary in the western portion of the Project as identified in the approved FPP. Please see Subchapter 2.1, *Aesthetics*, and Section 3.1.3, *Hazards and Hazardous Materials*, for additional discussion.

Although not part of Project design, a single noise wall is recommended as mitigation for traffic noise adjacent to residences at Lots 123 and 124, adjacent to Country Club Drive and west of Private Drive C (Figure 1-6a). A solid wall height of approximately 5 feet, with no openings and approximately 20-foot long returns, would adequately abate noise for this lot. Please see Subchapter 2.5, *Noise*, for additional discussion.

1.2.2.5 *Landscape*

Landscaping would be installed to enhance the visual character of the Project, provide amenities for pedestrians, encourage walkability throughout the Project, and provide erosion control. The landscape theme would be consistent throughout the community, serving as a cohesive link for the various residential uses of the Proposed Project as well as helping to integrate the Project with the surrounding open space and preserve areas.

Pursuant to the April 2015 Executive Order B-29-15, permanent irrigation with potable water for newly constructed development would be delivered by drip or microspray systems. Reclaimed water would be produced for irrigation of parks, parkways, manufactured slope areas, and other

common area landscaping and would be consistent with the County of San Diego's Water Efficient Landscape Design Manual, the County of San Diego's Water Conservation in Landscaping Ordinance, and the State of California's Model Water Efficient Landscape Ordinance (MWELO).

The landscape design for HGV South is derived primarily from natural land forms and local conditions. When selecting plant materials, consideration was given to the natural landform, coastal sage/chaparral habitats, and mature oaks and sycamores which follow water courses through the site or study area. The landscape design concept reflects the natural setting in and around the site, referencing the boulder-strewn steep hillsides to the east and south, as well as the dense riparian corridor that forms the northern Project boundary. Informal arrangements of plant materials located throughout common space within the community, combined with formal, tended landscapes closer to homes, provide a rural landscape appeal. Where appropriate, landscaping would be designed to optimize energy savings--providing shade to the homes in the spring and summer and allowing light in the fall and winter.

A series of landscape zones has been created which reflect on-site conditions: Valley, Hillsides, Riparian, Transitional, Biological Open Space, Special Use Area, and Wastewater Treatment Area. These zones are schematically depicted on Figure 1-20a, *Project Landscape Zones*, and Figure 1-20b, *Landscape Plan*. Specific plant lists developed for each of the zones are listed in Table 1-1, *Project Landscape Palette.*

The Valley Landscape Zone would be located in the lower elevations of HGV South in what is essentially the central valley of the Project. It would have a traditional landscape character and employ an eclectic selection of plant material that would be permanently irrigated. The Hillside Landscape Zone includes the hillsides that frame the lower elevations of the site. Landscaping within this area would be informal and include groves of predominantly tall, open trees and clumps of native shrubs, as well as agricultural landscape features such as fruit tree orchards. Within the Riparian Landscape Zone, a restored water course that traverses the site would be used to support a riparian landscape zone. Because of its density and height (with accompanying related visual shielding properties), this landscape type would be used along the western Project boundary. In the Natural/Transitional Landscape Zone, large open areas that typically lie along the perimeter of a project would be used to transition from the HGV South Valley and Hillside landscape zones to native vegetation. The BOS Landscape Zone reflects on-site native habitat that would remain largely undisturbed by grading and would be protected post-development through open space set-aside. The Special Use Areas Zone would contain an informal and eclectic mix of trees, shrubs, and ground cover, including agricultural landscape features throughout the Project.

For Shrubs, Vines and Groundcover, in addition to the screening of the project with trees, the use of taller shrubs is proposed to soften the visual impact associated with the development. Lower shrubs and ground cover also would be used planted to control erosion and blend the Project into the existing hillside features. The proposed drought-tolerant shrub palette would incorporate naturalized and native species to be planted throughout the Project. The naturalized species would be used within the Project on interior slopes between residential units as well as those areas which are between units and roadways. The native species would be planted from containers and hydro-seed mixes around transitional edges adjacent to undisturbed open space. The two interior and exterior shrub and small tree palettes would range up to 10 feet in height and up to 15 feet in breadth.

Fire Protection Plan

A number of fire protection criteria also directly affect Project landscaping. Additional related criteria are provided in Section 3.1.3 of this EIR, as well as Table 1-2 of this section.

Fuel Modification Zone. The FMZ around the perimeter of the Project would include varying widths. Structures would be a minimum of 100 feet from wildland fuels for all lots. This minimum 100-foot buffer includes a minimum of 75 feet of irrigated Zone 1 (which exceeds County standards) and a minimum of 25 feet of thinned vegetation in Zone 2. In some locations, particularly the southwestern and eastern sides of the Project, the setback would vary from 110 to nearly 200 feet in width. Details are provided in Section 3.1.3 of this EIR. The interior of the Project would include an irrigated landscape that excludes the intermingling of native fuels.

Landscape Free Area. A 1-to-3-foot-wide landscape free area would be implemented adjacent to the foundation of stucco structures.

Fire Authority Review of Landscape Plan and Annual Inspections. The HGV South landscape plan requires review by the RSFFPD. In addition, annual inspections would occur to ensure that the HOA-maintained landscaping is maintained to County and Fire Authority standards and to the requirements of the Project's FPP. These are included as Conditions of the Project.

1.2.2.6 *Lighting*

The Proposed Project includes lighting elements to both accent community focal elements and to provide safety. Lighting for the Proposed Project is designed to use the least amount of lighting possible, be energy efficient, and still be in compliance with State and local regulations for safety, and to adhere to the County Light Pollution Code (LPC) and dark skies policies. Materials may include metal, wood, composite material, and masonry.

Consistent with the rustic character of Project site and surrounding area, street lighting would be minimal (see Figure 1-21, *Lighting Plan*). Themed streetlights would be provided at road intersections and for community parking at the Center House within the Project for safety and directional purposes. Full cut-off light fixtures and glare louvers would be utilized to ensure that light rays are projected downward and light spillage onto adjacent properties is minimized.

Project lights overall would be low level, timed, directed downward and screened to minimize Project impacts on the dark sky and minimize spillover onto adjacent properties. Each light would provide the lowest light level necessary, and would be limited to less than 4,050 lumens output, maintaining compliance with State and local safety regulations. Any additional uplights provided to define a sense of place and highlight landscape features would be turned off at 11:00 p.m.

At the Project entries, low voltage lights would be used to illuminate vertical planes such as signs and walls. Low voltage accent lighting would be directed off trees, rocks, and other natural features, as well as up toward Project signs. Ground-mounted can lights would be largely obscured by ground covers and shrubbery at the Project entrances. All Project lighting would be equipped with glare shields and louvers, allowing the light to be directed to specific focal points, and limiting glare as well as light spill.

Special consideration would be taken for any lighting along the riparian corridor to the north of the Project, including use of full cut-off lighting that accepts only long wavelength (580 nanometers [nm] or longer). Lights with permanent filters that filter all light below that standard also would be acceptable. Security lighting at the WTWRF would be shielded to limit spill and glare onto adjacent areas. Any lighting necessary for safety and code compliance in this area would be controlled by sensors to turn on only when needed. Pole lights would not exceed 14 feet and would be shielded.

1.2.2.7 *Signage*

Signs would be integrated into site and building design to create a unified appearance for the total development. A hierarchy of project identity signage (larger to smaller) would direct individuals through the site (Figure 1-22, *Potential Sign Locations*). Project identification signage would be placed within low stone walls or pilaster landscape elements. The maximum size of residential directory signage is limited to 25 s.f.

1.2.2.8 *Grading and Construction Parameters*

The existing elevation for the Project site ranges from approximately 570 to 938 feet above mean sea level (amsl). The lowest portion of the site is located in the northern portion of the property adjacent to the entry road. The highest portion is located adjacent to the southernmost boundary. Both of these elevations would remain the same post-construction. Along Country Club Drive, a gentle slope would occur from north to south in order to allow the potential for a gravity-flow sewer line. At the bridge over Escondido Creek, the difference in elevation between the southern and northern extents of the bridge would be approximately 5 feet, with the road tying into the existing intersection with Harmony Grove Road at the end of Project improvements. A large portion of the 111-acre Project (over 40 acres, or approximately 26 percent of the site), would not be subject to grading. Post-grading, only 32 acres, or 29 percent of the site, would contain lots and streets. The remainder of the Project would be in BOS, parks or landscaped/revegetated swaths between pads. Off-site utility connections would be completed within existing roads.

Although portions of the site would be rippable (i.e., able to be excavated with conventional excavation equipment), there is the potential for blasting during mass grading. Potential exists for a rock crusher to be on site during mass grading. If required, the rock crusher would be located 250 feet or more from any Project property line. The slope ratio of manufactured fill slopes would not exceed 2:1, and cut slopes would not exceed 1.5:1. Soil removed from the central portion of the site would be used to raise pad elevations above the Escondido Creek flood zone in the northern portion of the Project. During earth-moving operations, grading quantities (850,000 cy of cut and fill) would be balanced on site and there would be no need to import or export soil off site. Off-site utility connections would be completed within existing roads.

The bridge is likely to require deep foundations. These could be either driven piles or drilled (cast-in-drilled-hole) shafts. The pile type would be determined during final design based on structural and geotechnical requirements. Beyond the width of the bridge, an additional construction easement would be required in order to re-grade creek bottom and accommodate construction activities such as construction vehicles and temporary supports. This area would require approximately 100 feet on each side of the crossing, as shown on Figure 1-6a. The area on the west

side of the current Arizona crossing also could accommodate a temporary crossing so that residents living south of Escondido Creek would be able to cross the creek during construction of the bridge. Any temporary crossing would be removed following bridge completion. These disturbance areas have been accounted for in the Project resources studies, as appropriate, and analyzed as a part of this EIR.

1.2.2.9 *Project Phasing*

Market conditions, funding for public facilities, and similar conditions beyond the control of the developer would drive the overall implementation period. Nonetheless, a likely approach to Project development has been designed that would ensure a logical and orderly expansion of roadways, infrastructure, and the Project overall.

The first phase entails on-site mass grading, and is expected to require approximately three months. On-site infrastructure installation (roads and utilities) would follow (over a period of six months), followed by finish grading of lots (over an additional three months). The final phase would consist of "vertical" development of the Project, which is expected to take a little over two years (27 months). Landscaping would be installed as possible during each phase. Immediately following mass grading, the area would be hydroseeded to address potential storm runoff and to minimize views of raw soil. The Project entry, Country Club Drive frontage, interior roads and manufactured slopes would all be planted when finish grading is completed for each area in order to provide a visual amenity for viewers of the Project and the greatest amount of vegetation maturity in the shortest period of time. Specific lot planting would occur on a rolling basis as homes are developed and readied for sale.

Off-site infrastructure (utility upgrades) would be initiated at the same time as on-site infrastructure installation, and would continue through finish grading on site. This would include all elements necessary to support the proposed uses including construction of Country Club Drive and Harmony Grove Road intersection improvements, pump station improvements, and the extension of all potable water, electrical, etc. utility lines. Absent the potential for seasonal restrictions based on presence of sensitive species, bridge construction would be expected to take approximately one year, and would be accomplished within the overall Project timeframe identified above.

The Proposed Project would comply with the ~~2016~~ California Title 24 Energy Code ~~(which went into effect on January 1, 2017)~~in effect at time of building permit issuance. ~~These standards exceed the 2013 efficiency standards by 28 percent.~~ The following energy efficient items are planned for the housing development: improved HVAC systems; enhanced ceiling, attic, and wall insulation; whole house fan installation; high-efficiency water heaters; energy-efficient three-coat stucco exteriors; programmable thermostat timers; roof anchors and pre-wiring to allow for the installation of photovoltaic (PV) systems; and high-efficiency window glazing. In addition, the Center House parking area would include an electric car re-charging station and the Project would satisfy 100 percent of the Project's electrical needs through on-site solar PV systems. The Project includes several water conservation measures, including the ~~2016~~ CALGreen mandate to reduce water consumption by 20 percent, the installation of the low flow water features, and the use of drought-tolerant landscape.

Technical and environmental commitments can be both standard construction operating measures and/or specific measures designed for a particular project. These Project Design Features (PDFs) minimize potential long-term adverse effects associated with the Proposed Project for each of the above noted (and additional) elements. They are listed on Table 1-2, are included in Chapter 7.0, and also will be included as Project Conditions during consideration of the Project for approval and in construction contractor bid packages. Topics for which PDFs are proposed as part of the Project description are listed on Table 1-2 in the order they are discussed in this EIR.

1.3 Project Location

The Proposed Project is located in the unincorporated portion of northern San Diego County, immediately west of City of Escondido boundaries in the community of Harmony Grove (see Figures 1-1 through 1-4). Escondido Creek flows east-west just north of the Project, south of east-west trending portions of Harmony Grove Road. State Route 78 (SR-78) is located approximately 2.6 miles to the north and Interstate 15 (I-15) is located approximately 2.5 miles to the east. Country Club Drive is the primary north-south roadway in the vicinity of the Proposed Project; the northwest portion of the Project site borders this roadway. Harmony Grove Road is the primary east-west connector. The community of Elfin Forest is located approximately 4 miles to the west. County open-space parcels (associated with the DDHP) abut the southern boundary of the Project.

1.4 Environmental Setting

1.4.1 Project Vicinity

This discussion starts with a summary of important setting issues in the immediate vicinity of the Project, followed by more general setting and expanded information.

Harmony Grove Village

In 2007, the County approved the designation of an approximately 500-acre area of land in the center of Harmony Grove Valley to become a new village to contain 742 single-story and two-story homes in village massing. (HGV's approved entitlements assumed first occupancy as early as 2008, with full build out of the Village occurring as early as 2013.)

The entire site has been rough graded, and approximately half of the site has been finish-graded. The construction of homes is under way, the WRF that will serve HGV has been constructed, major infrastructure has been installed and homes have been available for sale since May 2015. HGV straddles three sides of the area's literal "crossroads" at Harmony Grove Road and Country Club Drive; providing a focal point/center of the valley. Relative to HGV, the Project completes the fourth quadrant of the crossroads intersection; sited about 400 feet south of Harmony Grove Road, it is part of the HG "valley floor," and shares the valley's watershed and viewshed. The HGV land use plan includes a pedestrian-oriented Village Center of public amenities, convenience retail, and commercial uses surrounded by a variety of single-family residential units, open space, and multi-use trails. HGV will contain an approximately 40,000-s.f. commercial core adjacent to Country Club Drive less than 0.4 mile (approximately 2,100 feet) north of the planned commercial/civic center located in HGV South and within 0.5 mile to its most dense residential uses. HGV's Village Center area is surrounded by a variety of single-family residential uses on lots ranging in size from approximately 2,500 s.f. to 1.5 acres, with residential densities generally

decreasing as one moves away from the core. The HGV WRF is located at the northeast corner of Harmony Grove Road and Country Club Drive, approximately 550 feet north of HGV South's northern boundary. All of these uses were planned to be connected via the multi-use trail approved in the HGV EIR and shown on the County Trails Plan, and the improved creek crossing. This would additionally connect through the Project to the major open space recreational uses to the south (DDHP and EFRR). The HGV future Equestrian Ranch is located immediately across the street (Country Club Drive) west of the Proposed Project. That facility will feature a variety of equestrian uses along with limited commercial and residential components. Buildings on that site are anticipated to be one- and two-story structures.

County-owned community park areas built as part of HGV are located south of Harmony Grove Road and west of Country Club Drive. The easternmost of these facilities, which is equestrian themed, is close to the northwest corner of the Project (i.e., located just across the street and within 250 feet of HGV South). The 2.8-acre site is designated Village Regional Category and provides an additional community gathering place for both HGV and the Project that is focused on equestrian exercise activities. An additional 2.9-acre Community Park area in HGV is located west of the equestrian facilities and includes active recreation and parking.

Because the development is so far along in construction (homes were available for sale in May 2015) presence of that project is included as a baseline environmental condition (an existing condition) in this EIR. If the presence of the HGV project as developed was not included in the existing condition, the baseline would be misleading or without informational value and would not best define the Harmony Grove Valley which is subject to rapidly changing environmental conditions. In fact, if the setting reflected the existing condition on the date of Notice of Preparation (NOP) issuance, it would have been outdated immediately after NOP issuance and an unnecessarily artificial image of the existing condition would have been used as the basis for Project effects. In this rapidly changing existing setting, this approach is considered the most analytically conservative and of most informational value. It takes into consideration the shifting nature of the area, and does not tie analyses to a point in time which has already changed since the NOP issuance (see illustrative Figures 2.1-3i and 2.1-4a).

Surrounding Areas

Other areas west of the Project include a diverse array of residential uses (Figures 1-3 and 1-4). The 39-lot Harmony Grove Spiritualist Association (HGSA) includes single-story residences on higher density lots (as small as 1,300 s.f.). One and two-story homes are located on lots in the 5,000 to 10,000 s.f. range in the flatter areas of this sector, and multiple story (three- and four-story) residences are present on much larger parcels. Moving easterly from the Proposed Project, there are large residences that can reach up to 40 feet height in terms of massing, even if there are as few as two stories. HGV South is planned to complete HGV; and as the "Village" designation and Community Development Model (CDM) direct, focus clustered residential and supporting village land uses on the valley floor. The Village is then surrounded by the lower density Semi-rural and Rural land uses, as the CDM directs. HGV South would offer building massing compatible with the overall valley character.

As indicated above, the Proposed Project is sited in the Harmony Grove Valley, which is located at the eastern foot of Mount Whitney, south of SR-78 and west of I-15. Within the above-

referenced mixed residential and topographic setting, the Project is within a few minutes of drive time to the cities of Escondido and San Marcos.

The above-described areas in the Project site vicinity are bordered by more intensive urban development in the cities of San Marcos and Escondido to the north and east, respectively; and large expanses of natural open space to the west, south and southwest (refer to Figure 1-3). Uses within the region include a mix of agricultural, suburban, and urban developments. Palomar Medical Center is located approximately 2 miles to the north and Stone Brewery is located approximately 1.5 miles to the north as a crow flies. The Escondido Research and Technology Center (ERTC), an industrial/commercial, employment and services locus, is located within 1 mile north-northeast of the Project, accessed by Harmony Grove Road. Other opportunities include the large big box uses at Valley Parkway and I-15 and along Auto Park Way. As described above, this Project is within 3.0 miles of the Nordahl Transit Station. That proximity allows residents to walk, bike or drive to the station, before accessing bus service or the SRINTER to other points (both within the County, but also points north) and other carriers, such as Amtrak. The SPRINTER light rail line runs every 30 minutes in each direction Monday through Friday, from approximately 4:00 a.m. to 9:00 p.m. The Escondido Transit Center (also with parking available) serves as the current eastern terminus of the North County Transit District's (NCTD's) SPRINTER and the northern terminus of the Breeze Rapid bus rapid transit line. It is also in the Project's general vicinity, being located just east of I-15 and south of SR-78. Express bus service to downtown San Diego is available at the Center, as is local bus service to inland North County.

The Project site is surrounded on all sides except to the immediate northwest by a continuing series of hills and canyons, with approximately 20 ridgetops. Figure 1-5 shows the ridgelines that surround the valley, and unite all valley areas, including HGV and HGV South. These range from approximately 600 feet amsl to a high point of over 1,735 feet amsl at the top of Mt. Whitney, located to the west-northwest, and include peaks with elevations approaching 1,300 feet amsl occur to the west and south of the Project site. This transition from ridgetop to valley floor provides a dramatic physical setting to the valley. Lower hills and knolls, ranging up to approximately 1,040 feet amsl, occur due east of the property. The one area that does not contain numerous hills and canyons in close proximity to each other is in the northwest quadrant of the Harmony Grove Road and Country Club Drive intersection.

Escondido Creek, which begins at the upper headwaters in Bear Valley above Lake Wohlford, trends southwesterly through the community, eventually flowing into the San Elijo Lagoon. The creek provides an important link between the unincorporated areas of Harmony Grove, Questhaven, Elfin Forest, and Rancho Santa Fe. It offers recreational opportunities and numerous existing and planned trails traverse the area.

Surrounding residential development is located on a wide variety of lot sizes. Denser housing and subdivisions exist approximately 0.5 mile to the east. Lot sizes in this area are much smaller, with approximately eight houses to an acre. Mobile home parks and apartments are also present to the east (within approximately 0.8 mile of the Project) and continue along Hale Avenue to 9th Avenue and Valley Parkway.

As noted above, the historic and well-known HGSA is located approximately 0.25 mile west of the site, at the terminus of Country Club Drive. Until May 2014, the HGSA consisted of a church,

29 cottage-like residences on very small lots, associated buildings, and central grove area. The HGSA was impacted by the May 2014 wildfires in the community, but plans to rebuild. It is therefore considered an ongoing existing use.

Vegetation communities in the study area consist primarily of freshwater marsh, riparian woodland, southern willow scrub, mule fat scrub, disturbed wetland, Diegan coastal sage scrub, coast live oak woodland, southern mixed chaparral, and non-native grasslands. These resources can be fairly disturbed due to the existing development and existing and past agricultural operations in the area. Escondido Creek is considered a regionally significant resource, but has been largely degraded where it crosses HGV property, as well as to the east, by agricultural and/or other development-related activities. Restoration has been occurring in these portions of the creek as part of the HGV development program. The portion immediately west of Country Club Drive, however, remains in a degraded state due to the presence of rip-rap required to reduce scour west of the at-grade crossing of Escondido Creek.

1.4.2 Project Site

The Project site is currently vacant. Some remnants of prior structures (concrete slab portions, an excavation associated with the structure cellar, and a portion of a chimney) remain on site. Otherwise developed uses include cistern elements, an old stock pond, a small electrical line that bisects the Project site in an east-west direction, and several paved and unpaved roads that are either internal to the site, or provide access to residential uses east of the property.

As a whole, the site rises in elevation to the south, and contains valley floor, as well as notable on-site small hillocks, on top of the generally inclining topography. The site is generally divided into two areas. The northern portion contains topography generally sloping down to the north-northwest corner of the property (the Project low point) and off-site Escondido Creek. An east-west trending bench extends across the roughly center point in the site, separating the Project parcels visually into north and south halves. The southern portion of the Project is located on increasingly steep and higher on-site hills. This area drains even higher off-site hills to the south, with incised north-south trending ravines entering the Project and draining to the northwest on the south side of the relatively level and east-west trending bench slope noted above.

The site has an elevational range of approximately 350 feet. On-site elevations range from approximately 570 feet amsl in the northern portion of the Project near Country Club Drive, to 938 feet amsl at the southernmost property boundary. Approximately 66.7 acres (60 percent) of the site contain slopes with a gradient of zero to 25 percent, approximately 39.7 acres (35.8 percent) of the site have slopes with a gradient between 25 and 50 percent, and approximately 4.6 acres (4.1 percent) of the site have slopes with a gradient greater than 50 percent. County-protected steep slopes, i.e., natural slopes exceeding 25 percent slope with a vertical rise of 50 feet or more in elevation, are primarily located in the northeast hills of the Project site, and on the central primary slope rising above the valley floor. Slopes exceeding 50 percent slope are primarily located in the southern third of the Project (identified for permanent set-aside as part of BOS if the Project is approved). See discussion in Section 2.1, *Aesthetics*, for illustration of existing steep slopes on site.

The majority of the Project is mapped as chaparral habitat for a total of approximately 47 acres); with the next largest category being non-native grassland (approximately 42 acres). Biological resources (particularly within the northern two-thirds of the Project) are generally disturbed, and contain isolated Diegan coastal sage scrub stands. Non-native grassland/disturbed habitats are the predominant vegetation, with a stand of non-native trees (eucalyptus, California pepper), clustered near the westward turn in Country Club Drive at the western edge of the property. The eastern portion of the northern part of the site rises into small scrub-covered hills. The southern area includes the largest stand of coast live oak woodland, as well as substantial chaparral acreage, which merges into off-site permanent open space acreage. The Project site lies outside of the boundaries of the County's approved Multiple Species Conservation Program (MSCP), but would be within the planning area of the proposed North County Segment of the MSCP, once it is approved.

1.5 Intended Uses of the EIR

This EIR is prepared in compliance with the California Environmental Quality Act (CEQA), and ensures that information required by the public, as well as County decision-makers, is both adequate and available. This EIR is an informational document to inform public agency decision-makers, as well as the public generally, of the significant environmental effects of the Project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the Project.

The County is the lead agency for the Project under CEQA; i.e., the agency responsible for conducting environmental review; coordinating with the Applicant, public and resource or service agencies during the CEQA process; and for final approval or denial of the Project. Prepared prior to County Board of Supervisors' consideration of the Proposed Project for approval or denial, the purpose of this EIR is to identify the potential occurrence of impacts, and the anticipated significance of those impacts, that could occur if the Proposed Project is implemented.

For each significant impact identified in the EIR, the lead agency must make findings, and if appropriate, prepare a Statement of Overriding Considerations if mitigation presented does not reduce impacts to below a level of significance. Responsible agencies, identified below, will use this EIR in their discretionary approval processes.

1.5.1 Matrix of Project Approvals/Permits

This environmental analysis has been prepared to support the discretionary actions and approvals necessary for implementation of the Project. Potential required approvals and permits are listed in the following matrix.

Discretionary Approval/Permit	Approving Agency
RPO Exception for encroachments associated with public/private roads and utilities and Waiver for insignificant slopes General Plan Amendment Community Plan Amendment Specific Plan Zone Reclassification Tentative Map Major Use Permit Habitat Loss Permit (4[d]) Right-of-way Permit(s) Encroachment Permits Grading Permit(s) Final Map Improvement Plans for roads and utilities Traffic Control Plan County Service Area (CSA) – WTWRF Operator Approval	County of San Diego
Section 401 Water Quality Certification National Pollutant Discharge Elimination System (NPDES) Permit General Construction Storm Water Permit Waste Discharge Requirements Permit	San Diego Regional Water Quality Control Board/State Water Resources Control Board (RWQCB/SWRCB)
Section 404 Permit – Dredge and Fill	U.S. Army Corps of Engineers (USACE)
Section 7 or 10a Permit for Incidental Take	United States Fish and Wildlife Service (USFWS)
Section 1602 Streambed Alteration Agreement (SAA)	California Department of Fish and Wildlife (CDFW)
Annexation and Formation Approval (water, sewer district, fire district as necessary)	Local Agency Formation Commission (LAFCO)
Air Quality Permit for WTWRF Emergency Generators (required for a new plant only)	San Diego Air Pollution Control District (SDAPCD)
Fire District Approval	Rancho Santa Fe Fire Protection District (RSFPPD)
Water District Approval	Rincon del Diablo Municipal Water District (Rincon MWD)
LAFCO and Sewer District Approval (sewer and reclaimed water district[s])	County Sanitation District (CSD), Rincon MWD, or other public district as necessary
New or Amended Master Water Reclamation Permit	CSD, Rincon MWD, or other public district as necessary
School District Authorization	Escondido Union School District (EUSD) Escondido Union High School District (EUHSD)

1.5.2 Related Environmental Review and Consultation Requirements

It would be necessary to consult with adjacent property owners wherever rights-of-way must be acquired and where easements would be needed for construction or maintenance. Consultation with various utility companies may be required to locate existing utilities in roadways and make arrangements for relocation or replacement. In addition to the Project Facility Availability Forms, or "will serve" letters, located in Appendix O of this EIR, additional coordination would be required with water/sewer utilities and the school districts, regarding annexation, detachment and authorization; as well as LAFCO, a Responsible Agency under CEQA for sewer and fire if the Project requires expansion of a service area or creation of a new service provider for sewer and reclaimed water. It is noted that LAFCO took action to extend Rincon MWD latent sewer powers to HGV on June 4, 2018. The Proposed Project was included within a "Special Study Area," but no action was proposed to extend the service area to incorporate the Project. Coordination is also required with the City of Escondido. The City is a Responsible Agency under CEQA as some of the proposed traffic impacts would occur within City jurisdiction and proposed mitigation would require City discretionary review and approval to implement.

Consultation also would be required with the wildlife agencies (USFWS and CDFW) with regard to sensitive species and associated habitats, and with the permitting/certification agencies (USACE, CDFW, and RWQCB) with regard to jurisdictional waters.

Pursuant to California Government Code 65352.3, Native American consultation was initiated in 2015. The Native American Heritage Commission (NAHC) was contacted, as were a number of Native American individuals/bands/organizations potentially knowledgeable regarding cultural resources in the area. Letters were sent to individuals and groups identified by the NAHC. Responses have been received from the following Tribes/Bands: the San Luis Rey Band of Mission Indians, and the Pechanga Band of Luiseño Indians. The issues raised included concerns regarding a potential village location in the vicinity and a traditional viewshed. The reader is referred to Subchapter 2.4, *Cultural Resources and Tribal Cultural Resources*, for details of the Native American consultation.

In addition to the focused outreach efforts noted above, CEQA provides opportunity for public input at three distinct points during environmental evaluation; during scoping of an EIR, during public review of the completed EIR, and during hearings held on the Project by decision-making bodies (such as the County Planning Commission and/or Board of Supervisors). As part of the preparation of the Draft EIR, the first of these outreach efforts was undertaken and completed.

Pursuant to CEQA Guidelines Section 15082 regarding the NOP and determination of EIR scope, and Section 15083 regarding early public consultation, the County issued an NOP stating that an EIR would be prepared for the Proposed Project on August 27, 2015. The NOP included an Initial Study checklist identifying anticipated areas of technical review and anticipated levels of significance, and requested public and agency input on the scope of the EIR. Comments were received in response to the NOP through September 28, 2015 (with some late comments, such as from the San Dieguito Planning Group, accepted). A meeting to discuss the scope of the environmental analysis also was held on September 16, 2015 at the Elfin Forest Firehouse in Elfin Forest, approximately 4 miles west of the Project. In response to the NOP, a total of 45 comment letters were received. These letters are all included in Appendix A to this EIR. All of the comments

received were considered and the topics are addressed as appropriate where required by CEQA in Chapters 2.0 through 4.0 of this EIR.

1.6 Project Inconsistencies with Applicable Regional and General Plans

A number of plans, regulations, and ordinances apply to this development and were considered during the Project Applicant's preparation of the Specific Plan and GPA. In particular, the County General Plan, San Dieguito Community Plan and the Elfin Forest and Harmony Grove Community Plan portions of the San Dieguito Community Plan were reviewed for applicable designations, goals, policies, and conditions. Other plans and regulations also were reviewed, including the County Zoning Ordinance, County Subdivision Ordinance, RWQCB's San Diego Basin Plan, federal Clean Water Act (CWA), NPDES, San Diego Municipal Storm Water Permit, Regional Air Quality Strategy (RAQS) and State Implementation Plan (SIP), Natural Communities Conservation Program (NCCP), and County LPC. The Project's compliance or non-compliance with these plans and ordinances is evaluated throughout the EIR, with discussion in Chapters 2.0 and 3.0.

In summary, the Proposed Project would be consistent with the above-named plans and ordinances, with the exception of a few goals, standards and/or policies of the current Land Use Element of the General Plan, Elfin Forest and Harmony Grove Portion of the San Dieguito Community Plan and County Zoning Ordinance (ZO) related to proposed land uses, and an issue related to the RAQS (see detailed discussions in Section 3.1.5, *Land Use and Planning*, of this EIR). In particular, the Project would revise the Village boundary designation from the north side of Harmony Grove Road to encompass the Project, as part of the village expansion. The Project Applicant is proposing a GPA as part of the Proposed Project to change the land use designations on site that, when approved, would eliminate the potential land use policy inconsistencies; thereby resulting in less than significant land use policy impacts with regard to these documents. A CPA also is proposed as part of the Project, to address a Village boundary line adjustment. Similarly, approval of the rezone to reflect the proposed on-site uses would result in Project compliance with the County ZO. Relative to the RAQS, the 2016 RAQS incorporates land uses anticipated under the 2011 General Plan. For the Project, this would allow up to approximately 220 dwelling units. The Project is therefore inconsistent with the RAQS assumptions. Because the Project proposes a greater number, and more diverse uses, a GPA is being sought as part of the Project. If the Project is approved, the General Plan will be amended, and that information will be incorporated into the next RAQS update, thereby curing the inconsistency.

Subject to certain exceptions, the County's RPO provides regulations that preserve and protect the County's sensitive lands, including wetlands, wetland buffers, floodplains/floodways, sensitive habitats, cultural resources, and steep slopes. (Steep slopes are defined as lands having a natural gradient of 25 percent or greater and a minimum rise of 50 vertical feet.) Approximately 26.5 acres of the steep slopes found on the Project site meet the definition of steep slopes under the County's RPO. Over 70 percent of all on-site RPO steep slopes (approximately 18.7 acres) are located in areas identified for preservation due to sensitive resources, including both steep slopes and native habitat. The remainder of the site's steep slopes (approximately 7.7 acres) are located within proposed development areas and must be evaluated for conformance with the RPO. Conformance with the RPO relative to ordinance exceptions identified for roadways/utility rights of way and conformance with the percentage of impact allowable under the ordinance by lot are addressed in

Section 3.1.5 of this EIR. A waiver from the restrictions of the RPO steep slopes and easement requirements can also be granted as set forth in Section 86.604(e)(2)(cc)(3) of the RPO. In addition, encroachment into steep slopes may be permitted for tentative maps and tentative parcel maps which propose a Planned Residential Development, lot area averaging, conservation subdivision or cluster development when design considerations include encroachment into steep slopes in order to avoid impacts to significant environmental resources that cannot be avoided by other means, provided no less environmentally damaging alternative exists. The determination of whether or not a tentative map or tentative parcel map qualifies for additional encroachment shall be made by the Director of Planning and Land Use based on an analysis of the project site. See Sections 2.1.2.2 and Appendix C to this EIR for a full discussion. In 2016, the Director of PDS issued a preliminary_affirmative finding granting additional encroachments into the steep slope areas identified in Appendix C and a waiver from the easement requirements of RPO. The Board of Supervisors will consider and make a finding on these matters during consideration of the Project for approval.

1.7 List of Past, Present and Reasonably Anticipated Future Projects in the Project Area

The State CEQA Guidelines (Section 15355) state that a cumulative impact is "the change in the environment which results from the incremental impact of the Project when added to other closely related past, present and reasonably foreseeable probable future projects." Sections 15065 and 15130 of the State CEQA Guidelines require that an EIR address cumulative impacts of a project when the project's incremental effects would be cumulatively considerable; i.e., the incremental effects of the project would be "considerable when viewed in connection with the effects of past projects, the effects of other current projects and the effects of probable future projects." Table 1-3, *Cumulative Projects in the Vicinity of the Proposed Project*, provides a list of cumulative projects within 5 miles of the Project site. Figure 1-23, *Cumulative Projects*, shows the general location of the projects listed in Table 1-3.

A total of 65 projects in the vicinity of the Proposed Project, as well as the Proposed Project, were considered for the analysis of cumulative impacts. The list consists of projects that are pending or recently approved within the County and other adjacent jurisdictions. Combined, all 66 cumulative projects would result in the addition of approximately 15,494 housing units to this area of the County. Specifically within County jurisdiction, the cumulative projects (including the Proposed Project) would result in a total of 2,403 units in the Project site vicinity.

Each individual technical subject area within Chapters 2.0 and 3.0 analyzes cumulative impacts of the Project in relation to those projects that could potentially combine with the Project to result in cumulatively considerable impacts. A description of the cumulative projects study area relevant to each specific resource topic is identified within each subchapter.

1.8 Growth-inducing Setting and Impacts

As stated in State CEQA Guidelines Section 15126.2(d), whether or not a project may be growth inducing must be discussed in an EIR. The question for discussion is whether or not a "project would foster economic or population growth, or the construction of additional housing, either directly or indirectly, *in the surrounding environment*" (emphasis added). Included are projects that would remove obstacles to population growth. Examples of these types of actions are cited—

including: (1) a "major expansion of a waste water treatment plant," that would thereby allow for more construction in service areas covered by the plant; and (2) actions that could encourage and facilitate "other activities" that could significantly affect the environment. Typically, the latter issue involves the potential for a project to induce further growth by the expansion or extension of existing services, utilities, or infrastructure. The CEQA Guidelines further state that "[i]t must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment" (Section 15126.2[d]).

Based on concerns regarding residential housing shortages, urban sprawl and traffic loading on County roadways, the County and San Diego Association of Governments (SANDAG) have specifically reviewed where best to place new population nodes, taking into account three primary criteria:

1. Employment and commercial opportunities in the vicinity
2. Existing infrastructure
3. Surrounding residential densities

The area where the Proposed Project is sited is identified as suitable for residential development in these plans (although at a lower density than the Project proposes) due to the employment and commercial opportunities in the nearby cities of San Marcos and Escondido. Escondido, in particular, is actively expanding work opportunities, with new commercial/industrial and health care-focused work opportunities located north of Harmony Grove Road and along Citracado Parkway as well as the big box uses at Valley Parkway and I-15 and along Auto Park Way. Public roads leading to the Project area are currently in place on the northern and western sides of the property. Water, gas and electrical utilities are all located nearby or abutting easements. The area surrounding HGV South site is designated by the County General Plan as Semi-rural Residential (SR-0.5, SR-2 and SR-4), Specific Plan Area (HGV), Rural Lands (RL-20), and Open Space (Conservation).

Elements of the Project that are addressed in the remainder of this discussion, and for which the possibility of a growth-inducing effect will be evaluated, include GPA land use changes, off-site road improvements, and extension of public services or utility lines, including potential construction of a WTWRF, and improvements in provision of emergency services.

1.8.1 Growth Inducement Due to Land Use Policy Changes and Construction of Housing

Based on the criteria noted above, the Project would be generally consistent with the guiding principles in the County's General Plan. As stated in Sections 1.6 and 3.1.5 of this EIR, the Project would develop 453 single- and multi-family residences on the Project site at a greater density than is currently permitted under the existing General Plan, San Dieguito Community Plan and Zoning Ordinance, which could allow up to approximately 220 units (without consideration of environmental constraints) at its current density of 0.5 acre per dwelling unit (SR-0.5 designation). Implementation of the Project would redesignate portions of the Project site to a Village 10.9 designation while retaining the SR-0.5 designation on the periphery of the project site. Although the Project densities would be inconsistent with the current General Plan designation and zoning classification, the Project includes an application for a GPA and a zoning reclassification as part

of the requested discretionary actions. With Project approval and the adoption of the GPA and reclassification (among other actions) by the County Board of Supervisors, the Project would be consistent with the land use designations of the General Plan and San Dieguito Community Plan, and the zoning designations of the ordinance, as amended.

The Project would construct new housing on site as a direct action. Identification of the Project site for residential development is consistent with the goals of regional plans. It would bring a variety of residential uses to an area experiencing housing shortages, and place them in proximity to similar uses, necessary utilities and work opportunities. It supports planning agencies goals to reduce "leap frog" development, urban sprawl and increased traffic congestion as residents of far-flung communities compete for access to centralized resources.

The question arises as to whether the GPA and a rezone associated with the Proposed Project would encourage an associated similar pattern of growth in the surrounding area. A key growth-inducement issue is the potential for a project to foster economic and population growth or the construction of additional housing in the area *surrounding* the project under review. There are multiple constraints that would prevent growth inducement in surrounding lands, however, including topographical and environmental unsuitability, existing development, and existing land use restrictions.

As indicated in Figure 1-3, which depicts existing land uses, substantial growth surrounding the Project site is not anticipated due to the lack of developable land in the immediately surrounding area. Most of the undeveloped lands surrounding the site consist of steeply sloping terrain or environmentally constrained areas that are already in permanent open space set asides, such as portions of Escondido Creek, DDHP and EFRR.

Relative to employment possibility, the Project land uses consist primarily of housing, along with recreational uses and open space. A small commercial component would be included, but the Project would not include a major employment center or employment opportunities that could spur growth. Rather, the Project is proposed as an expansion of HGV in this area because employment opportunities already exist, with major commercial and light industrial opportunities in nearby Escondido and San Marcos. From a housing standpoint, the Project is considered to be growth accommodating as opposed to growth inducing, because it would provide a mix of additional housing opportunities in a region in which shortfalls have been identified for both single family and multi-family housing types.

Figures 1-3 and 1-4 depict surrounding land uses. As illustrated, most of the land west of the Project is already developed or lies within an approved development plan, with the exception of a small section of Semi-Rural (4) to the west of the Project, and south of Country Club Drive. Scattered within that area, there are seven unbuilt parcels, all in individual ownerships, that range in size from 0.81 acre to 3.46 acres. At this time, there are no known plans for development in this area. Parcels to the east are primarily developed as privately-owned estate residential, to the west with large lot residential, and to the south (and east of the southern part of the Project site), there is existing open space preserves, which would preclude significant growth-inducing effects. In addition, portions of adjacent large lot parcels that currently support low density uses are often topographically constrained with steep slopes and/or sensitive biological resources. Significant growth-inducing effects would be substantially constrained.

Approval of the Project would redesignate a portion of the 111 acres from Semi-Rural (0.5) to Village Residential (10.9); however, this would not make it more or less likely that additional development in the surrounding area would take place. Due to the existing Rural and Semi-Rural land use designation in surrounding lands, any future projects that required a General Plan Amendment to increase density would be subject to approval by the Board of Supervisors and would be individually evaluated for impacts. Therefore, approval of the Proposed Project would not make it easier for future projects to be approved, nor more likely that future growth would occur based upon the land use change associated with this project. Regardless, the scale of that possible additional development is expected to be small. Project-related significant growth-inducing effects would not occur.

1.8.2 Growth Inducement Due to Provision of Public Facilities or Services

The provision of public facilities or services could potentially induce growth by eliminating an obstacle to growth. The Project would not provide new on-site public service facilities such as schools, sheriff facilities or fire stations as part of the Project design; nor would the Project require a facility not already existing or planned. A shortfall of schools is identified in Section 3.1.8, *Public Services,* but mitigation would consist of payment of fees and the Project would only support school construction upgrades required to serve its own students. Similarly, the Harmony Grove Fire Station is sized appropriately and would not require upgrades or additional staffing based on implementation of the Project.

The Project would construct a recreation/limited commercial space that could serve as a community gathering location, as well as facilities within the development (described in Section 1.2.2.2 of this chapter) to serve residents of the Project as well as the greater community. The Project would also extend portions of a new public multi-use trail proposed under the HGV plan as well as improve on-site segments of two other trails identified for improvement in the County Trails Master Plan. The upgrade to planned trails, or provision of small commercial uses, however, would not specifically contribute to additional growth in the community. They would be considered "pass-by" amenities; i.e., those facilities used by neighbors because they routinely pass by them in the course of the day as opposed to facilities (such as regional parks or shopping centers) that draw customers to them from the region. They would accommodate existing and planned growth in the immediate Project area.

Based on the above considerations, the Project would not induce growth through provision of these public facilities or services.

1.8.3 Growth Inducement Due to Roadway Improvements

The improvement of existing roadways and intersections may induce growth if the improvement provides significantly improved accessibility to undeveloped or underdeveloped sites, or removes an obstacle to development by providing greater roadway capacity than is needed to serve existing and cumulative development.

The Project would improve a portion of Country Club Drive, from the Harmony Grove Road intersection southerly to the southern Project entrance near the Country Club Drive curve to the west. This improvement would result in an improved crossing of Escondido Creek. These

improvements would increase capacity to the extent necessary to accommodate Project-related traffic so that Project traffic would not result in back-ups along the road during turn movements in peak hours and would provide greater emergency services accessibility to those parcels south of Harmony Grove Road. Although the planned HGV Equestrian Ranch was not assigned specific trips in the 2007 technical documents (as uses would be event oriented, on focused days, and would not contribute to daily average daily trips [ADT]), it is also assumed that during those events, the improved bridge and road would also benefit residents and attendees. All of these elements would benefit existing or approved future users of the road through improvements to an existing facility. Any undeveloped parcels southerly of the Project site are also already served by existing access. Excluding properties located east of HGV South and retaining rights through the Project, improvements would not provide access to areas currently unserved by paved roads and would not provide any access to areas currently landlocked. Thus, improvements to Country Club Drive would not open an access route to lands that were previously inaccessible. The Proposed Project would not be extending roads into large, developable open space areas and the roadway improvements would be limited to roads that that are surrounded by development constraints or built-out communities. No significant growth inducing impacts are expected as a result of Proposed Project circulation improvements.

1.8.4 Growth Inducement Due to Extension of Public Utilities

The extension of public water and sewer services into new areas or the increase in capacity of existing facilities is traditionally seen as having the potential to encourage either development of existing, vacant properties adjoining utility improvements, or more intensive use of existing developed lots near these utilities.

Growth inducement due to Project upgrades of potable water, gas, electricity and telecommunications lines is not likely to occur because those utilities are already available in the Project area, serving other existing nearby development (and in some instances, crossing the Project parcels). Service extensions would be limited to serve the Proposed Project only. The Project would not extend services to other new or undeveloped areas where connections to future development could occur.

With regard to sewer services, most existing County residences in the Project vicinity use septic systems for treatment of wastewater, with the exception of future HGV residents who will be served by the HGV WRF. Similarly, the Proposed Project would construct an on-site sewer system to serve future HGV South residents through one of several scenarios. These include a stand-alone WTWRF proposed as part of Project design and described above, or one of the alternatives described in Chapter 4.0 of this EIR that could include the provision of private sewer mains linking to the existing Harmony Grove Village WRF. If the Project provides an on-site WTWRF, it would be a small treatment facility that based on current use rates, would accommodate only the wastewater generated by the Project and would not include the processing equipment or capacity to treat effluent from other areas or future growth. No upgrades to the existing HGV pump station are anticipated. Capacity would be provided for Project needs only as determined based on current technology and would not be extended to future development. In addition, there are no known large blocks of land equivalent to HGV South in the Harmony Grove community that owners could propose for development. Should that occur, however, future efforts to tie into any facilities by

off-site users would be required to undergo independent environmental review and approval by the Board of Supervisors.

1.8.5 Growth Inducement Conclusion

Based on the above considerations, the Project would not promote the construction of additional housing, provide substantial employment or retail opportunities, or extend roads, public services or utilities into large, developable open space areas that would support growth. No significant growth-inducing impacts are expected as a result of the Project improvements or utilities into large, developable open space areas that would support growth. No significant growth-inducing impacts are expected as a result of the Project improvements.

Table 1-1
PROJECT LANDSCAPE PALETTE

Typical Valley Landscape Zone Palette	
• **Primary Theme Streetscape (Country Club Drive)**	
Schinus molle	California Pepper*
Quercus species	Oak
Platanus racemosa	California Sycamore
Tristania conferta	Brisbane Box
• **Internal Village Streetscape**	
Agonis flexuosa	Peppermint Tree
Arbutus unedo	Strawberry Tree
Cinnamomum camphora	Camphor Tree
Fraxinus angustifolia 'Raywood'	Ash
Lagerstroemia species	Crape Myrtle
Liquidambar styraciflua 'Festival'	American Sweetgum
Magnolia grandiflora 'Majestic Beauty'	Southern Magnolia
Quercus virginiana	Southern Live Oak
Tristania conferta	Brisbane Box
Typical Hillside Landscape Zone Palette	
• **Hillside Landscape**	
Geijera parviflora	Australian Willow
Lophostemon conferta	Brush Box
Platanus racemosa	California Sycamore
Quercus agrifolia	Coast Live Oak
Rhus lancea	African Sumac
Sambucus mexicana	Blue Elderberry
Tristania conferta	Brisbane Box
Quercus virginiana	Southern Live Oak
Malmosa laurina	Laurel Sumac
Heteromeles arbutifolia	Toyon
Rhus integrifolia	Lemonade Berry
Vitis variety	Grape
Citrus variety	Lemon, Lime, Orange
Punica granatum variety	Pomegranate
• **Internal Landscape and Streetscape**	
Agonis flexuosa	Peppermint Tree
Arbutus unedo	Strawberry Tree
Fraxinus angustifolia 'Raywood'	Ash
Lagerstroemia species	Crape Myrtle
Quercus virginiana	Southern Live Oak
Lophostemon conferta	Brush Box

Table 1-1 (cont.)
PROJECT LANDSCAPE PALETTE

Typical Riparian Landscape Zone Palette	
Alnus rhombifolia	White Alder
Laurus nobilis	Sweet Bay
Platanus racemosa	California Sycamore
Populus fremontii	Western Cottonwood
Populus nigra italica	Lombardy Poplar
Quercus agrifolia	Coast Live Oak
Salix species	Willow
Sambucus mexicana	Blue Elderberry
Typical Biological Open Space (BOS) Landscape Zone Palette	
This includes habitats such as chaparral and a stand of mature oaks in the southwest. These areas will remain largely undisturbed.	
Typical Natural/Transitional Landscape Zone Palette	
• **Transition Planting Zones**	
Heteromeles arbutifolia	Toyon
Malosma laurina	Laurel Sumac
Quercus species	Oak
Rhus integrifolia	Lemonade Berry
• **Native Landscape –** Vegetation in these areas consist primarily of grasses and Scrub/Chaparral habitat.	
Special Use Areas Landscape Zone Palette	
• **Commercial/Civic/Recreational Use Area**	
Schinus molle	California Pepper
Ginkgo biloba (male trees)	Maidenhair Tree
Magnolia grandiflora	Southern Magnolia
Quercus suber	Cork Oak
Populus italica nigpa	Lombardy Poplar
Vitis variety	Grape
Citrus variety	Lemon, Lime, Orange
Punica granatum variety	Pomegranate
Biological Open Space (BOS) Landscape Zone Palette	
Biological open space includes the Escondido Creek area (off site) and the large biological open space to south which consists of southern mixed chaparral and a stand of mature California live oaks. These areas would remain largely undisturbed. Where restoration is needed, native plant species would be used to match the existing vegetation.	
Wastewater Treatment and Weather Storage	
Trees such as Brisbane box will be used in combination with native shrubs.	
Landscape Zone Palette	
Tristania conferta	Brisbane Box
Platanus racemosa	California Sycamore
Heteromeles arbutifolia	Toyon
Malosma laurina	Laurel Sumac

Table 1-1 (cont.)
PROJECT LANDSCAPE PALETTE

Shrubs, Vines and Groundcover**	
• **Shrubs 3' – 8' Evergreen, Slope Control (Interior Slope)**	
Agave attenuata	Foxtail Agave
Aloe strata	Coral Aloe
Cistus x canescens	Rock Rose
Cistus ladanifer maculatus	Brown-Eyed Rock Rose
Heteromeles arbutifolia	Toyon
Leptospermum scoparium 'Ruby Glow'	Ruby Glow New Zealand Tea Tree
Rhus ovata	Sugar Bush
Rhaphiolepis indica 'Ballerina'	Ballerina Indian Hawthorne
Rosemarinus officinalis 'Tucson Blue'	Tuscan Blue Rosemary
Salvia leucantha	Mexican Sage
Salvia mellifera	Black Sage
• **Groundcover – Evergreen, Slope Erosion Control (Interior Slopes)**	
Baccharis pilularis 'Twin Peaks'	Dwarf Coyote Brush
Ceanothus griseus horiz yankee pt	Yankee Point Ceanothus
Myoporum parvifolium	Prostrate Myoporum
Rosmarinus officinalis 'Huntington Carpet'	Huntington Carpet
• **Groundcover – Evergreen, Slope Erosion Control (Exterior Slopes)**	
Artemisia palmeri	San Diego Sagewort
Baccharis pilularis 'Twin Peaks'	Dwarf Coyote Brush
Comarostaphylis diversifolia ssp.	Summer Holly
Ceanothus verrucosus	Wart-Stemmed Ceanothus
Encelia californica	Coast Sunflower
Eriophyllum confertiflorum	Golden-Yarrow
Eschscholzia californica	California Poppy
Hazardia squarrosa	Yellow Squirrel Cover
Heteromeles arbutifolia	Toyon
Lotus scoparius	Deerweed
Malosma laurina	Laurel Sumac
Mimulus aurantiacus puniceus	Red Monkeyflower
Nemophila menziesii	Baby Blue Eyes
Rhus integrifolia	Lemonade Berry
• **Open Space Adjacent Riparian Corridor & Detention Slopes**	
Artemisia palmeri	San Diego Sagewort
Carex spissa	San Diego Sedge
Iva hayaseana	San Diego Marsh Elder
Juncus acutus	Spiny Rush
Mimulus guttatus	Golden Monkey Flower
• **Hydroseed – Coastal Sage Scrub Mix**	
Artemisia californica	Coastal Sagebrush
Encelia californica	Bush Sunflower
Eriogonum fasciculatum	California Buckwheat
Eriogonum parvifolium	Sea Cliff Buckwheat
Eriophyllum confertiflorum	Golden Yarrow
Eschscholzia californica	California Poppy

Table 1-1 (cont.)
PROJECT LANDSCAPE PALETTE

Shrubs, Vines and Groundcover (cont.)**	
Helianthemum scoparium	Rush Rose
Lotus scoparius	Deerweed
Lupinus bicolor	Pygmy-Leaf Lupine
Lupinus succulentus	Arroyo Lupine
Mimulus puniceus	Bush Monkeyflower
Salvia mellifera	Black Sage
Vulpia microstachys	Small Fescue
• **Temporary Pad Hydroseed (Non-irrigated)**	
Bromus carinatus 'Cucamonga'	Cucamonga Brome
Trifolium willdenovii	Tomcat Clover
Vulpia microstachys	Small Fescue

*Primary streetscape tree. To be planted in formal rows, occasionally interrupted with small groves of Oak, Sycamore, and Brisbane box.

Table 1-2
PROJECT DESIGN FEATURES

All Project Design Features (PDFs) identified below will be included as Conditions of Approval on the Project plans issued for construction bid, will be monitored during construction by monitors identified as qualified by the County, will have plans prepared as stated, and will have review and approval by County staff prior to implementation. The Applicant will provide the County with the applicable HOA documentation demonstrating implementation of all PDFs related to homeowner association activities/compliance as appropriate and set forth in the PDFs to follow. Sign-off on infrastructure placement will occur prior to vertical building, and sign-off on final construction requirements will occur prior to occupancy.

Aesthetics – Construction

1. In compliance with the approved conceptual landscape plans, the Landscape Plans shall require:
   - Final landscape (including container/box plant sizes) along Country Club Drive, at entries, along Project streets, and on manufactured slopes, shall be installed immediately following completion of grading and installation of irrigation. Landscape plans will comply with the County's Water Conservation Landscaping Ordinance, Water Efficient Landscape Design Manual, etc. and will be reviewed and approved by the County prior to the start of construction.
2. Project grading shall be implemented in accordance with the approved Preliminary Grading Plan, and is designed to follow general rise and fall in existing topography and to avoid sharp or abrupt grade transitions, as feasible.
3. Construction of the Project shall comply with the Project's visual study through approved building and construction plans. Specific elements include:
   - Incorporation of open space corridors and parks. A minimum of approximately 60 percent of the Project shall be in biological open space set-aside or landscaped space.
   - Trails/pathways with equestrian fencing and/or landscaping shall be sited along all Project roadways excluding a portion of the access to Lot 2.
   - Varied roof lines with differing tower/chimney elements.
   - Non-inhabitable roofline elements shall not exceed 5 percent of the structure rooflines.
   - Dark roofs (gray, brown) of varying shades will be used rather than lighter colors or red tile.
   - All trash dumpsters/compactors/receptacles will be screened (by buildings or screen walls) if they would otherwise be visible from a street or common area. Mechanical units also will be screened.
   - Where distinguishable, roof-top equipment will be screened from view from adjacent roads, properties, and pedestrian areas. This equipment may include HVAC, etc. Where shielding of routine roof equipment may not be possible, equipment would be organized in an orderly, uncluttered fashion and painted to match the roof color. Rooftop equipment screening would be identified on site plans.
   - Exterior building materials will variously include stone, masonry, painted or stained horizontal and vertical wood siding, stucco, and metal elements.
   - Architectural elements will seek to reduce the apparent size, bulk, and scale of proposed buildings through use of techniques such as:
     - Incorporating roofline variation through use of flat parapet roofs, as well as gables, dormers, overhangs etc.
     - Locating garage doors in alleys/courtyards, etc. as opposed to on streets.
     - Providing overhead structures at entries, such as porches, trellises, or pergolas.
     - Aligning roadways in a curvilinear manner.
   - The Project footprint will be consistent with PDS2018-TM-5626 as depicted on Figure 1-6a of this EIR.

Table 1-2 (cont.)
PROJECT DESIGN FEATURES

Aesthetics – Operation

1. Lighting shall be oriented downward, shall not spill onto open space or off-site areas, and will be sited as shown on EIR Figure 1-21a, in compliance with the County LPC. Additional specific Conditions include:
   - Full cutoff fixtures (lights will turn off at 11:00 p.m.), low-reflective surfaces (matte surfaces that do not reflect glare) and low-angle spotlights (to focus light on specific features and not allow "spill") shall be used.
   - No lighting shall blink, flash, or be of unusually high intensity or brightness.
   - WTWRF lighting shall use full cut off fixtures for all lights. Pole lights shall be shielded, 10 to 14 feet tall, and will only be activated when workers are present.
   - Street lights shall be located only at intersections and at one location in parking for the Center House and be shielded down lights. Lights will be a maximum of 15 feet to 20 feet tall at Project major intersections and 10 to 15 feet tall at interior street locales shown on EIR Figure 1-21b.
   - Project identification signage will incorporate small scale landscape up-lighting and will not include internally lighted letters.
2. To ensure consistency in format and content of signs, a comprehensive sign package will be developed and submitted to PDS as part of the site plan application. Specific conditions include:
   - Sign posts and other structural elements will be wood or metal with a white, earth tone, black, or natural stain finish. Reflective or bright colors are prohibited.
   - "Way-finding" and informational signage will be located at intersections and decision points so as to generate the fewest number of signs.
   - Project identification signage will be discretely placed within low stone walls or pilaster landscape elements, with secondary signs being smaller in scale.
   - The maximum size of residential directory signage will be limited to 25 s.f.
   - Center House window signs will be no larger than 25 percent of the window on or behind which they are displayed.
   - Rooftop and roof-mounted signs, neon signs, internally illuminated plastic signs, and back lit signs that appear to be internally illuminated shall not be installed and are prohibited.
   - Letter and symbol height will be limited to a maximum of 10 inches.
   - Center House total sign area is limited to 1 s.f. of sign area per linear foot of building length along Private Drive A and Private Drive J, up to a maximum of 90 s.f.
   - One additional building directory sign not exceeding 10 s.f. in size may be allowed at each Center House public entrance for each tenant.

Transportation/Traffic – Construction

1. Improvements shall be constructed at the intersection of Harmony Grove Road/Country Club Drive consistent with the approved Grading Plan and TM, including the provision of northbound left- and right-turn lanes to merge with the newly constructed condition provided by HGV for approaches from the north, east and west.
2. Country Club Drive shall be widened to three lanes, with one southbound lane, a center lane (for left turns or to function as an emergency access/egress route), and one northbound lane, consistent with the approved Grading Plan and TM.
3. A Traffic Control Plan shall be prepared by the Construction Contractor and approved by County DPW prior to initiation of construction: including measures to reduce traffic delays and minimize public safety impacts, such as the use of flag persons, traffic cones, detours and advanced notification signage, pedestrian/equestrian detours, movement restrictions and temporary lane closures to preclude substantial traffic delays during construction of residential, commercial, recreational and public services/utility project elements. In addition, the construction contractor shall provide a means for public liaison/contact information for public inquiries and concerns.

Table 1-2 (cont.)
PROJECT DESIGN FEATURES

Transportation/Traffic – Operation

1. Bicycle spaces shall conform to the standards provided within the County Zoning Ordinance Sections 6758-6783, 6787, and 6792.

Biological Resources – Construction

Measures regarding control of off-site flows in Hydrology/Water Quality are also applicable to Biological Resources.

1. Brushing, clearing, and grading activities will not be permitted within 500 feet of active California gnatcatcher or raptor nests during the avian breeding season (January 15 through September 15).
2. Temporary protective fencing will be used to keep construction equipment and people out of sensitive habitats that are not proposed to be graded.
3. The Project will comply with wet weather grading restrictions (October 1 to April 30) to avoid habitat damage in applicable locations.
4. Project landscaping will conform to the Conceptual Landscape Plan, species and spacing; including: installation of (a) native species container stock; (b) no invasive exotics in either plants or hydroseed mix; (c) no "California" pepper trees (*Schinus molle*) will be planted within 50 feet of riparian habitat, and (d) use of a hydroseed mix that incorporates native species, and is appropriate to the area. This mix shall be approved by the monitoring biologist.

Biological Resources – Operation

Measures regarding shielded lights in Aesthetics, control of off-site flows in Hydrology/Water Quality, and structure restrictions in the limited building zone (see Hazards) are also applicable to Biological Resources.

1. The Project will provide a 200-foot buffer between RPO riparian areas and proposed residential/commercial/recreational vertical development.
2. Biological open space (BOS) areas will be fenced off from the proposed development.
3. Signs will be placed along the edge of the BOS area to deter human incursion.
4. Each BOS easement will be surrounded by a Limited Building Zone easement dedicated on the Final Map that does not allow any structures, in order to prevent fire clearing from extending into biological open space.

Noise – Construction

1. All residents within a 0.5-mile radius of the blast location shall receive notice from the blasting contractor prior to blasting, containing the day and hour that blasting will occur. Residents shall receive this notice at least 24 hours before any blasting event.
2. Residents shall be contacted prior to the first notice of blasting to determine their preferred method of contact for the blasting information (e.g., phone, email, regular mail).
3. Signs providing noticing of the blast, including the date and time of the blast, shall be posted by the blasting contractor near the Harmony Grove Road and Country Club Drive intersection, the Country Club Drive and Cordrey Drive intersection, and the entrance to the Del Dios Highland Preserve trail (off Del Dios Highway). This signage shall be posted at least seven days before any blasting event.
4. Both resident notices and posted signage shall contain contact information so residents and visitors can obtain more information if requested.
5. If pile driving is utilized as part of the construction of the bridge over Escondido Creek and the Harmony Grove Equestrian Park is operational during pile driving operations, the following best management practices would be implemented to avoid potential adverse effects to horseback riders, horses, and other park visitors:
   - Bridge construction may use cast in-drilled holes in place of pile driving while the park is occupied; and
   - If pile driving is to be performed, pile driving shall not occur on Saturdays or Sundays so that the equestrian park may remain open on the weekends.

Table 1-2 (cont.)
PROJECT DESIGN FEATURES

Air Quality – Construction
1. In accordance with the SDAPCD Rule 55 - Fugitive Dust Control, no dust and/or dirt will leave the property line. The following measures will be implemented: • Any areas where ground disturbance occurs shall be watered a minimum of twice daily, or as needed to control dust. • If visible dust emissions are discharged into the atmosphere beyond the property line for a period or periods aggregating more than 3 minutes in any 60-minute period, construction activities will be terminated until all dust clears. • The following control measures will be implemented to minimize visible roadway dust: (a) track-out grates or gravel beds at each egress point; (b) wheel-washing at each egress during muddy conditions, soil binders, chemical soil stabilizers, geotextiles, mulching, or seeding; and for outbound transport trucks (c) secured tarps or cargo covering, watering, or treating of transported material. • Visible roadway dust resulting from active operations, spillage from transport trucks, erosion, or track-out/carry-out shall be removed at the conclusion of each work day when active operations cease, or every 24 hours for continuous operations. On dry days, dirt and debris spilled onto paved surfaces shall be swept up immediately to reduce resuspension of particulate matter caused by vehicle movement. If a street sweeper is used to remove any track-out/carry-out, only particulate matter smaller than 10 microns in diameter (PM_{10})-efficient street sweepers certified to meet the most current South Coast Air Quality Management District (SCAQMD) Rule 1186 requirements shall be used. The use of blowers for removal of track-out/carry-out will be prohibited under any circumstances. • Dust-control measures such as watering to reduce particulate generation will be used for pertinent locations/activities (e.g., concrete removal). • Contractor(s) will implement paving, chip sealing or chemical stabilization of internal roadways after completion of grading. • Dirt storage piles will be stabilized by chemical binders, tarps, fencing or other erosion control. • A 15-mile per hour (mph) speed limit will be enforced on unpaved surfaces. • Haul trucks hauling dirt, sand, soil, or other loose materials will be covered or 2 feet of freeboard will be maintained. • The contractor will terminate grading activities if winds exceed 25 mph. • Any blasting areas will be wetted down within four hours prior to initiating the blast • Disturbed areas shall be hydroseeded within three days, landscaped, or developed as quickly as possible and as directed by the County and/or SDAPCD.
2. Low volatile organic compound (VOC) coatings will be used during construction and maintenance in accordance with SDAPCD Rule 67 requirements.
3. The Project will comply with County Municipal Code Section 68.508-68.518. A Construction and Demolition Debris Management Plan and a refundable performance guarantee will be developed by the Construction Contractor prior to building permit issuance, and implemented to divert debris from construction and demolition away from landfills. The plan will require that 90 percent of inerts and 70 percent of all other materials from the Project are recycled.
4. Appropriate (i.e., non-hazardous) construction debris will be recycled for on- or off-site use whenever feasible.

Table 1-2 (cont.)
PROJECT DESIGN FEATURES

Air Quality – Construction (cont.)

5. Construction equipment shall be operated in accordance with the California Air Resources Board's Airborne Toxic Control Measure (ATCM) that limits diesel-fueled commercial motor vehicle idling. In accordance with the subject ATCM (see Cal. Code Regs., tit. 13, §2485), the drivers of diesel-fueled commercial motor vehicles meeting certain specifications shall not idle the vehicle's primary diesel engine for longer than five minutes at any location. The ATCM requires the owners and motor carriers that own or dispatch such vehicles to ensure compliance with the ATCM requirements.
6. Tier III or higher construction equipment will be used, with the exception of concrete/industrial saws, generator sets, welders, air compressors, or construction equipment where Tier III or higher is not available.

Air Quality – Operation

1. As implemented through the D1-Designator Site Plan, energy efficiency will comply with ~~2016~~ Title 24 standards, Part 6 in effect at the time of building permit application. State personnel will verify installation of Title 24 requirements prior to sale and occupancy.
2. The Project will provide ~~E~~electrical outlets ~~will be installed on the exterior walls of residences~~in all residential backyards and within the common areas of multi-family ~~uses to allow use of electric landscape maintenance equipment~~development areas.
~~3. Only natural gas or equivalent non-wood fireplaces will be installed in residential uses.~~
~~4. Natural gas outlets will be provided in residential backyards and within the common areas of multi-family development areas.~~
~~5.~~3. The Center House parking area will include eight 19.2 kW~~A dual port l~~ Level 2 EV (electric vehicle) charging stations (serving two parking spaces). ~~and signage will be installed in the parking area for the Center House.~~The Project will also ~~will plumb for an~~install a Level 2 EV charging station (220-volt chargers) within the garage of~~for~~ each residen~~ce~~tial unit (453 total).
~~6.~~4. As a matter of regulatory compliance, the Project will be required to use energy efficient fixtures and bulbs in all common outdoor areas.

WTWRF Odor Control

1. PDFs at the WTWRF facilities include: water misting, chemical additives or activated carbon to minimize odors, as required, and include:
   - Covered or housed WTWRF facilities
   - A misting system with odor neutralizing liquids to break down the foul smelling chemical compounds in the biogases
   - Active odor control units to manage gases from the wet and solids stream treatment processes
   - Bio filters to capture odor causing compounds in a media bed where they are oxidized by naturally occurring micro-organisms

Greenhouse Gases -- Construction

Measures specified for Air Quality Construction are also applicable to Greenhouse Gases.

1. See Air Quality Construction PDF 5.
2. See Air Quality Construction PDF 6.
~~1.~~3. To the extent feasible, diesel equipment fleets that exceed existing emissions standards will be utilized when commercially available in the San Diego region.
~~2.~~4. To the extent feasible, electric and renewable fuel powered construction equipment will be utilized when commercially available in the San Diego region.
~~3.~~5. To the extent practicable and feasible, electricity will be used to power appropriate types and categories of construction equipment (e.g., hand tools).

Table 1-2 (cont.)
PROJECT DESIGN FEATURES

Greenhouse Gases – Construction (cont.)

~~4.~~6. As a PDF, the Applicant will develop and provide to all homeowners an informative brochure to educate homeowners regarding water conservation measures, recycling, location of the electric vehicle charging stations, location of outdoor electric outlets to promote using electrical lawn and garden equipment, and location of nearby resources such as dining and entertainment venues, small commercial centers, and civic uses to reduce vehicle miles traveled. This brochure will be developed and provided to PDS for review prior to occupancy of the first unit.

7. See Air Quality Construction PDF 3.

Greenhouse Gases – Operation

Measures specified for Air Quality are also applicable to Greenhouse Gases. The Proposed Project's PDFs would be included as D Designator Site Plan conditions and verified prior to the issuance of final certificate of occupancy, as follows:

8R~~12~~. The Proposed project will comply with the~~2016~~ California Title 24 Energy Code in effect at the time of building permit application~~(which went into effect on January 1, 2017)~~. The following energy efficient items will be included in all residential units: improved high efficiency heating, ventilation, and air conditioning (HVAC) systems~~units~~ with sealed (tight) air ducts; enhanced ceiling, attic and wall insulation; energy conserving appliances such as whole house fans: high-efficiency water heaters (tankless water heaters); energy-efficient three coat stucco exteriors; energy efficient appliances; ~~(Energy Star™ or equivalent);~~programmable thermostat timers; and high-efficiency window glazing.

9~~13~~. Roof anchors and pre-wiring to allow for the installation of photovoltaic (PV) systems where such systems are not installed as part of Project implementation will be provided on additional non-residential structures (e.g., if an on-site WTWRF is approved as part of the Project).

10R. See Air Quality Operation PDF 3.

11~~7~~. The Project's outdoor landscaping plan will use turf only in sports field, dog park and park/recreation areas;~~,~~ maximize drought-tolerant, native, and regionally appropriate plants through planting in conformance with the Project Conceptual Landscape Plan and the County's Water Conservation and Landscape Design Manual;~~,~~ and incorporate weather-based irrigation controllers, multi-programmable irrigation clocks, and high efficiency drip irrigation systems. At the time of final inspection, a manual shall be placed in each building that includes, among other things, information about water conservation. The Project shall submit a Landscape Document Package that complies with the referenced County Ordinance and demonstrates a 40 percent reduction in outdoor use. The Landscape Document Package shall be submitted to the County for review and approval prior to issuance of any building permits and compliance with this measure shall be made a condition of the Project's approval.

12~~8~~. The Project will utilize reclaimed water from the proposed WTWRF (or the existing HGV WRF) for outdoor irrigation.

13R~~3~~. The Project will install rooftop solar PV panels (a photovoltaic solar system) on all residential units within the Project to produce a total of 4,165 kW of solar power~~and the Center House in order to supply 100 percent of the Project's electricity needs through renewable energy (see ConSol Report in Appendix J for analysis). To clarify for this Project, this means that the Project will design all residences and the Center House to achieve the California Energy Commission's (CEC's) Zero Net Energy standards, as defined in that agency's 2015 Integrated Energy Policy Report (CEC 2015) – in other words, this will include covering electricity and natural gas~~.

Table 1-2 (cont.)
PROJECT DESIGN FEATURES

Greenhouse Gases – Operation (cont.)

146. Project potable water use will be reduced by 20 percent through installation of low-flow water fixtures, reduction of wastewater generation by 20 percent, installation of low-flow bathroom fixtures, and installation of weather-based smart irrigation control systems.

15R4. As a matter of regulatory compliance, t~~T~~he Project will comply with Section 5.106.5.2 of the latest California Green Building Standards Code (CALGreen Code) in effect at the time of building permit application, which requires the provision of ~~provide~~ designated parking for shared vehicles and clean air vehicles. This will occur at the Center House and Project parks ~~in compliance with Section 5.106.5.2 of the 2016 California Green Building Standards Code (CALGreen Code)~~.

1611. As discussed in the Specific Plan, the Project ~~would~~ will provide bicycle parking facilities and bicycle circulation improvements to encourage the use of bicycles (see also *Improvement Plans*.)

179. Marked crosswalks connecting the east and west sides of Country Club Drive will be located from each of the Project entries to the future multi-use trail on the west side of the road to accommodate pedestrians/equestrians in crossing the road.

1810. The Project's parking facilities will comply with the County's Parking Design Manual that requires parking areas to minimize the heat island effect that results from asphalt and/or large building block surfaces such as parking lots.

19. See Air Quality Operations PDF 2.

201. Areas for storage and collection of recyclables and yard waste will be provided.

215. The Landscaping Plan for the Project will include the installation of a minimum of 2,045 trees within the Project site.

2214. The HOA will provide two electrical vehicles that will be sited at the Center House for use by residents for service that further connects various Project components, land uses, parks/open spaces, and the retail/commercial uses of HGV and HGV South. The vehicles will be provided to the HOA with the issuance of the first occupancy permit and the future provision and maintenance of such vehicles shall thereafter be the responsibility of the HOA in accordance with the Covenants, Conditions and Restrictions (CC&Rs). The vehicles will be available for use based upon a self-service check--in system utilizing HOA identification cards. This program will terminate when a transit linkage is proposed by the local transit district.

2315. An area within the developable portion of the Center House will be reserved for dedication for a transit stop for bus service when a local transit line is extended to service the HGV/HGV South Village area. The Project's proposed circulation network of ~~pathways/~~sidewalks, trails, and bicycle routes will provide connections to the transit stop to further provide a regional alternative transportation system.

2416. The Project shall submit building plans illustrating that the Project would install one rain barrel per every 500 square feet of available roof area provided that s~~S~~tate, regional or local incentives/rebates are available to fund the purchase of such rain barrels and roof area is available to feasibly install the barrels.

252. The HOA will provide informational materials on SANDAG's rideshare programs like iCommute. The Applicant will develop and provide to all homeowners an informative brochure, approved by the County, to educate homeowners regarding water conservation measures, recycling, location of the ~~electric vehicle~~EV charging stations, location of outdoor electric outlets to promote using electrical lawn and garden equipment, and location of nearby resources such as dining and entertainment venues, commercial centers, and civic uses to reduce VMT.

Table 1-2 (cont.)
PROJECT DESIGN FEATURES

Greenhouse Gases – Operation (cont.)

26. The Project will not install wood or natural gas burning hearth options in residential units.
27. Natural gas lines will not be installed on site (the Project will be 100 percent electric).
28. The Project will install rooftop solar PV panels (a photovoltaic solar system) on the Center House to the maximum extent feasible based on its final design.

Energy

Measures specified for Air Quality and Greenhouse Gases are also applicable to Energy.

Geologic Hazards – Construction

1. The Proposed Project design and construction efforts will incorporate applicable standard seismic factors from the County Building Code, IBC/CBC and Greenbook, as identified in the Project geotechnical investigations. Specifically, these factors will be incorporated into the design and construction of facilities such as structures, foundations/slabs, pavement and utilities, as well as related activities including remedial grading (e.g., removal and/or reconditioning unsuitable soils), manufactured slope/retaining wall design, site drainage, and use of properly engineered fill (i.e., fill exhibiting characteristics such as proper composition, moisture content, application methodology and compaction). This process will include verification through standard plan review and site-specific geotechnical observation and testing during Project excavation, grading, and construction activities.
2. Potential liquefaction hazards will be addressed through compliance with standard measures and Project geotechnical investigations; including efforts such as: (1) installation of subdrains in appropriate areas to avoid near-surface saturation; (2) removal of unsuitable (e.g., compressible) deposits in areas proposed for development; and (3) replacement of unsuitable materials with engineered fill. This process will include verification through standard plan review and site-specific geotechnical observation and testing during Project excavation, grading, and construction activities.
3. Acceptable factors of safety for manufactured slopes will be achieved through standard measures and the Project geotechnical investigations; including efforts such as: (1) constructing fill slopes with approved material (engineered fill) and surface treatments, using drought-tolerant landscaping and irrigation controls, and limiting grades to a maximum of 2:1 (horizontal to vertical); and (2) designing/constructing cut slopes with maximum grades of 1.5:1 and maximum heights of 90 feet, and over-excavation or blasting of cut slopes in granitic rock to reach unweathered and stable rock exposures. This process will include verification through standard plan review and site-specific geotechnical observation and testing during Project excavation, grading, and construction activities.
4. Expansive soils will be addressed per the County Building Code, IBC/CBC, Greenbook and Project geotechnical investigations; including such efforts as: (1) removal and replacement of expansive soils with engineered fill exhibiting very low or low expansion potential (per IBC/CBC or other applicable regulatory/industry criteria); (2) use of appropriate foundation design (including post-tensioned slabs), reinforcement and footing depths; (3) implementation of appropriate concrete placement methodology and design, including proper installation/curing and moisture conditioning, doweling (anchoring) of exterior flatwork and driveways to building foundations, and use of crack-control joints; and (4) use of subdrains in appropriate areas to avoid near-surface saturation. This process will include verification through standard plan review and site-specific geotechnical observation and testing during Project excavation, grading, and construction activities.

Table 1-2 (cont.)
PROJECT DESIGN FEATURES

Geologic Hazards – Construction (cont.)
5. Corrosive soils will be addressed per the County Guidelines, IBC/CBC, Greenbook and Project geotechnical investigations; including standard efforts such as: (1) removal of unsuitable deposits and replacement with non-corrosive fill; (2) use of corrosion-resistant construction materials (e.g., coated or non-metallic facilities); and (3) installation of cathodic protection devices (e.g., use of a more easily corroded "sacrificial metal" to serve as an anode and draw current away from the structure to be protected). This process will include verification through standard plan review and site-specific geotechnical observation and testing during Project excavation, grading, and construction activities.
6. Oversize materials will be addressed through standard efforts such as selective disposal (e.g., burial in deeper fills), crushing, use in landscaping efforts, or off-site disposal. This process will include verification through standard plan review and site-specific geotechnical observation and testing during Project excavation, grading, and construction activities.
Hazards and Hazardous Waste – Construction
1. Prior to bringing combustible materials onto the site, utilities shall be in place, fire hydrants operational, an approved all-weather roadway in place, and fuel modification zones will be established and approved.
2. Prior to development construction, perimeter fuel modification areas as depicted in the Project FPP and EIR Figure 3.1.3-1 will be implemented, existing flammable vegetation on vacant lots will be reduced by 60 percent, and trees/shrubs will be properly pruned.
Hazards and Hazardous Waste – Operation
1. The Project will comply with all recommended measures in the FPP (Dudek 2018, Appendix L to this EIR), including the features listed below.
2. The Proposed Project will provide payment in accordance with the County Fire Mitigation Fee Ordinance for a fire and emergency medical response facility from the new fire station being built in HGV to the north through fire assessments and fees.
3. The parts of the Project area proposed for development would convert the existing vegetation to a lower flammability, ignition resistant landscape than under current conditions. This conversion would include removal of primarily non-native grasses and construction of roads, structures, and irrigated, managed landscape vegetation.
4. A third travel lane would be provided for the entirety of Country Club Drive from its intersection with Harmony Grove Road to the southernmost Project entrance and would extend within the Project so that no structure exceeds 800 feet from that extra lane as an equivalent form of egress.
5. Existing access for several residences east of the Project crosses the HGV South site (Figure 3.1.3-1). Such access would continue to be provided through the HGV South site after development, but via improved, code conforming on-site roadways, thereby improving the evacuation situation to the west for those off-site residences. Additionally, a route to the east is accessible by typical passenger vehicles, does connect with Johnston Road to the east, and would be available in an emergency situation where people need to be moved to the east and the primary access route (Country Club Drive) is not available.
6. The Project would provide three separate access ways off of Country Club Drive (Figure 3.1.3-1). The first would be a paved service road 450 feet south of Harmony Grove Road adjacent to the HGV South wastewater land use area. The second would be an access into the community approximately 800 feet south of the first access. The third would be approximately 400 feet south of the second. These three access ways are part of a looped interior road system so if one or both of the southern roads are blocked, the northern roadway would still be accessible by all residents. These three ingress/egress points are in addition to the existing evacuation route to the east noted above, and would enable resident evacuation without compromising emergency respondent access to the community.

Table 1-2 (cont.)
PROJECT DESIGN FEATURES

Hazards and Hazardous Waste – Operation (cont.)

7. New road and driveway grades would comply with the Fire Code, not exceeding 20 percent. Any sections exceeding 15 percent would be constructed with Portland Concrete surface and provided heavy broom finish or equivalent surfacing and subject to FAHJ approval.
8. Project structures would be a minimum of 100 feet from wildland fuels. Fuel Modification Zone (FMZ) setbacks would exceed the County standard of 100 feet that is typically 50 feet irrigated and 50 feet thinned zones. HGV South would provide 75 feet of irrigated Zone 1 and a minimum of 25 feet of thinned Zone 2. To ensure long-term identification and maintenance, permanent markers would be installed to identify the FMZs on the perimeter of the developed areas. In some locations, particularly the southwestern and eastern sides of the Project, the setbacks would vary between 110 feet and nearly 200 feet wide to focus FMZs where fire behavior is anticipated to be the most aggressive.
9. Structure setbacks from the top of the slope would be a minimum of 15 horizontal feet from top of slope to the farthest projection from a roof for single-story structures and 30 horizontal feet from top of slope to the farthest projection from a roof for two-story structures where applicable (southwestern portion of the Project). Structures taller than two stories and where the slope is greater than 2:1 may require a setback greater than 30 feet. For lots where a full 30-foot setback would not be possible, installation of a 6-foot tall, non-combustible, heat deflecting, wall would be provided as part of Project Design for additional heat and flame deflection. This wall may be a combination of masonry and dual pane (one pane tempered glazing) materials. During the site plan review process required for this Project, the FAHJ would review setbacks relative to appropriate fire standards and if the appropriate setback is unavailable, the walls would be implemented along one or more of these lots.
10. Fuel modification in environmentally sensitive areas, if any are encountered, would require approval from the County and the appropriate resource agencies (CDFW and USFWS) prior to any vegetation management activities occurring within those areas. Riparian habitat enhancement maintenance/fuel modification at the Escondido Creek bridge crossing would be provided within the roadway easement; including removal of: dead/dying plants, exotic/invasive species and highly flammable species.
11. Crowns of trees located within defensible space would maintain a minimum horizontal clearance of 10 feet for fire resistant trees and mature trees would be pruned to remove limbs one-third the height or 6 feet, whichever is less, above ground surface. Ornamental trees would be limited to groupings of two to three trees with canopy separation as described in Table 7 of the FPP for trees located on slopes.
12. The internal Project development area between residential structures and building clusters (see green portions of Figure 3.1.3-1) would be cleared of vegetation and re-planted with permanently irrigated fire-resistant plants, thereby excluding native fuels within the development area and minimizing the likelihood of ignitions internal to the Project.
13. Plants used in the fuel modification areas or landscapes would include drought-tolerant, fire resistive trees, shrubs, and groundcovers. The plantings would be consistent with County of San Diego's Suggested Plant List for Defensible Space. The FPP also provides a list of prohibited plant species to avoid planting within the first 50 feet adjacent to a structure in Appendix J to the FPP, unless the potential for spreading fire has been otherwise reduced or eliminated. (The Final Landscape Plan for the Project will not contain any of the plants in Appendix J.) Landscaping would be inspected annually and on an ongoing basis by the FAHJ.
14. The HGV South HOA shall ensure long-term funding and ongoing compliance with all provisions of the FPP, including vegetation planting, fuel modification, vegetation management, and maintenance requirements throughout the common areas of the Project site. Individual property owners would be enforced through HOA CC&Rs. The Applicant will provide the County with the applicable HOA documents to demonstrate compliance with this provision prior to the first permit of occupancy.

Table 1-2 (cont.)
PROJECT DESIGN FEATURES

Hazards and Hazardous Waste – Operation (cont.)

15. The Rancho Santa Fe Fire Protection District's (RSFFPD's) Fire Marshal may require a property owner to modify combustible vegetation in the area within 20 feet from each side of the driveway or a public or private road adjacent to their property to establish an FMZ.
16. Fire hydrants would be placed every 300 feet along Project streets (Figure 3.1.3-1), exceeding the Fire Code requirement of 350 feet to the structure. The additional fire hydrants would assist fire operations by reducing operational time to extinguish any fires.
17. The minimum fire flow requirements for the Project would be dual 2,500 gallons per minute (gpm) at 20 pounds per square inch (psi), compliant with the requirements of the Rincon MWD. Thus, the water system would be designed to deliver 5,000 gpm during fire demands, exceeding code requirements by 100 percent.
18. Each of the Project's three entrances would be provided a lighted map directory, and internal signage would be customized to provide clear, intuitive navigation within the Project. Street signs would be customized for the Project and would meet or exceed lettering size to provide clear, easy-to-follow signage to aid emergency response.
19. All site access roads would have fire department turnarounds (cul-de-sacs). Roadway cul-de-sacs would comply with the County's minimum 36-foot radius (72-foot diameter) cul-de-sac bulb standard. Where parking is provided within cul-de-sacs, the additional space would be provided outside the 72-foot diameter bulb.
20. All proposed private streets would have a minimum paved width of 24 feet. Where vehicles would be allowed to park on one side of the street, the road width would be 30 feet. Head-in parking areas would include an additional 18 feet of paved area outside travel lanes.
21. Minimum unobstructed vertical clearance of 13 feet 6 inches would be maintained for the entire required width for all streets, including driveways that require emergency vehicle access.
22. No gates or speed bumps or humps would be allowed within the Project, so that traffic flow (ingress and/or egress) would be able to move more rapidly in the case of emergency. No gates are anticipated at the Project's entrances. If gates are proposed elsewhere, all access gates would comply with CFC Section 503.6. Gates on private roads and driveways would comply with County and FAHJ standards for electric gates, including an emergency key-operated switch overriding all command functions and opening the gate.
23. The Project will provide 434 guest parking spaces. The Project shall implement the Parking Management Plan. The Parking Management Plan will designate the parking area at the community/ recreation center as valet/shuttle staging area for all homeowners' events exceeding 10 guests. Homeowners will be required to obtain parking permits for use of guest parking overnight. "No Parking" signs will be installed on designated streets. The HOA will maintain a contract with a towing company so that illegally parked vehicles would be towed within a short period of time.
24. Based on its location and ember potential, the Project is required to include the latest ignition and ember resistant construction materials and methods for roof assemblies, walls, vents, windows, and appendages, as mandated by San Diego County Fire and Building Codes (Chapter 7A and 2014 CFC). Exterior walls would have a noncombustible covering. Ember resistant vents (BrandGuard, O'Hagin, or similar approved vent of 1/8-inch screening) would be utilized in all structures. Multi-pane glazing would be required with a minimum of one tempered pane, fire-resistance rating of not less than 20 minutes. All habitable structures and garages would be provided interior residential fire sprinklers per County Fire Code requirements.
25. FMZs, including rear yard areas, would be limited building zones (LBZs), as described in the FPP.

Table 1-2 (cont.)
PROJECT DESIGN FEATURES

Hazards and Hazardous Waste – Operation (cont.)

26. The individual lot owners would be subject to strict limitations, prohibiting owners from erecting combustible structures, including fences, trellises, arbors, play equipment, etc. as the most critical area for structure protection (besides ember protection) is the structure itself and the immediate landscaping area.
27. A 1 to 3-foot-wide landscape free area will be implemented adjacent to the foundation of stucco structures.

Hydrology/Water Quality – Construction

Measures regarding landscaping in Aesthetics, dust control/erosion in Air Quality and control of pollutants in Hazards are also applicable to Hydrology/Water Quality.

Water Quality

Erosion/Sedimentation

1. The Project will prepare a Construction Site Monitoring Plan (CSMP), a Risk Assessment to determine the Project's Risk Level (1, 2 or 3), and appropriate Risk Level Requirements as outlined in the Construction General Permit.
2. Prior to land disturbance activities, a Storm Water Pollution Prevention Plan (SWPPP) and CSMP will be prepared by a qualified SWPPP preparer, with this plan to be located on site at all times.
3. If the site is determined to be a Risk Level 2 or 3 site, a Rain Event Action Plan (REAP) will be prepared and implemented 48 hours prior to any likely precipitation event (50 percent or greater probability of producing precipitation in the Project area) by the Qualified SWPPP Developer (QSD) or Qualified SWPPP Practitioner (QSP). The REAP shall be prepared for all phases of construction and implemented for construction activities to provide enhanced erosion and sediment control measures during predicted storm events.
4. The Project will comply with seasonal grading restrictions during the rainy season (October 1 to April 30) for applicable locations/conditions.
5. The construction contractor shall use erosion control/stabilizing measures, such as geotextiles, mulching, mats, plastic sheets/tarps, fiber rolls, soil binders, compost blankets, soil roughening, and/or temporary hydroseeding (or other plantings) in appropriate areas (e.g., disturbed areas and graded slopes), will be used.
6. The construction contractor shall use sediment controls to protect the construction site perimeter and prevent off-site sediment transport, including measures such as temporary inlet filters, silt fence, fiber rolls, silt dikes, biofilter bags, gravel bag berms, compost bags/berms, temporary sediment basins, check dams, street sweeping/vacuuming, advanced treatment systems (ATS, if applicable based on risk assessment), energy dissipators, stabilized construction access points/sediment stockpiles, and properly fitted covers for sediment transport vehicles.
7. BMP materials will be stored in applicable on-site areas to provide "standby" capacity adequate to provide complete protection of exposed areas and prevent off-site sediment transport.
8. Full erosion control will be provided in disturbed areas not scheduled for additional activity for 14 or more consecutive calendar days.
9. Appropriate training will be provided for the personnel responsible for BMP installation and maintenance.
10. Construction debris will be properly contained at least 50 feet from storm drain inlets and water courses and disposed of so as not to allow runoff into surrounding waters.
11. Prior to and after storm events, BMP function and efficiency will be checked by construction contractor and implementation monitors.
12. Sampling/analysis, monitoring/reporting and post-construction management programs will be implemented per NPDES and/or County requirements, along with additional BMPs as necessary to ensure adequate erosion and sediment control.

Table 1-2 (cont.)
PROJECT DESIGN FEATURES

Hydrology/Water Quality – Construction (cont.)

Construction-related Hazardous Materials

1. Hazardous materials use/storage locations will be restricted to areas at least 50 feet from storm drains and surface waters.
2. Raised (e.g., on pallets), covered, and/or enclosed storage facilities will be used for all hazardous materials.
3. Accurate and up-to-date written inventories and labels will be maintained for all stored hazardous materials. This will be checked on a weekly basis.
4. Berms, ditches, and/or impervious liners (or other applicable methods) will be used in material storage and vehicle/equipment maintenance and fueling areas to provide a containment volume of 1.5 times the volume of stored/used materials and prevent discharge in the event of a spill.
5. Warning signs will be placed in areas of hazardous material use or storage and along drainages and storm drains (or other appropriate locations) to avoid inadvertent hazardous material disposal.
6. All construction equipment and vehicles will be properly maintained so as not to release fuels, oils, or solvents. The amount of hazardous materials used and stored on the site will be minimized, and use/storage locations will be restricted to areas at least 50 feet from storm drains and surface waters.
7. Paving operations will be restricted during wet weather, appropriate sediment control devices/methods will be used downstream of paving activities, and wastes and/or slurry from sources including concrete, dry wall and paint will be contained or disposed of by using properly designed and contained washout areas.
8. Training for applicable employees will be provided in the proper use, handling and disposal of hazardous materials, as well as appropriate action to take in the event of a spill.
9. Absorbent and clean-up materials will be stored in readily accessible locations adjacent to any hazardous material use/storage locations.
10. Portable wastewater facilities will be properly located, maintained, and contained.
11. A licensed waste disposal operator will be employed to regularly (at least weekly) remove and dispose of construction debris at an authorized off-site location.
12. Regulatory agency telephone numbers and a summary guide of clean-up procedures will be posted and maintained in a conspicuous on-site location at the construction trailer by the construction contractor.
13. A licensed waste disposal operator will be employed to regularly (at least weekly) remove and dispose of construction debris at an authorized off-site location.
14. Recycled or less hazardous materials will be used wherever feasible.

Demolition-related Debris Generation

1. The Project will appropriately remove, handle, transport and dispose of hazardous materials generated during demolition, including efforts such as implementing appropriate sampling and monitoring procedures; proper containment of contaminated materials during construction; providing protective gear for workers handling contaminated materials; ensuring acceptable exposure levels; and ensuring safe and appropriate handling, transport and disposal of hazardous materials generated during Project construction.

Table 1-2 (cont.)
PROJECT DESIGN FEATURES

Hydrology/Water Quality – Construction (cont.)

Disposal of Extracted Groundwater

1. If required, dewatering operations will include standard measures such as: (1) using appropriate erosion and sediment controls (as noted above for Erosion/Sedimentation) in applicable areas/conditions (e.g., disposal of extracted groundwater on slopes or graded areas); (2) testing extracted groundwater for appropriate contaminants prior to discharge; and (3) treating extracted groundwater prior to discharge, if required, to provide conformance with applicable Groundwater Permit discharge criteria, through methods such as filtration, aeration, adsorption, disinfection, and/or conveyance to a municipal wastewater treatment plant.

Hydrology/Water Quality – Operation

Drainage Alteration

1. The Project design includes a series of storm drain facilities to capture and convey flows within and through the site, including a series of curb/gutter inlets and two subsurface hydromodification/water quality vaults, all of which would be tied to an underground storm drain system of pipelines and related structures, as shown on the Grading Plan.

Runoff Rates/Amounts

1. The proposed storm drain system includes a series of facilities noted above under Drainage Alteration, and that system (including improvements associated with off-site roadway/utility features) will accommodate peak 100-year storm flows and provide flow regulation and energy dissipation per the Project Preliminary Hydrology/Drainage Study (PDC 2017a, Appendix M-1 to this EIR).

Hydromodification

1. Two on-site subsurface hydromodification vaults (north and south) will provide flow duration control at the associated outlets, to be implemented by the construction contractor.
2. Hydromodification vault design details will be verified/refined during the ongoing Project design process, including completion of a geomorphic channel assessment analysis.
3. Energy dissipation facilities will be provided where appropriate (pursuant to recommendations in the Project Drainage Study).

Floodplains/Flooding

1. The Project design includes a series of storm drain facilities to capture, convey, and regulate flows within and through the site as previously described, with these facilities to accommodate 100-year peak storm flows where applicable.
2. The results of the preliminary Hydrologic Engineering Center-River Analysis System (HEC-RAS) model evaluated in the Project Drainage Study will be implemented for the proposed Escondido Creek bridge crossing along Country Club Drive, to ensure that the proposed bridge would not be subject to flood-related hazards or notably redirect/impede flood flows. The preliminary bridge design criteria used in this analysis will be verified or refined based on a Project-specific HEC-RAS analysis to be conducted as part of the ongoing Project design process.
3. Preliminary design for the potential on-site wastewater treatment plant identifies a pad elevation of 584.2 feet (refer to Figure 1-6a), with mapped 100-year flood elevations in this portion of the site ranging between 571 and 575 feet (FEMA 2012a, refer to Exhibit A of the Project Drainage Study in EIR Appendix M-1), to ensure that this site would be elevated above the 100-year flood level and would not notably redirect/impede flood flows.

Table 1-2 (cont.)
PROJECT DESIGN FEATURES

Hydrology/Water Quality – Operation (cont.)

Water Quality

Low Impact Development (LID) Site Design BMPs

The Proposed Project will:

1. Preserve well-draining (Type A) soils, significant trees, critical areas (e.g., steep slopes and floodplains), and other sensitive areas wherever feasible.
2. Provide appropriate set-backs from drainages for development envelopes, and restrict construction equipment access in planned green/open space areas.
3. Development has been clustered into a lot design, and design hardscape areas (e.g., streets) to the minimum widths necessary to meet regulatory/safety standards.
4. Restrict construction equipment access in planned green/open space areas, re-till soils compacted during construction, and collect native soil layers for reuse in on-site landscaping efforts.
5. During early revegetation/stabilization of disturbed slopes as soon as possible after/during construction, with permanent landscaping, incorporate "smart irrigation" technology (including appropriate water schedules and rain/pressure-sensitive shutoff devices).
6. Include a harvest/reuse component in the two proposed detention/hydromodification vaults.

Source Control BMPs

The Proposed Project will:

1. Convey flows from applicable sources (e.g., fire sprinkler tests and wash water) to the sanitary sewer.
2. Install "no dumping" stencils/tiles and/or signs with prohibitive language (per current County guidelines) at applicable locations such as drainages, storm drain inlets, catch basins and public access points to discourage illegal dumping.
3. Protect materials stored in outdoor work areas from rainfall, run-on, runoff, and wind dispersal by minimizing storage of potential pollutants, enclosing/covering storage areas, providing secondary containment such as berms, implementing appropriate record keeping, providing appropriate employee/user training, and conducting applicable site inspection and maintenance.
4. Trash storage areas for multi-family residential sites and public areas such as parks and the community center/recreational center will be constructed on paved enclosed areas with impervious surfaces, and use of attached lids and/or roofs for trash containers.
5. Additional BMPs include: on-site storm drain inlet protection, direction of runoff into landscaped/vegetated areas where feasible, use of structural pest controls in lieu of chemical pesticides and proper use/control of chemical pesticides when required, and appropriate design and maintenance of potential HOA-maintained water features.

PDP Pollutant Control BMPs

1. The Project design will include the two (north and south) water quality vaults identified in the Project SWQMP, and two (east and west) proprietary biofiltration units to treat runoff from applicable portions of the site prior to discharge.

Table 1-2 (cont.)
PROJECT DESIGN FEATURES

Hydrology/Water Quality – Operation (cont.)

BMP Monitoring and Maintenance

1. Monitoring and maintenance for the Project proposed water quality basins will be implemented by the Project HOA, pursuant to associated recommendations in Attachment F (Maintenance Plan) of the Project SWQMP (EIR Appendix N). A written BMP Maintenance Agreement with the County will be completed prior to Project residency, which includes requirements that the facilities be limited to the proposed use, an access easement to the County, and verification of funding as required by the County.
2. The Project owner(s) will dedicate the proposed catch basin inlet inserts (along with associated property and access) to the County, and will provide funding for the initial monitoring and maintenance period (24 months) through means acceptable to the County (with long-term funding and monitoring/ maintenance to be the responsibility of the County). Monitoring and maintenance for the Project proposed water quality basins will be implemented by the Project HOA, pursuant to associated recommendations in Attachment F (Maintenance Plan) of the Project SWQMP (EIR Appendix N). A written BMP Maintenance Agreement with the County will be completed prior to Project residency, which includes requirements that the facilities be limited to the proposed use, an access easement as required by the County, and verification of funding.

Land Use and Planning – Operation

Measures regarding lighting and site layout in Aesthetics, lighting and open space set aside in Biology, GHG controls under GHG, and hazards/FPP specifics under Hazards, etc., are also applicable to Land Use.

1. The Proposed Project shall include a GPA for a partial Land Use designation change from Semi-rural Residential 0.5 to Village 10.9 and Neighborhood Commercial.
2. The Proposed Project shall include a CPA for a Village Boundary Line adjustment.
3. The Proposed Project shall include a zoning designation change from Limited Agriculture (A-70) and Semi-Rural (SR 0.5) to Specific Plan (S-88).
4. The Proposed Project shall obtain a Waiver of Open Space Easement as detailed in RPO Section 86.604[e][2][cc][3]), with regard to steep slope lands, and an Exception for Roads/Utilities as detailed in RPO Section 86.604(e)(2)(bb)(ii).
5. The lighting for the Proposed Project shall be designed to adhere to the regulations of the County LPC.
6. Native and drought-tolerant landscaping shall be irrigated with reclaimed water.
7. Trail connections will be provided through the Project site to other existing and planned trails in HGV and to DDHP and allow residents to walk or bike to nearby destinations without relying on automobiles.
8. Soft-surface road and trail materials that are appropriate to the local setting and desired community character (e.g., decomposed granite) are preferred and will be used as feasible.
9. Trail beds will comply with County standards for width of primary tread. Shade trees shall be planted along Project-implemented trails/sidewalks and pathways, as outlined in the Landscaping Plan which includes specific species, spacing, and installation size.

Table 1-2 (cont.)
PROJECT DESIGN FEATURES

Public Services and Utilities – Operation
1. The Proposed Project Applicant shall pay developer fees levied by each applicable school district prior to the issuance of building permits. 2. The Project design shall include water conservation measures, including the State-mandated 14 BMPs for water conservation (such as installation of ultra-low-flow toilets). 3. Pursuant to the April 2015 Executive Order B-29-15, permanent irrigation with potable water for newly constructed development will be delivered by drip or microspray systems. Reclaimed water would be produced for irrigation of parks, parkways, manufactured slope areas, and other common area landscaping; consistent with the County of San Diego's Water Efficient Landscape Design Manual, the County of San Diego's Water Conservation in Landscaping Ordinance, and the State of California's Model Water Efficient Landscape Ordinance (MWELO).
Agriculture
1. Disclosure statements included in sales documentation for all proposed residential units will notify potential owners that the adjacent property (future Equestrian Ranch) could potentially be used for agricultural operations and that there could be associated issues such as odors, noise, and vectors.

Table 1-3
CUMULATIVE PROJECTS IN THE VICINITY OF THE PROPOSED PROJECT

Map Key No.	Project Numbers Issued by Agency	Project Name	Location	Area (acres)	Proposed Improvements
COUNTY OF SAN DIEGO					
1	TPM 20998	Plumosa Avenue TPM	427 Plumosa Avenue	1.1	4 SFR lots; 1 existing SFR to remain
2	TPM 20941	Tourangeau TPM	306 Morgan Place	1.66	4 SFR lots plus remainder; 1 existing SFR to remain
3	MUP 03-004	Casa de Amparo	325 Buena Creek Road	11.43	Group home for foster children, including 6 main buildings, 4 residential cottages, play areas and parking lot
4	TM 5337	Rogers Estates	East side of Marilyn Lane and north of Richland Road	5.59	3 SFRs
5	TPM 21173	Matheson TPM	1202 Rancho Luiseño Road	12.83	2 SFR lots; 1 existing SFR to remain
6	S 07-041	Easy Turf Storage Building	East of North Centre City Parkway	13.71	16,000-s.f. agricultural storage building
7	MUP 04-050	Rancho Verona	25720 Jesmond Dene Road	9.75	29-bed group-care facility, including 4 buildings and parking areas
8	S 08-015	North County Environmental Resources Recycling Center	25568 Mesa Rock Road	35.5	A light recycling processing facility to handle green waste, and construction and demolition waste
9	TPM 20879	Knox TPM	2194 Rockhoff Road	--	2 SFR lots; 1 existing SFR to remain
10	MUP 05-052	T&R Mini Storage	25338 Centre City Parkway	32.7	4-building storage facility: 2,388-s.f. manager building and three 2-story storage buildings (46,706 s.f., 52,470 s.f. and 57,754 s.f. in size)
11	TPM 20960	Hooper TPM	Southwestern side of Jesmond Dene Park	4.54	2 SFR lots; 1 existing SFR to remain
12	TPM 20761	Eaton TPM	858 Hubbard Avenue	9.67	2 SFR lots; 1 existing SFR to remain
13	GPA 04-007 REZ 04-014 TM 5382	Montiel Heights/ Montiel Road Townhomes	1310 Montiel Road	5.01	70 condominiums; 1 existing SFR to be removed
14	TM 5388 REZ 07-009	Lago de San Marcos Condominiums	Southern corner of intersection of Lake San Marcos Drive/ Rancho Santa Fe Road	21.3	42-unit condominium complex
15	SP 04-003 GPA 04-004 REZ 04-010 VTM 5365 MUP 04-012 MUP 04-013 MUP 04-014	Harmony Grove Village	North and south of Harmony Grove Road, and east and west of Country Club Drive	468	Up to 742 SFRs, commercial services, park and community gathering locales, and equestrian facilities; currently under construction
Additional Dwelling Units Subtotal					**872**

Table 1-3 (cont.)
CUMULATIVE PROJECTS IN THE VICINITY OF THE PROJECT

Map Key No.	Project Numbers Issued by Agency	Project Name	Location	Area (acres)	Proposed Improvements
COUNTY OF SAN DIEGO, cont.					
16	REZ 08-009 MUP 08-020	Bear Valley Self-Storage	1016 Bear Valley Parkway	4.01	Approximately 100,000-s.f. self-storage facility (590 units)
17	TM 5278	Anderson TM	20253 Elfin Forest Road	18.98	5 SFRs; site currently contains offices, greenhouses, sheds, warehouse, and modular home to remain; site also contains a greenhouse and farm employee housing to be removed
18	TPM 20764	Baumgartner TPM	South of Elfin Forest Road and west of Elfin Forest Lane	6.17	2 SFR lots
19	TM 5182 SP 99-001 REZ 99-017 GPA 01-02	Cielo del Norte	Southeast of Harmony Grove Road near its intersection with Elfin Forest Road	580	187 SFRs, 365 acres of open space, 4 private park lots; no final map
20	TM 5013 TM 5260 SPA 01-005 SPA 03-001 SPA 03-006 S 03-043 REZ 91-032 SP 92-01	Santa Fe Creek	18608 Via Catania, Rancho Santa Fe	194.1	56 large SFR lots on 82.5 acres of site; 111.6 acres of open space, including a portion of Escondido Creek; final map: approximately 60 percent (roughly 34 houses) built out
21	TM 4569RA P85-064W1 P85-084W2 P85-064W2 P85-084W3 VAC 99-003 L 1166	The Bridges at Rancho Santa Fe (formerly called Canyon Creek Country Club)	North of Avenida de Duque and Aliso Canyon Road, Rancho Santa Fe	432	205 SFRs and a golf course; final map: approximately 90 percent (roughly 185 houses) built out
22	TPM 21161	Lanzer TPM	8952 Detwiler Road	17.8	2 SFR lots; 1 existing SFR to remain
23	TM 4225 TM 5093 TM 5146 TM 5440 TM 5441 TM 5456 S 01-062 S 05-043 S 05-044 S 99-020 S 99-026 SPA 00-003 SPA 05-004 SPA 96-001 REZ 05-010 REZ 05-011 MUP 00-005	Rancho Cielo	8204 Del Dios Hwy	2,815	206 SFRs built out of the total approximately 720 approved SFRs; lots range from 2.43 to 10 acres; neighborhood community; village center; fire station and heliport; open space; wastewater reclamation facility
Additional Dwelling Units Subtotal					**752 (plus ~733 built out)**

Table 1-3 (cont.)
CUMULATIVE PROJECTS IN THE VICINITY OF THE PROJECT

Map Key No.	Project Numbers Issued by Agency	Project Name	Location	Area (acres)	Proposed Improvements
COUNTY OF SAN DIEGO, cont.					
24	REZ 99-009 SPA 03-002 TM 5081	Shaw/Rancho Hills	2.5 miles west of I-15 and south of western extension of Lake Hodges, Rancho Santa Fe	115	37 SFRs, 8 road lots, 1 road/utility lot, and 1 open space lot
25	SP-13-001 GPA 13-001 STP 13-003 TM 5575 REZ 13-001	Valiano Development	South of Hill Valley Drive and west of Country Club Drive	210	326 SFRs, parks and open space
CITY OF SAN MARCOS					
26	--	San Marcos Highlands	Terminus of Las Posas Road, San Marcos	--	198 du
27	MF 1530 TSM 459 ND 06-0738	Kachay Homes	1608 Richland Road, San Marcos	9.54	8 SFR lots with minimum lot size on 1 acre; 1 existing SFR to be removed
28	MF 1546 TSM 462 ND 06-737 GV 06-78	Heritage Ranch	1320 Richland Road, San Marcos	20.20	Minimum of 16 SFR lots (1-acre lots); 1 existing SFR to be removed
29	--	UK Investments LLC	794-796 North Alda Drive, San Marcos	--	35-unit apartment complex
30	MF 1666 CUP 07-735 ND 08-768	Windy Point Development/ University of St. Augustine	Windy Point Way, north of Borden Road, San Marcos	10.7	Office/industrial park, including 3 offices buildings and 4 light industrial buildings; project includes a private medical school
31	MF 1118 SP 00-34 TSM 416 CUP 00-452	Rancho Santalina	North of Las Flores Drive and south Santa Fe Road, San Marcos	67	Project 1: Either 247 SFRs, 2 tot lots and 8 open space lots (Alternative A) or 184 SFRs, 1 tot lot, 4 open space lots and 12-acre school site (Alternative B) Project 2: 888 MFRs
32	MF 1539 TSM 461 ND 06-744	Nicholas Banche	East of the intersection of Poinsettia Avenue/ Specialty Drive, San Marcos	6.74	11 SFRs
33	--	Shane Park Plaza	200-300 block of Rancho Santa Fe Road, San Marcos	--	19 apartments and 6,138 s.f. of retail
34	MF 1612 SDP 06-322 ND 07-757	Pacific Industrial No. 1	Pacific Street to the north of Grand Avenue, San Marcos	1.49	22,159-s.f. industrial building with 71 parking spaces
Additional Dwelling Units Subtotal					**1,783 or 1,720**

Table 1-3 (cont.)
CUMULATIVE PROJECTS IN THE VICINITY OF THE PROJECT

Map Key No.	Project Numbers Issued by Agency	Project Name	Location	Area (acres)	Proposed Improvements
CITY OF SAN MARCOS, cont.					
35	--	Pacific Commercial	Northeastern corner of the intersection of Grand Avenue/ Pacific Street, San Marcos	2.77	31,776-s.f. commercial center
36	MF 1392 EIR 03-39	Palomar Station	South of West Mission Road, east of Las Posas Road and north and south of Armorlite Drive, San Marcos	14.32	337 condominiums, 48,980 s.f. of commercial (retail), 9,800-s.f. office building, 6,280 s.f. of restaurant/food court use, 1,385 s.f. of homeowners' recreational space and 1.8 acres of open space
37	MND 13-003 SP 12-55	Davia Village	South of Mission Road and west of Las Posas Road, San Marcos	11.78	416 du, 15,000 s.f. of retail and 60,000-s.f. neighborhood park
38	MF 0590 ND 12-002 CUP 12-001	Sonic Drive In	Southeastern corner of the intersection of Grand Avenue/Via Vera Cruz, San Marcos	0.9	1,795-s.f. drive-in restaurant with 899 s.f. of covered outdoor dining area
39	--	East Gate	Northwestern corner of Grand Avenue/ future Creekside Road, San Marcos	--	42 multi-family affordable housing units and 11,285 s.f. of retail/commercial
40	GPA 09-107 R 09-144 SP 09-54 MFSDP 09-50 TPM 675 ND 11-818	Parkview Apartments	Chinaberry Lane south of Autumn Drive, San Marcos	4.06	84 affordable apartment units and 6,490 s.f. of commercial retail space
41	TPM 672	Westlake Village	405 and 419 Autumn Drive, San Marcos	4.84	106 multi-family affordable apartments, community center with preschool, 6,140 s.f. of commercial space and parking; 11 apartment buildings and 1 SFR to be removed
42	MF 1699 GPA 08-102 R 08-139 ND 10-800	Richmar Specific Plan	Generally south of Richmar Avenue to the area north of San Marcos Elementary School, San Marcos	62	571 du and 87,942 s.f. of commercial space
43	--	Marketplace @ Twin Oaks	Southwestern corner of the intersection of Twin Oaks Valley Road/San Marcos Boulevard, San Marcos	--	Retail center with pads for future office building, hotel and restaurants
Additional Dwelling Units Subtotal					**1,555**

Table 1-3 (cont.)
CUMULATIVE PROJECTS IN THE VICINITY OF THE PROJECT

Map Key No.	Project Numbers Issued by Agency	Project Name	Location	Area (acres)	Proposed Improvements
CITY OF SAN MARCOS, cont.					
44	ND 12-822	Citywide Channel Maintenance Programmatic Permit	Throughout the City of San Marcos	--	Channel maintenance activities at 64 locations
45	MF 1785 TSM 479 MFSCDP 10-51 R 10-146 GV 10-85 CUP 10-835 ND 10-806	Candera	Intersection of Bougher Road/Via Camellia, San Marcos	7.17	8 SFRs and 50 condominiums; 1 existing SFR to be removed
46	MF 1392 EIR 03-39	University District Specific Plan	Generally bounded by SR-78, Industrial Street, Barham Drive/Discovery Street and San Marcos Creek, San Marcos	194	2,600 mixed-use residences, 800 student housing du, 450-room hotel, 638,000 s.f. of general office, 300,000 s.f. of medical office, 1,000,000 s.f. of mixed-use retail/commercial, 30,000 s.f. of community/civic use, 25.33 acres of parks and urban open space, 15.10 acres of open space and 26.74 acres of public streets
47	SP 90-24(08M) FEIR 08-42	University Office and Medical Park	South of San Marcos Boulevard, west of Twin Oaks Valley Road, north of Craven Road and east of Craven Road/Bent Avenue, San Marcos	109	Up to 1,070,000 s.f. of medical, dental, professional and support retail facilities; potential partial future school site; 16 acres of habitat preservation; and roadway and infrastructure improvements
48	MF 1171 FEIR 05-41 SCH 2006121080	San Marcos Creek Specific Plan and Floodway Improvement Project	~ between Discovery Street and San Marcos Boulevard along San Marcos Creek from La Sombra Drive to Johnston Lane, San Marcos	217.3	Up to 2,300 du, 1,265,000 s.f. of retail, 589,000 s.f. of office space, 19.9 acres of park land, 77.0 acres of open space and 38.47 acres of right-of-way; includes flood control, road, and infrastructure improvements
49	SCH 92011057	Kaiser Medical Office Building	400 Craven Road, San Marcos	40	1,335,000-s.f. hospital facility, including 439 beds and 5,000 parking spaces
50	--	Leigh Hanson Site	Twin Oaks Valley Road to the south of Craven Road, San Marcos	--	346 du (SFRs and duplexes), school (kindergarten through 8th grade), park land and open space
Additional Dwelling Units Subtotal					**6,103**

Table 1-3 (cont.)
CUMULATIVE PROJECTS IN THE VICINITY OF THE PROJECT

Map Key No.	Project Numbers Issued by Agency	Project Name	Location	Area (acres)	Proposed Improvements
CITY OF SAN MARCOS, cont.					
51	--	Campus Pointe II	Intersection of South Twin Oaks Valley Road/Village Drive, San Marcos	--	108 du and 10,000 s.f. of retail
52	MND 12-820 CUP 12-894	Rancho Coronado Phase I School Site	West of South Twin Peaks Road, south of Craven Road and north of San Elijo Road, San Marcos	53	School pad, roadway improvements, future park pad and spillway realignment/South Lake reservoir access with parking lot and trail connection
53	SCH 1990011013	University Commons/Old Creek Ranch Specific Plan	San Elijo Road and east of Rancho Santa Fe Road, San Marcos	416	308 du
54	MF 790 EIR 95-30	San Elijo Hills Town Center	Intersection of San Elijo Road/Elfin Forest Road, San Marcos	~2,000	3,398 du (including 272 affordable du) and 13 acres of retail/commercial use
CITY OF ESCONDIDO					
55	SUB 09-0002	Kenny Ray Harmony Grove	Southeast of the intersection of Kauana Loa/ Harmony Grove Road/future Citracado Parkway, Escondido	24.3	10 lots to be developed individually as a business park and 1 open space lot
56	ER 2000-34	Harmony Grove Industrial Park	Intersection of Harmony Grove Road/Pacific Oaks Place, Escondido	13.6	9 industrial use lots
57	PHG 11-0038	Hale Avenue Resource Recovery Facility (HARRF) Administration Building	1521 South Hale Avenue, Escondido	37	19,224-s.f. administration building for a wastewater treatment facility with 21 parking spaces
58	ER-2006-10	Citracado Parkway Extension	West Valley Parkway to Andreasen Drive, Escondido	--	Improvements and extension of Citracado Parkway from West Valley Parkway to Andreasen Drive
59	File No. 0800-40 PHG 10-0014	Escondido Asphalt Plant Expansion	500 North Tulip Street, Escondido	3.72	Four 45-foot-tall, 125-ton vertical asphalt concrete storage/load-out silos and 3 storage tanks; 2 existing 45-foot-tall, 80-ton vertical asphalt concrete storage/load-out silos to be removed on the existing concrete and asphalt recycling facility
Additional Dwelling Units Subtotal					**3,814**

Table 1-3 (cont.)
CUMULATIVE PROJECTS IN THE VICINITY OF THE PROJECT

Map Key No.	Project Numbers Issued by Agency	Project Name	Location	Area (acres)	Proposed Improvements
CITY OF ESCONDIDO, cont.					
60	Log No. ER 2005-20 PHG 11-0009 Tract 921, 2005-28-PD, 2005-06-AZ	Citysquare Downtown Residential	313 South Orange Street, Escondido	3.65	102 condominiums; 4 existing residences and existing commercial use on site to be removed
61	2007-25-PD 2005-20-PD	The Point	350 La Terraza Boulevard, Escondido	1.84	43,107-s.f. office building, 38,121-s.f. health club and 349 parking spaces
62	2007-18-PD ER 86-43	Springhill Suites by Marriott	300 La Terraza Boulevard, Escondido	1.68	105-room hotel
63	SUB 13-0002 PHG 13-0017	Oak Creek	Intersection of Hamilton Lane/Miller Avenue, Escondido	41.4	65 SFRs and 4 open space lots; 1 existing SFR to be removed
ESCONDIDO UNION HIGH SCHOOL DISTRICT					
64	ADM 10-0001 SCH No. 2009081074	Citracado High School/ Del Lago Academy	South of West Valley Parkway and north of Citracado Parkway, Escondido	34	Specialized small high school for 500 to 800 students
Additional Dwelling Units Subtotal					**162**
PALOMAR POMERADO HEALTHCARE DISTRICT					
65	2001-01-SPA 2005-81-SPA/DA PHG 11-0034 SCH No. 200112106	Escondido Research & Technology Center (ERTC)	South of Vineyard Avenue, north of Harmony Grove Road and along either side of Citracado Parkway, Escondido	164	Approximately 1,200,000-s.f. hospital/medical campus with 453 beds
Additional Dwelling Units Subtotal					**0**
TOTAL ADDITIONAL DWELLING UNITS FOR CUMULATIVE PROJECTS, EXCLUDING THE PROPOSED PROJECT					**15,041**
66	SP-GPA STP, TM, REZ, MUP	Harmony Grove Village South (Proposed Project)	South of Harmony Grove Road and east of Country Club Drive	111	453 residences, 193 SFRs, 260 MFR, 13 parks, limited retail/commercial (5,000 s.f.) and open space
ADDITIONAL DWELLING UNITS GRAND TOTAL					**15,494**

Acronyms/abbreviations:
-- = not available
CUP = Conditional Use Permit
du = dwelling unit
GPA = General Plan Amendment
MFR = multi-family residence
MUP = Major Use Permit
REZ = Rezone
S = Site Plan
SCH = State Clearinghouse
s.f. = square feet
SP = Specific Plan
SPA = Specific Plan Amendment
SFR = single-family residence
TM = Tentative Map
TPM = Tentative Parcel Map
VTM = Vesting Tentative Map

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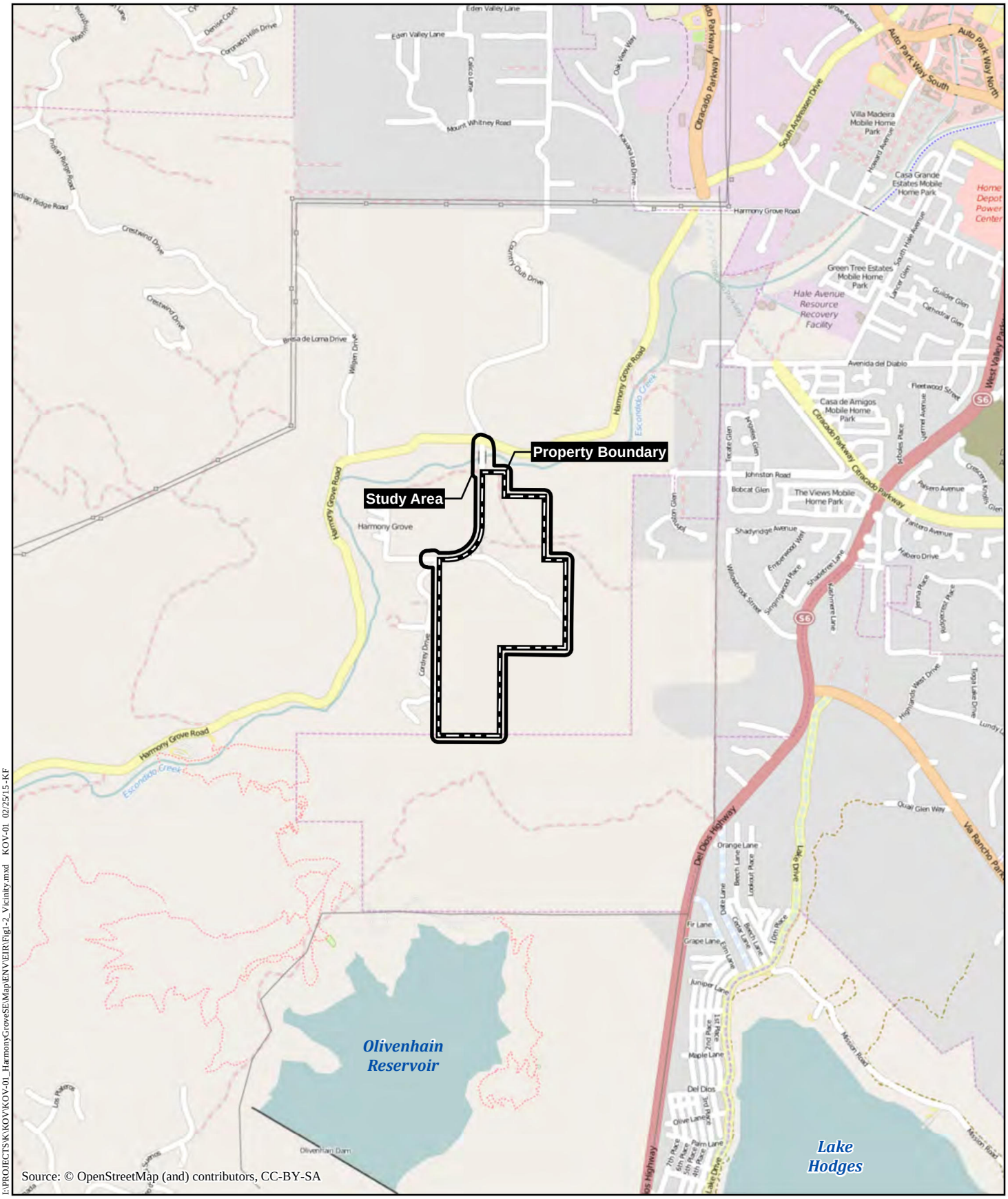
Regional Location Map

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

N 0 8 Miles

Figure 1-1



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Project Vicinity Map

HARMONY GROVE VILLAGE SOUTH

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N 0 2,000 Feet

Figure 1-2

Property Boundary
Harmony Grove Village Development
City of Escondido
City of Escondido
Sphere of Influence (SOI)

78
15
Retail
Nordahl Sprinter Station
Montiel Road
Mobile Home Communities
La Moree Road
Light Industrial Uses
Mission Road
Hospital and Escondido Technology and Research Center
Hill Valley Drive
Auto Park Way
Country Club Drive
Citracado Parkway
Large-lot Residential
Single-family Homes
CITY OF SAN MARCOS
COUNTY OF SAN DIEGO
Eden Valley Lane
Commercial/ Industrial
Single-family Homes
CITY OF ESCONDIDO
COUNTY OF SAN DIEGO
South Andreasen Drive
CITY OF SAN MARCOS
COUNTY OF SAN DIEGO
Mt Whitney Road
Large-lot Residential
Mobile Home Communities
Equestrian Center
Large-lot Residential
Harmony Grove Village Residential Development (Under Construction)
Harmony Grove Road
Mobile Home Communities
Avenida Del Diablo
Single-family Homes
West Valley Parkway
Country Club Drive
Mobile Home Communities
Citracado Parkway
Harmony Grove Spiritualist Society
Large-lot Residential
Single-family Homes
Cordrey Drive
Harmony Grove Road
COUNTY OF SAN DIEGO
CITY OF ESCONDIDO
Del Dios Highlands Preserve
Via Rancho Parkway
SANDAG Technical Services - GIS

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Area Land Uses

HARMONY GROVE VILLAGE SOUTH

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N 0 1,500 Feet

Figure 1-3

Aerial Source: PDC, 2/6/2015

Project Site Aerial Photograph

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

0 400 Feet

Figure 1-4

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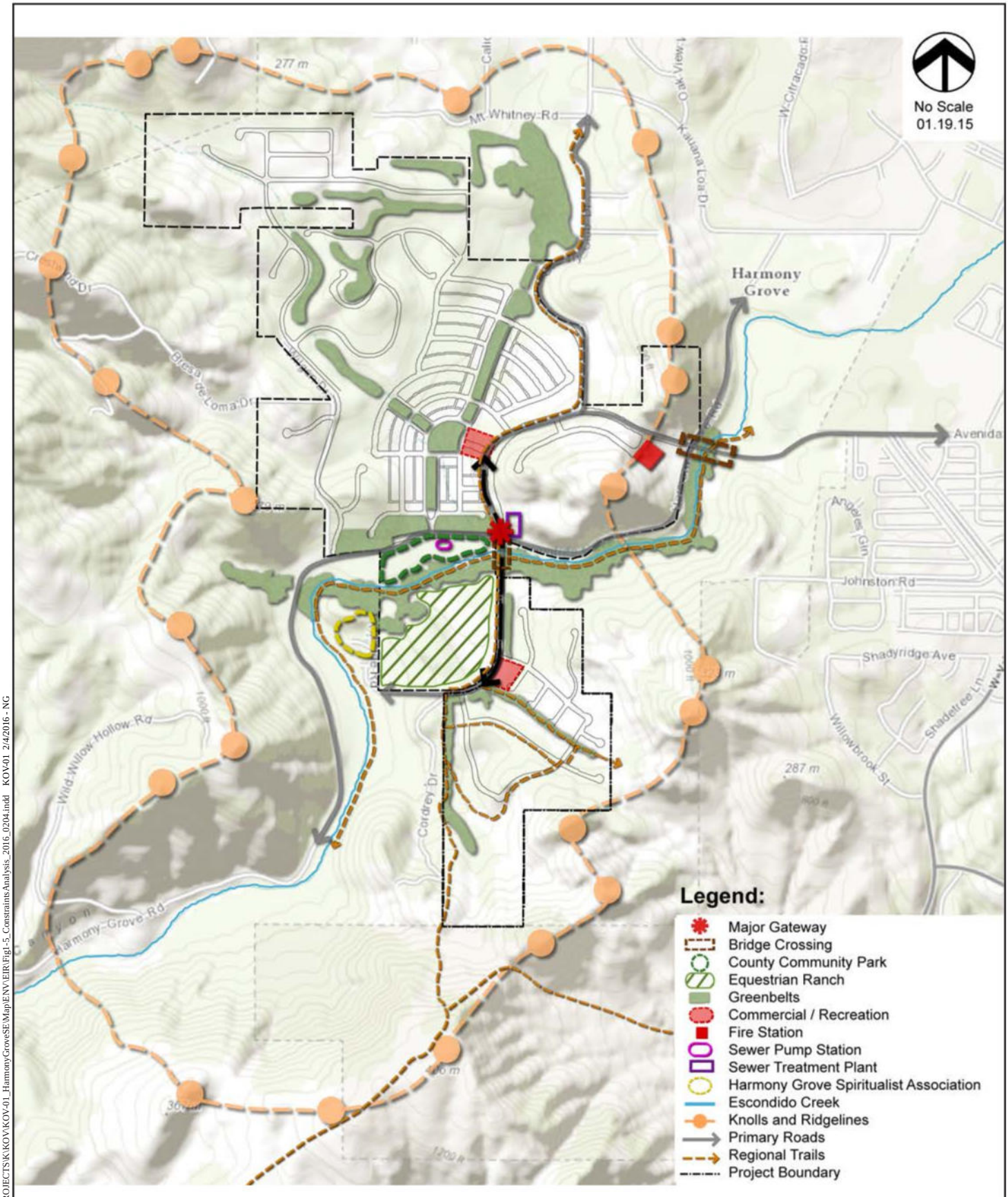

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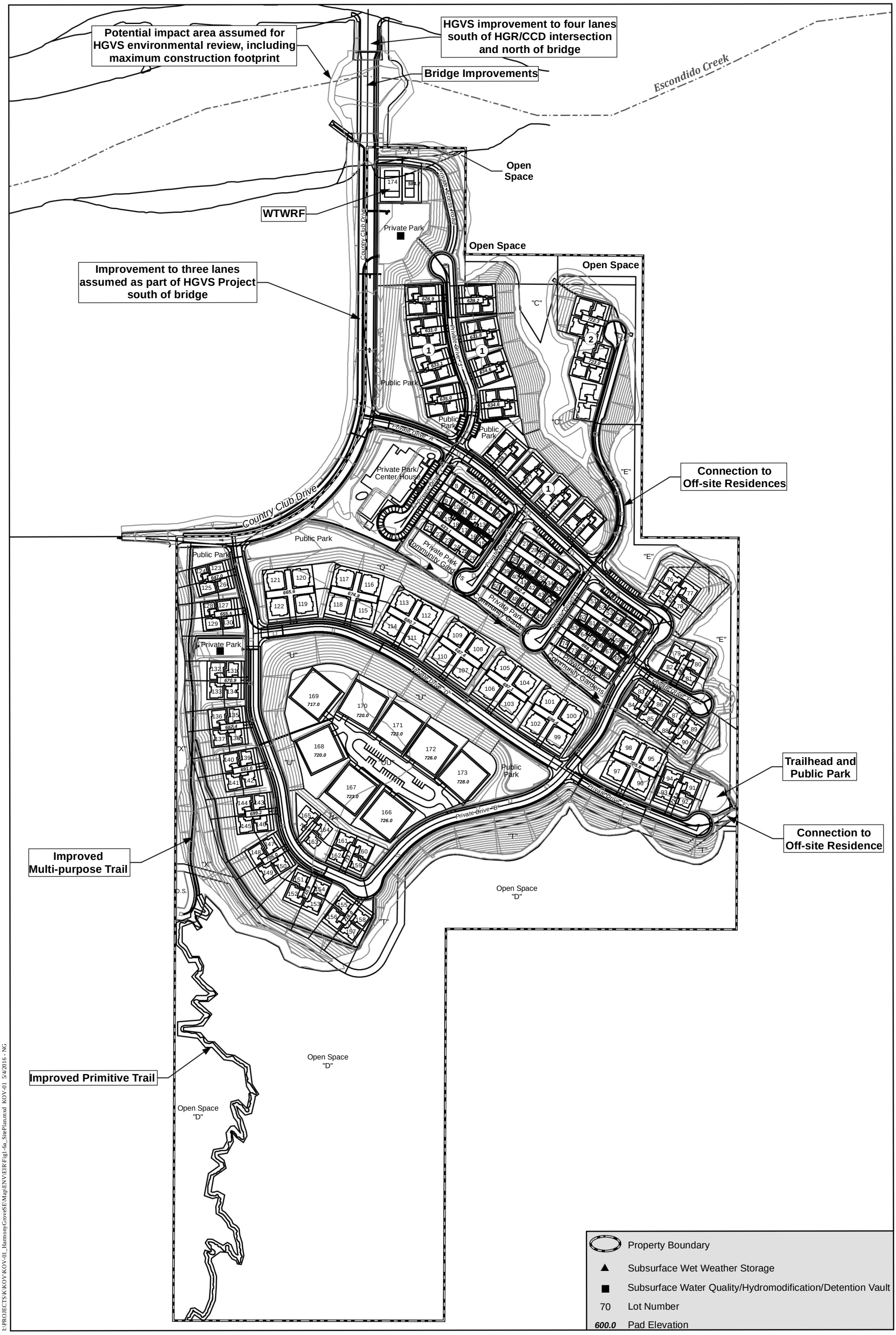
Source: PDC 2016

Harmony Grove Ridgelines and Project Connection to HGV

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

Figure 1-5



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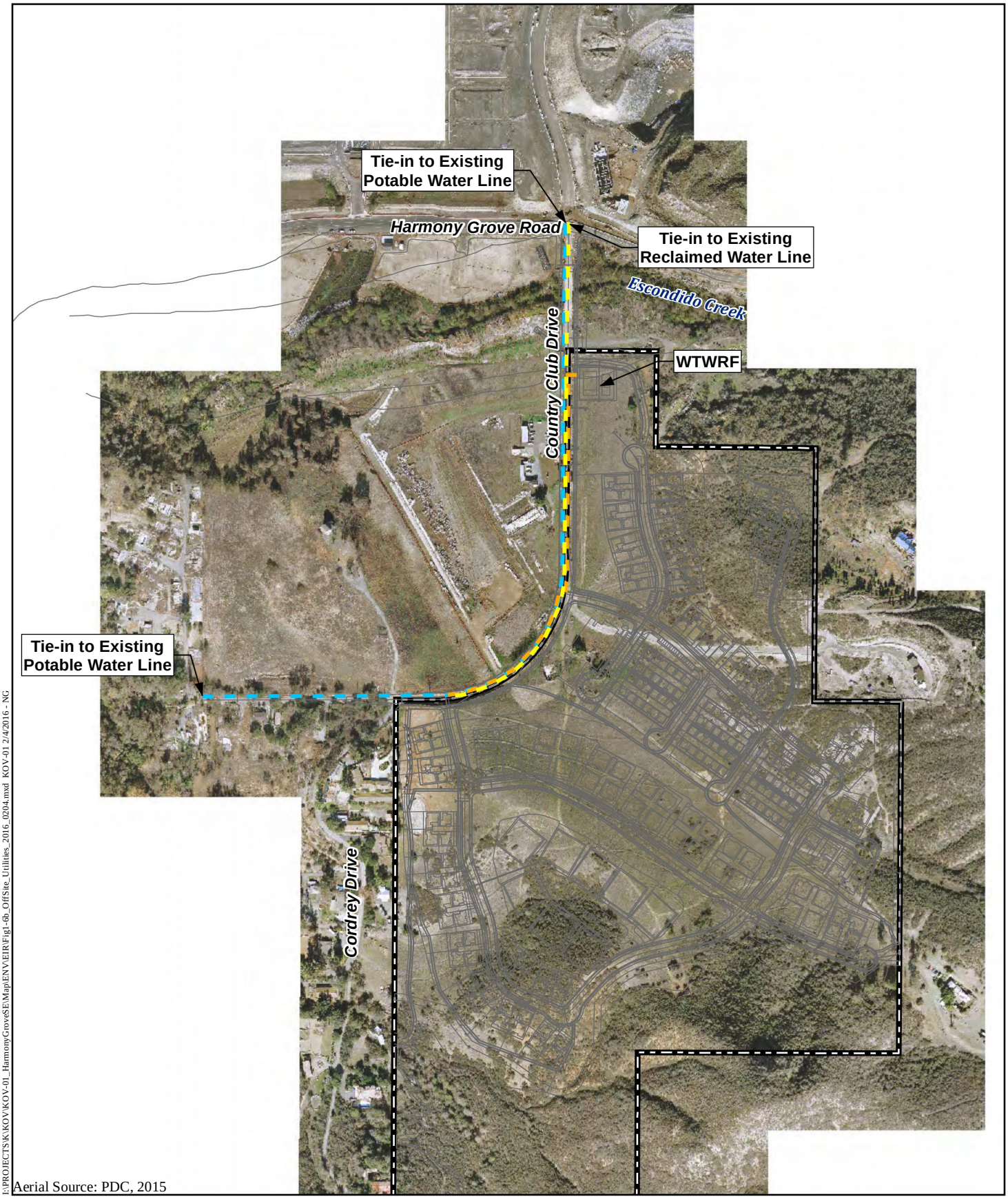
Site Plan

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

Figure 1-6a



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Aerial Source: PDC, 2015

Off-site Utilities

HARMONY GROVE VILLAGE SOUTH

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N 0 500 Feet

Figure 1-6b

Cottage

Source: PDC 2016

I:\PROJECTS\K\KOV\KOV-01_HarmonyGroveSE\Map\ENVEIR\Fig1-7a_ArchitecturalStyles.indd KOV-01 2/29/2016 - NG

Typical Architectural Styles

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

Figure 1-7a

Bungalow

No Scale
01.19.15

Farmhouse

Granary

Harmony Court

Source: PDC 2016

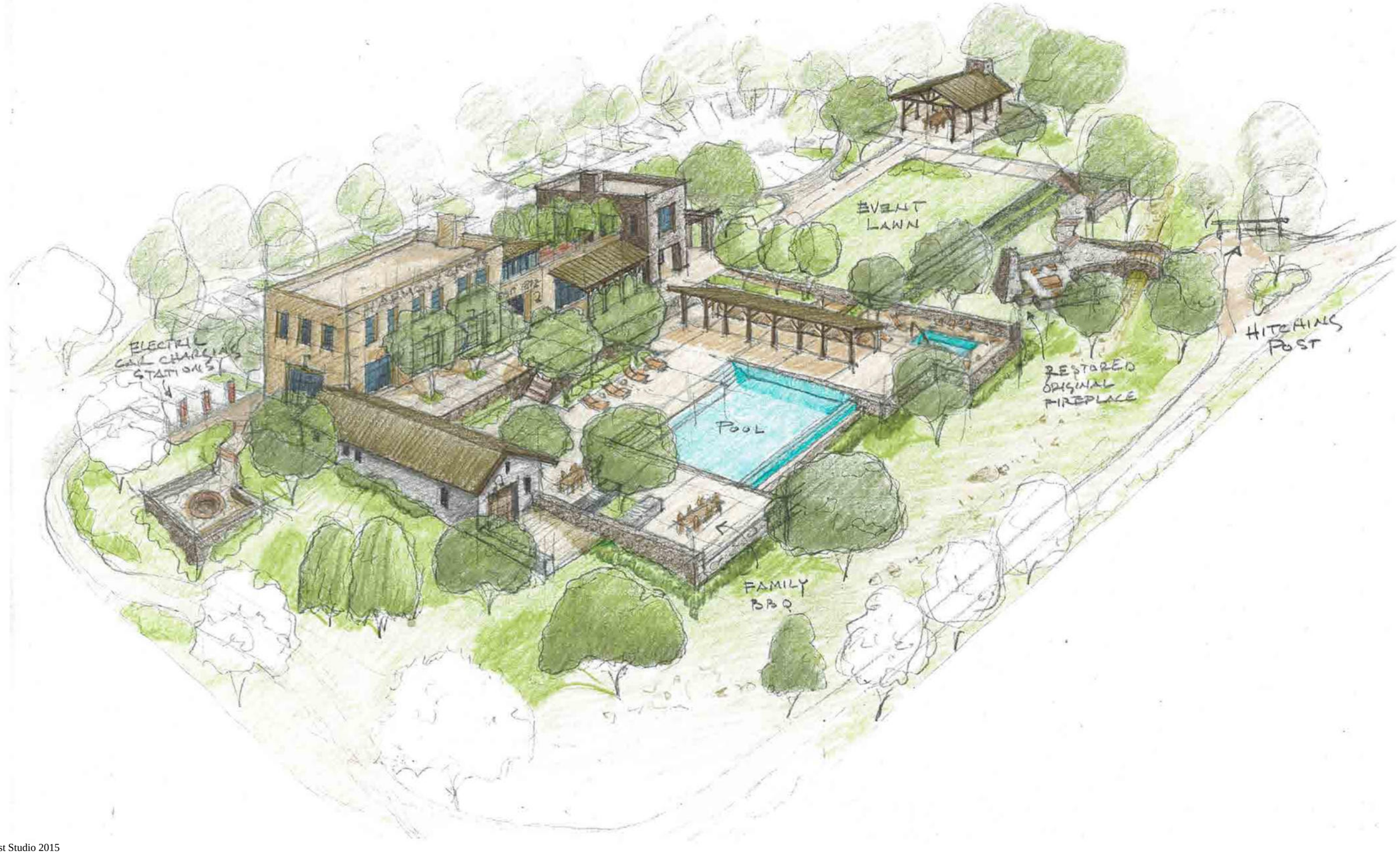
I:\PROJECTS\K\KOV\KOV-01_HarmonyGroveSE\Map\ENV\EIR\Fig1-7b_ArchitecturalStyles.indd KOV-01 2/29/2016 - NG

Typical Architectural Styles

HARMONY GROVE VILLAGE SOUTH

Figure 1-7b

HELIX Environmental Planning



Source: Forest Studio 2015

Center House Concept Plan

HARMONY GROVE VILLAGE SOUTH

Figure 1-8

HELIX Environmental Planning

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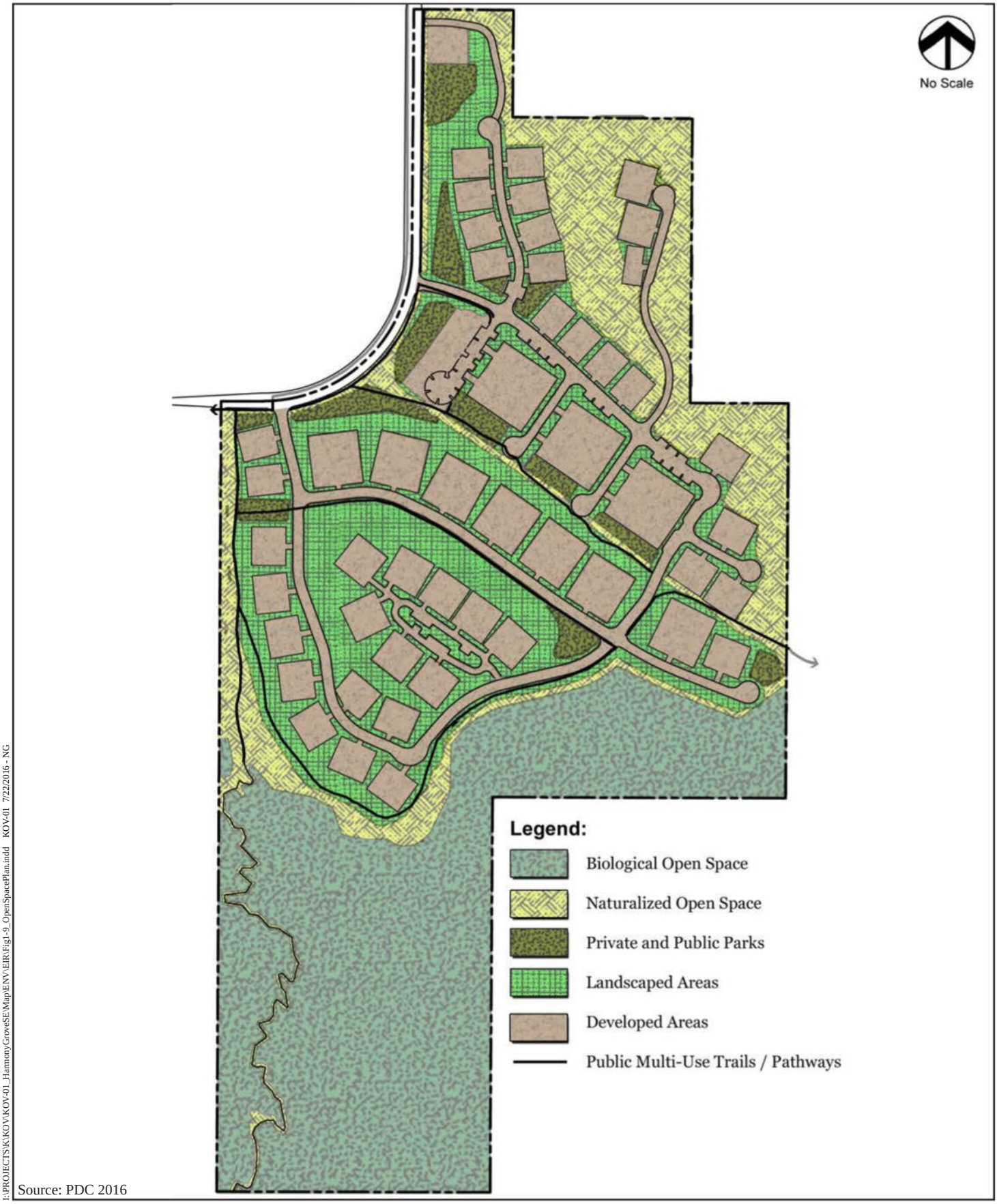

Source: PDC 2016

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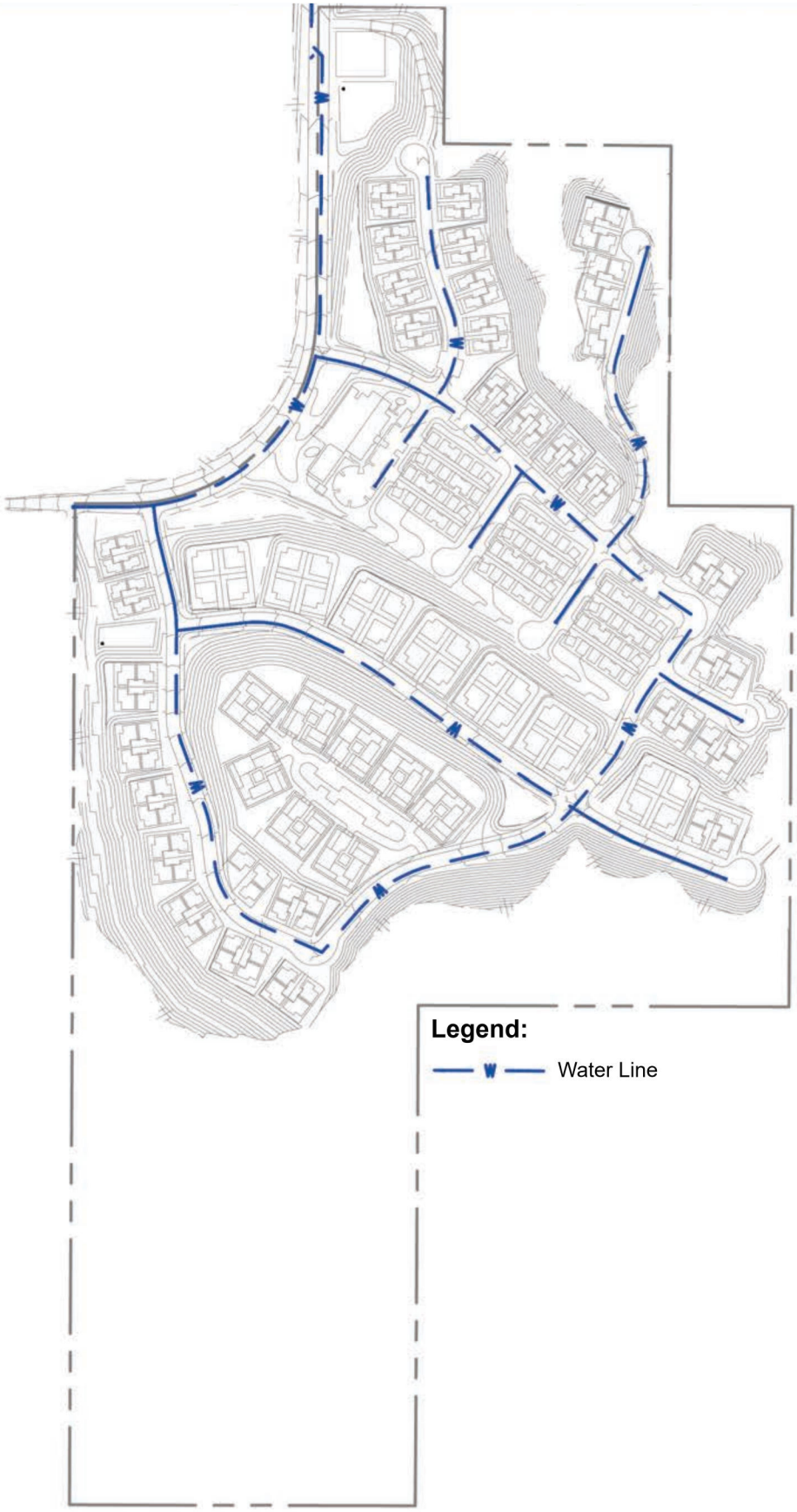
Open Space Plan

HARMONY GROVE VILLAGE SOUTH

Figure 1-9

HELIX Environmental Planning



Source: PDC 2015

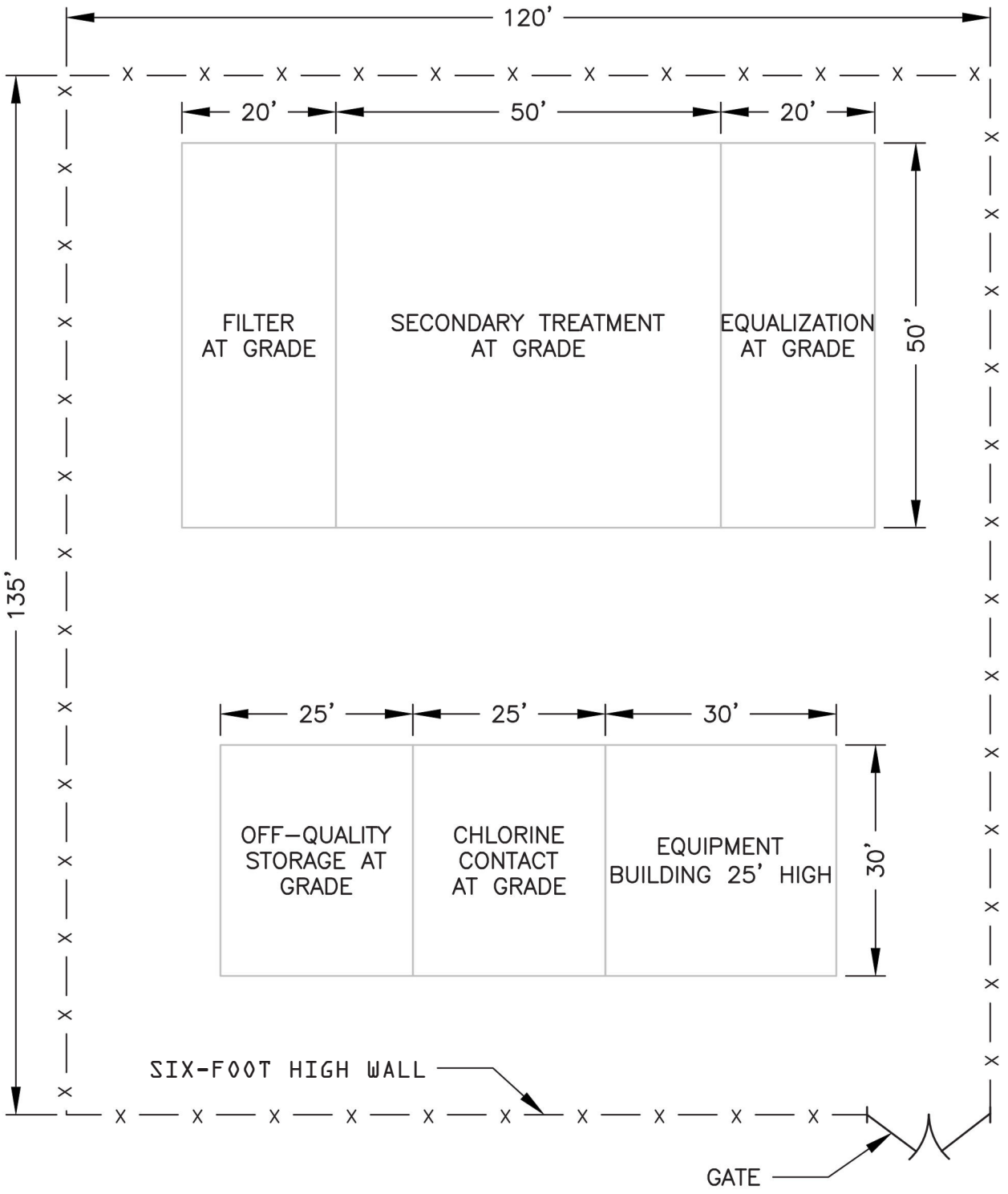
Conceptual Potable Water Plan

HARMONY GROVE VILLAGE SOUTH

Figure 1-10

HELIX Environmental Planning

I:\PROJECTS\K\KOV\KOV-01_HarmonyGroveSE\Map\ENV\EIR\Fig1-10_PotableWaterPlan.indd KOV-01 03/11/15 -KF



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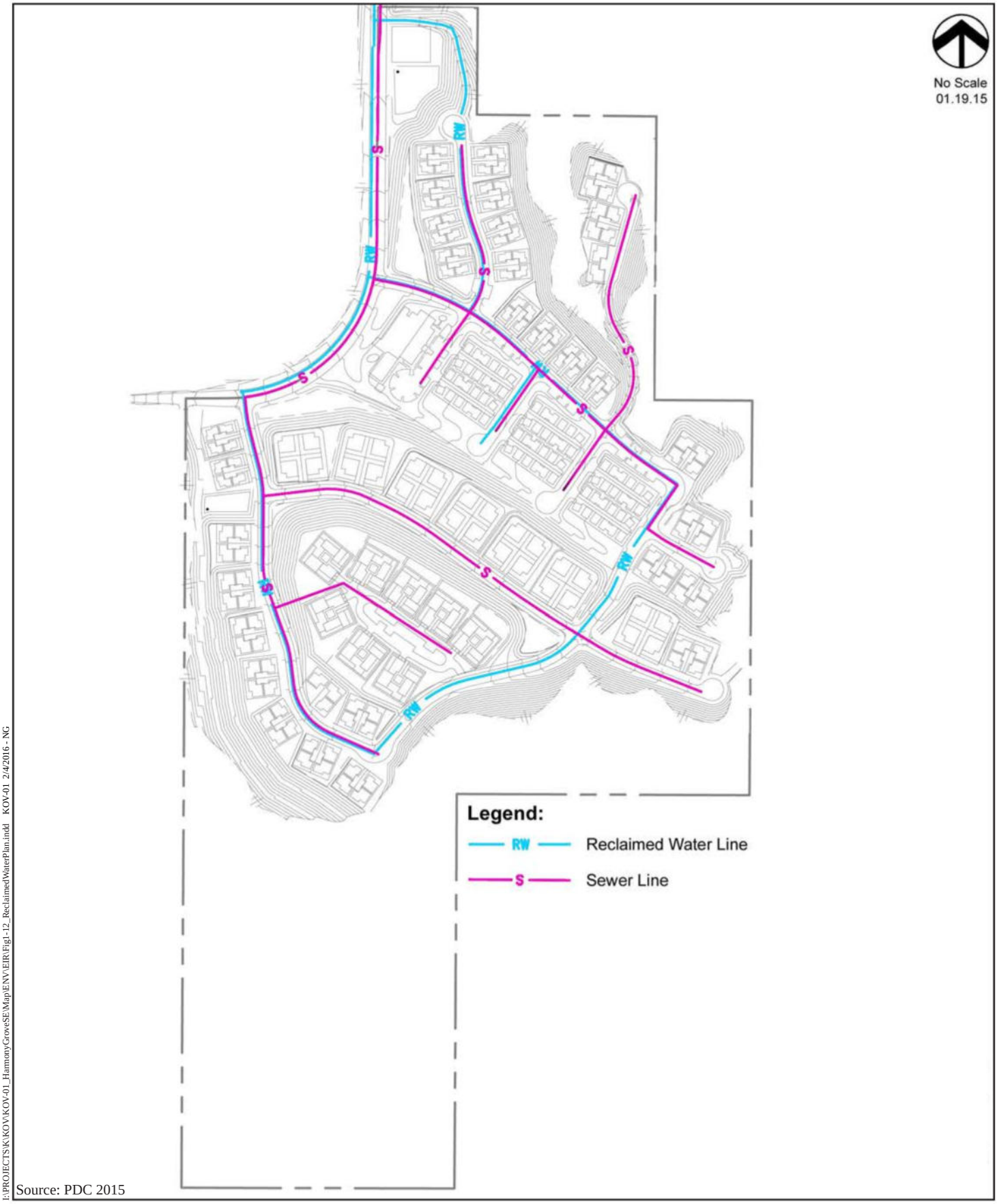
Source: Dexter Wilson Engineering, Inc. 2015

Footprint for Maximum Aeromod Facility

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

Figure 1-11



Source: PDC 2015

Conceptual Reclaimed Water and Sewer Plan

HARMONY GROVE VILLAGE SOUTH

Figure 1-12

HELIX Environmental Planning

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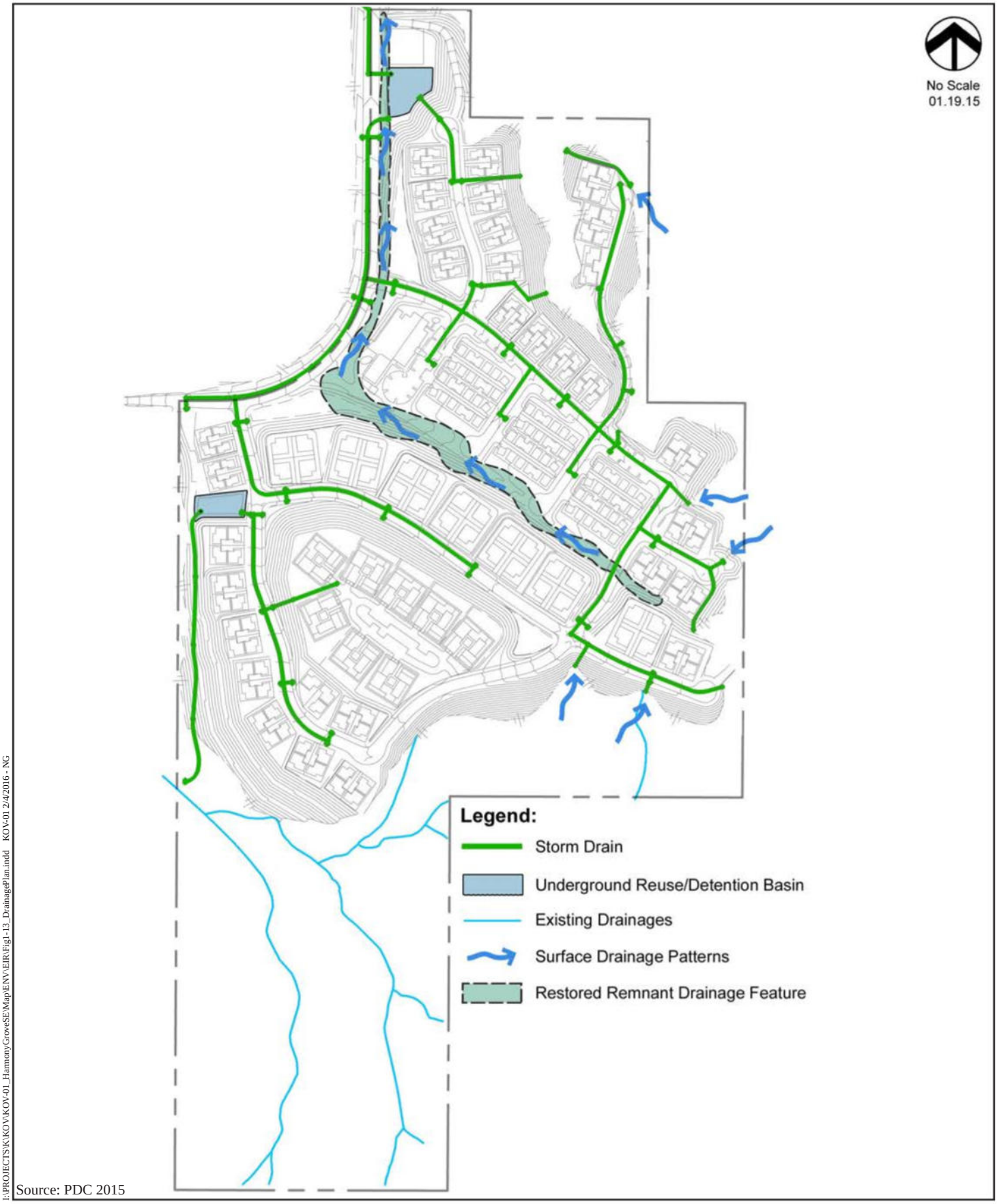


I:\PROJECTS\K\KOV\KOV-01_HarmonyGroveSE\Map\ENV\EIR\Fig1-13_DrainagePlan.indd KOV-01 2/4/2016 - NG

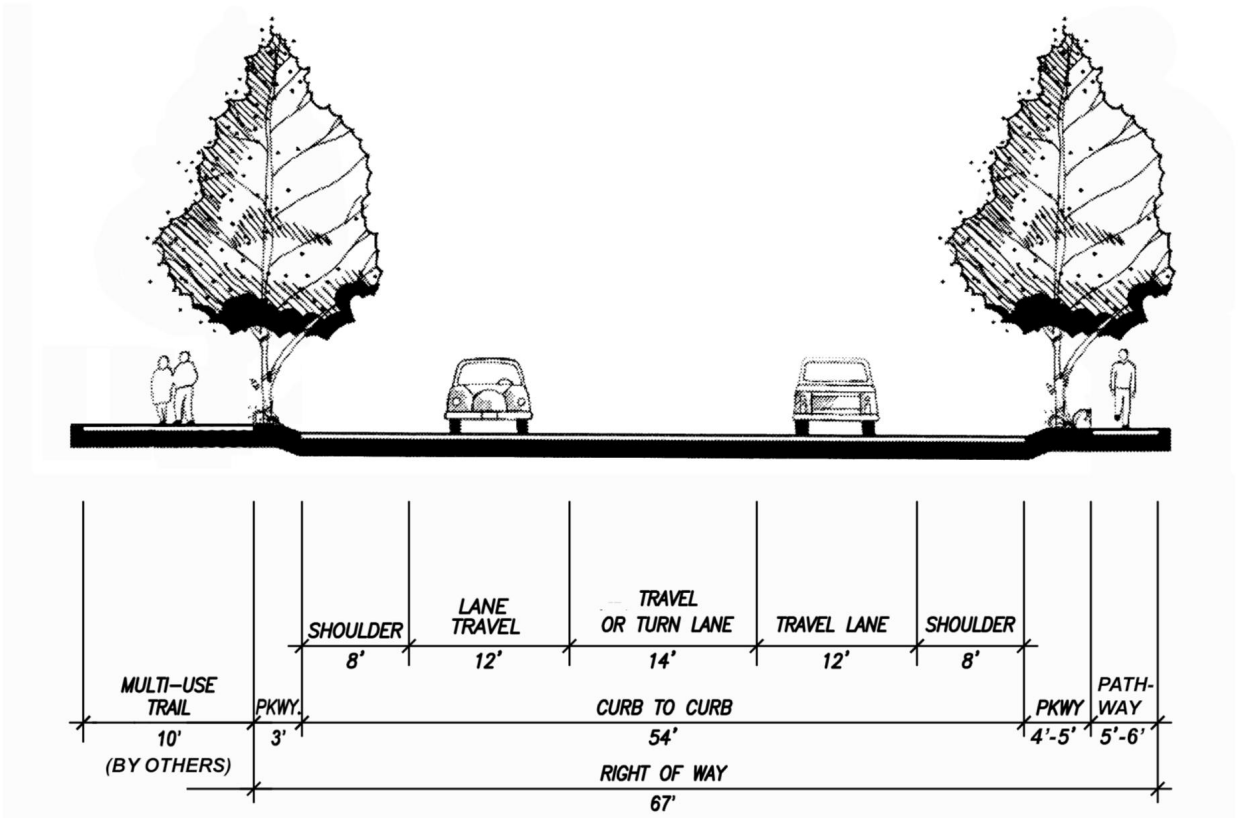
Source: PDC 2015

Conceptual Drainage Plan

HARMONY GROVE VILLAGE SOUTH

Figure 1-13

HELIX Environmental Planning



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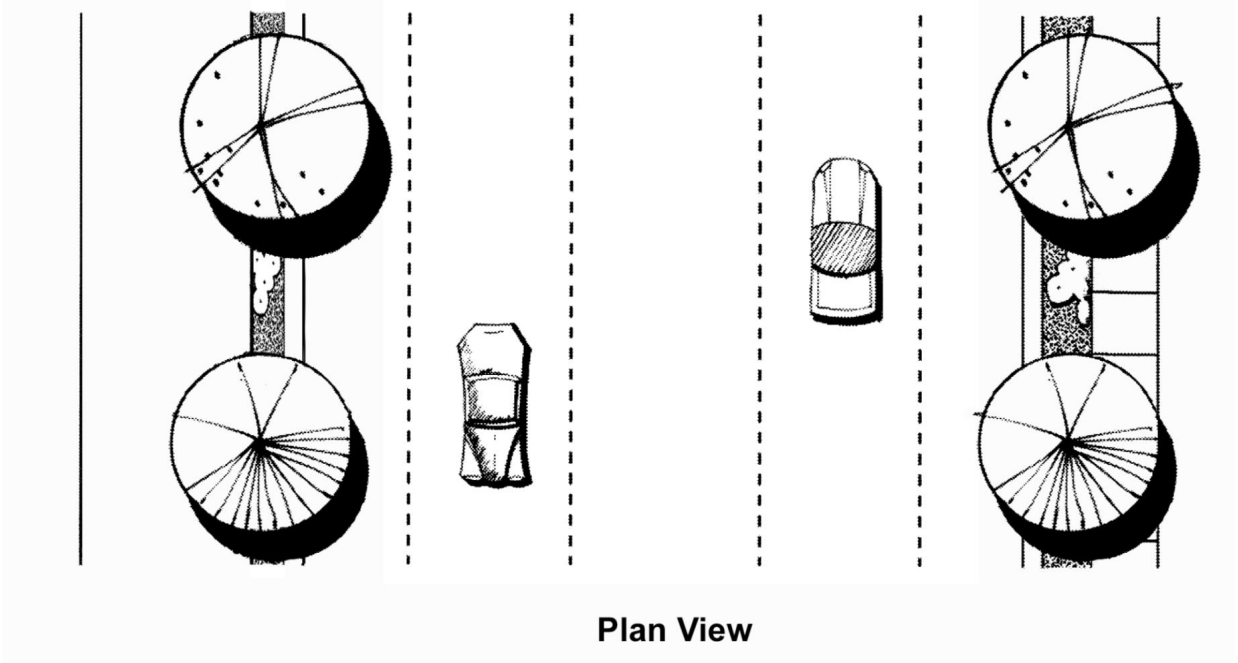

Plan View

Source: PDC 2018

Country Club Drive - Public Enhanced Residential Collector

HARMONY GROVE VILLAGE SOUTH

Figure 1-14a

HELIX Environmental Planning

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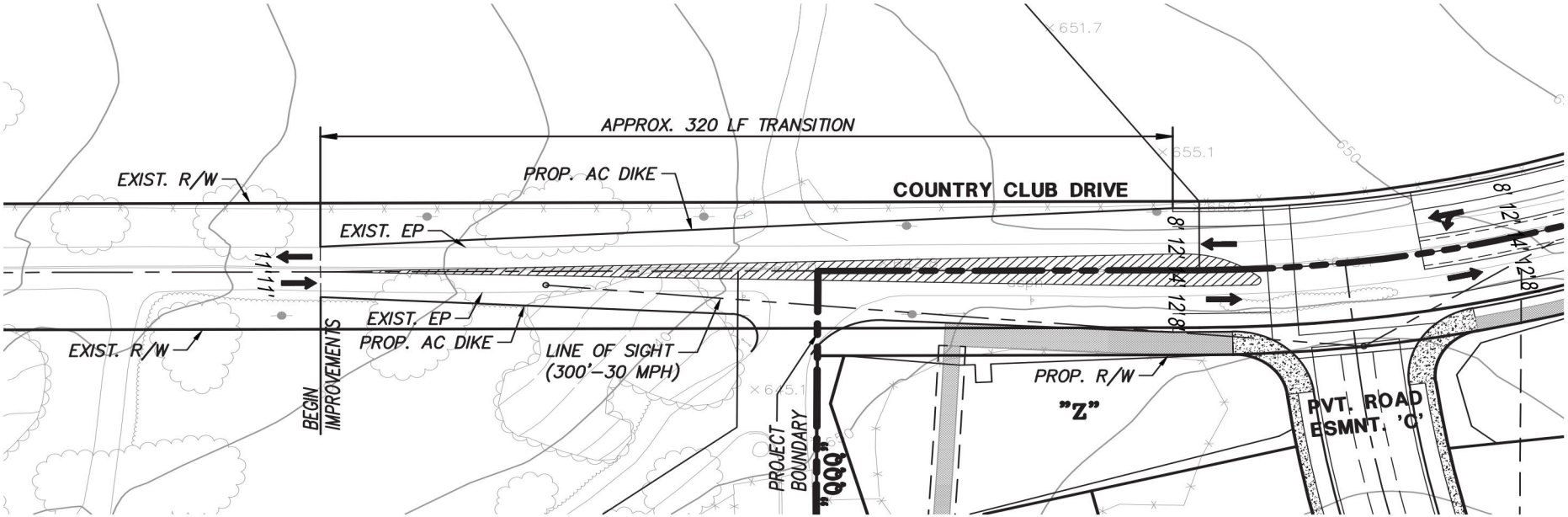

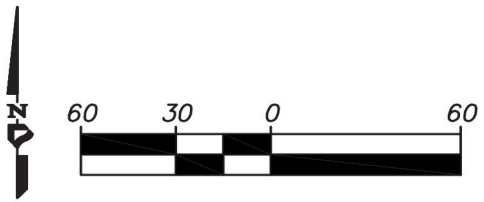

Source: PDC 2016

Country Club Drive Transition from Three to Two Lanes South of Project Entry

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

Figure 1-14b

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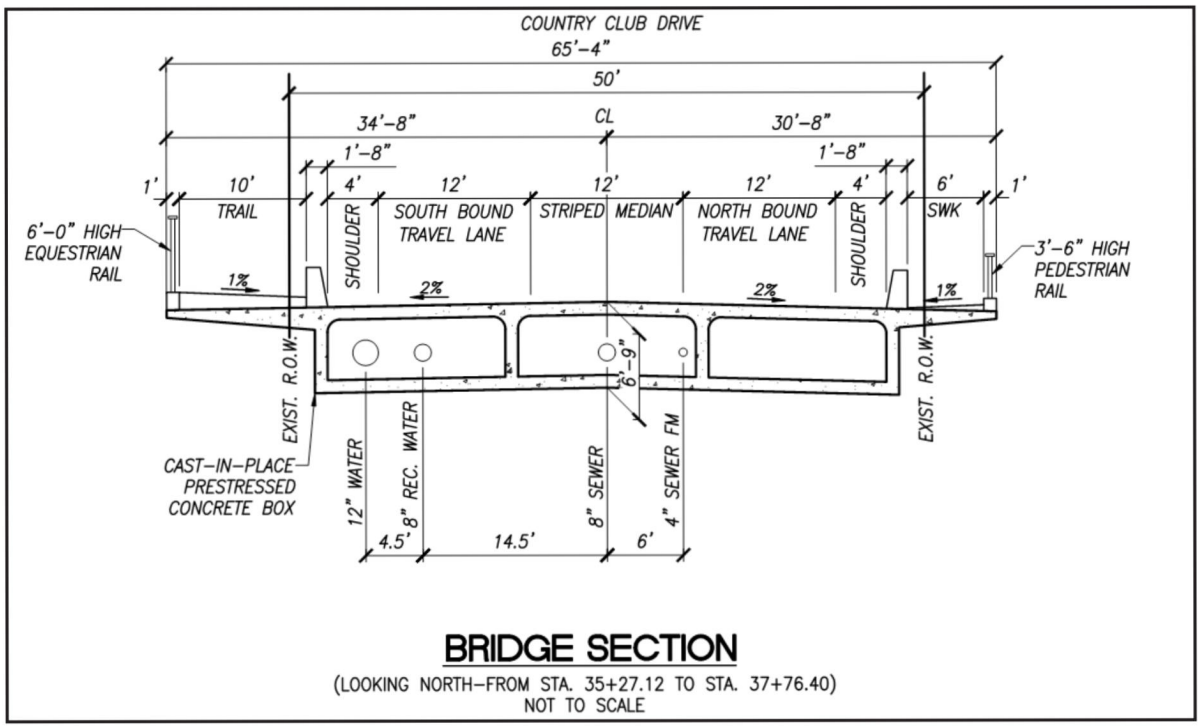

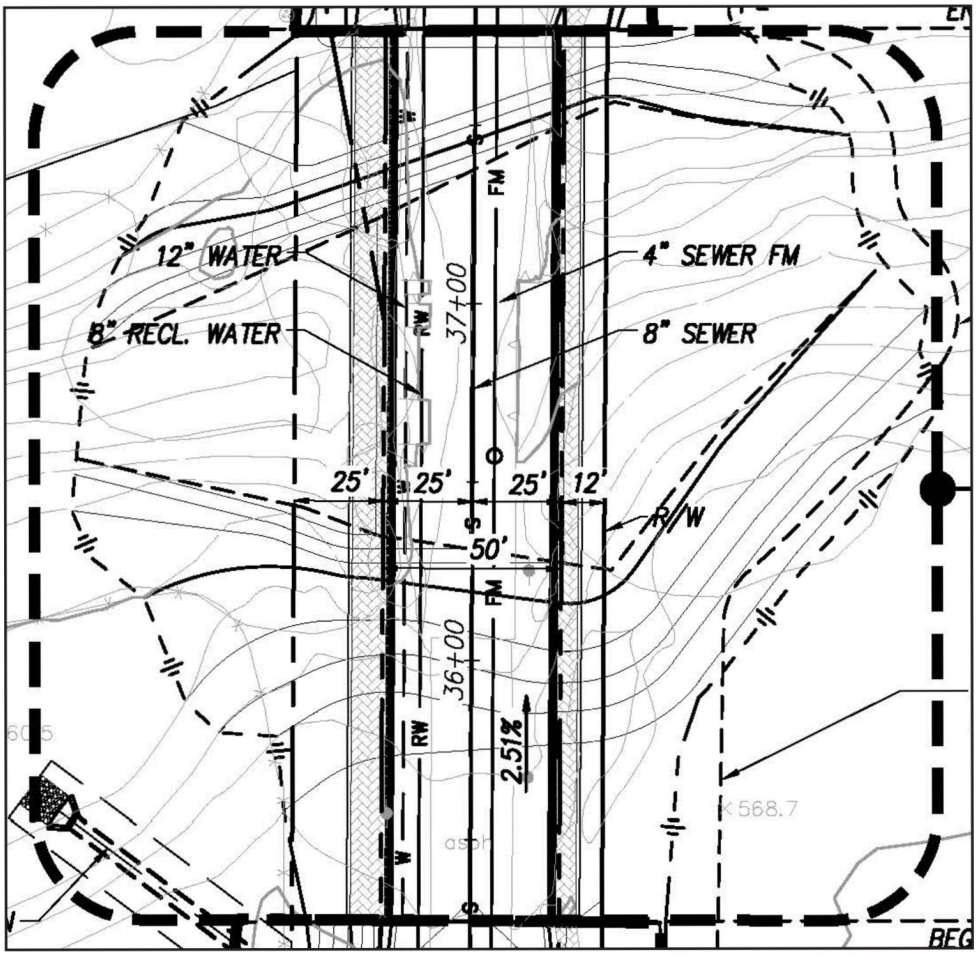

Source: PDC 2016

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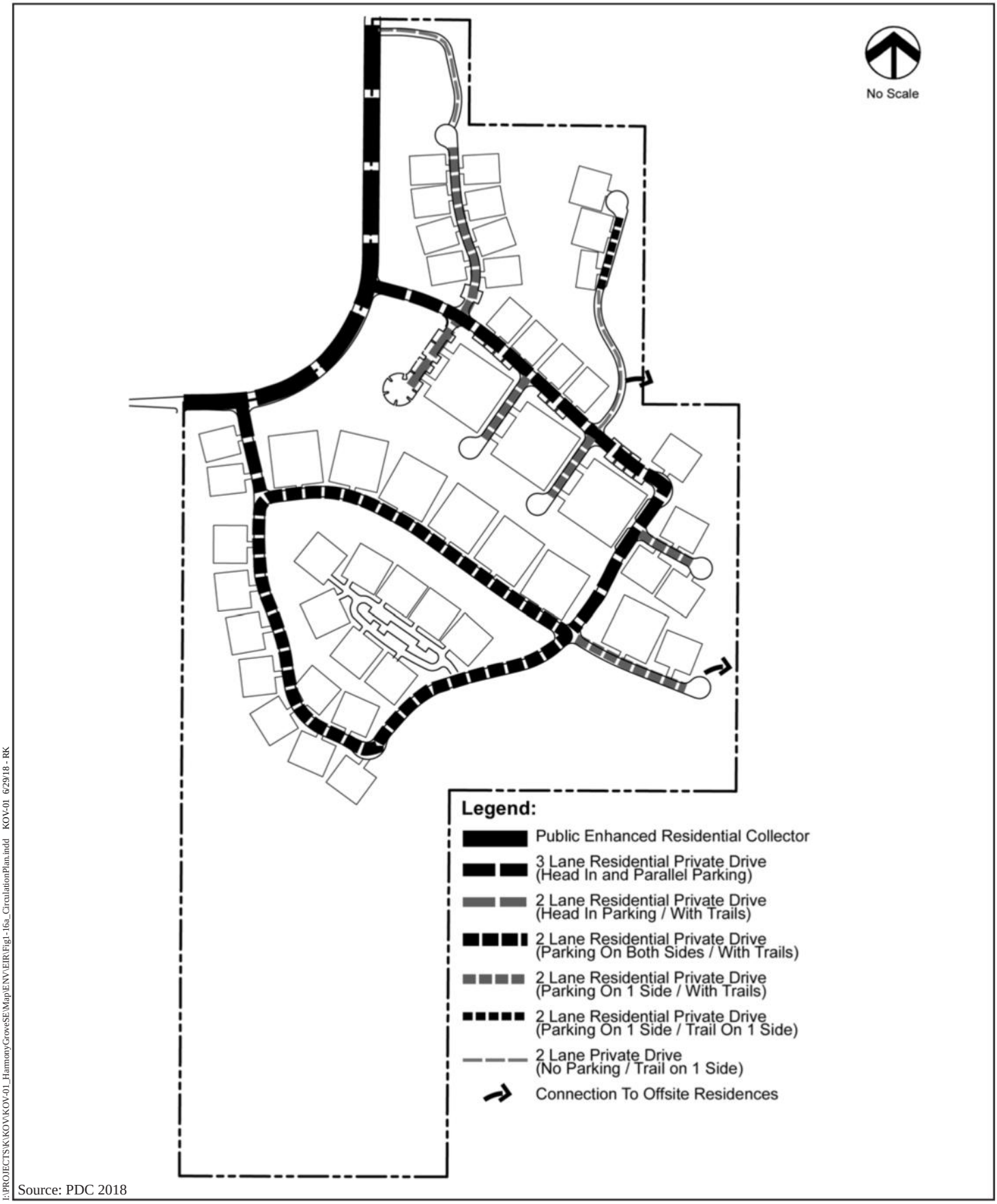
Escondido Creek Bridge Schematic

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

Figure 1-15



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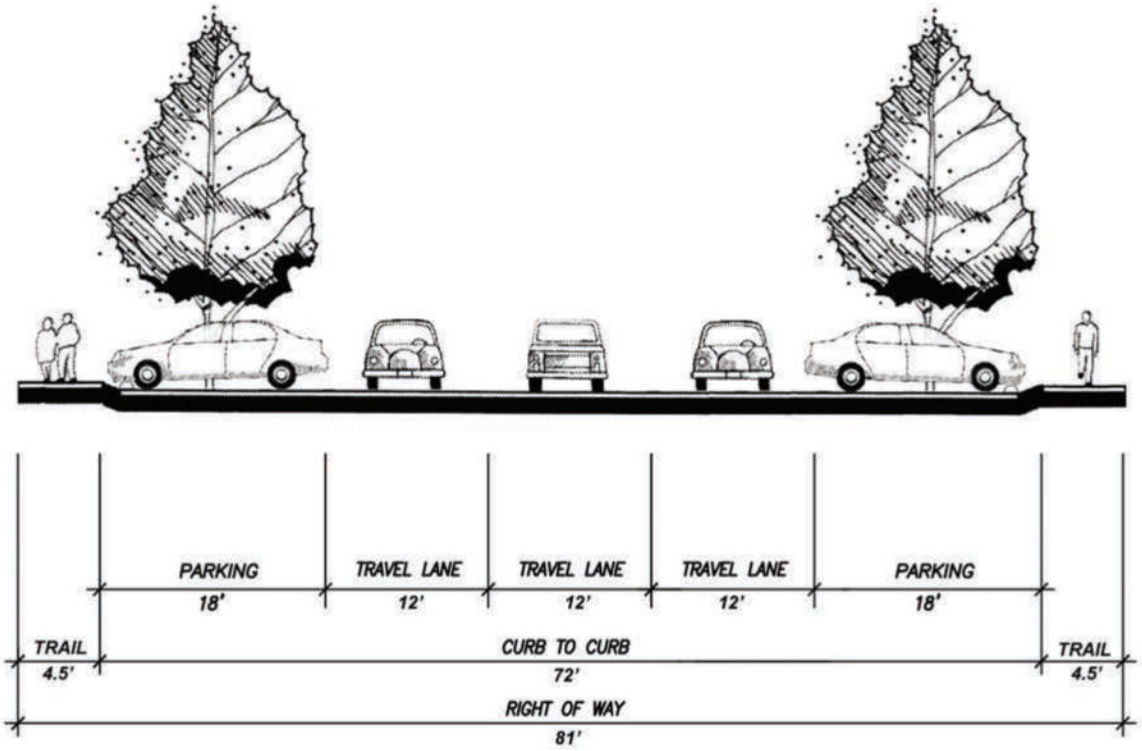
Source: PDC 2018

Circulation Plan

HARMONY GROVE VILLAGE SOUTH

Figure 1-16a

HELIX Environmental Planning



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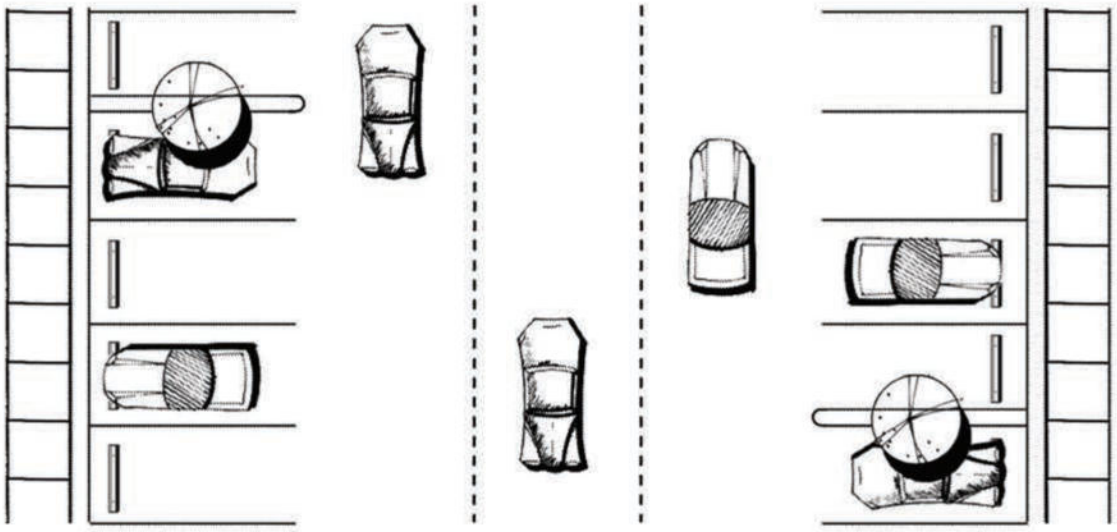

Plan View

Source: PDC 2018

Three-lane Private Drive, Head-in Parking

HARMONY GROVE VILLAGE SOUTH

Figure 1-16b

HELIX Environmental Planning

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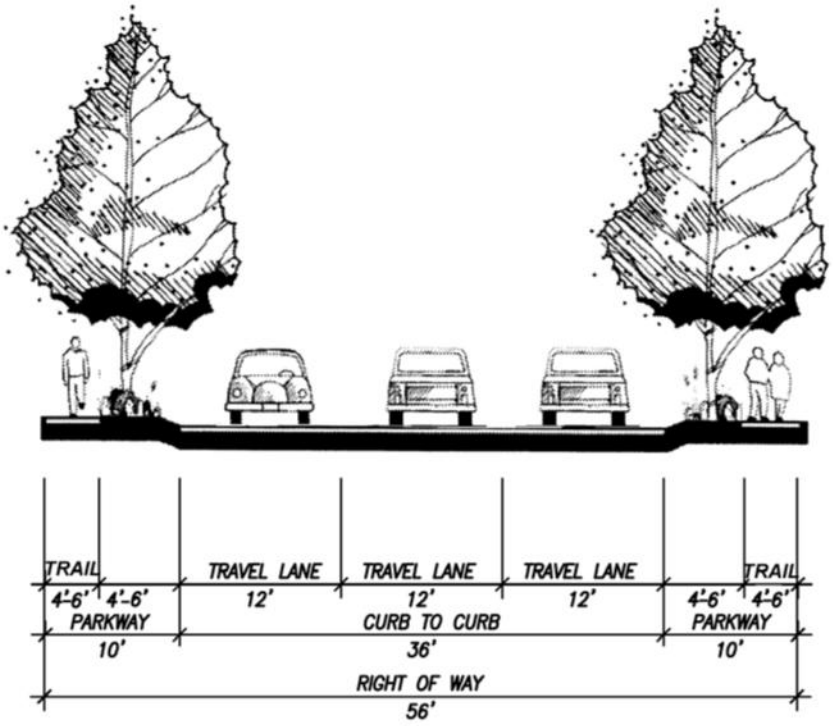

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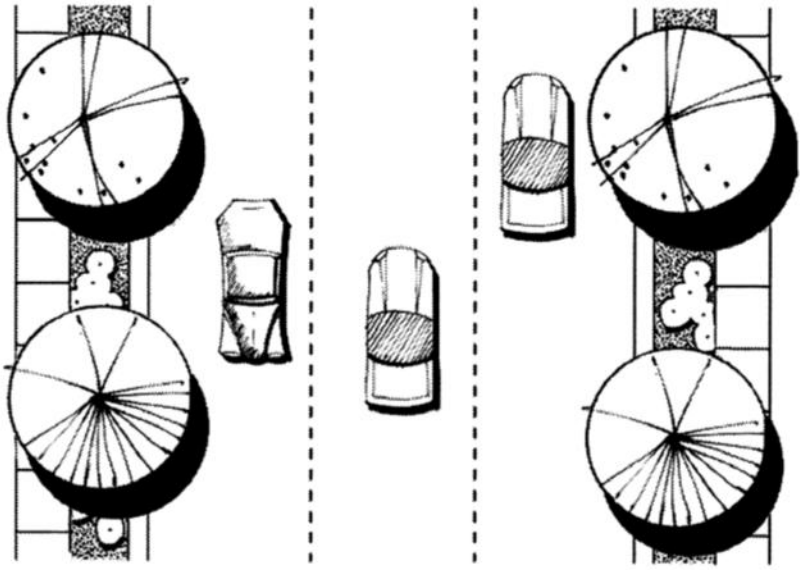

Plan View

Source: PDC 2016

Three-lane Residential Private Drive

HARMONY GROVE VILLAGE SOUTH

Figure 1-16c

HELIX Environmental Planning

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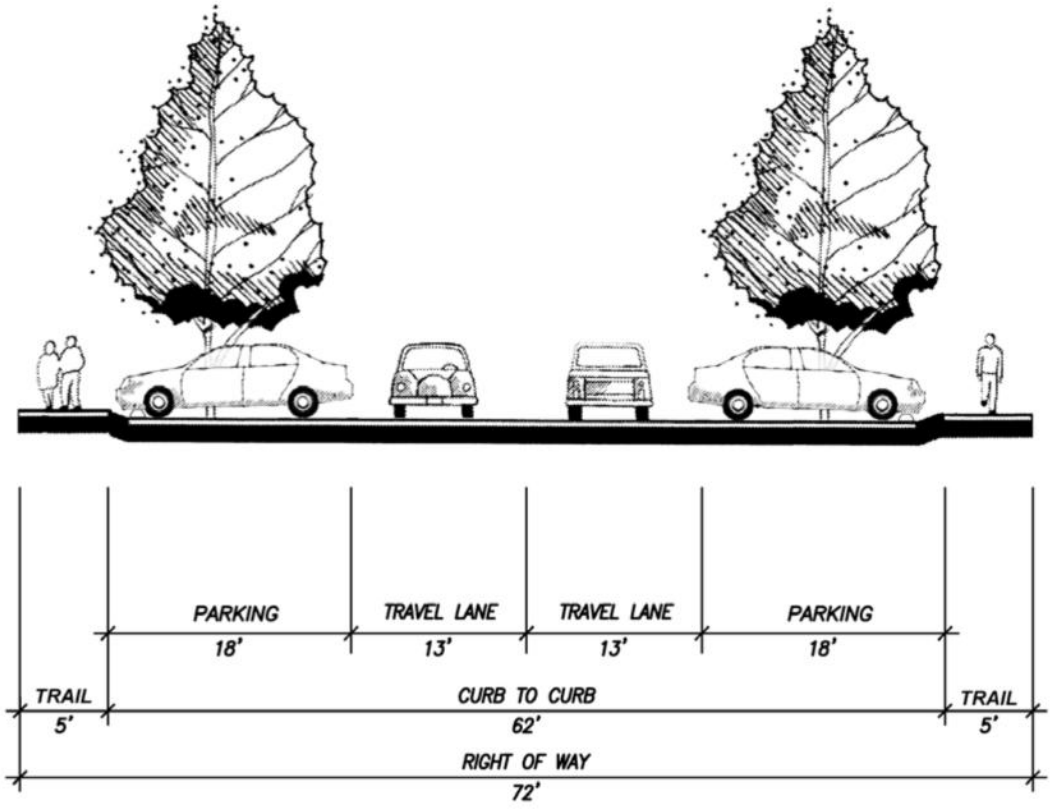
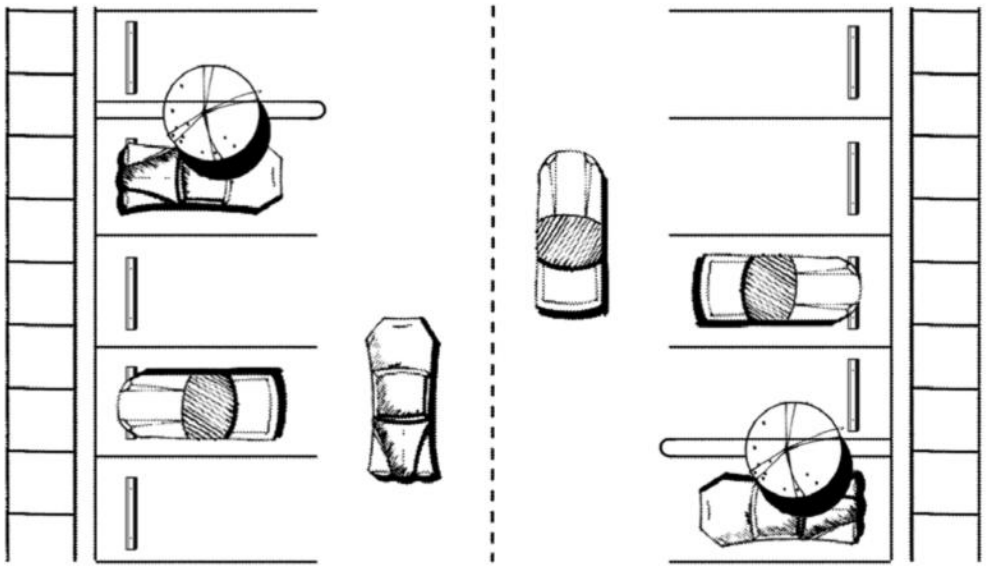


Cross Section



Plan View

Source: PDC 2016

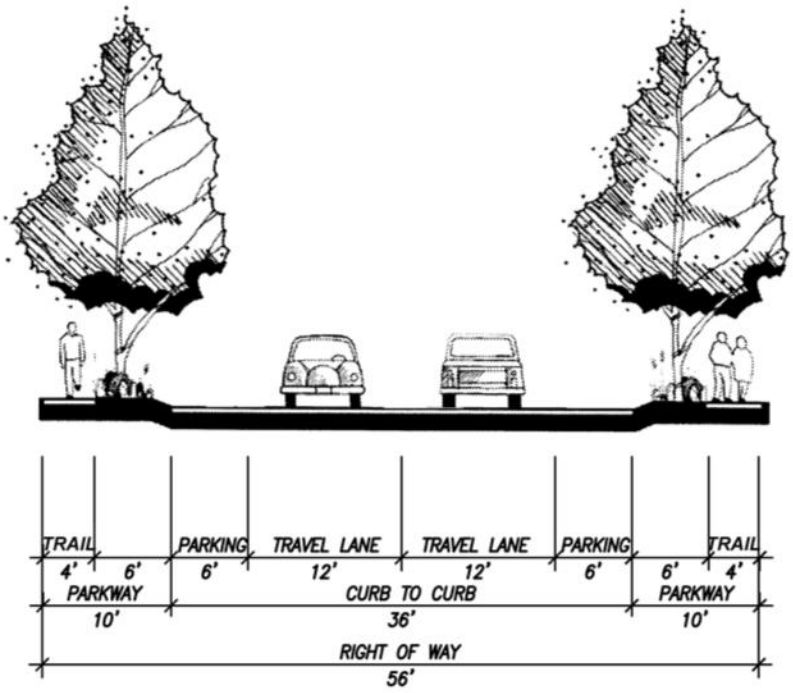
Two-lane Private Drive, Head-in Parking

HARMONY GROVE VILLAGE SOUTH

Figure 1-16d

HELIX Environmental Planning

I:\PROJECTS\K\KOV\KOV-01_HarmonyGroveSE\Map\ENV\EIR\Fig1-16d_TwoLanePrivateDrive_Headin.indd KOV-01 2/4/2016 - NG



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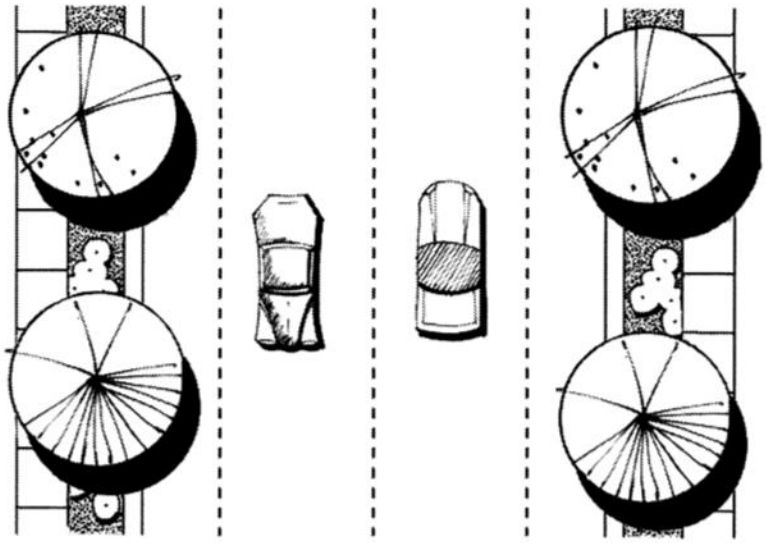


Plan View

Source: PDC 2016

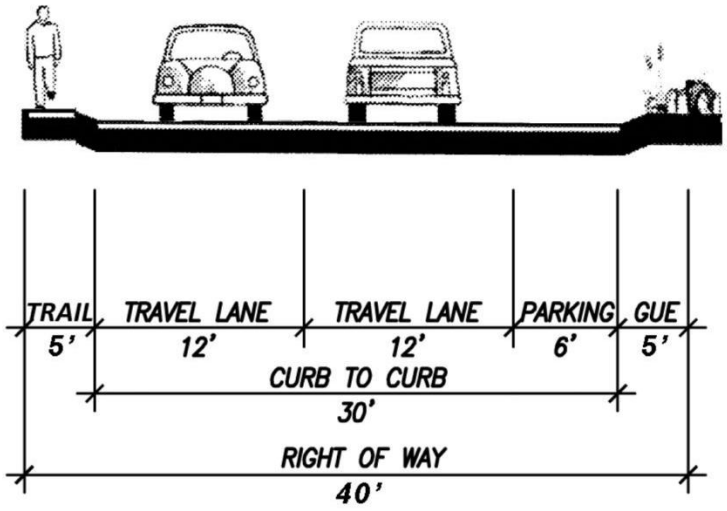
Two-lane Residential Private Drive - Parking on Both Sides

HARMONY GROVE VILLAGE SOUTH

Figure 1-16e

HELIX Environmental Planning

I:\PROJECTS\K\KOV\KOV-01_HarmonyGroveSE\Map\ENV\EIR\Fig1-16e_TwoLanePrivateDrive.indd KOV-01 2/4/2016 - NG



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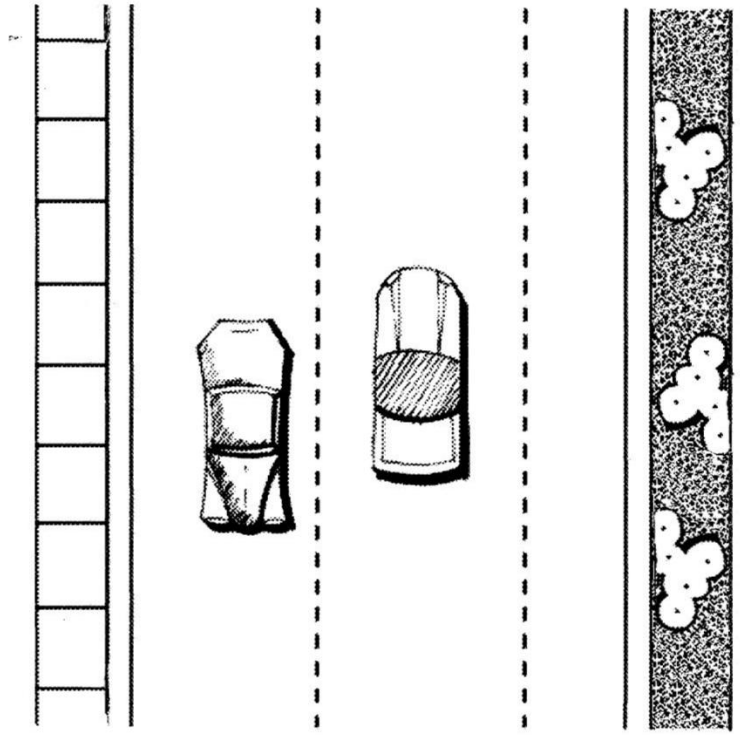


Plan View

Source: PDC 2018

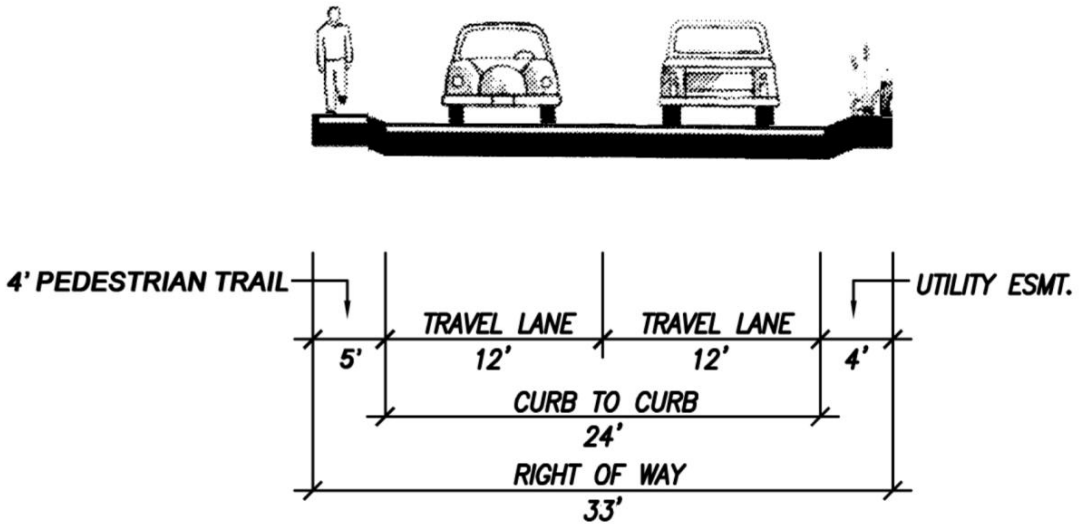
Two-lane Residential Private Drive - Parking and Trail on One Side

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

Figure 1-16f

I:\PROJECTS\K\KOV\KOV-01_HarmonyGroveSE\Map\ENV\EIR\Fig1-16f_TwoLanePrivateDrive.indd KOV-01 6/29/18 - RK



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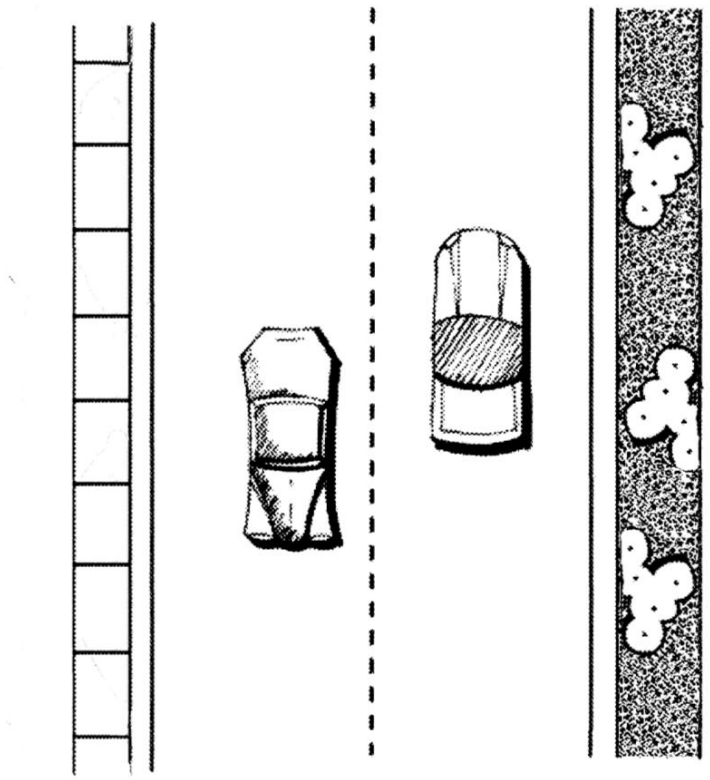


Plan View

Source: PDC 2018

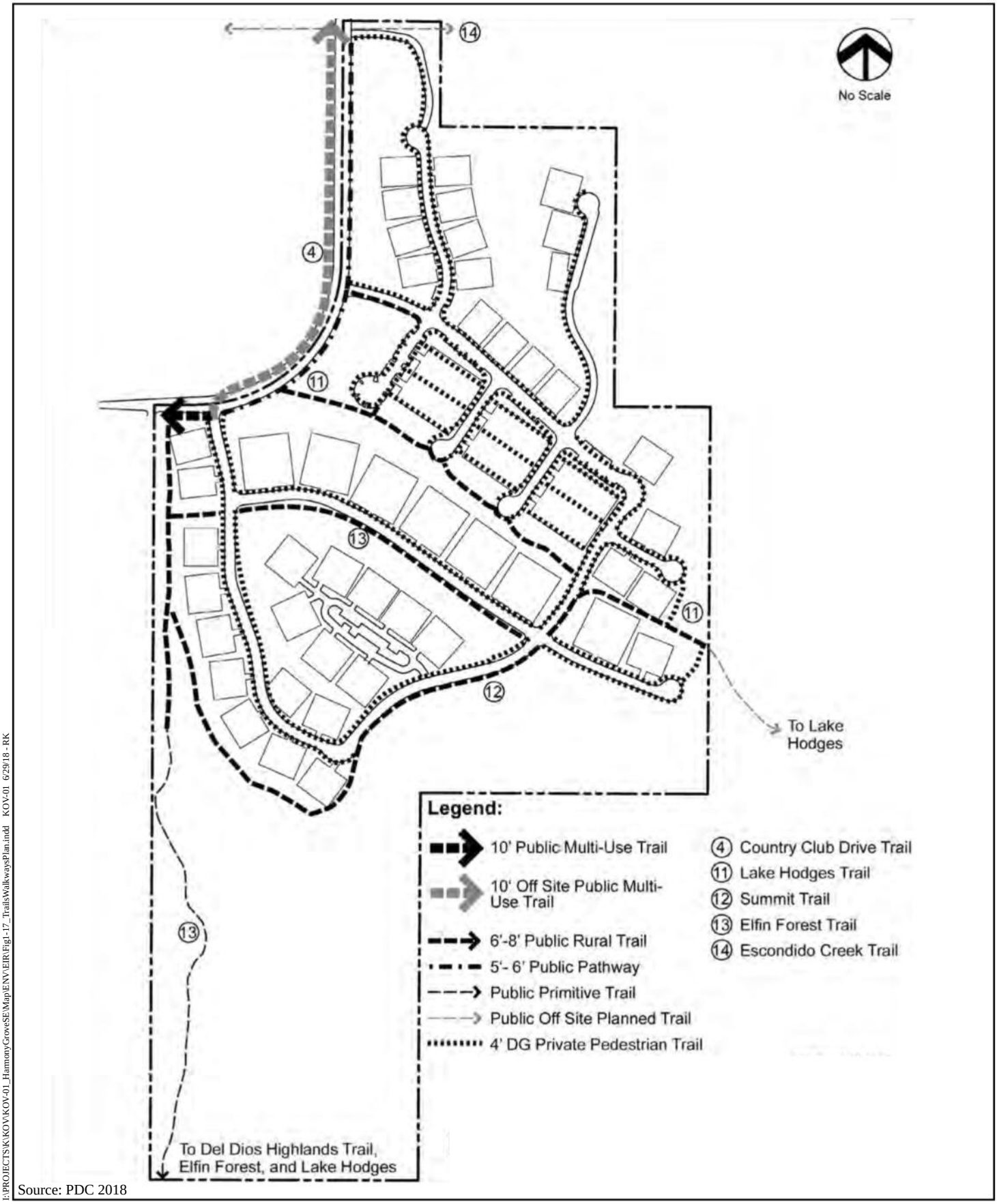
I:\PROJECTS\K\KOV\KOV-01_HarmonyGroveSE\Map\ENV\EIR\Fig1-16g_TwoLanePrivateDrive.indd KOV-01 6/29/18 - RK

Two-lane Residential Private Drive No Parking and Trail on One Side

HARMONY GROVE VILLAGE SOUTH

Figure 1-16g

HELIX Environmental Planning



I:\PROJECTS\KOVKOV-01_HarmonyGroveSE\Map\ENV\EIR\Fig1-17_TrailsWalkwaysPlan.indd KOV-01 6/29/18 - RK

Source: PDC 2018

Trails and Pathways Plan

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

Figure 1-17

Source: PDC 2016

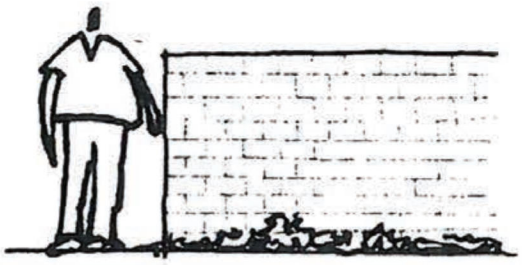
I:\PROJECTS\KOV\KOV-01_HarmonyGroveSE\Map\ENV\EIR\Fig1-18_VisitorParkingPlan.indd KOV-01 2/4/2016 - NG

Visitor Parking Plan

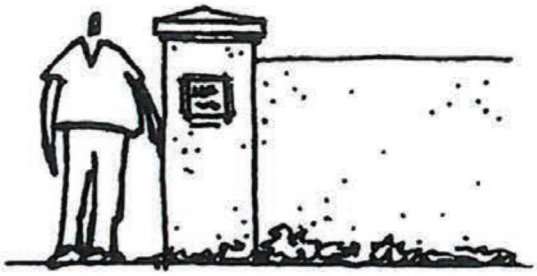
HARMONY GROVE VILLAGE SOUTH

Figure 1-18

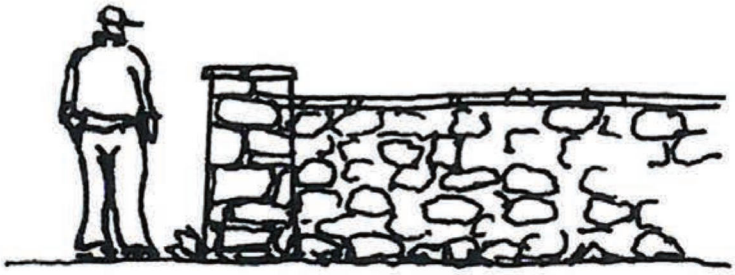
HELIX Environmental Planning



MASONRY WALL

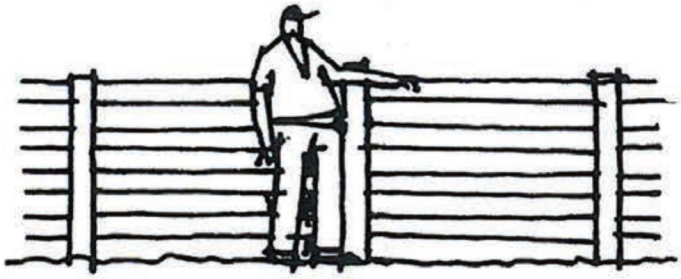


MASONRY WALL WITH STUCCO

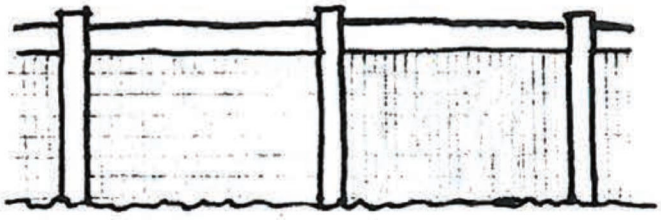


STONE WALL

PICKET FENCE



POST AND RAIL FENCE



POST AND MESH FENCE

Source: PDC 2016

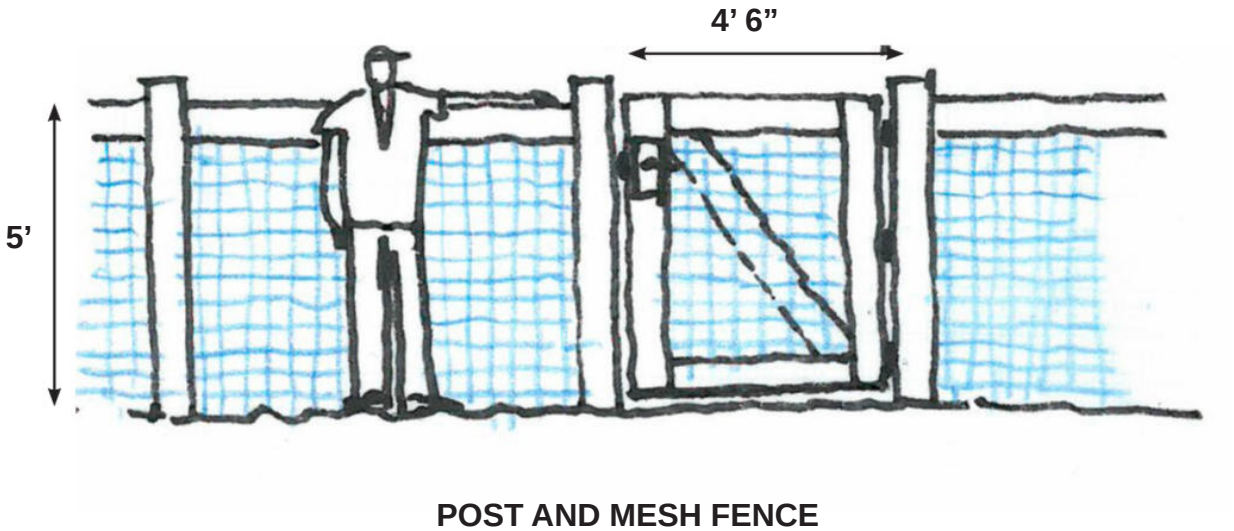
I:\PROJECTS\K\KOV\KOV-01_HarmonyGroveSE\Map\ENV\EIR\Fig1-19a_WallFenceTypicals.indd KOV-01 2/29/2016 - NG

Wall and Fence Typicals - A

HARMONY GROVE VILLAGE SOUTH

Figure 1-19a

HELIX Environmental Planning



POST AND MESH FENCE
WITH GATE AT DOG PARK

Source: PDC 2016

Wall and Fence Typicals - B

HARMONY GROVE VILLAGE SOUTH

Figure 1-19b

HELIX Environmental Planning

I:\PROJECTS\K\KOV\KOV-01_HarmonyGroveSE\Map\ENV\EIR\Fig1-19b_WallFence_DogPark.indd KOV-01 2/29/2016 - NG

Source: PDC 2016

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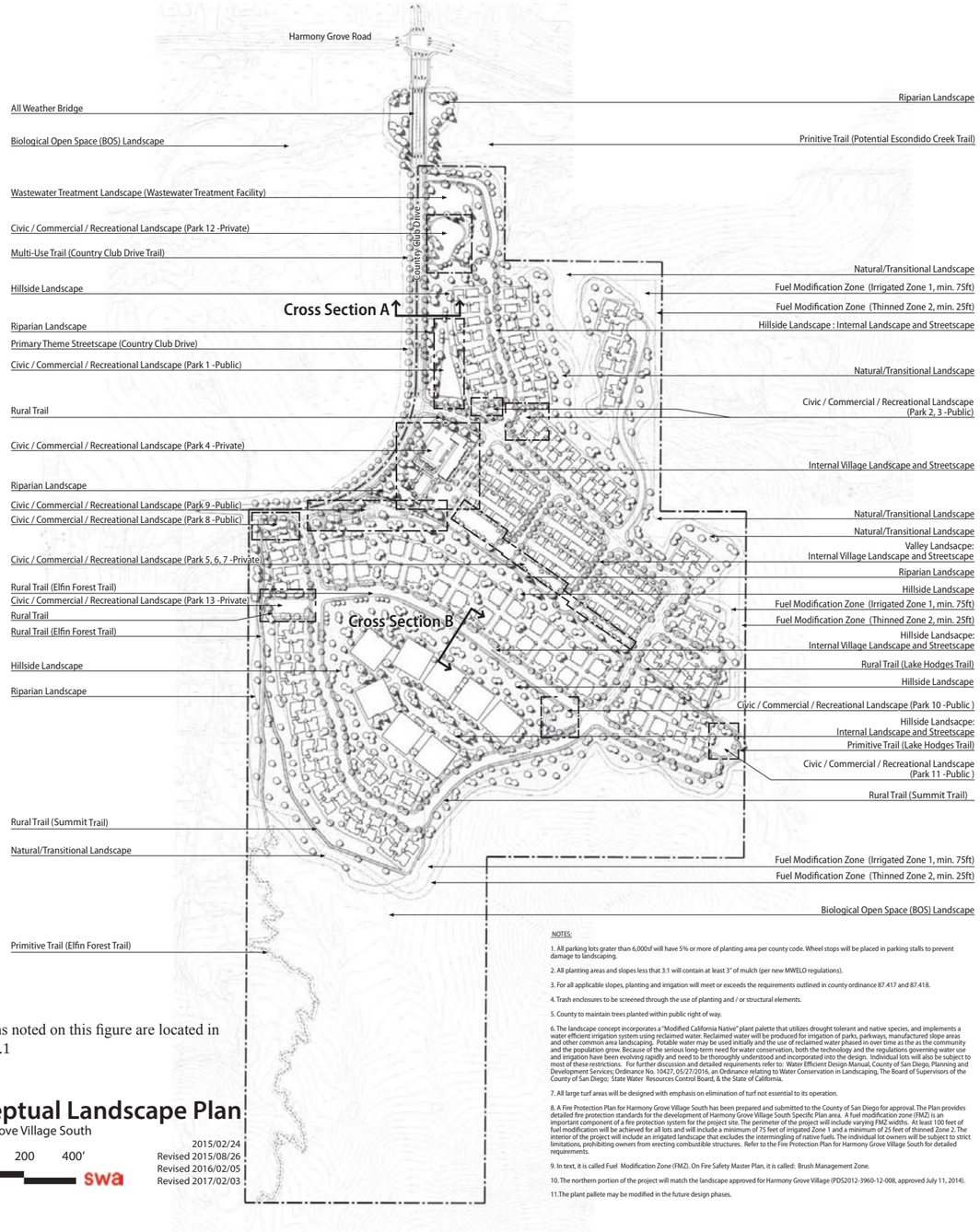
Project Landscape Zones

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

Figure 1-20a



NOTES:

1. All parking lots grater than 6,000sf will have 5% or more of planting area per county code. Wheel stops will be placed in parking stalls to prevent damage to landscaping.

2. All planting areas and slopes less that 3:1 will contain at least 3" of mulch (per new MWELO regulations).

3. For all applicable slopes, planting and irrigation will meet or exceeds the requirements outlined in county ordinance 87.417 and 87.418.

4. Trash enclosures to be screened through the use of planting and / or structural elements.

5. County to maintain trees planted within public right of way.

6. The landscape concept incorporates a "Modified California Native" plant palette that utilizes drought tolerant and native species, and implements a water efficient irrigation system using reclaimed water. Reclaimed water will be produced for irrigation of parks, parkways, manufactured slope areas and other common area landscaping. Potable water may be used initially and the use of reclaimed water phased in over time as the as the community and the population grow. Because of the serious long-term need for water conservation, both the technology and the regulations governing water use and irrigation have been evolving rapidly and need to be thoroughly understood and incorporated into the design. Individual lots will also be subject to most of these restrictions. For further discussion and detailed requirements refer to: Water Efficient Design Manual, County of San Diego, Planning and Development Services; Ordinance No. 10427, 05/27/2016, an Ordinance relating to Water Conservation in Landscaping, The Board of Supervisors of the County of San Diego; State Water Resources Control Board, & the State of California.

7. All large turf areas will be designed with emphasis on elimination of turf not essential to its operation.

8. A Fire Protection Plan for Harmony Grove Village South has been prepared and submitted to the County of San Diego for approval. The Plan provides detailed fire protection standards for the development of Harmony Grove Village South Specific Plan area. A fuel modification zone (FMZ) is an important component of a fire protection system for the project site. The perimeter of the project will include varying FMZ widths. At least 100 feet of fuel modification will be achieved for all lots and will include a minimum of 75 feet of irrigated Zone 1 and a minimum of 25 feet of thinned Zone 2. The interior of the project will include an irrigated landscape that excludes the intermingling of native fuels. The individual lot owners will be subject to strict limitations, prohibiting owners from erecting combustible structures. Refer to the Fire Protection Plan for Harmony Grove Village South for detailed requirements.

9. In text, it is called Fuel Modification Zone (FMZ). On Fire Safety Master Plan, it is called: Brush Management Zone.

10. The northern portion of the project will match the landscape approved for Harmony Grove Village (PDS2012-3960-12-008, approved July 11, 2014).

11.The plant pallete may be modified in the future design phases.

Cross-sections noted on this figure are located in Subchapter 2.1

Conceptual Landscape Plan

Harmony Grove Village South

0 200 400'

swa

2015/02/24
Revised 2015/08/26
Revised 2016/02/05
Revised 2017/02/03

Source: SWA 2017

Trees

1. Valley Landscape

• Primary Theme Streetscape (Country Club Drive)

The primary streetscape tree is the California Pepper. It is to be planted in formal rows, occasionally interrupted with small groves of Oak, Sycamore, and Brisbane box. Permanent irrigation is required. Acceptable species include but are not limited to:

Botanical Name	Common Name	Container Size Range
Schinus molle	California Pepper	24" Box, 36" Box
Quercus species	Oak	36" Box, 48" Box
Platanus racemosa	California Sycamore	36" Box, 48" Box
Lophostemon conferta	Brisbane Box	24" Box, 36" Box

• Internal Village Landscape and Streetscape

The internal landscape is to be planted with small to medium size specimens and canopy trees, primarily broadleaf evergreen in formal clusters in areas around buildings and in more formal rows along streets. Permanent irrigation is required. Acceptable species include but are not limited to:

Botanical Name	Common Name	Container Size Range
Agonis flexuosa	Peppermint Tree	24" Box, 36" Box
Arbutus unedo	Strawberry Tree	24" Box, 36" Box
Cinnamomum camphora	Camphor Tree	36" Box, 48" Box
Fraxinus angustifolia 'Raywood'	Ash	24" Box, 36" Box
Lagerstroemia species	Crape Myrtle	24" Box, 36" Box
Liquidambar styraciflua 'Festival'	American Sweetgum	36" Box, 48" Box
Magnolia grandiflora 'Majestic Beauty'	Southern Magnolia	36" Box, 48" Box
Quercus virginiana	Southern Live Oak	36" Box, 48" Box
Lophostemon conferta	Brisbane Box	24" Box, 36" Box

2. Hillside Landscape

Planting is to be done in informal groves with Brisbane box and evergreen canopy trees. Permanent irrigation is required. Acceptable species include but are not limited to:

• Hillside Landscape

Botanical Name	Common Name	Container Size Range
Geijera parviflora	Australian Willow	24" Box, 36" Box
Lophostemon conferta	Brisbane Box	24" Box, 36" Box
Platanus racemosa	California Sycamore	24" Box, 36" Box
Quercus agrifolia	Coast Live Oak	24" box, 36" Box
Rhus lancea	African Sumac	15 Gallon, 24"Box
Sambucus mexicana	Blue Elderberry	15 Gallon, 24"Box
Quercus virginia	Southern Live Oak	36" Box, 48" Box
Malmosa laurina	Laurel Sumac	15 Gallon, 24"Box
Heteromeles arbutifolia	Toyon	15 Gallon, 24"Box
Rhus integrifolia	Lemonade Berry	15 Gallon, 24"Box
Vitis variety	Grape	15 Gallon
Citrus variety	Lemon	24" Box, 36" Box
Punica granatum variety	Pomegranate	24" Box, 36" Box

• Internal Landscape and Streetscape

Botanical Name	Common Name	Container Size Range
Agonis flexuosa	Peppermint Tree	24" Box, 36" Box
Arbutus unedo	Strawberry Tree	24" Box, 36" Box
Fraxinus angustifolia 'Raywood'	Ash	24" Box, 36" Box
Lagerstroemia species	Crape Myrtle	24" Box, 36" Box
Quercus virginiana	Southern Live Oak	36" Box, 48" Box
Lophostemon conferta	Brisbane Box	24" Box, 36" Box

3. Riparian Landscape

Mostly newly-planted drainage and detention areas contain sycamore, oaks, poplars, other appropriate small trees, shrubs and groundcovers. Permanent irrigation is required. Acceptable species include but are not limited to:

Botanical Name	Common Name	Container Size Range
Alnus rhombifolia	White Alder	15 Gallon, 24"Box
Laurus nobilis	Sweet Bay	24" Box
Platanus racemosa	California Sycamore	24" Box, 36"Box
Populus fremontii	Western Cottonwood	15 Gallon, 24"Box
Quercus agrifolia	Coast Live Oak	24" Box, 36"Box
Salix species	Willow	15 Gallon
Sambucus mexicana	Blue Elderberry	15 Gallon, 24"Box

4. Natural/Transitional Landscape

• Transition Landscape

Generally, these are plantings with lower growing trees that are native or indigenous and blend with natural or more ornamental landscapes. Temporary or permanent irrigation is required. Acceptable species include but are not limited to:

Botanical Name	Common Name	Container Size Range
Hetermoeles arbutifolia	Toyon	15 Gallon, 24"Box
Malosma laurina	Laurel Sumac	15 Gallon, 24"Box
Quercus species	Oak	15 Gallon, 24"Box
Rhus integrifolia	Lemonade Berry	15 Gallon, 24"Box

• Natural Landscape

Vegetation in these areas are primarily grasses and Coastal Sage Chaparral habitat

5. Civic / Commercial / Recreational Landscape

The Special Use Areas contain an informal and eclectic mix of treeforms, shrubs, and groundcovers including agricultural landscape features to provide a rich setting and backdrop for ongoing functions. Permanent irrigation is required. Acceptable species include but are not limited to:

Botanical Name	Common Name	Container Size Range
Schinus molle	California Pepper	24" Box, 36"Box
Ginkgo biloba (male trees)	Maidenhair Tree	24" Box, 36"Box
Magnolia grandiflora	Southern Magnolia	36" Box, 48" Box
Quercus suber	Cork Oak	36" Box, 48" Box
Vitis variety	Grape	15 Gallon
Citrus variety	Lemon	24" Box, 36"Box
Punica granatum variety	Pomegranate	24" Box, 36"Box

6. Wastewater Treatment Landscape

To help disguise the wastewater treatment use, a screening landscape will be planted in informal clusters using both trees and large shrubs. Trees such as Brisbane box will be used in combination with native shrubs. An informal arrangement will provide buffering of the facilities while also blending with the character of the overall Harmony Grove Village South landscape. Permanent irrigation is required. Acceptable species include but are not limited to:

Botanical Name	Common Name	Container Size Range
Lophostemon conferta	Brisbane Box	24" Box, 36" Box
Platanus racemosa	California Sycamore	24" Box, 36" Box
Hetermoles arbutifolia	Toyon	15 Gallon, 24"Box
Malosma laurina	Laurel Sumac	15 Gallon, 24"Box

7. Biological Open Space (BOS) Landscape

Biological open space includes the Escondido Creek area (offsite) and the large biological open space to south which consists of southern mixed chaparral and a stand of mature California live oaks. These areas will remain largely undisturbed. Where restoration is needed, native plant species will be used to match the existing vegetation.

Shrubs, Vines, & Groundcover

Shrubs 3' - 8' Evergreen, Slope Control (Interior Slopes)

Botanical Name	Common Name	Container Size Range
Agave attenuata	Foxtail Agave	5 Gallon
Aloe strata	Coral Aloe	1 Gallon
Cistus x canescens	Rock Rose	1 Gallon
Cistus ladanifer maculatus	Brown-Eyed Rock Rose	1 Gallon
Heteromeles arbutifolia	Toyon	5 Gallon
Leptospermum scoparium 'Ruby Glow'	Ruby Glow New Zealand Tea Tree	5 Gallon
Rhus ovata	Sugar Bush	5 Gallon
Rhaphiolepis indica 'Ballerina'	Ballerina Indian Hawthorne	1 Gallon
Rosemarinus officinalis 'Tucson Blue'	Tuscan Blue Rosemary	1 Gallon
Salvia leucantha	Mexican Sage	1 Gallon
Salvia mellifera	Black Sage	1 Gallon

Groundcover - Evergreen, Slope Erosion Control (Interior Slopes)

Botanical Name	Common Name	Container Size Range
Baccharis pilularis 'Twin Peaks'	Dwarf Coyote Brush	50% 1 Gal/50% Flats@ 36" O.C.
Ceanothus griseus horiz yankee pt	Yankee Point Ceanothus	50% 1 Gal/50% Flats@ 36" O.C.
Myoporum parvifolium	Prostrate Myoporum	50% 1 Gal/50% Flats@ 36" O.C.
Rosmarinus officinalis 'Huntington Carpet'	Huntington Carpet	50% 1 Gal/50% Flats@ 36" O.C.

Groundcover - Evergreen, Slope Erosion Control (Exterior Slopes)

Container Plantings

Botanical Name	Common Name	Container Size Range
Artemisia palmeri	San Diego Sagewort	1 Gallon
Baccharis pilularis 'Twin Peaks'	Dwarf Coyote Brush	1 Gallon
Comarostaphylis diversifolia ssp.	Summer Holly	1 Gallon
Ceanothus verrucosus	Wart-Stemmed Ceanothus	1 Gallon
Encelia californica	Coast Sunflower	1 Gallon
Eriophyllum confertiflorum	Golden-Yarrow	1 Gallon
Eschscholzia californica	California Poppy	1 Gallon
Hazardia squarrosa	Yellow Squirrel Cover	1 Gallon
Heteromeles arbutifolia	Toyon	5 Gallon
Lotus scoparius	Deer Weed	1 Gallon
Malosma Laurina	Laurel Sumac	1 Gallon
Mimulus aurantiacus puniceus	Red Monkeyflower	1 Gallon
Nemophila menziesii	Baby Blue Eyes	1 Gallon
Rhus integrifolia	Lemonade Berry	5 Gallon

Open Space Adjacent Riparian Corridor & Detention Slopes

Container Plantings

Botanical Name	Common Name	Container Size Range
Artemisia palmeri	San Diego Sagewort	1 Gallon
Carex spissa	San Diego Sedge	1 Gallon
Iva Hayasiana	San Diego Marsh Elder	1 Gallon
Juncus Acutus	Spiny Rush	1 Gallon
Mimulus guttatus	Golden Monkey Flower	1 Gallon

Hydroseed - Coastal Sage Scrub Mix

Erosion Stabilizer / Exterior Slope / Temporarily - Irrigated)

Botanical Name	Common Name	LB/AC	%PURITY/GERMINATION
Artemisia californica	Coastal Sagebrush	2	15/50
Encelia californica	Bush Sunflower	4	40/60
Eriogonum fasciculatum	California Buckwheat	6	10/65
Eriogonum parvifolium	Sea Cliff Buckwheat	4	30/60
Eriophyllum confertiflorum	Golden Yarrow	3	30/60
Eschscholzia californica	California Poppy	1	98/7s
Helianthemum scoparium	Rush Rose	2	70/50
Lotus scoparius	Deerweed	6	90/60
Lupinus bicolor	Pygmy-Leaf Lupine	4	98/80
Lupinus succulentus	Arroyo Lupine	4	98/85
Mimulus puniceus	Bush Monkeyflower	2	2/55
Salvia mellifera	Black Sage	1	70/so
Vulpia microstachys	Small Fescue	8	90/50

Temporary Pad Hydroseed (Non-Irrigated)

Basic Erosion Control Mix (Contact S&S Seeds 805.6840436)

Botanical Name	Common Name	LB/AC	%PURITY/GERMINATION
Bromus carinatus 'Cucamonga'	Cucamonga Brome	20	85
Trifolium willdenovii	Tomcat Clover	4	85
Vulpia microstachys	Small Fescue	8	90/50

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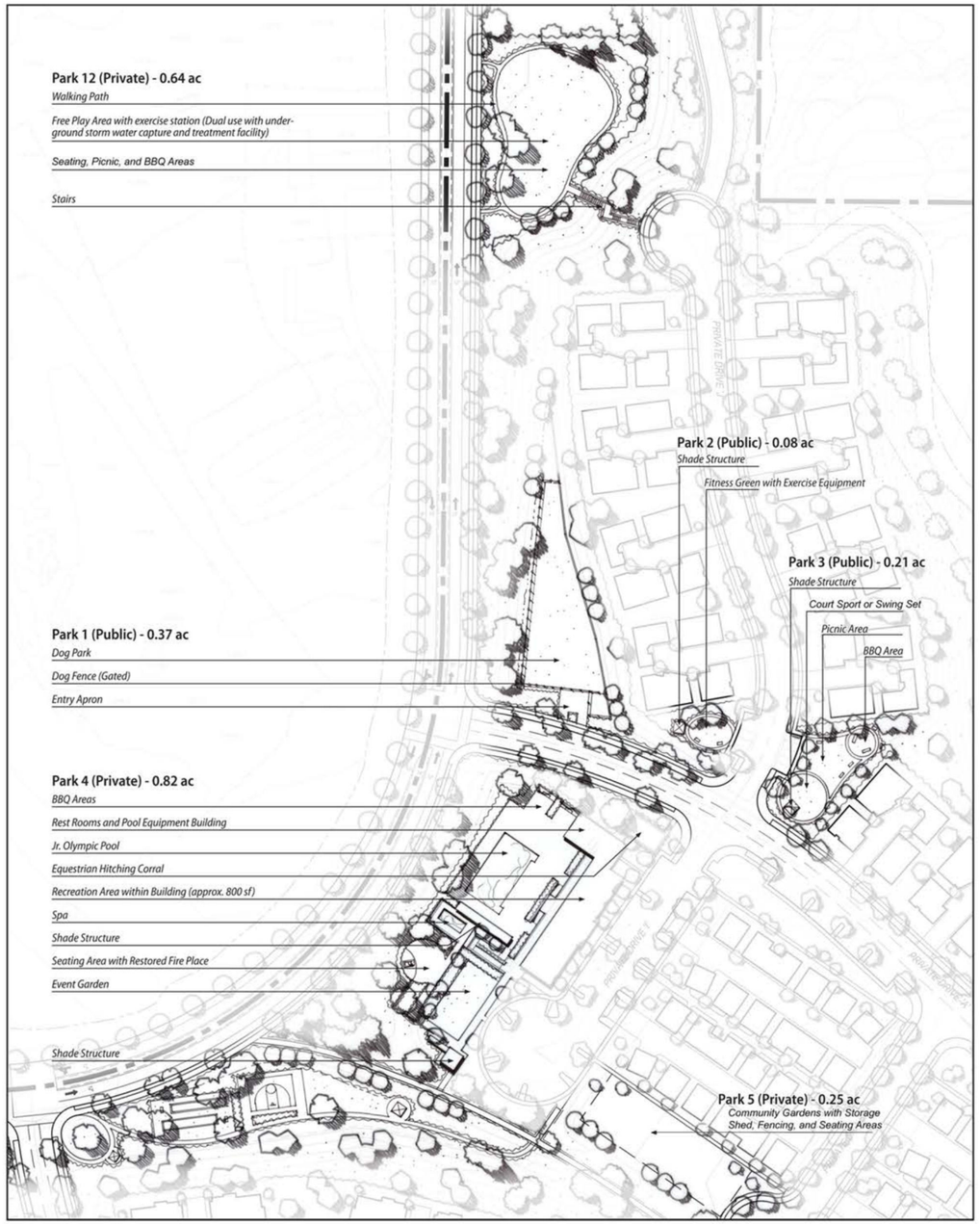
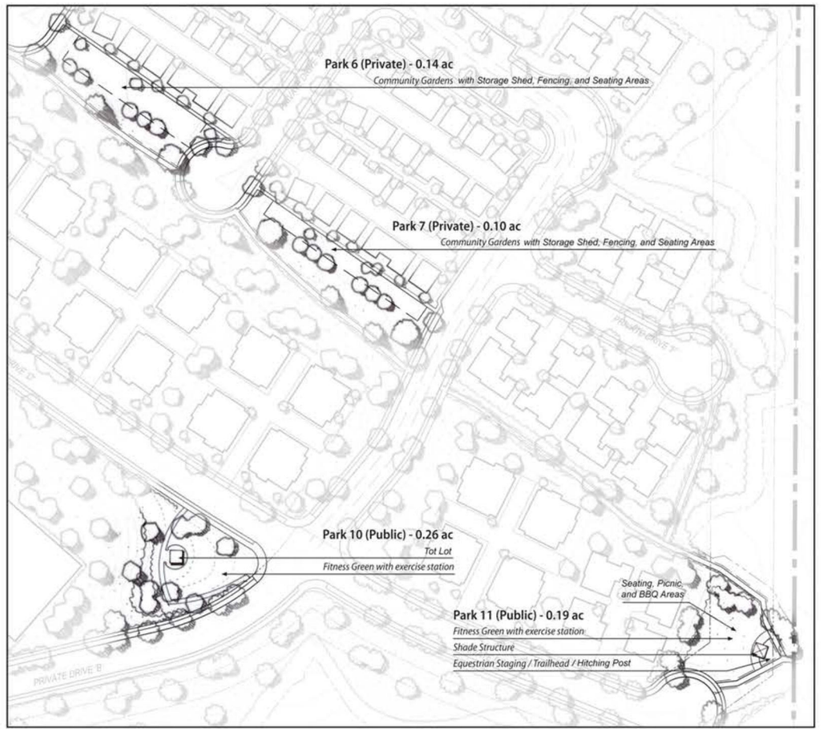
Landscape Plan

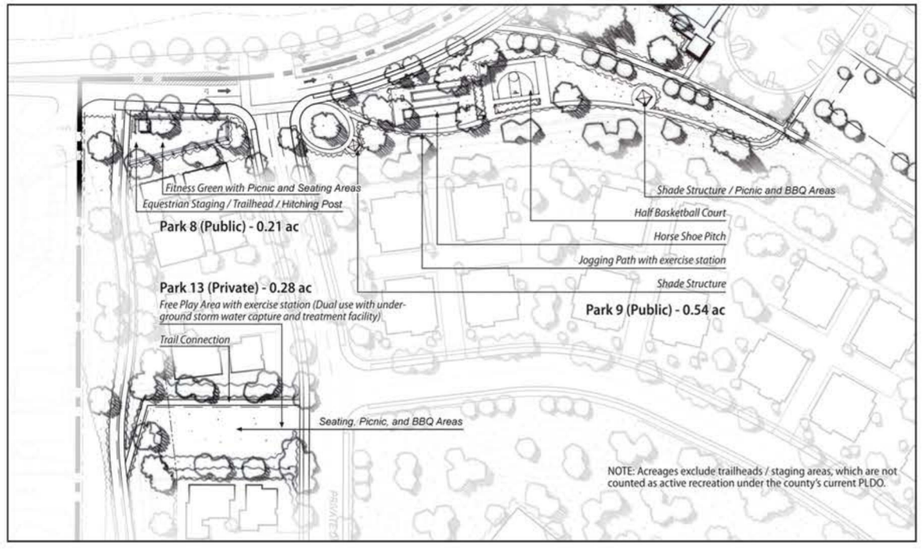
HARMONY GROVE VILLAGE SOUTH

Figure 1-20b

HELIX Environmental Planning







Source: SWA 2017

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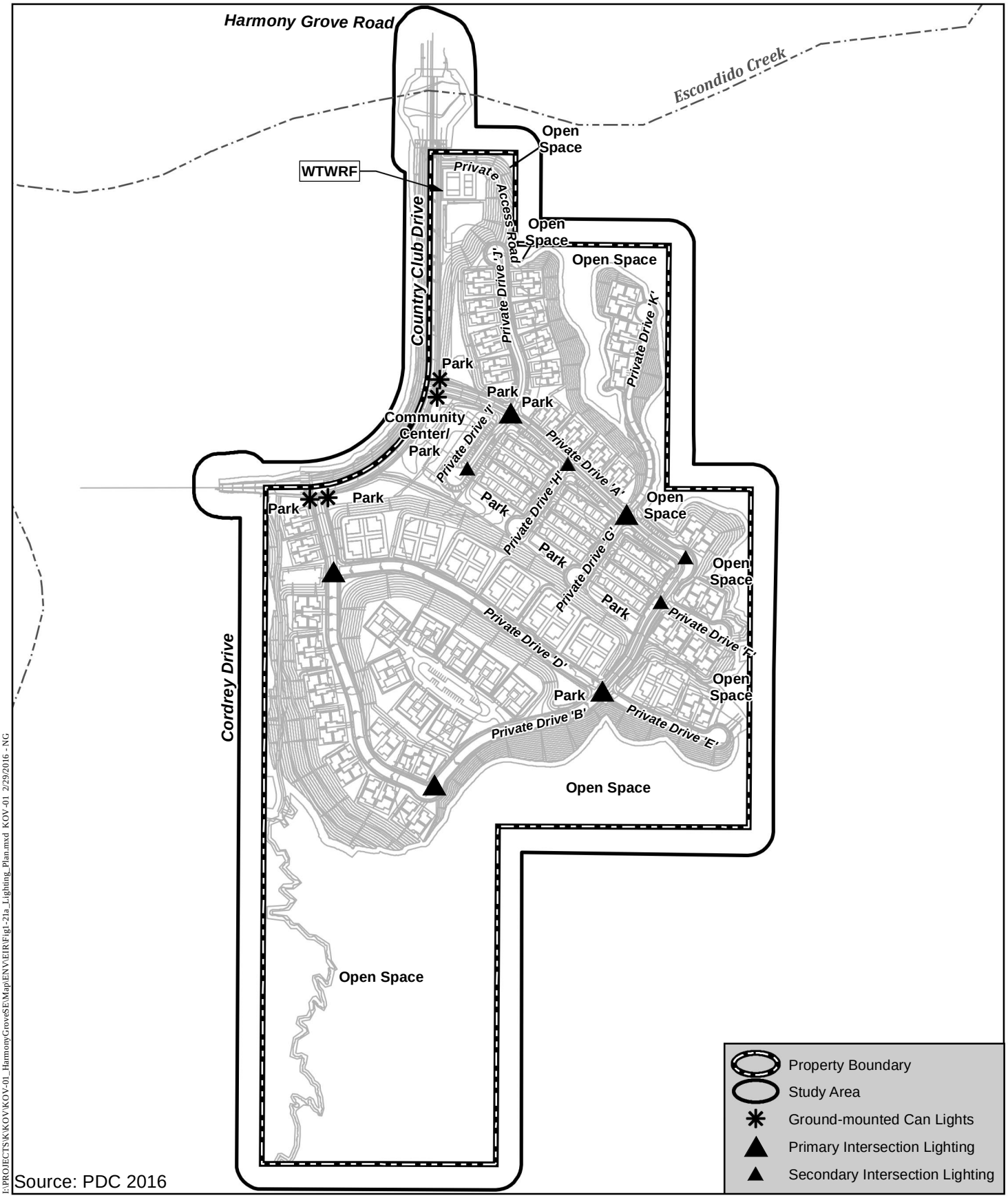
Conceptual Park Plans

HARMONY GROVE VILLAGE SOUTH

Figure 1-20c

HELIX Environmental Planning



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Source: PDC 2016

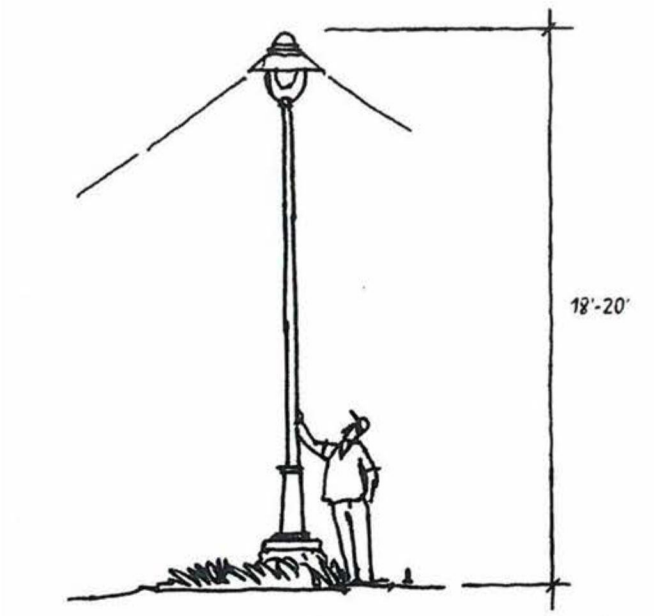
Lighting Plan

HARMONY GROVE VILLAGE SOUTH

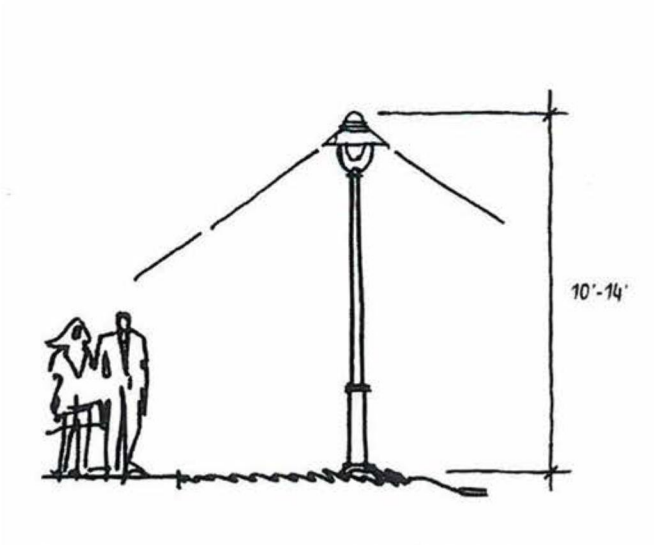
HELIX Environmental Planning

N 0 520 Feet

Figure 1-21a



MAJOR STREET / INTERSECTIONS



INTERIOR STREETS

The lighting design for Harmony Grove Village South will be in keeping with the rural spirit of the project and adhere to the San Diego County Light Pollution Code commonly known as the "Dark Sky Ordinance."

Source: PDC 2016

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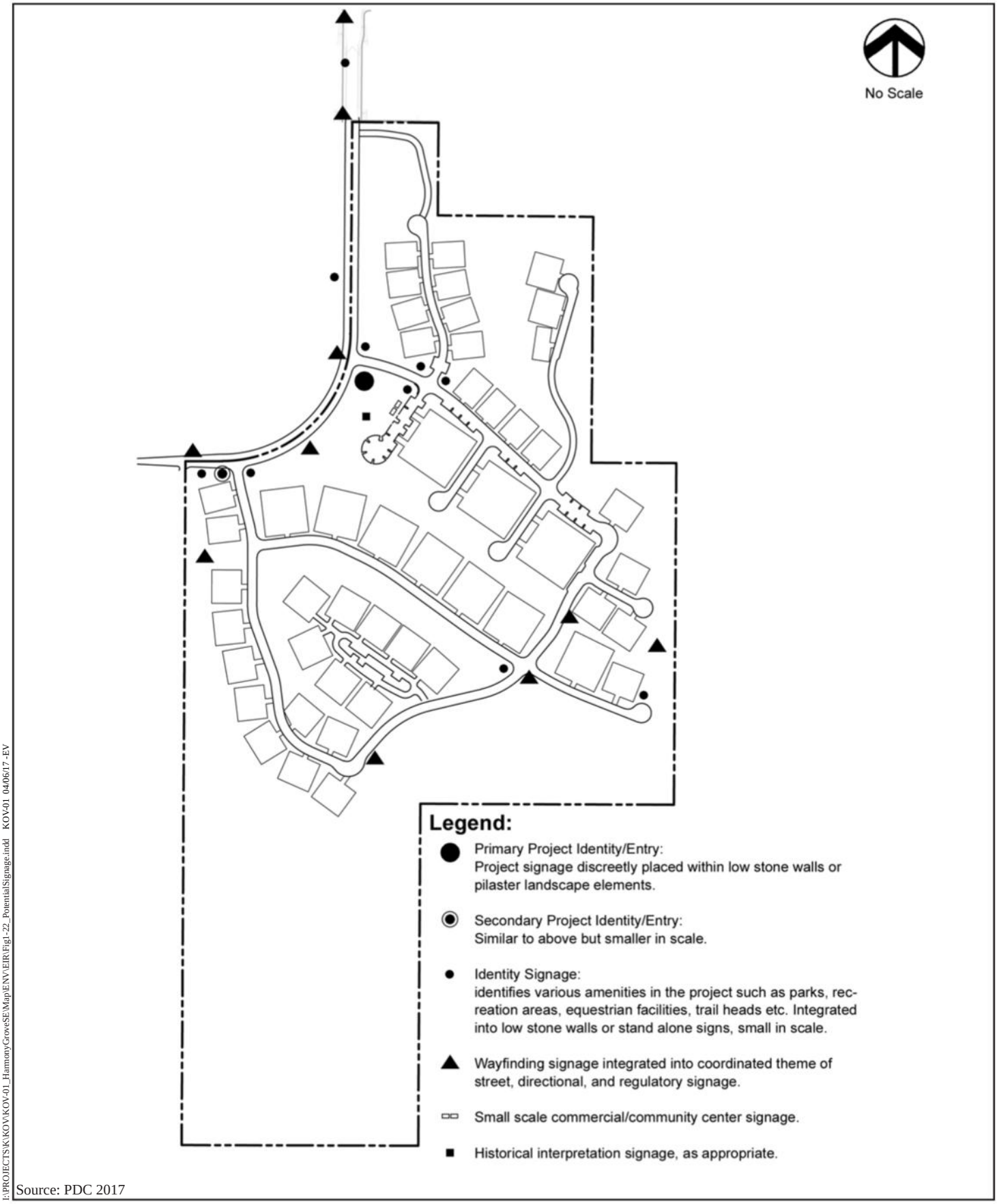
Street Lighting

HARMONY GROVE VILLAGE SOUTH

Figure 1-21b

HELIX Environmental Planning



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Source: PDC 2017

Potential Sign Locations

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

Figure 1-22

Property Boundary

County of San Diego

1. Plumosa Avenue TPM
2. Tourangeau TPM
3. Casa de **Amparo**
4. Rogers Estates
5. Matheson TPM
6. Easy Turf Storage Building
7. Rancho Verona
8. North County Environmental Resources Recycling Center
9. Knox TPM
10. T&R Mini Storage
11. Hooper TPM
12. Eaton TPM
13. Montiel Heights/Montiel Road Townhouses
14. Lago de San Marcos Condominiums
15. Harmony Grove Village
16. Bear Valley Self-Storage
17. Anderson TM
18. Baumgartner TPM
19. Cielo del Norte
20. Santa Fe Creek
21. The Bridges at Rancho Santa Fe (formerly called Canyon Creek Country Club)
22. Lanzer TPM
23. Rancho Cielo
24. Shaw/Rancho Hills
25. Valiano Development

City of San Marcos

26. San Marcos Highlands
27. Kachay Homes
28. Heritage Ranch
29. UK Investments LLC
30. Windy Point Development/ University of St. Augustine
31. Rancho Santalina
32. Nicholas Banche
33. Shane Park Plaza
34. Pacific Industrial No. 1
35. Pacific Commercial
36. Palomar Station (2)
37. Davia Village
38. Sonic Drive In
39. East Gate
40. Parkview Apartments
41. Westlake Village
42. Richmar Specific Plan
43. Marketplace @ Twin Oaks
44. Citywide Channel Maintenance Programmatic Permit
45. Candera
46. University District Specific Plan
47. University Office and Medical Park
48. San Marcos Creek Specific Plan and Floodway Improvement Project
49. Kaiser Medical Office Building
50. Leigh Hanson Site
51. Campus Pointe II
52. Rancho Coronado Phase I School Site
53. University Commons/Old Creek Ranch Specific Plan
54. San Elijo Hills Town Center

City of Escondido

55. Kenny Ray Harmony Grove
56. Harmony Grove Industrial Park
57. Hale Avenue Resource Recovery Facility (HARRF) Administration Building
58. Citracado Parkway Extension
59. Escondido Asphalt Plant Expansion
60. Citysquare Downtown Residential
61. The Point
62. Springhill Suites by Marriott
63. Oak Creek

Escondido Union High School District

64. Citracado High School/Del Lago Academy

Palomar Pomerado Healthcare District

65. Escondido Research & Technology Center (ERTC)

CITY OF VISTA
COUNTY OF SAN DIEGO
CITY OF ESCONDIDO
CITY OF SAN MARCOS
CITY OF CARLSBAD
CITY OF ENCINITAS
North Twin Oaks Valley Road
Woodland Parkway
North Broadway
East Lincoln Avenue
West Mission Road
South Rancho Santa Fe Road
South Las Posas Road
West San Marcos Boulevard
Barham Drive
Discovery Street
Nordahl Road
San Elijo Road
Country Club Drive
Citracado Parkway
North Centre City Parkway
West Valley Parkway
Via Rancho Parkway
Elfin Forest Road
Del Dios Highway
Olivenhain Reservoir
Lake Hodges
15
78

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Cumulative Projects

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

N 0 6,000 Feet

Figure 1-23

CHAPTER 2.0

SIGNIFICANT ENVIRONMENTAL EFFECTS OF THE PROPOSED PROJECT

SUBCHAPTER 2.1

AESTHETICS

CHAPTER 2.0 – SIGNIFICANT ENVIRONMENTAL EFFECTS OF THE PROPOSED PROJECT

This chapter of the EIR provides a detailed discussion of those subject areas for which Project implementation would result in either: (1) significant impacts that cannot be avoided and/or (2) significant impacts that can be avoided, reduced or minimized through mitigation measures required to be implemented as part of the Proposed Project.

In order to assist the reader in tracking between impacts and related mitigation measures, individual impacts and the associated mitigation measures have been given correlating numbers and letters. For example, for the issue of aesthetics, the first significant impact is identified in text in the analysis portion of the discussion as AE-1, representing aesthetics impact number 1. The measure designed to attenuate that impact is identified as M-AE-1 (i.e., mitigation for aesthetics impact number 1).

Significant and unmitigable impacts have been identified for three technical issues addressed in this chapter: Aesthetics, Transportation/Traffic and Air Quality.

2.1 Aesthetics

The following sections address aesthetics evaluation summarized from the Visual Impact Analysis (VIA) and Resource Protection Study Steep Slope Waiver prepared by HELIX (2017e and 2015, respectively), and presented in their entirety in Appendices B and C of this EIR. The VIA was prepared in conformance with the County Requirements for Format and Content for Visual Analysis (2007i) and the County Requirements for Format and Content for Dark Skies and Glare (2009a). The reader is referred to text below for evaluation of all issues related to aesthetics for the Project.

2.1.1 Existing Conditions

The following sections address the current conditions at the Project site, including the existing environmental setting, viewer sensitivity with regard to visibility of the Project site, and the regulatory framework currently in place. The reader is referred to Figure 1-3 in Chapter 1.0 for an overview of the site location related to cultural and natural features discussed below.

2.1.1.1 *Existing Setting*

Project Site

As noted above, the Project site is located in an unincorporated area of San Diego County, west of the City of Escondido and south of the City of San Marcos (see Figures 1-1 through 1-3 of this EIR). The primary route from Escondido accesses the site via Harmony Grove Road, a County Scenic Highway, additionally addressed below.

Vegetation on site (particularly within the northern half of the Project) is generally disturbed and includes non-native grassland edged by isolated Diegan coastal sage scrub stands bordered by coastal sage-chaparral transition and chaparral habitats. The majority of the Project is mapped as chaparral habitat (approximately 47 acres); with the next largest category being non-native

grassland (42 acres). Smaller areas of coast live oak woodland, eucalyptus, non-native and disturbed vegetation, etc., are also located onsite.

As a whole, the site rises in elevation to the south, and contains valley floor, as well as visible on-site small hillocks and knobs, on top of the generally inclining topography. The northern portion of the Project site contains topography generally sloping down to the north-northwest corner of the property, as well as disturbed biological habitat. Looking only at the northwest portion of the site, the western half is a gently sloping valley bottom, sloping down from both the south and east, toward the Project low point and (off-site) Escondido Creek. Non-native grassland/disturbed habitats are the predominant vegetation, with a stand of non-native trees (eucalyptus, California pepper), clustered near the westward turn in Country Club Drive at the western edge of the property. The eastern portion of the northern part of the site rises into small scrub-covered hills.

An east-west trending bench extends across the roughly center point in the site, separating the Project parcels visually into north and south portions. The southern portion of the Project contains less disturbed habitat and, after a downward slope on the south side of the central bench, is located on increasingly steep and higher on-site hills. This area drains even higher off-site hills to the south, with incised north-south trending ravines entering the Project and draining to the northwest on the south side of the relatively level and east-west trending bench slope noted above. This southern area includes the largest stand of coast live oak woodland, as well as substantial chaparral acreage, which merges into off-site permanent open space acreage.

The site has an elevational range of approximately 350 feet. On-site elevations range from approximately 570 feet amsl in the northern portion of the Project near Country Club Drive, to 938 feet amsl at the southernmost property boundary. The low point of the drainage exit from the site south of the central bench is approximately 630 amsl. Approximately 66.7 acres (60 percent) of the site contain slopes with a gradient of zero to 25 percent, approximately 39.7 acres (35.8 percent) of the site have slopes with a gradient between 25 and 50 percent, and approximately 4.6 acres (4.1 percent) of the site have slopes with a gradient greater than 50 percent. County-protected steep slopes, i.e., natural slopes exceeding 25 percent slope with a vertical rise of 50 feet or more in elevation, are located in the northeast hills of the Project site, on the central slope rising above the valley floor, and in the southern third of the Project (identified for permanent set-aside). See discussion in Section 2.1.2.2, *Removal or Substantial Adverse Change of a Valued Feature*, below, for a description of existing steep slopes on site.

The Project site is currently vacant. Some remnants of prior structures (concrete slab portions, an excavation associated with the structure cellar, and a portion of a chimney) remain on site. Other developed uses include cistern elements, an old stockpond, a small electrical line that bisects the Project site in an east-west direction, and several unpaved roads that are either internal to the site, or provide access to residential uses east of the property. The Project site has no existing night-lighting.

Figure 2.1-1, *Photo Locations*, is an aerial photograph of the Project site and the surrounding area, and shows the location from which each photograph was taken. On-site visual elements are illustrated in Figures 2.1-2a through 2.1-2d, *On-site Photographs*. Information is provided regarding what is seen in each photo.

Figure 2.1-2a, Photo A was taken from the northwestern-most corner of the property looking south-southeast. The northern parcel boundary is seen (north of which is land owned by the Escondido Creek Conservancy). The small scrub-covered knolls in the northeastern portion of the parcel provide a backdrop to the non-native grassland in the foreground. Somewhat higher and off-site scrub-covered hills are seen beyond the Project boundary, with intermittent residences visible. Country Club Drive, which forms the western property boundary in this area, is located on the right-hand side of the photo, with an active construction staging area for the HGV buildout located just to the west. On site, the photo shows the continuation of the non-native grassland into the heart of the site; beyond the visual terminus of the roadway in the distance. Behind the small stand of trees in that area, the Project parcels extend to the west, and remain visible as a low, extended, non-native grassland-covered slope.

Figure 2.1-2a, Photo B depicts the heart of the site from the northern scrub-covered hills. The photograph looks southerly over the site, with a small portion of the paved road leading to homes off site to the east (left of and behind the viewer) in the right-hand lower corner. The on-site trees in the vicinity of the on-site standing chimney, and the off-site abutting portion of Country Club Drive curving away from the site and to the west are also on the right-hand side of the photograph. The lower center of the photo shows the on-site scrub habitat on the knolls in the northeastern portion of the site. The non-native grassland covered slopes, as well as some of the on-site dirt roads, the on-site transmission line, and (just seen in the distance) the higher southern knolls of the Project property are visible. Behind the site, the higher chaparral-covered slopes of the hills in the DDHP are visible, along with the fire break road, which cuts a non-vegetated ribbon up the side of the hill. The transmission line that bisects the site is visible in roughly the center of the site, and continues off site to the east.

Figure 2.1-2b, Photo A looks to the west. This photo was taken just north of the same paved road that provides access to the off-site homes noted above. It provides some detail relative to the disturbed nature of the scrub habitat in this area, and also shows the paved road extending to intersect Country Club Drive in approximately the center of the photograph. The white structures on the right-hand side of the photo are off site on the HGV Equestrian Ranch property, which is being used as a staging area for the HGV construction north of Harmony Grove Road. The trees associated with the remains of the earlier residential uses are present on the left-hand side of the photo, and behind those trees, to the left, is the central bench slope of the property, covered with non-native grasslands. Beyond site boundaries, this photo also provides topographic information about the setting—the small hills associated with the valley floor (including that within the May 2014 burned area of the HGV equestrian ranch), as well as the much higher hills to the west. The dark colored riparian vegetation associated with Escondido Creek west of the Project provides a strong line of demarcation, and the lighter colored area to the north of that line is part of the grading being completed for the HGV project. The transmission line that trends southerly along Country Club Drive to serve homes to the south is just visible in this photo, as is a pole associated with the line that crosses the Project site to off-site homes to the east (see the very left-hand side of the photo). The curve to the west of Country Club Drive is visible. The greenery associated with the homes along Cordrey Drive, and along the western boundary of the Project are also more visible. Hilltop development associated with homes west of Eden Valley is also just visible on the upper right-hand side of the photo.

Figure 2.1-2b, Photo B provides a view to the east from this paved road. It depicts the road leading to the off-site homes, as well as the change from non-native grassland to scrub habitat on the Project's northeastern knoll, which is a near-view dominant feature in this photograph.

Figure 2.1-2c, Photo A provides an on-site view from the vicinity of the paved road that bisects the northern portion of the property to access the off-site homes, and was taken just easterly of Country Club Drive. This view looks south; toward the topographic bench feature that crosses the site. The standing chimney indicates a portion of the site where remnants of the old residential uses are visible, with the slope behind extending into the more southern portion of the site. A dirt road trends to the top of the bench. The notable chaparral-covered hilltop in the DDHP is visible to the south.

Figure 2.1-2c, Photo B is taken from the top of the central topographic bench near the west side of the Project. This view looks easterly along the bench, toward the eastern boundary of the site, and includes two of the "peak" elements prevalent in the topographic features that rim Harmony Grove Valley. The sloping nature of the property (downward to both the south and north) from this bench is depicted in this photo. Also clearly shown is the amount of on-site road disturbance and the boundary between the non-native grassland and the start of the on-site chaparral. Eucalyptus is visible near the Project boundary.

Figure 2.1-2d, Photo A also is taken from the top of the central topographic bench near the west side of the Project. The photo depicts the expansive nature of views to the north, and illustrates the nature of the non-native grassland on site. Again, on the right-hand side of the photo, the transition from non-native grassland to scrub habitat on the northeastern Project knoll is shown. Most of the off-site portion (from the burned hilltop in the Equestrian Ranch to Country Club Drive) is part of HGV. The north-south section of Country Club Drive is visible trending toward the intersection with Harmony Grove Road. North of the distinct line of Escondido Creek riparian vegetation trending east-west across the photo, the extent of the HGV grading associated with the residential, commercial and WRF facility is clear, and some construction equipment is visible. Palomar Hospital can be seen in the background as a small rectangular feature on the right-hand side of the photo. A portion of the Harmony Grove Spiritualist Association (HGSA) (burned out in May 2014) is visible to the west of the HGV Equestrian Ranch on the left-hand side of the photo. In the far left-hand side of the photo, the corral associated with a residence located at the intersection of Cordrey Drive and Country Club Drive (abutting the Project western boundary) is visible.

Figure 2.1-2d, Photo B provides a view from the site south-southwesterly along the western Project boundary south of the intersection of Country Club Drive and Cordrey Road as well as to the southern boundary that meets the DDHP. Residences abutting the Project boundary are visible in the center and right-hand side of the photo, as are off-site scattered estate residences located on hillsides and knoll tops in the area and the firebreak on the highest peak in DDHP, the Del Dios Highlands Trail (toward the left-hand side of the photo).

Surrounding Area

The visual character of the Project locale encompasses diverse forms, including numerous hills and hillsides, ravines, and the open flatter valley area (now under construction as part of HGV). Overall, the area consists of sloping and rolling valley floor with some hill features being locally

notable. Prominent hilltops and ridgelines are located south and southwest of the Project site, and are associated with the higher hills located in the DDHP and EFRR, respectively. These areas are in permanent open space. Undeveloped land is also associated with Mt. Whitney, a major visual resource in the Project area, located westerly of the Project, beyond HGV north of Harmony Grove Road. Mt. Whitney and the western ridgelines provide a strong topographic background to the west. The Elfin Forest/Harmony Grove portion of the San Dieguito Community Plan notes that these are sometimes identified as the "Lady of the Valley," with the highest point being the shoulder, lower slopes suggesting the lady's hair extending to the north, and the adjacent slopes to the south showing her hip and legs as she reclines on her side. The Community Plan identifies this off-site ridgeline as a locally important historic visual resource. Escondido Creek is also a primary visual element in the southern extent of the valley (just north of the Project), as it bisects the valley in an east-west direction before turning south. Although portions of the drainage are disturbed, a fairly consistent line of riparian vegetation edges the creek along its length, providing a line of green across the valley. Figure 2.1-3a, *Escondido Creek, East and West*, Photos A and B depict east and west views along the creek at its crossing by Country Club Drive.

Settlement in Harmony Grove Valley has long been a part of creating the visual character in the area. Early activities included ranching, as well as the notable HGSA. Although severely affected by the regional fires in May 2014, the HGSA is rebuilding. Located on 13 acres approximately 0.25 mile west of the Project, the HGSA was formed and incorporated in 1896 to further the teaching of spiritualism as a religion, philosophy and science. By the mid-1920s, individuals were coming to camp events at the HGSA from as far away as San Diego and Los Angeles. The presence of the HGSA is an important built and cultural element within Harmony Grove.

Currently, estate, rural and semi-rural single-family homes are located northwest, west, southwest, east of the Project (Figures 1-3 and 1-4). Residential uses include scattered single-family homes on the ridgelines to the west-northwest that overlook the valley and the Project. Additional ridgeline and hillside residential development exists south and southwest of the Proposed Project along Harmony Grove Road and Escondido Creek. As noted above, the HGSA, with a compound consisting of a church, cottages and associated buildings (approximately 30 structures, overall), was present until May, and is expected to fully rebuild.

Surrounding residences range from custom-built homes to tract developments. Larger lots in the Harmony Grove area sometimes include large animal uses (e.g., horse-keeping). Although individual homes are landscaped according to personal preference, some landscaped yards provide verdant settings, including (primarily non-native) trees such as palm, pepper, pine, and eucalyptus that provide a dominant element in the visual character of the area due to their age, size, and quantity. Some natural, dense vegetation exists, including riparian and oak vegetation.

In 2007, the County designated an approximately 500-acre area of land in the center of Harmony Grove Valley to become a new village. HGV is located in a large portion (approximately 450 acres) of Harmony Grove Valley and straddles three sides of the area's "crossroads" at Harmony Grove Road and Country Club Drive. HGV is located contiguous to the Project site, with the Village Core within 2,100 feet (less than 0.5 mile) of the Project. The Project is located in the southern portion of the same valley, and is part of the same drainage basin, as well as the viewshed. The ridgelines that surround the valley, and unite all valley areas, including HGV and HGV South, are shown on Figure 1-5 of this EIR. The prominent ridgelines surrounding and defining the valley

in which both HGV and the Project are found form a natural dramatic definition of the valley. HGV also was sited near the intersection of the main north-south and east-west roadways in Harmony Grove (Country Club Drive and Harmony Grove Road) which have been upgraded as a part of the development of the HGV site where they abut portions of the village that are building out.

The entire buildable portions of the HGV site have been graded, which results in a large expanse of raw soil. The amount of visible raw soil is changing, however, as vertical construction is underway. Home sales began in 2015. Homes are present on both east and west sides of Country Club Drive, and vertical construction is ongoing, with increasing rates of occupancy as additional homes are completed. The HGV WRF grading and base construction is complete, with preliminarily landscaped slopes and structures in place. Because the development is so far along, the presence of that project is included as a baseline environmental condition (an existing condition) in this EIR (see Section 3.1.5). Once completed, HGV will include more than 700 homes, some commercial uses, utility uses and additional recreational uses.

Other dense housing and subdivisions also exist within approximately 0.5 to 0.75 mile to the east of the Project site (Figures 1-3 and 1-4). Lot sizes in this area are much smaller; generally there are approximately eight houses to an acre. Mobile home parks and apartments are also present to the east, and continue along Hale Avenue to 9th Avenue and Valley Parkway. Landscaped yards and large street trees are present, but the dense housing tends to dominate the visual landscape.

As noted above, the Project is adjacent to the Equestrian Ranch at HGV. Residential, commercial and industrial elements of that project are actively building out, with mass grading already completed, north of the Project and Escondido Creek/Harmony Grove Road. The HGV WRF is being built just north of Harmony Grove Road, north of Escondido Creek and within approximately 550 feet of the Project.

This juxtaposition of the natural and the engineered (man-made) environment in the Project vicinity is notable. Roadways wind along the hillsides in response to the topography. In general, area grading reflects the natural topography, in that it steps up and down the original gradient, following increases and decreases in elevation. Area ridgelines (which draw the eye from lower elevations) are often developed with structures that are skylined to viewers from below, or at, similar elevations. Hilltop development is generally relatively small in scale and somewhat intermittent, but very noticeable, with geometric and rectilinear structures skylined for viewers. This is particularly so in some of the areas west of Harmony Grove and Eden valleys (Figure 2.1-3b, *Typical Ridgeline Development*), and in areas to the north of the Project, where residential development in the City of San Marcos is visible to the naked eye, sky-lined at distance. The off-site but visually prominent Palomar Hospital provides a dominant geometric, hard edged element to views in the general area. It is a (varyingly) distant, but seen element from the throughout valley, including the central slopes of the Project.

No street lights exist along Country Club Drive south of Harmony Grove Road. Some lighting is associated with existing residential uses west and east of the Project.

Depending on the season, the non-irrigated, non-native grass fields of the Project and abutting parcels may be tan to a light to emerald green. Darker greens associated with on-site eucalyptus

and California peppers (near Country Club Drive) and oaks along a riparian corridor in the southern portion of the Project are also visible for local viewers. The greens to muted brown-greens of sage/chaparral habitats predominate on the Project hillsides. Overall, the colors are visually "soft," with topographic ridgelines and hilltops providing harder edged and dominant forms at the skyline.

Roads and residential structures, which are smaller in scale, provide some variety of form and line. Shrubs and trees can also provide bulbous or vertical elements in a valley floor viewscape when they are isolated from more dense vegetation. When vegetation is more dense, and particularly at a distance, it merges into a softer image. All of these visual elements, however, are visually overpowered by the dominant scale of hills that border Harmony Grove and Eden Valleys to the north, west and south.

The closest listed scenic corridor to the Project site is a segment of Elfin Forest Road/Harmony Grove Road. It is identified as a scenic corridor in the COS Element and is included as part of the County Scenic Highway System between the San Marcos city limits and the Escondido city limits. At its closest point, the Harmony Grove Road segment is located just north of Escondido Creek, which is located just north of the Project site.

Public park or recreation facilities within the Project viewshed (additionally addressed in Section 2.1.1.2, *Project Site Visibility/Viewshed and Landscape Unit*, below) include the DDHP and the EFRR, noted above. The DDHP abuts the southern, as well as the southeastern boundaries of the Project. The DDHP has a 1.5-mile long firebreak/trail, located at its closest point approximately 0.1 mile south of the Project boundary and 0.3 mile south of proposed development footprint, that extends from Del Dios Highway to intersect with the "Way Up" Trail in the EFRR. The EFRR maintains approximately 11 miles of trails transecting 750 acres overlaying portions of the ridgeline separating the Escondido Creek valley and the area surrounding Lake Hodges. At its closest point, the EFRR is located just over 0.3 mile to the south-southwest. Portions of the Way Up Trail with views to the Project are approximately 0.5 mile from the Project boundary and 0.6 mile from the proposed development footprint.

The County has identified a number of proposed community trails located along public rights-of-way and over private property in the vicinity of the project, and consistent with the County Trails Program Community Trails Master Plan (2005). These facilities are designed to be located in close proximity to residents, and to provide transportation, recreation, access, infrastructure, linkages and safe routes throughout a community. In the immediate vicinity of the Project, the County has identified four proposed trails, three of which are identified as "first priority," as indicated by asterisks below:

1. **Country Club Drive Trail (04), extending along that roadway from roughly the northern extent of HGV, southerly to cross Harmony Grove Road and enter the Project where Country Club Drive begins to trend toward the west;

2. **Lake Hodges Trail (11), extending across the Project approximately 0.5 mile from Country Club Drive east to the County/Escondido line;

3. **Summit Trail (12), extending southerly approximately 0.2 mile from the Lake Hodges Trail into the heart of the Project; and routed along the southern Project boundary within landscaped area north of Project BOS, connecting to Trail 11 on the north, and Trail 13 on the west; and

4. Elfin Forest Trail (13), trending west and then south from the Summit Trail along the western Project boundary to the County/Escondido line.

Each of the trails connecting into Escondido continues into that jurisdiction, and on to the trail destination point or to another connection. In addition, the County Trails Master Plan identifies the Escondido Creek Trail (14), just north of the Project, trending along the Escondido Creek drainage. This trail is identified as approximately 2.2 miles long; no priority is identified.

Mixed-use trails (pedestrian, bike and equestrian) are under construction by HGV, located north and west of the Project. HGV has constructed multi-use fenced trails along Country Club Drive to Harmony Grove Road (part of Trail 04, to the vicinity of Mt. Whitney Road on the north), along new Harmony Grove Village Parkway, and along Harmony Grove Road project footage, north of Escondido Creek. HGV is also conditioned to build the portion of Trail 04 extending southerly along Country Club Drive from Harmony Grove Road to the Equestrian Ranch sited just west (across the street) from the Proposed Project.

As noted above, Figure 2.1-1 depicts the location from which each off-site photograph was taken (Figures 2.1-3c through 2.1-3m, *Surrounding Public Viewpoints*). Information is provided below regarding what is seen in each photo, as well as why the location was chosen. The following criteria were considered during determination of off-site photograph locations:

- Type of viewers/viewpoint (public views are considered more sensitive than private views)

- Typicality and/or uniqueness of the view in that area

- Breadth of the view (views taking in a number of elements rely less on any one element than those focusing on a specific view element)

- Depth of the view (increased distance from the observed element makes it appear smaller, less detail is registered, and visibility may be affected by atmospheric conditions such as fog, smog, etc.)

- Amount of time (and/or number of times) each observer is exposed to the view

- Number of viewers exposed to the view (a greater number of viewers makes the view more sensitive)

- Identification of designated scenic viewpoints and scenic highways

On-site visual elements are illustrated in Figures 2.1-2a through 2.1-2d. Off-site vantage points surround the Project property, and provide the basis for a number of photographs (Figures 2.1-3a, 2.1-3b, and 2.1-3c through 2.1-3-m). The primary vantage points include roadways (including those adjacent to or abutting the site) and public trails. These roadways and trails, as well as views

from the vantage photographs are described below. Photographs providing additional context for development in the valley are provided in Figures 2.1-4a through 2.1-4d, *Built Elements Near Harmony Grove Village South*.

Harmony Grove Road

As noted, the closest listed scenic corridor to the Project site is the segment of Elfin Forest Road/ Harmony Grove Road between the San Marcos city limits and the Escondido city limits. Figures 2.1-3c through 2.1-3f depict views to the Project from Harmony Grove Road.

For travelers moving south and west, the Project is first visible from this scenic corridor just after passing an intervening hill to the south as the road curves westerly around a large topographical feature south of the Avenida del Diablo bridge (a hill containing an old mining area and current location of the HGV WRF). From this east-west trending section, the viewer can look southerly (left) over Escondido Creek vegetation to the site (Figure 2.1-3c). As shown in the photo, views of the northernmost portion of the site are largely obscured by riparian vegetation. Where available, views are most open to the east-west trending bench feature that bisects the site. As shown, the non-native grassland-covered slope is visible, and one of the dirt roads trending southerly across the site is notable. The higher hills of the DDHP provide a backdrop to the site, and include the firebreak (Del Dios Highlands Trail). In the immediate vicinity of the junction with Country Club Drive, the Escondido Creek vegetation increases in height and density, shielding views to the Project from this specific area. Once past the intersection, the site is located generally behind the viewer, and is not considered to comprise a notable part of the view.

For travelers heading east on Harmony Grove, the vicinity of the site could be included in views of varying openness from the general location of Wilgen Road on to the east, past the intersection with Country Club Drive noted above, or for just over 0.5 mile overall. Some intervening vegetation (Escondido Creek) and structures (the house on the HGV equestrian ranch, the HGV pump station south of Harmony Grove Road) intervene, but generally speaking views to large portions of the site are visible to easterly-bound travelers (see Figure 2.1-3d). As shown in this photo, beyond the Escondido Creek vegetation, intermittent views of the northern portion of the site are visible, and a large portion of the southern bench feature is visible. Because the HGV planned uses for this area consist of horse arena and park uses, it is possible that some visibility would continue, although it may also be screened by the trees proposed as part of that development along Harmony Grove Road (California pepper, interspersed with small stands of oak, sycamore, and Brisbane box). On the north side of Harmony Grove Road, an HGV multi-purpose trail supports users moving at more pedestrian rates of travel. At this point, visibility is conservatively assumed from both the road and the trail (although the latter would also be looking over Harmony Grove Road vehicular lane traffic). Past the intersection with Country Club Drive, the site is again open to view (as described above) until obscured by intervening landforms south of Escondido Creek.

After Harmony Grove Road turns south at the intersection with Wilgen Road, views to the Project parcels are generally obscured by Escondido Creek vegetation; which is wide, often dense, and located to the east of the Creek. The only “peep” views to the east noted by the Project team were in a location where the structure on the HGV equestrian ranch was clearly (although extremely briefly) visible (see Figure 2.1-3e). The photo shows that, in addition to the vegetation, the hill on

that parcel blocks views to the Project from this location. This is true for travelers moving south or north from this turn to the EFRR entry and visitor center to the south, where intervening and increasingly higher hills associated with the EFRR rise on the east side of the road.

Country Club Drive

Both north and southbound travelers on Country Club Drive would have direct views into the Project from the abutting roadway.

Figure 2.1-3f depicts the view to the site from the junction of Harmony Grove Road and Country Club Drive. As shown, southbound travelers have a direct view to portions of the site when approaching or stopped at the intersection with Harmony Grove Road. This would occur from the point at which Country Club Drive rounds the hill just north of Harmony Grove Road, with views becoming increasingly open as Escondido Creek is crossed. The tops of the trees just east of Country Club Drive in the valley portion of the site contrast with the disturbed non-native grassland slopes rising to the south, which in turn contrast with the chaparral habitats located to the south (both on site and as part of DDHP). The central part of the Project site remains visible along the sight line provided during the crossing of Escondido Creek (Figure 2.1-3g).

After crossing the creek, the views become more expansive to both the east and west (Figure 2.1-3h). These travelers would parallel the northern portion of the Project for approximately 1,580 feet (0.3 mile), until Country Club Drive turns west just north of the junction with Cordrey Drive. More detail becomes apparent, including the overhead utility lines that abut Country Club Drive on both sides of this portion of the road. As one nears the curve to the west in Country Club Drive, lines are located only the west side of the road. As Country Club Drive approaches the heart of the Project, it curves to the west, rising and then dropping somewhat in elevation, and leaving the Project behind as it trends toward its termination at the HGSA. Where the road begins to turn west, a cut slope (with the road below) begins to interrupt views to the Project. After the turn, the site is located generally behind the viewer, and does not comprise a notable part of the view. In this area, vegetation abutting the roadway also generally funnels views to the road directly in front of, and downslope from, the traveler.

For eastward travelers along the road from its western terminus, the Project is generally obscured by the slope along which Country Club Drive rises until near the intersection with Cordrey Drive (as well as the edging vegetation, noted above). As the viewer moves to and past the Country Club Drive/Cordrey Drive intersection, and intervening topography/road edge cut slopes drop away, the central and northern portion of the Project parcels come into view (see Figure 2.1-3i). The southern portion, with its higher hills, is not really visible. The road edge cut slopes interrupt views from the roadway, and where the site is becoming open to view, the road swings northerly, so that the southern slopes of the Project are located behind the viewer. For these travelers, the site would quickly become a peripheral view to the right, as the viewer's attention is drawn northerly to the creek and cross traffic on Harmony Grove Road.

From north of the Country Club Drive and Harmony Grove Road intersection, views are limited. Northbound travelers have their backs to the Project, and do not see it at all. As shown on the viewshed graphic in Figure 2.1-5, *Viewshed Analysis* (see discussion in Section 2.1.1.2 of this subchapter), the notable hill on which HGV homes and the WRF are located obscures a large

portion of the views to southbound travelers on this road. Intervening structures and mature vegetation also play a part in keeping views "local" from points along the road further north. The Project site does not become visible to southbound travelers until just before the intersection with Harmony Grove Road, at which point, there is a generally open view for the duration of the stop at the intersection.

Additional Local Roads

As illustrated by photographs within this study, although panoramic views are possible from surrounding ridgelines, the topographic and landscape conditions noted above may constrict views to and from the site, limiting primary visibility of the Project site features from the public and private streets in the area. Nearby public streets in the City of Escondido, such as Willowbrook Street, or Shadyridge, have views to the Project blocked by intervening topography (Figure 2.1-5).

Approximately 10 to 15 homes abut or are in the immediate vicinity of the Project along Cordrey Drive or to the east abutting the Property boundary or on small elevated knolls (approximately five homes). Existing homes that are not immediately adjacent to the Project property lines and that are located at approximately the same elevation as the Project currently see very little of the property. This is due to the existing intervening buildings, trees/vegetation, and in some cases small topographic variation, that block views across the valley floor, and restrict views in most of this area to a viewer's immediate surroundings. Between homes or along streets in places where the landscaping is less dense, as well as where property lines are shared with Project parcels, viewers are able to view some portion of the Project site. For some viewers along Cordrey Drive, the slopes (up) from these residential uses result in primary focus being on the slopes immediately adjacent to their lots rather than expansive views over the site.

There are a number of public and private roads located in the hills around the site; with the focus being on roads west and north of the Project with potential for intermittent but open views to the site; such as Wilgen Road, Bresa de Loma, Coronado Hills and Seeforever Drive. These roads are travelled by a small number of individuals as they access individual homes, intermittently located within the hills, and at increasing distances from the Project. Coronado Hills and Seeforever Drive are public roads that could be accessed during Project review. Near the intersection of Coronado Hills and Cyad Drive, there is a moment when the curving nature of this road presents a (distant but) direct view onto the Project site (Figure 2.1-3j). The large lot nature of these estate homes is clear. Lot-specific landscaping is interspersed among a disturbed scrub habitat in the foreground. The Project site is roughly centered in the view from this location, in the middle of the photo, and beyond a portion of the HGV grading. The higher topography associated with the hills and mountains to the south and east, respectively, provides the skyline. From Seeforever Drive (Figure 2.1-3k), the viewer has moved easterly and a bit south; around to the more consistently east-facing slope of these hills. The valley floor is more open to the viewer, as are the slightly less abrupt slopes in front of the viewer. From this viewpoint, both Harmony Grove and Eden valleys are open to view. The foreground shows a portion of the burn area from the May 2014 fires, backed by irrigated groves. Development in Escondido is apparent, as is the first phase grading for HGV (ultimate development will be closer to the viewer from this location, as indicated in the HGV simulations included in Attachment A to Appendix B of this EIR). Beyond the line of riparian

vegetation that demarks Escondido Creek, the Project site is visible, below the higher hills to the east and south.

A number of additional private homes at greater distances within the viewshed, and the private roads that access them, are at elevations from which the Project site area could be viewed absent intervening topography and vegetation. Large expanses of the Project site may be visible from hilltops and Project-facing sides of ridges and hills westerly of the property. These views can be expansive, with the Project site comprising small to substantial elements in a larger view.

Trails

As indicated above, vantage points are also available from existing trails in the area. These include publicly identified trails in preserved open space with a primary purpose of recreation and access to area views.

The EFRR provides approximately 11 miles of hiking, mountain biking, equestrian trails, and picnic areas within 784 acres surrounding the Olivenhain Reservoir. The DDHP encompasses approximately 774 acres and is part of the County's MSCP preserve system. Although some of the trails are located on south-facing slopes and/or focused on views to Olivenhain Reservoir or Lake Hodges, trails are available on north-facing slopes with open views over the Harmony Grove Valley. The Project site is visible from the trails used by hikers, equestrians and bicyclists on these north-facing slopes within both the DDHP and the EFRR (see Figures 2.1-3l and m, respectively). The 1.5-mile multi-use trail (Del Dios Highlands Trail) connects to within the EFRR and is approximately 0.3 mile from the on-site Project development. Views into the Project site are also provided from the EFRR Way Up Trail, approximately 0.5-0.6 mile from the Project.

Views from these trails are expansive, and include elements of individual residences and HGV in the County, as well as City of Escondido residences and facilities. More urban uses (including light industrial uses) to the north of Hill Drive in the distance, as well as elements of the ERTC can be seen. Hills rimming the Harmony Grove and Eden valleys are seen from these viewpoints on all sides, with distant hills forming the edge of view to the north, and slopes dropping away from the viewer in the foreground. Mt. Whitney and the western ridgelines provide a strong topographic background to the west, including the "Lady of the Valley," as described above.

As noted, Figure 2.1-3l depicts the closest and most open view to the Project from trails in the open space south of the Project. Taken from DDHP, the Project southern boundary is approximately 0.1 mile north of the viewer. The elevated and expansive nature of the view from this viewpoint visually "flattens" the topography that seems locally notable in views from the valley floor. The homes west of the parcel boundary are clearly visible, with the white home located at the approximate southerly extension of the Project. The chaparral that extends northerly onto the site from this open space is located in the foreground, but the view also encompasses portions of the site to its northern boundary, south of Escondido Creek, which is demarked by the east-west trending strip of green riparian vegetation. Although the focus of this figure is the expansive nature of the view from this viewpoint, the extensive nature of the current HGV grading, ultimately to be developed with structures, parks, and landscaping, is notable. (As described elsewhere in this EIR, substantial development already has occurred. Home sales began in 2015, at which point on-site roads, homes, Fourth of July Park and a private HGV recreational area with

a club house and pool were all in place. Grading and construction of the HGV WRF also has occurred.) Equally notable in the photograph are Escondido's Palomar Hospital (with its atypical height and massing for this area), the lighter-colored structures associated with the ERTC, and commercial and residential development in San Marcos in the distance.

Figure 2.1-3m depicts visibility of the site from EFRR, and was taken from the Harmony Grove Overlook, an area that provides seating under a shade structure and is likely to provide the most extended views over the Project. The red and white roofs of the homes along the western Project boundary are visible on the right-hand side of the photo. Much of the site is obscured by the tall trees associated with those Cordrey Drive residences, but part of the on-site chaparral is visible, as are some of the Project non-native grassland and scrub covered hills (all generally to the right of the dead bush in the center of the photo).

As noted above, the HGV project has constructed fenced mixed-use trails along Country Club Drive north of Harmony Grove Road and along Harmony Grove Road project footage north of Escondido Creek, and plans to construct a similar trail along Country Club Drive southerly to the Equestrian Ranch sited just west (across the street) from the Proposed Project. Open views from each of these facilities would be available to the Project, as these trails edge the roadway segments detailed above. Project-visible elements from these trails would be similar to those discussed for the roadways they abut.

Additional Context Photographs

As noted above, Figures 2.1-4a through 2.1-4d depict several focused elements that provide important elements within the viewshed and community. They are primarily focused on current build out of HGV, and also include some large lot single-family residential homes in the area. These photographs provide additional context for community conformity text in Section 2.1.2 of this EIR.

Figure 2.1-4a looks northerly from a point in the northwest section of the Project. The curve in Country Club Drive that forms the northwest boundary of the Project is visible, as is the north-south extension of Country Club Drive across Harmony Grove Road. The HGV WRF is visible above the slope edging Harmony Grove Road in roughly the center of the photo. HGV homes extend from west to east across the center of the photo—including the relocated Johnston Ward farmhouse, and homes both west and east of Country Club Drive. Additional pads for HGV homes are located between those built structures and the viewer, also on both sides of Country Club Drive. The steep and high manufactured slopes graded as part of HGV are particularly visible in the areas east of Country Club Drive. Palomar Hospital provides a notable multi-story built structure at the northern extent of the photo.

Figure 2.1-4b depicts home styles and massing of HGV residences west of Country Club Drive and the HGV Fourth of July Park. The proximity of the HGV houses to each other can be seen, and additional grading, to accommodate additional phasing, is seen on the hill behind the homes. Off-site, existing residential uses, including multi-story homes, range up the slope and are located along the ridgeline.

Figure 2.1-4c illustrates slopes abutting Harmony Grove Village Parkway within HGV. The sidewalk, equestrian-style fencing, multi-purpose trail and some streetscape landscaping is clearly seen, as is the height of the abutting manufactured slope.

Figure 2.1-4d depicts two homes in the vicinity of the Proposed Project that provide some structural context for the immediate area. They are both southwest of Harmony Grove Road, and are located near the Project to the northeast and southwest, respectively. As shown, these homes contain visible elevations that indicate three- to four-story residential uses.

2.1.1.2 *Project Site Visibility/Viewshed and Landscape Unit*

Project Viewshed

A "viewshed" is an analytical tool to aid in identification of views that could be affected by a potential project. The viewshed is defined as the surrounding geographic area from which the on-site elements of the Project are likely to be seen, and mostly is delineated based on topography. The viewshed boundary for the Proposed Project was primarily determined through the computer analysis of local topographic maps, and was field verified by Project analysts (see further discussion below). The viewshed boundary represents the geographic limits for this visual assessment.

Figure 2.1-5 illustrates the Project viewshed on an aerial photographic base. For the Project area, views within a 3-mile radius were considered close enough to allow viewers to visually "read" Project elements such as landform modifications, and (potentially) the spatial mass and form of proposed structures. Beyond a mile, topographic modifications and residential structures begin to become visually muted and distinguishable only as facets of the larger regional landscape. Using these criteria, the Project viewshed covers approximately 34 square miles, or 21,891 acres. This area was delineated using spatial models that analyze the topographic data and determine which portions of the Project site are potentially visible from surrounding areas. As shown, based on topographic information alone, approximately 16 percent of the viewshed, or 3,575 acres, within 3 miles of the Project potentially would have views to some part of the Project.

This is a conservative number as visual "shielding" by intervening structures or landscaping is not taken into account by the model. Because of intervening structural or vegetation elements, the entire Project site would not be visible from all of the identified points based solely on topographic elements within the viewshed area. Even under conditions in which topography or other intervening elements do not obstruct views, views to any given point within a viewshed may not be clear due to levels of humidity or haze. Features can lose sharpness at approximately 0.5 mile depending on these atmospheric conditions.

The computer-generated viewshed map was field checked by Project analysts and specific sensitive locations (segments of I-15, parks, trails) were visited to confirm or eliminate visibility.

As depicted on the viewshed map in Figure 2.1-5, based on topography alone, views from I-15 begin approximately 2.25 miles to the northeast, with the most distant location having visibility for approximately 250 feet. The higher locations within the open space set-aside from this locale have an available line-of-sight for southbound travelers. Although no visibility is currently available to the lower valley portions of the Project parcels, following grading and structure

construction, some limited views may be visible to the northeastern portion of the site. At most, visibility would be available for a total of less than 5 seconds at freeway speeds (65 mph) for southbound travelers only. The other, more brief, views would be increasingly harder to focus upon from a moving vehicle. Field checks of the locales north of this I-15 segment indicate that highway-related structures, as well as other buildings and vegetation obscure any views to the Project from more northerly locales on I-15 that the viewshed indicates as having views based on topography alone. Given the brief "worst-case" timespan for the single segment with potential views, combined with the distance from the site, the generally lateral nature of the view, and presence of visual distractions that would divert the viewer's attention from that specific locale (nearby cars, built uses abutting the freeway, etc.), views from I-15 do not comprise a viewer group that requires additional discussion.

Because of their visual sensitivity, a total of four parks in the cities of San Marcos and Escondido that were beyond the 3-mile radius, but with potential lines of sight to the Project and within approximately 5 miles, were field-checked. Where it was not possible to determine with surety whether or not the Project would be visible given distance and meteorological conditions (haze), computer-generated lines of sight were generated for specific locales to the development footprint of the site.

This very conservative 5-mile radius includes Rod McLeod Park, located approximately 3.9 miles northeast of the Project; and Jesmond Dene Park, located approximately 5.0 miles northeast of the Project; within the City of Escondido. Within the City of San Marcos, it includes the upper reaches of Woodland Park, located approximately 3.7 miles to the north; and Helen Bougher Memorial Park, located approximately 4.0 miles to the north.

From Rod McLeod Park small intervening hills (including the one abutting the northeast side of Project parcels) are visible. Based on topography alone, some views to the northerly facing slopes of that park are available, as is the major feature in Del Dios Highlands, but the developable portions of the Project site would be shielded. Views are also not considered available from Jesmond Dene Park. The developed portion of the park (ballfields and greensward) is located in a valley on the north side of a small hill abutting Broadway, west of the Reidy Creek Golf Course. A narrow swath of park extends southerly along Broadway. This area consists of scrub habitat, and ends on the south at Rabbit Acres. Some very narrow footpaths are located in among the scrub, and may be used by local residents to walk their dogs or pass through the habitat. In addition to the distance from the Project, it is considered that park users in this area would be focused on the surrounding brush and homes. A line of eucalyptus trees is also located along Rabbit Acres, which obscures views to the south. No significant view toward the Project was identified.

For Woodland Park and Helen Bougher in the City of San Marcos, the views shown as possible based on topography are not available. At Woodland Park, the only potential area would have been the tennis courts at the north end of the park, just south of Fulton Road. The tennis courts are edged in high chain-link fencing and webbing to stop balls, which also interrupt views to the south. On the south side of the screened fencing, there are trees (including California pepper trees), which also serve to block views. From Helen Bougher, the focus of this park is on the landscaping (including trees) internal to the park. Some visibility was noted to the upper stories of the hospital, but southerly views are generally shielded by buildings edging Woodland Parkway.

A circuit-training trail is open to the public in the vicinity of the Palomar Hospital medical center in the City of Escondido, approximately 1.5 miles to the north, but there is not visibility to the site from this ground-level facility at this location (see Figure 2.1-5). Similarly, the Del Dios Community Park (at the north end of Lake Hodges) is in the vicinity, but has no views to the site (also see Figure 2.1-5).

Because these facilities are not considered to have views to the Project, the viewshed for the impact analysis has not been extended to include them, and they are not additionally discussed below.

Project Landscape Unit

A landscape unit is a portion of the regional landscape and can be thought of as an outdoor room that exhibits a distinct visual character. A landscape unit will often correspond to a place or district that is commonly known among local viewers. Specifics related to visibility and intervening uses are provided as relevant within analyses below.

The "visual room" within which the Project is located consists of a single landscape unit. The room "walls" are provided by the ridge line/hilltops to the south, west and east, which provide parameters to views in those directions, and the Escondido Creek drainage to the north, which provides a vegetated line across the valley floor.

The area is topographically diverse, with north-facing gentle slopes generally located within the northern portion of the Project, some hillocks toward the eastern boundary of the Project, and more differentiated landforms in the southern portion of the Project (i.e., topography is more abrupt, and steep slopes drop away to both the east and west, or north and south from the smaller ridgelines). South of the Project, slopes continue to increase in height to the south. The "valley floor" associated with Escondido Creek generally slants up to the south and east as one moves through the Project. Individual large-lot homes are located up slope from the Project to the east towards Escondido, and downslope (abutting the Project western boundary) on the east side within County jurisdiction. Off-site residential uses are also sporadically located along hills west and south of the Project.

2.1.1.3 *Visual Character*

Visual character is descriptive and non-evaluative, which means it is based on defined attributes that are neither good nor bad in themselves. A change in visual character cannot be described as having good or bad attributes until it is compared with the viewer response to that change. If there is public preference for the established visual character of a regional landscape and a resistance to or a preference for a project that would change or contrast with that character, then changes in the visual character can be evaluated.

The visual character of the Project locale encompasses diverse forms, including numerous hills and hillsides, ravines, and the open valley area, now largely under construction as part of HGV. The ongoing grading provides a large expanse of light-colored soil that draws the eye and is discordant with the otherwise largely vegetated adjacent land uses. Although a lengthy construction period resulted in an assessment of significant and unmitigable construction effects for the issue of visual resources in that project's EIR, once that project is built out, it will visually read as more visually compatible with other abutting uses. This is because the HGV structures

would have darker roofs (less likely to draw the eye from elevated view locations), some farmhouse motif structures, a robust planting scheme, and equestrian pathways/streetscape located between close-in viewers along Country Club Drive and Harmony Grove Road portions abutting the project. Simulations of projected views following completion of HGV as provided in the 2007-certified EIR for that project are in Attachment A to the Project VIA (Appendix B to this EIR).

As noted throughout this discussion, hilltop development is relatively small in scale and somewhat intermittent, but very noticeable, with geometric and rectilinear structures skylined from off-site views. This mix of the natural and human-made environment is notable. Roadways wind along the hillsides and views from local roadways can provide dramatically different visual experiences. Along the public roadways (generally located at lower elevations) and from built out areas in the valley bottoms, views can be fairly restricted. This is because the topography bottoms out and intervening residential land uses and associated structures and landscaping result in views being fairly focused and localized. From private roadways, public trails and private residential lots at higher elevations, views are panoramic in nature—with a viewshed often extending miles.

In general, area grading reflects the natural topography; in that it steps up and down the original gradient, following increases and decreases in elevation. The ultimate result, however, is that the ridgelines (which draw the eye from lower elevations) are developed with structures that are skylined to viewers from below, or at, similar elevations. This is particularly so in areas to the north of the Project, where San Marcos residential development is sky-lined in the distance, and in some of the areas west of the Harmony Grove and Eden valleys. Closer to the Project, there are instances in which, depending on the viewer's specific location, a structure located on a lower knoll or hillside may appear to be located on a ridge. These instances occur in passing when a viewer may see either a low-lying knoll from a vantage point in which it obscures a higher topographic feature behind it, or where a structure located on a hillside may be seen in profile, allowing the viewer to see the home with sky behind it even though it is actually backed up to a higher topographic feature. As noted above, the Project is across the street from the planned Equestrian Ranch at HGV. North of Harmony Grove Road, residential, commercial and industrial elements of that project are actively building out. South of Harmony Grove Road and north of Escondido Creek, a County community park is in place and a County equestrian-themed park is underway.

Depending on the season, the non-irrigated non-native grass fields of the Project parcels may be tan to a light to emerald green. Darker greens associated with on-site eucalyptus and California peppers (near Country Club Drive) are openly visible, and oaks along a riparian corridor in the southern portion of the Project are visible to local viewers. The greens to muted brown-greens of sage/chaparral habitats predominate on the Project hillsides. Overall, the colors are visually "soft," with topographic ridgelines and hilltops providing harder edged and dominant forms at the skyline.

Colors of existing built structures vary, and have a commensurate tendency to fade into their surroundings (generally brown/tan structures) or draw the eye (white or cream structures). Red tile roofs are more visible than brownish tones, and the blue roof on a home northeast of the Project is a small feature but notable due to its unusual color.

The off-site but visually prominent Palomar Hospital provides a dominant geometric, hard-edged element to views in the general area. From the site, it is a distant, but notable element from the central slopes of the Project, given its rectilinear nature and height (11 stories), which cannot be obscured or minimized by landscaping. This structure is highly visible from several locations in the area. Roads and residential structures, which are smaller in scale, provide some variety of form and line. Shrubs and trees can also provide bulbous or vertical elements in a valley floor viewscape when they are isolated from more dense vegetation. As noted above, when vegetation is more dense, and particularly at distance, it merges into a softer image.

All of these noted visual elements, however, are visually overpowered by the dominant scale of hills that border Harmony Grove and Eden Valleys to the north, west and south.

2.1.1.4 *Visual Quality*

Visual quality is evaluated by identifying the vividness, intactness, and unity present in the viewshed. This approach to evaluating visual quality can help identify specific methods for mitigating specific adverse impacts that may occur as a result of a project. The three criteria for evaluating visual quality can be defined as follows:

- **Unity** is the visual coherence and compositional harmony of the landscape considered as a whole. It frequently attests to the careful design of individual components in the landscape.

- **Intactness** is the visual integrity of the natural and man-made landscape and its freedom from encroaching elements. It can be present in well-kept urban and rural landscapes, as well as in natural settings.

- **Vividness** is the visual power or memorability of landscape components as they combine in distinctive visual patterns.

The visual unity of the landscape unit is moderate. As a result of individual development patterns, the setting includes varied residential uses (rural, semi-rural and estate) with large expanses of retained open space on hillsides. These homes have some architectural unity as well. Residential uses in the immediate area typically exhibit one-story ranch-style features with wooden or stucco exteriors and dark brown or reddish roofing. The residential elements show a level of compositional harmony, even among the variety of features. Agricultural groves or scrub habitats cover the hills, and are largely visible.

The intactness of the area currently is moderately low. The existing setting includes small uses to large homes, some with visible agricultural or equestrian elements. Dirt roads are visible, as are open fields. Mature vegetation edges many of the residences and other structures and some stands of trees are notable. Agricultural and native scrub slopes are interspersed with large lot and estate residential uses. Based on assumptions in the EIR, HGV construction could be completed by approximately 2018, resulting in the village center and 742 homes being present in the northern portion of the valley.

The site setting is not particularly vivid due to its relatively small size and varying nature. The generally open nature of this southern part of the valley floor, combined with the higher topography of the southern ridgelines rimming the larger valley, result in a moderate rating.

2.1.1.5 *Viewer Response*

Viewer response, or awareness, is composed of two elements: viewer sensitivity and viewer exposure. These elements combine to form a method of predicting how the public might react to visual changes brought about by a project's implementation.

Viewer sensitivity is defined both as the viewers' concern for scenic quality and the viewers' response to change in the visual resources that make up the view. Local values and goals may confer visual significance on landscape components and areas that would otherwise appear unexceptional in a visual resource analysis. *Viewer exposure* is typically assessed by measuring the number of viewers exposed to the resource change, type of viewer activity, duration of the view, the speed at which the viewer moves, and position of the viewer. A viewer's response is also affected by the degree to which he/she is receptive to the visual details, character, and quality of the surround landscape. A viewer's ability to perceive the landscape is affected by his/her activity. A viewer on vacation in San Diego County would probably take pleasure in looking at the landscape, and an individual may be strongly attached to the view from his home, but a local County resident commuting to work may not "register" those same visual resources on a daily basis.

The following discussion of viewer groups addresses both public and private views. With regard to private views, the majority of these are from residences or streets that are not accessible to the general public but are expected to have views to the Project.

Motorists

Sensitivity

As noted, the primary roadways in the vicinity are Harmony Grove Road and Country Club Drive. Motorists on Harmony Grove Road generally would be through travelers, or on their way to the larger HGV development (the latter group constitutes approximately a third of the roadway users based on the HGV traffic technical report [LLG 2017]). Viewers could also experience "close-in" views available onto the Project site; and as a County-designated scenic corridor, travelers may have expectations of scenic views. Balancing these elements results in travelers on these primary roadways being assigned a moderately high sensitivity to change.

Travelers on Country Club Drive would have direct views onto the site along the northwest side, where the road abuts the Project. Other roadways in the Project vicinity provide limited views to the Project. They are narrow, often edged with obscuring vegetation, and subject to relatively few viewers given the low number of homes west of the Proposed Project. Motorists on these smaller, residential roads in the area (including the abutting portion of Country Club Drive) also are presumed to generally have moderately high sensitivity. This is because a high percentage of the viewers along these roads are presumed to be residents; others may be present specifically for the scenic nature of the roads in this area provided by the surrounding topography. Residents' sensitivity (discussed below) generally would be high; however, the winding nature of the roads

in the residential areas of the viewshed would require that motorists in these areas be more focused on the immediate roadway rather than wider views. This may not be the case with passengers, who would be able to pay more attention to the surrounding scenery.

Exposure

As shown on Figure 2.1-5, views to the Project from portions of Country Club Drive north of Escondido Creek are largely shielded by intervening topography for over a mile to the north. Screening vegetation and/or abutting residences also obscure views to the Project parcels in many areas. Due to this, viewer exposure to the Project along these northern sections of Country Club Drive is expected to be low.

The portion of Country Club Drive adjacent to the Project currently carries approximately 605 ADT (LLG 2017), and is projected to carry approximately 5,135 ADT with the Project. Views onto the Project would be sustained for a number of seconds as travelers move along its western boundary. As noted above, Harmony Grove Road trends east-west in proximity to the northern boundary of the Project, and then trends southerly on the west side of Escondido Creek where both the road and the creek turn toward Elfin Forest. Travelers on this road would comprise the single largest viewer group in the area. The creek and its riparian vegetation are always located between the road and the property, but it is possible to see over some portions of the vegetation to portions of the site. Exposure to the Project along these sections of Harmony Grove Road and the abutting portion of Country Club Drive is expected to be high.

Along other roads, views are additionally attenuated by distance, the curving nature of the roadways, and/or vegetation. The brief duration of views and low number of viewers indicates that motorists on these roads in the residential areas have moderate exposure.

Conclusion

Although drivers on local roads are expected to note Project-related changes, their primary focus generally would be on speed of travel and interaction with other drivers on the road, as well as attention to local children, domesticated animals, and the occasional wildlife sightings in this area. This, combined with both the relatively short duration of exposure time on the local two-lane roadways generally located within the Project area and the number of competing visual elements in the shifting viewshed, is expected to lessen the importance of specific view elements for this group of viewers. Traffic conditions and competing visual elements would comprise an element of distraction from passenger views as well, but it generally would be less than for the driver. In these cases, passengers within the vehicle could be more focused on the passing viewscape. Although lessened in level of effect, any distraction at all, when combined with the relatively short duration for visibility, would result in the visual impact of specific view elements being less important for this group of viewers (e.g., less important relative to viewers such as residents, discussed below). Overall, motorists' awareness is assessed as moderately low.

Recreationalists

Sensitivity

The DDHP (accessed from Del Dios Highway at Date Lane) includes a trail that accesses EFRR. Views to the Project are available approximately 1 mile into the DDHP from the connection with Del Dios Highway (see the viewshed in Figure 2.1-5, as well as the open nature of views into the site represented by Figure 2.1-3l). The EFRR offers approximately 11 miles of hiking, mountain biking, and equestrian trails, as well as picnic areas and scenic hillside/mountain viewing points. A number of trails are on the northeastern slopes of the Reserve, with views oriented northerly potentially including the Harmony Grove community and (at least obliquely) the Proposed Project. Some individuals using the cited trail systems are expected to be locals with ongoing experience of the trails. These users are generally expected to be highly sensitive to changes in the immediate viewscape. Other users are new-comers, or will be residents of HGV, and potentially, the Project. These users will not have pre-existing expectations of views seen from the trails and are expected to be appreciative of the expansive nature of the views overall, as well, perhaps, as interest in their specific neighborhood as visible from the trail. These users are expected to have moderately low sensitivity. Combined, sensitivity is considered to be moderate overall.

Current residents may walk, or ride bikes and/or horses, along the valley floor roadways for recreational purposes. The County trails map shows that designated community trails are planned for this area. Individuals walking or riding along the local roadways who are already residents in the area would be expected to be sensitive to Project-related changes and would be anticipated to have expectations of existing conditions retention. A number of residential users of these trails are anticipated to come from the HGV development, currently under construction. Those individuals would not have expectations preceding the more built environment, as they would reside in HGV, and would experience the Project vicinity following development of that 468-acre project. The expectation would be the same for users of the trails from the Proposed Project. Their sensitivity to change in views from the current condition is considered low. Combined, sensitivity is considered to be moderate overall.

Exposure

Based on car counts made by EFRR staff, an average of 3,500 cars accesses the Reserve per month. EFRR staff assume 1.5 to 2.5 individuals per car, so that an estimated 63,000 to 105,000 visitors a year may visit the EFRR (Anderson 2014: pers. comm.). Trail use in the EFRR can be heavy, with the most heavily used trail being the "Way Up Trail," which is used to access others in the system. The farther away from the entrance a trail is located, the fewer hikers use the trail. In other words, the majority of EFRR visitors focus their visit on areas closer to the visitor center, with fewer visitors visiting locales miles in from the entrance and away from the trail head (Anderson 2012: pers. comm.). The number of hikers would be highest within these recreational areas on the north-facing slopes.

DDHP trail use is based on individuals registering at the point in which the Del Dios Highlands Trail merges with the trails in EFRR. Use varies by season, with the greatest use occurring during cooler months. Guests average approximately 500 trail uses during the hotter months, and approximately 1,250 during the cooler months. Since the register is far up the trail, the DDHP

ranger estimates that approximately 750 individuals use the trail in the summer months and up to 1,500 individuals use the trail in the winter months (these numbers include those who experience the trail at lower elevations, and then turn back prior to crossing into EFRR). Dividing the year generally into hotter and cooler months, about half the year DDHP would be expected to host approximately 1,500 guests per month, and about half the year DDHP would be expected to host approximately 750 guests per month, for an assumed total of approximately 13,500 visitors per year (Rodes 2014: pers comm).

Viewers using these trails would be moving at pedestrian rates of travel, or could be stationary at overlooks. After approximately the first mile of the Del Dios Highlands Trail, users would round to the north side of the hill, and would be able to experience views to the north initially blocked by the hillside. They would pass directly to the south of the southern Project boundary, and would be able to look directly down and over the site. Viewers from EFRR would not be looking directly onto the site. Although open views are available, the majority of views from the Way Up Trail (in particular) in the EFRR to the Project are screened by larger topographic forms, and/or by the twists and turns of the trail. This trail has numerous switchbacks, which keep trail users from looking toward the site for a substantial period of trail use. Intervening topography and/or vegetation also plays a part, and provide major elements of the visual experience from the EFRR trails. Where views to the north/northeast are available, they are expansive, and contain many elements (natural, built, near and distant). Current views from the trail include abutting native vegetation, as well as highly urban portions of the City of Escondido, the dark green vegetation associated with Escondido Creek, existing residential neighborhoods densely planted with ornamental trees, and the HGV area. A good example of one of the most open views onto the Project is provided in Figure 2.1-3l, from the Del Dios Highlands Trail south of the Project. As seen in Figure 2.1-3m the relatively oblique viewing orientation from EFRR to the site renders views less open than those available from DDHP.

Combining a relatively slow rate of passage (i.e., high exposure duration to the expansive views) with the generally intermittent nature of the views, and the facts that the Project site comprises only a portion of extremely expansive views and that the most open views from DDHP are seen by a relatively low number of viewers, results in recreationalists in the nearby DDHP/EFRR lands and hiking on nearby trails having moderate exposure.

Individuals walking or riding adjacent to the Project along the local roadways also would move at a relatively slow rate of passage, and could be expected to have chosen non-vehicular transportation in order to enjoy the experience. Their number is relatively low, however, and their attention would be expected to be often focused more on the roadway activity immediately adjacent them than longer-range views. Exposure to the Project is considered moderately low.

Conclusion

As noted above, hikers in the nearby DDHP and EFRR may have a high awareness of the surrounding area and the available views, including views toward the Project parcels. While occasional or first-time visitors may not have expectations regarding potential views, regular visitors could wish to retain near and mid-range semi-rural elements within the expansive views. The views toward the Project parcels are not currently natural however, as they encompass the developing HGV grading project, as well as grading activity associated with new build of a

residence just east of the Project, along with a number of other single-family residences in the area. The views are also not sustained for long periods of time, as the trails twist and turn, varying the line of sight as the hiker moves along the trail. The changing focus of the recreationalist on these trails, combined with the substantial amount of current mid-ground disturbance and ultimate HGV buildout of that large project, would be expected to lower viewer awareness of activity on the Proposed Project to moderate to moderately low levels.

Riders and hikers along local roads adjacent to the Project are assumed to be local—with all the expectations of local residents, as described below.

Residents

Sensitivity

A number of homes are located within the Project viewshed. Large, estate-style single-family residences and smaller residential uses are located in the Project vicinity and on the surrounding hills. For these viewers, the Project parcels can provide an often-seen and intimately known view that contributes to the sense of home or the broader community. Although home orientation or screening vegetation would obstruct many views, residential viewers are expected to be highly sensitive to changes in the immediate viewscape.

Exposure

A substantial amount of local topographic variation (small hills, bumps, and gullies located on the larger hill forms) is present throughout the viewshed, and residential landscaping also provides frequent shielding of view elements, both from the home where the landscaping is installed as well as for adjacent structures. Approximately 10 existing homes are located on parcels abutting the western or eastern boundaries of the site, which is a very low number of residents with potentially direct and close views. In other cases, residential (or related) structures themselves block views. Therefore, not every structure encompassed in the viewshed limits has uninterrupted views from the entire property. Regardless, where views exist, they can be expansive, and many homes are sited specifically to take advantage of these open views. In these instances, open views encompass adjacent developed and/or developing uses, and both hillside and hilltop residential development. Where residents in the viewshed have long-term, stationary views, they are rated as experiencing moderately high exposure.

Conclusion

Although views from many homes may be substantially obscured or absent based on intervening structures or vegetation, based on past experience, where views to the Project are associated with existing homes it is assumed that residents will strongly prefer retention of existing conditions. Where they are associated with new build (e.g., particularly part of the HGV project), they are expected to appreciate the conditions as present at initiation of their residence in the community. Nearby residents are expected to be highly aware of changes associated with Project implementation.

2.1.1.6 *Regulatory Setting*

The Proposed Project is subject to a number of regulations applicable to the protection of visual resources, as well as plans and policies that ensure adequate consideration is given to preserving and/or enhancing the visual qualities of an area. These policies aid in evaluation of the planning agency/community perception of visual qualities within an area, as well as providing guidance as to whether Proposed Project modifications would be visually compatible with County and/or community goals. The Proposed Project is subject to the following guidelines and policies.

County of San Diego General Plan Conservation and Open Space Element

The 2011 Conservation and Open Space (COS) Element of the County General Plan combines what formerly were four separate elements (Open Space, Conservation, Scenic Highway, and Energy) and describes the natural resources within the County and goals and policies to preserve them. The COS Element provides direction for future growth and development in the County with respect to the conservation, management, and utilization of natural (biological, water, agricultural, paleontological, mineral, visual [including scenic corridors and dark skies]), and cultural resources; protection and preservation of open space; and provision of park and recreation resources. A segment of Harmony Grove Road just north of the Project and Escondido Creek, is identified as a scenic corridor in the COS Element and is included as part of the County Scenic Highway System. Specific goals and policies in the COS Element are addressed below under the heading *"Design Guidance and Policies."*

San Dieguito Community Plan

The San Dieguito Community Plan (August 2011) augments the 2011 General Plan and contains goals and policies specific to the San Dieguito community planning area. The overall Community Plan is divided into two portions, one of which focuses on the Elfin Forest and Harmony Grove geographic areas and communities. Guidance related to aesthetics is contained in several elements of the San Dieguito Community Plan, including the Land Use, Circulation and Mobility, and Conservation and Open Space elements. Because the Project site falls within the Harmony Grove community, goals and policies related to aesthetics contained within the Elfin Forest and Harmony Grove portion of the Community Plan apply to the Project.

Resource Protection Ordinance

The County's RPO provides special regulations applicable to certain types of discretionary applications, including tentative maps. The ordinance focuses on the preservation and protection of the County's unique topography, natural beauty, diversity, natural resources, and quality of life. It is intended to protect the integrity of sensitive lands including wetlands, wetland buffers, floodplains/floodways, sensitive habitats, cultural resources, and steep slopes (lands having a natural gradient of 25 percent or greater and a minimum rise of 50 vertical feet, unless said land has been substantially disturbed by previous legal grading), all of which are components of visual quality and community character. Of the 44.3 acres exceeding 25 percent slope, approximately 26.5 acres meet the definition of steep slopes under the County's RPO and is subject to analysis under the RPO. This represents approximately 24 percent of Project site. Refer to Section 2.1.2.2,

below, for a summary of this issue as it relates specifically to visual issues and to Section 3.1.5 of this EIR for full discussion regarding ordinance compliance.

Dark Skies/Glare

The County LPC seeks to control undesirable light rays emitted into the night sky in order to reduce detrimental effects on astronomical research. Zone A, defined as the area within a 15-mile radius centered on the Palomar Observatory and within a 15-mile radius centered on the Mount Laguna Observatory, has specific light emission restrictions. The unincorporated portions of San Diego County not within Zone A fall within Zone B, and are subject to lesser restrictions. Outdoor lighting, such as security or parking lot lighting, must be less than 4,050 lumens and fully shielded within Zone B. The Project site is located approximately 25 miles from the Palomar observatory and approximately 50 miles from the Laguna Observatory, and is therefore, within the Outdoor Lighting Ordinance Zone B.

Design Policies and Guidance

Design policies and guidance can be found in the County General Plan COS Element (2011a), and the San Dieguito Community Plan, including the portion of the Community Plan focused on Elfin Forest and Harmony Grove.

The County General Plan COS has three goals and nine policies that apply to the Proposed Project relative to: (1) preservation of scenic resources, including vistas of important natural and unique features (Goal COS-11, five policies); (2) preservation of ridgelines and steep hillsides for their character and scenic value (Goal COS-12, two policies); and (3) preservation of dark skies that contribute to rural character and are necessary for the local observatories (Goal COS-13, two policies).

The Elfin Forest and Harmony Grove Community Plan identifies goals and policies associated with Harmony Grove community character that are relevant to visual review; including preservation of the rural small town feeling of Harmony Grove (Goal LU-1.5, three policies), open access community design that fosters a feeling of "one neighborhood" despite multiple developments (Goal LU-1.6, two policies), preservation of mature native trees (Goal LU-1.7, one policy), dedicated open space (Goal LU-1.8, one policy), retention of an attractive equestrian community that encourages environmentally sensitive, responsible horse keeping (Goal LU-1.9, five policies), and fostering a rural residential lifestyle built in a fashion that is compatible with and sensitive to its natural setting; unspoiled views of intact hills, valleys, and creeks (Goal LU-1.12.1). Detail as to each of the goals and policies is provided on Attachment B to Appendix B of this EIR.

2.1.2 Analysis of Project Effects and Determination as to Significance

2.1.2.1 *Potential Conflict with Important Visual Elements or Inconsistency with Applicable Design Guidelines*

Guideline for the Determination of Significance

The Proposed Project will result in a significant impact if:

1. The Project would introduce features that would detract from or contrast with the existing visual character and/or quality of a neighborhood, community, or localized area by conflicting with important visual elements or the quality of the area (such as theme, style, setbacks, density, size, massing, coverage, scale, color, architecture, building materials, etc.) or by being inconsistent with applicable design guidelines.

Guideline Source

This guideline is from the County Guidelines for Determining Significance – Visual Resources (2007i).

Significance Guideline 1 protects the existing visual character and visual quality by not allowing adverse changes or elements with high visual contrast. These aspects of the Project are assessed by analyzing changes that would occur in particular "key" views, and viewers' responses to the changes.

Analysis

Visual character is composed of the visual environment "as a whole," and includes both existing natural and developed uses with a seen area.

Site Design and Layout

The Project would construct a primarily residential community with associated park and recreational uses on an approximately 111-acre site. Approximately one-third of the site ultimately would support residential lots, development streets, or potential utility uses; with the remaining two-thirds (approximately 75 acres) of the site retained in visual open space.

The site is located on sloping hillsides and sloping valley floor surrounded by existing and developing residential uses and hillsides/ridgelines. Residential lots would be grouped to limit the impact footprint as feasible and provide areas of open space and retention of on-site visual resources, such as native chaparral habitat and south-trending steep hillsides. Biological set-asides, Project landscaping, and/or park/recreational/undeveloped areas would comprise the majority of the Project.

Harmony Grove contains dramatic and tall landform features rimming the valley that provide a background to the Project. The taller structures on site, such as the granaries, would in some sense mimic the verticality of these surrounding landforms. Additional developed elements would include extension of a standardized roadway, manufactured slopes, standardized trail character,

and parkway landscaping. The Project-related elements, therefore, are expected to visually "balance" each other. For example, whereas the additional lane along Country Club Drive would minimize the rural nature of the existing two-lane roadway, Project design elements referencing the semi-rural character of the Project area include Project landscaping that would be compatible with native and locally appropriate plants (as well as the approved HGV landscaping plan), multi-use trails, split-rail fencing along public roadways, and large open space areas. The inclusion of landscaping along the east side of the road, with equestrian trail fencing, would explicitly reference the agricultural history of the community's setting.

Residential lots in the central portion of the development footprint would be placed on north-facing sloping hillsides. This would "step" the structures up the hill in this area, to the top of the central topographic "bench" feature, with landscaping in between each residential type. To some extent, this would minimize seen structures, as the locale where the most viewers are located (north of Harmony Grove Road) would be at some distance, and one layer of structures would tend to shield the one behind it. This is particularly true for the granary structures. Based on the preliminary grading plan (see Figure 1-6a), pad elevations for the structures on the north side of the lot would be approximately 715 to 730 feet amsl. The second row of structures would be located on pads at approximately 720 to 730 feet amsl. Those three structures would not be visible from viewers to the north as they would be obscured by structures of the same height to the north of them. Also, an additional seven Harmony Court residences on the southernmost developed south-facing slope (and downslope from higher on-site elevations) would not be visible as they would be both shorter structures, as well as downslope from the granaries at approximate initial elevations of 705 to 715 feet amsl. Further downslope would be Harmony Court homes located at elevations of approximately 715 to 670 feet amsl, moving from east to west. All of these structures would be shielded by intervening Project buildings for viewers from the north based on those homes being sited behind, and/or lower, than the first row of granaries.

On an individual pad/structure basis, the Project would vary from the immediately abutting uses to the west, which generally have been individually designed and landscaped, set into large lots. As shown on the simulation in Figure 2.1-9, *Project Photo and Simulation from Key View 2,* in the discussion of Key View (KV) 2, however, the combination of joined or adjacent residence/ garage/barn structures, and the presence of large estate-style homes containing multiple stories, result in Project structures visually being in scale with off-site homes. Closer up, the cottage structures close to Country Club Drive would be consistent with residential portions of the adjacent village (of which HGV South would be an extension). The overall change would be most visible/ noticeable from the expansive views available from areas surrounding the Project site that are higher in elevation and encompass the on-site hillsides and valley in their visual context related to surrounding properties. In these more distant views, the HGV South Project footprint would be minimized by the much larger development area associated with HGV north of Harmony Grove Road. Overall, the density and massing is assessed as different from the immediately abutting uses, but generally visually consistent with the Harmony Grove Valley as a whole, and providing a visual transition from the more regimented and tighter village core design visible in HGV (and anticipated to continue to be visible following HGV vegetation maturity due to HGV core street lines).

More intense green coloration also would be visible in an area currently bordered by the dense vegetative line of Escondido Creek, but currently generally encompassing either on-site grasslands

or the more subdued green tones of scrub habitat. Project irrigation would allow for increased green tones on site, as well as along the Country Club Drive streetscape. These proposed design elements, combined with the existing elements that would be retained, would soften Project effects.

Overall, the Project would extend the visual patterns of development in the surrounding area onto the currently undeveloped Project site. They would also be generally visually consistent with the existing and notable surrounding landscape and development to the north.

The design configuration would visually mesh with the HGV project that is currently under construction in the northern quadrants of the area. This larger portion of the village (sited on over 450 acres) is currently building out just to the northwest of the Project. Even when HGV is completely built out and would no longer contain large expanses of barren grade soil, it would minimize the visual effect of Proposed Project development. Excluding open space (biological open space, landscaped areas and parks; a total of 211 acres), the developed footprint of HGV would be 258 acres, compared to the approximately 36 acres within the Proposed Project that would support development structures or streets (approximately 14 percent of the HGV equivalent area). HGV would provide a patterned developed element with rectangles, curves and greenswards to the view that would attract the viewer's eye as s/he gazes over the valley as a whole. The Project would provide a visual transition zone between the open space located to the south and the more compact and uniform development design of HGV. On either side of the development footprint of the Project (particularly when seen from the south, where potential viewers look more directly "down" onto south valley development), the single-family residences of the Project would also visually merge into the existing less dense development within the County on both sides of HGV South, providing a feathering into increasingly less development to the west and east. This would be attained by placing single-family Harmony Court residences along the southern Project development edge (with the larger and multi-family format attached dwellings of the granaries located north of the single-family homes). Larger lots have been designed here, with open space easements placed over the slope portions of those lots edging BOS. "Feathering" would also be accomplished through the use of open space swaths within the Project, providing notable swaths of landscaped area between housing groupings. This design renders the Project less visually "tight" and linear than the village layout of HGV to the north, and blends more easily into the even larger lots and single-family housing located to the west and east of the Project. Project permanent open space would abut the off-site open space areas associated with the DDHP and EFRR to the south.

During Project construction, however, construction-related activities would visibly contrast with on-site existing conditions due to removal of existing vegetation and the introduction of new, visually dominant elements, including raw soil; newly graded building pads and cut or filled slopes; construction-period fencing; construction equipment; and construction materials stockpiling and storage. Implementation of a bridge over Escondido Creek also would change the existing condition (currently a two-lane road crossing the creek at grade). A bridge would need to accommodate travel lanes as well as trail connections, and would be a wider facility. As a result, existing riparian vegetation in Escondido Creek on either side of the existing crossing would be removed to accommodate the bridge, as well as to repair damage to the creekbed, which would result in a change in the level of riparian vegetation seen at this location. Houses in the surrounding area may have views of the grading and other construction elements, although existing vegetation and structures in the surrounding area may block direct views. In particular, eastbound travelers

along Harmony Grove Road and southbound travelers along Country Club Drive also would have open views toward the Project from these adjacent areas from short stretches along these roads where they are approaching the site. From further distances, grading would not be distinctly visible as intervening hills, structures, and vegetation can block views of the site. As a result, mass grading would not substantially impact views (including, increasingly, those of HGV) from further distances. Viewers would be exposed to these construction-related elements for the duration of the construction period (assumed to be approximately 3 years). The most notable portion of this period would be the first year, when grading and infrastructure installation would result in the greatest amount of raw soil open to view.

Grading and blasting also is likely at the south end of the residential development footprint. This also could expose raw soil. This would be treated with standard hydroseeding and landscaping as part of Project design, but also could expose broken rock that (without treatment) would not appear aged for a substantial period of time. The introduction of newly broken rock into views that would be seen by members of the public as they use Project trails to access the primitive trails to DDHP and the EFRR is identified as adverse. This is because the rock's location in otherwise natural habitat would be viewed from an unimproved recreational trail designed to access natural open space, and the color of the newly broken rock would draw the eye and contrast with the natural setting. In addition, a drainage cross-feature that would control runoff from the face of the cut slope could introduce a light-colored horizontal line across the slope face.

Architectural Design

Residential uses in the immediate area abutting the Project are primarily one- to two-story structures, and often of California ranch design, although there is additional variation. Nearby residential uses include the small cabin-like homes of the HGSA, as well as three- and four-story homes with more variation in architectural styles and decorative features. The homes associated with the HGV project, currently building out, have been designed to reference a number of architectural styles, including American farmhouse architecture. The homes feature vertical lines and pronounced gables, and are generally two stories (allowed up to 36 to 38 feet in height). Many are stand-alone structures; some are oriented in "compound" designs where up to eight homes would be clustered on a circular pad. Nearby commercial and industrial uses to the north in the City of Escondido generally exhibit more utilitarian features with minimal architectural design. Residential uses include single-family homes on smaller lots as well as a large number of mobile home parks. Overall, there is not a single or unified architectural theme within the Project area.

Conceptual architectural design is described in the HGV South Specific Plan. The Project would provide architectural styling that is appropriate to the underlying topography (i.e., designed to minimize footprint relative to the number of homes) and would be harmonious with the styling of the approved HGV, while retaining an individual identity. Typical levels of projected architectural diversity based on detailing relative to structure facing, window style and surrounds, roof lines, etc., are provided in Figures 1-7a and 1-7b for each of the housing styles potentially proposed for the Project. Most of the proposed homes would be two stories. Some architectural detailing such as intermittent towers would be provided so that finished elevations would vary slightly within each residential type to break up the roof line. Non-inhabitable architectural projections would provide interest and act to pull the gaze upward, toward the higher steep slopes south of the property; and would not exceed 5 percent of the building structure types, overall.

On the hillsides, the alignment of Project roadways would meander to mimic the curvilinear lines of the topography in the visual landscape, to minimize contrast with the undulating visual forms of the hillsides and ridgelines. Roof colors generally would be dark browns (as opposed to red tile), and exterior facades and design elements would be in soft tones and often incorporate stone to visually blend with the surrounding area. The WTWRF would include elements described under the Project Description (refer to Section 1.2.2.2), and would be surrounded by a 6-foot high masonry wall and screened with landscape plantings. The building would be designed to reflect the architectural characteristics of the rest of the Proposed Project and would include design details intended to create the impression of an out-building cluster of agrarian barn structures. The structure would have a maximum height of 18 to 25 feet, and the planned carriage style stable and man doors, weather vanes, etc., would be at a scale in keeping with other rural structures in the area where not shielded by the 6-foot wall and landscaping. Lighting for the facility would not be any higher than the height of the equipment and would only be activated when workers are present.[1]

Three existing homes to the east of the Project are located at higher elevations (over 800 feet) that could potentially look down and over the WTWRF. The closest of these homes from the proposed facility is approximately 0.25 mile distant, with the other two structures being similar or farther away. This distance, combined with the small footprint (less than 0.4 acre) of the most intensive anticipated on-site WTWRF uses, the small portion of the potential view, and the very low number of potential viewers; renders this a less than substantial effect. In addition, two of the homes are clearly oriented to take advantage of primary views in other directions, with a smaller "side" portion of the home facing the potential facility. These considerations would provide visually compatible features within the semi-rural visual environment and would mask the otherwise industrial look that is usually characteristic of this type of facility.

Overall, the Project would result in the construction of elements within the landscape that would be compatible with the existing varied visual character and would provide an updated architectural product with landscaping known to perform well in San Diego County and to be consistent with the visual quality of the neighborhood and HGV.

Massing and Scale

As discussed above under Site Design and Layout, the Project proposes to group residential lots to limit the impact footprint and provide a large area of BOS. As a result, residential lot sizes generally would be smaller than those residential uses immediately abutting the site parcels and absent design considerations, there is the potential for the development to contrast with the relative scale of existing surrounding development. The Project incorporates several site design features to reduce massing effects.

First, as detailed above, by grouping homes, large areas of open space would be provided. Pads would be sited at intermittent locales following the topography. This would minimize mass grading onto a single "build" pad and would allow for substantial landscaping swaths.

[1] This lighting also would be strictly shielded to retain light spill on the WTWRF work area, with no spill to the north, and toward Escondido Creek.

Single-family residences generally would be two stories with an approximate height of 28 feet and allowable tower features of up to 35 feet. Other residences would encompass more than one residence but would visually present as stand-alone single-family farmhouses, or old agrarian structures that have been added onto and built over through the years. These structures would be higher, at approximately 38 to 45 feet, respectively, for the primary buildings. The largest structures, the approximate 45-foot tall granaries (with additional architectural projections), also would be the fewest. Only eight of these structures are planned for the site, as they are designed to reference structures found in historical agricultural villages, and therefore would be proportionally fewer than the residences in such a village. The inclusion of multiple residences into single structures in the farmhouse and granary structures also results in fewer structures overall on site. Although the number of proposed residences would total 453, the number of proposed residential structures would be approximately half that number.

The farmhouse and granary structures would be sited in the south-central portion of the development footprint, and their mass would therefore be somewhat diminished both by distance from the majority of viewers (along Harmony Grove Road and points north) as well as by some level of shielding by other Project structures. The granaries also would be located westerly of on-site slopes reaching up to 910 feet amsl (and higher off site). These structures would therefore be downslope from higher on-site topographic elevations, which would minimize their scale. Also, as mentioned above, some of these structures, as well as a number of the harmony court residences, would be shielded by the first row of granaries as the buildings behind would be at lower elevations, and also would have lower heights. All of these design considerations help to reduce overall massing effects associated with this residential community.

Storm water catchment and treatment features would be subsurface, with park facilities on top of them. Similarly, wet weather storage would be subsurface, with park/potential community gardens on top of the vault. As a result, no industrial elements would be introduced into Project views due to surface water management. Manufactured slopes containing the storm water facilities would be planted with shrubs and groundcover to control erosion and to visually cover grading scars. This landscaping would visually mature very rapidly, and help these manufactured slopes to blend with surrounding landforms. The slopes associated with the subsurface water storage facility immediately south of the WTWRF could be substantially visible to off-site viewers. A straight slope would be located for approximately 175 feet along Country Club Drive based on the preliminary grading plan. As noted, this slope would be planted. It would be additionally shielded by streetscape between Country Club Drive and the Project edge. The other support slope (between lots 129/130 and 131/132) would present a short side (approximately 90 feet long on the preliminary grading plan) toward one off-site lot. The existing slope in this area rises sharply from just east of the property line and would continue to do so.

Project landscaping also would ultimately provide screening of the development, thereby reducing perceived massing, and would be largely visually mature within 10 years (see Figure 2.1-6, *Conceptual Landscape Cross Sections*). Landscape species consistent with the existing character of the Project area would be planted along the site perimeter, along Project roadways, within residential neighborhoods, and within park and recreation uses. Upon maturity, such landscaping would visually screen and soften views of the development, and would interrupt and visually soften structure massing effects of the homes. Two landscape cross sections were prepared to illustrate

proposed planting along the two largest and most visible slopes of the Project (see Figure 1-20b, *Landscape Plan*, for the location of the cross sections, and Figure 2.1-6, for their depiction).

The first cross section was placed across the slope abutting Country Club Drive and supporting pads on Lot 1. As shown on this depiction, there would be a series of tree rows starting right along the roadway and sited between the eastern-most paved travel lane and the Project-installed pathway. Then, trees would also be placed east of path edge, and in staggered locales up the slope toward pad edge. All of the trees chosen (California pepper, sycamore, and cottonwood) closest to the road are iconic California trees often seen within ranching and farming areas, with strongly developed canopies. The Brisbane box is common within southern California town areas, where the "bushiness" of the canopy can be encouraged and the beauty of the trunk bark can be enjoyed. Canopies of these trees range from 20 to 50 feet in width at 10 years maturity, while heights would range from 25 to 100 feet. Although tree spacing would conform to the Project Fire Protection Plan (FPP) (ensuring spacing between individual trees, or small groupings as necessary), because the trees would be planted over a linear distance of the slope, they would visually combine to provide screening of both the slope as well as some residential structures (note that the tree height near top of slope would exceed residential height of the structures behind them). Shrub massings, varied in height from less than 4 feet to approximately 15 feet, would augment ground cover below the trees. Combined, the varied heights of the plants, and staggered nature of their installation, is expected to cover the slope with varied vegetation textures and colors, obscure the manufactured nature of the slope, and provide shielding of a number of the residential structures on Lot 1 from the west.

Interior to the development, the second cross section depicts planting on a steep slope in the south-central part of the Project, approximately 0.3 to 0.4 mile south of Harmony Grove Road, and supporting lots with the tallest Project buildings atop a slope. Some of this slope would be obscured by the farmhouses located to the north side of Private Drive D; the five northern granary structures, however, would surmount the slope and be visible from the north. Where the slope could be visible at its highest elevations—and north, or "in front" of, the granaries—Brisbane box and coast live oak would reach heights of 30 to 60 feet, and 20 to 70 feet, respectively, with canopies spreading from 20 to 80 feet in width. Because of the slow growing habit of oaks, these trees would be installed from larger 36-inch box sizes, which would present a more mature tree at the outset than would occur with installation of smaller specimens; tree size at installation would be expected to range from 12 to 15 feet in height, as well as in breadth of canopy. Similar to the discussion above, all vegetation would comply with the FPP, which has requirements for both horizontal and vertical spacing between tree canopies. Because the slope extends across approximately 125 feet, however, there is the opportunity for staggered planting alignments that would combine to create a greater level of visual shielding than would be possible within a smaller planting footprint.

As noted above, the proposed WTWRF would be located in the northwest portion of the site adjacent to Country Club Drive and south of Escondido Creek. Vertical elements would be minimal (with a small footprint and not to exceed 18 to 25 feet in height), and all anticipated facilities would be contained within an area of less than 0.4 acre, surrounded by a 6-foot high wall (proposed both as part of WTWRF design and as Project noise mitigation). This would be at a scale in keeping with other rural structures and privacy walls. The WTWRF also would be surrounded by Project landscaping. Based on the design features of the WTWRF, its small

footprint, and the landscape screening, the WTWRF would not introduce inconsistent scale or massing into the viewscape when viewed from Country Club Drive.

Although the general site grading would conform to underlying existing topography throughout most of the Project, a manufactured slope would be aligned along Country Club Drive from just south of the WTWRF to the northern-most primary entry road. The Project introduction of this slope would change the currently seen relatively flat topography on site with a slow rise to the east. The proposed slope, however, is by no means inconsistent with slopes in the valley, and specifically in this area, as demonstrated by nearby slopes to the east and to the west in the HGV future Equestrian Ranch. This slope also would be substantially landscaped by the Project, as described above.

Overall, the density and massing is assessed as different from the immediately abutting uses, but generally visually consistent with the Harmony Grove area as a whole, including HGV. Areas in which the Project would vary, such as the overall height of the farmhouse and granary structures, would be visually minimized by their distance from off-site viewers and apparent reduction in scale resulting from the comparative height of the abutting topographic features. Implementation of the Project residences, WTWRF, and new slope along Country Club Drive, therefore, would not change the relative scale or massing of development in the overall area. These structures and slope also would not result in any new visual elements within the viewshed that outweigh in dominance those already visible.

Retaining Walls, Privacy Walls, Sound Walls and Potential Fire Walls

To maximize park and recreation area footprint, while minimizing extent of Project grading overall, a series of retaining walls is proposed for the Project. The preliminary lengths and heights of these walls are shown on Figure 2.1-7a, *Preliminary Retaining Wall Placement*. As currently designed, five walls would not exceed approximately 4 feet in height and would be architecturally enhanced. These include the three walls proposed to be located generally along the west side of the Project, and the two walls located at the "back" side of a park use, as well as the 2- to 4-foot-high wall located mid-slope east of Cordrey Drive, with Project landscaping located between this low wall and off-site uses. Two anticipated walls would be located entirely interior to the site (between Private Drives B and D, and along the cul-de-sac of Private Drive G, respectively) and would not be visible to off-site viewers. These walls would be shielded by the homes placed between these homes and off-site viewers, as well as by Project landscaping. One small (approximately 3-foot) wall is shown at the toe of an internal slope west of Private Drive K. It would be shielded from view by its low scale, the slope above it, as well as the planning placed on that slope. A final geo-grid (plantable) wall is proposed to be sited below the southern-most row of homes, minimizing Project grading into adjacent BOS. That wall would be subject to irrigation and planted with shrubs, allowing it to fade into other vegetated views from the south. The introduction of these internal and largely shielded walls with line elements and rectilinear surface planes would not be notable from off-site viewpoints.

A variety of privacy fences and/or walls would be implemented throughout the Project. Design sketches are shown on Figures 1-19a and 1-19b.

Overall, fencing would provide a non-solid barrier, which would stop cross traffic, but allow visibility to uses. Trail-side fencing would visually reference the area's equestrian ties, including the HGV Equestrian Ranch, across the street. The variety of fencing and generally low solid walls mimic the different design scenarios found on properties under different ownership, and would minimize the perception of a large-scale single-format development. The walls would have design variety, be constructed with rustic materials, often be screened by landscaping.

As detailed in Subchapter 2.5 of this EIR, one wall specifically designed to block noise is proposed (see Figure 2.5-1). This wall would be 5 feet high, and would be located between Lots 123 and 124 and Country Club Drive. It would be visually consistent with other Project barriers designed to provide privacy and visual interest. The slope on which the sound wall would be built would be behind streetscape, as well as Civic/Commercial/Recreational zone landscaping located in the park immediately north of the homes, which would provide screening landscaping of shrubs and trees installed from 24- to 48-inch box sizes.

As described in Section 3.1.3 of this EIR, based on final design (ultimate structure height and precise setback from top of slope) the FAHJ may require 6-foot fire-resistive walls along the south development boundary in the western portion of the Project (possible for Lots 148, 149, 152, 153, and 156 through 158; see Figure 3.1.3-1). For lots where the code-required setback would not be possible, installation of a 6-foot tall, non-combustible, heat-deflecting wall would be provided for additional heat and flame deflection. This wall may be solid, or a combination of masonry and dual pane materials. Figure 2.1-7b, *Potential Fire Walls*, shows examples of such barriers. As noted for other walls in the Project, if a solid barrier is chosen, it would be landscaped on the side facing public views. If required, these features would be visible to viewers from the south along the back yards of the seven lots, and would be expected to read as privacy walls. They would be lower in height than the homes they would protect and would constitute a small (and not visually dominant) part of the view to the Project. They would be shielded from views to the north by intervening structures and landscaping as they would be located south of the residences they would protect. For viewers from the east or west (limited private views on and off site) these walls would not be very evident. This is because they generally would be in line of sight (rather than perpendicular to it). The potential wall(s) along Lots 157 and 158 could comprise a larger part of the view to on-site viewers using the summit trail. These features would not be visually incompatible with the setting. They also would not be unusual in the larger community – both solid and partially see-through sound walls are provided along Country Club Drive north of Harmony Grove Road.

Consistency with Applicable Design Guidelines

The proposed Specific Plan for the Project calls for consistency with design policies contained in the County General Plan COS Element and the Elfin Forest and Harmony Grove Community Plan. Setbacks, density, building size and massing, lot coverage, and relative scale also would be guided by local zoning regulations. The reader is referred to detail provided in Attachment B of the VIA (Appendix B of this EIR) for policies and guidelines that specifically relate to visual issues and to Section 3.1.5 of this EIR for overall land use issues. In brief, the Project complies with applicable goals, policies, and requirements as identified in Section 2.1.1.5. This is discussed in more detail relative to the RPO ordinance under Section 2.1.2.2 of this subchapter, addressing removal or

change of valued visual elements, as well as referenced in Section 2.1.2.4, regarding goal and policy compliance overall.

Perceived Contrast

Country Club Drive

Viewers traveling along Country Club Drive would have unrestricted views to areas of the Proposed Project where the road abuts the Project. Along the roadway, Project slopes, residential and park uses and the WTWRF would replace existing field views.

The entrance area to the WTWRF would be located on Country Club Drive. The low profile, small-scale building and other equipment proposed for this area are not anticipated to be visibly dominant, and the proposed landscape plantings (including both trees/shrubs) would provide more green foliage in the views than is currently visible. This vegetation would serve to screen the facilities, providing unity with the rest of the landscaped project. Where the WTWRF buildings would be visible from the road, the barn-like character of the structures would continue the semi-rural quality of the Project area.

The Proposed Project would change the existing elements viewed from Country Club Drive and therefore, the visual character of these views to consist of residential neighborhoods and community recreational green spaces. This proposal must be evaluated relative to its setting and Project features. The setting includes the substantial element of approach either through HGV (coming south on Country Club Drive from north of Harmony Grove Road, or east on Harmony Grove Road) or with views toward the larger HGV project (traveling north on Country Club Drive south of Harmony Grove Road, or west on Harmony Grove Road north of the Project). As noted throughout this EIR, the larger project (currently building out) visually fills most of the valley area surrounded by the high hills to the south and west. The expansion of the village to the east and south to encompass the southeast quadrant of the Harmony Grove Road and Country Club Drive intersection would be visually consistent with the larger valley uses. Relative to Project features, these features would include: (1) retention of views of the current ridgeline backdrop of high hills; (2) landscaping along the roadway and street tree plantings within the dense areas of the Proposed Project; and (3) recreational areas and landscaped corridors that would soften and unify the buildings within this area. All of these design features and considerations would minimize the perceived dominance of the proposed development from Country Club Drive.

Harmony Grove Road

Views to the Project would not be as immediate as those described for Country Club Drive, as Harmony Grove Road does not abut the Project. Harmony Grove Road also provides generally more lateral (rather than straight-on) views as it trends east-west in this area, with the Project located to the south. Views are available, however, with their significance addressed in Section 2.1.2.3, below, as this segment of the road is designated as a scenic corridor by the County.

Other Public Roadways

Along other nearby public roadways, views to the Proposed Project currently are—and would continue to be—generally restricted. Few public roads are located along the ridgelines west and

northwest of the Project area. Where views are available along these roads, portions of the Proposed Project would be distinguishable. Roads in this area are generally winding, however, which results in both requiring the driver's focus on the roadway, as well as a frequent shifting of a viewer's viewscape. Views typically would be along narrow-street corridors framed by ornamental trees or homes, and generally would be fleeting in nature. This is a result of existing vegetation located along area roadways that frequently confines a traveler's view to the immediate vicinity of the roadway. No adverse effects to existing views seen from public roadways to the west/northwest would occur due to a combination of distance, intervening topography and landscaping. Also, HGV will be located in the foreground. As a result, the distant viewer would perceive a land use with more continuity than the existing diversity that exists between existing residences and the ongoing construction zone associated with abutting HGV. The built HGV project would both minimize the visual effect of the smaller and more distant HGV South development, as well as render it visually consistent with the HGV valley area.

Future Public Equestrian Ranch at HGV

Views to the Project from the recreational and commercial facilities at the future HGV Equestrian Ranch would be open; the Project is directly across Country Club Drive from the Equestrian Ranch. Elements of the WTWRF facility higher than the 6-foot wall may be visible, and the slope supporting bungalows on Lot 1 would be seen. Streetscape, as well as the slope plantings would visually separate the two uses. Please refer to the discussion of cross sections under Massing and Scale, above, and Cross Section A on Figure 2.1-6.

Where visible, the homes on Lot 1 would generally appear as a single row of structures—they would shield the similar housing on adjacent pads to the east within Lot 1 as the pads would be located at the same general elevations (within several feet of each other, around approximately 625 to 635 feet amsl based on the preliminary grading plan). Approximately 200 or more feet to the east, another line of six residences would be located on Lot 2 (there would be 10 homes on Lot 2, but 4 of them would be shielded from view as they would be located east of the six residences noted). Those structures would be sited on pads located approximately 90 feet higher than Lot 1, at approximately 725 feet amsl based on the preliminary grading plan. The landscaping between lots 1 and 2 is likely to be visible from some vantage points, as would the Lot 2 homes, together with their associated landscaping. These elements all would serve to visually "set back" the residential uses from the horse facility. Regardless, the equestrian facility would serve to provide active equestrian functions. Viewers would be focused on sights internal to the Equestrian Ranch (to shows, or other events), or on business/training activities associated with the mare motel, horse boarding or training or equestrian-themed commercial purchases.

Private Streets and Private Homes

The viewshed areas from the immediate west or east include a small number of existing private homes.

Fewer than 10 homes abut the western Project boundary. Two of these homes have direct and relatively at grade views onto the western extent of the Project, including equestrian uses (horse sheds, a work-out ring) that have been expanded by those abutting property owners onto the site parcel with the passage of time. Dirt fencing and horses, backed by Project slopes, make up

possible views from the two northernmost homes (these homes appear to be oriented with views to the north-south rather than east-west, which would have provided the most direct views onto the property). Another approximately two residences are located west of the Project boundary along an area planned for development; homes south of there would be adjacent to areas proposed for permanent open space. Actual exposure to the Project for these few homes would depend on home orientation, private yard landscaping, and use patterns within each lot. To the extent that views onto the property are available from the southernmost three homes, existing views of dense chaparral habitat would continue. For residences located slightly more to the west (i.e., with access from Country Club Drive rather that Cordrey Drive, or located on the west side of Cordrey road), intervening yardscapes and structures located between these viewers and the Project (see Figure 1-4) would lower visibility to the site.

As described above, a few homes are also located to the east, at higher elevations than the site. To the extent that viewers from these properties look westerly, they would look over Project built elements, and would continue to see valley and hill topographic elements. The generally lateral nature of the views from all of these nearby homes, combined with their very small numbers, would result in less than significant impacts.

Views seen by future HGV residents to the northwest could be possible from homes located on hillocks/more elevated locales. These views would be at a little distance, as viewers would be looking over some internal development, HGV subsurface vaults, park uses, Escondido Creek and the future Equestrian Ranch. The Project would present as an extension of the development patterns within the HGV project that would include similar visual elements. Project implementation, therefore, would not contrast with the view from a neighborhood from the northwest due the continuity of the Proposed Project elements with planned (approved and developing) neighborhoods.

The areas included in the viewshed farther to the west and northwest of the Project site consist of mainly undeveloped hillsides and steeply sloped lands unlikely to be developed in the future. Homes accessed by private access roads are scattered along the ridgelines and hilltops in this area. From these locales, views are expansive and portions of the Proposed Project potentially would be visible (although views for travelers along the roadways would be limited in duration due to the winding nature of the roads). Rather than views of open space that currently are available, the view would encompass roofs and related development features, as well as ornamental street trees. Rooftops are proposed to be made of generally dark colors, however, and this coloration, together with the trees and associated landscaping, parks and riparian corridors would serve to lessen the scale, unify the project elements and provide continuity with the surrounding visual character. Additionally, the winding nature of these roads, the limited number of residential viewers, and the existing residential uses abutting the edges of the Proposed Project allow the development to visually blend with the surrounding and developing community. Therefore, although the view would be changed, the change would provide continuity with surrounding viewscape elements for viewers at an elevated distance and would not contrast with the important visual elements of the area (developed valley versus surrounding open space peaks).

Taken overall, a number of private homes are located within the Project viewshed. Very few (approximately 10) of them are in the immediate vicinity of/bordering the Project, with potential views onto the Project. The severity of the overall change resulting from Project development for

most private viewers would be relatively low due to several factors, including the combination of open space retained by the Project; and the distance between the Project and off-site viewers and nature of intervening topography, development, and/or private lot vegetation, as described above.

Key Views and Illustrative Simulations

In order to ensure a full understanding of potential visual effects related to Proposed Project implementation, simulations were created to exhibit projected conditions following construction. The purpose of simulations is to provide the reviewer with a reasonably accurate projection of future conditions based on Project-related changes to current views. The simulations provide future snapshots of specific locations with likely vegetation and maturity shown at 10 years after installation based on Project uses, lot locations and sizes as shown on Figure 1-6a, architectural information currently available, and the palette of possible plant varieties provided in the Project Specific Plan, Chapter 1.0 of this EIR and Appendix B.

Preparing simulations for all of the specific views from which a proposed project potentially can be seen is not feasible. In addition, a number of potential views are in neighborhoods or areas not accessible to the general public. Nonetheless, analysis of Key Views (KVs) allows focus on some specific views in order to evaluate the change from the existing condition to post-Project conditions in an ordered fashion. The selected KVs consist of photographs taken from public viewpoints, and were identified based on the number and frequency of views, the potential sensitivity of viewers, and the types of Project-related features that would be visible. Locations for KVs were selected using considerations that include type of viewers and their sensitivity and exposure, scenic status of local roadways and recreation areas where highly sensitive viewers may be present, the amount of time (duration) and/or number of times observers are exposed to the view, and the breadth and depth of the view. They are considered to comprise the most typical, often seen, and broadest, views of the Proposed Project.

Based on these considerations and following field review, two KVs were approved for detailed analysis. Locations of the KVs are depicted on Figure 2.1-1.

Key View 1

KV 1 is located at the intersection of Country Club Drive and Harmony Grove Road, north of Escondido Creek (refer to Figures 2.1-3f and 2.1-8a, *Project Photo and Simulation from Key View 1*). This view looks southerly, over the creek and into the site. It provides a view to the majority of the buildable footprint, and also represents a view seen by a large number of potential viewers (this roadway has a capacity of 19,200 ADT), that may be stopped at the location prior to turning or continuing through the intersection, with an opportunity for relatively extended viewing. This viewpoint is located approximately 500 feet north of the Project site. This view also provides a "worst-case" representative view for viewers turning onto the County-designated scenic corridor of Harmony Grove Road as it is a straight-on view to the Project rather than peripheral.

As shown in Figures 2.1-3f and 2.1-8a, the existing view looks along Country Club Drive and over Escondido Creek The site is disturbed, but does not contain visible built elements from this vantage point. In contrast with the ongoing disturbance at the intersection, and some visible elements of staging/construction on the HGV equestrian ranch, it appears pastoral. The grasslands of the

Project parcels are notably different from the scrub/chaparral areas and on-site trees in texture, and color also varies depending on the season from tan to greens. Darker and generally more "intense" greens are associated with the trees and dusty greens associated with on-site scrub/chaparral habitats. All the colors are visually "soft," however, with topographic ridgelines and hilltops providing harder edged and dominant forms at the skyline. The more prominent hills are clearly visible in the background.

A fire break cuts a consistent linear and bisecting swath through the vegetation as it rises along the slope south of the Project in an east-west direction and is seen from large distances (see Figures 2.1-1, 2.1-2a, 2.1-2d and 2.1-3h). As Country Club Drive climbs in elevation to the north of Harmony Grove Road, the top portion of the Project's southern slopes become increasingly visible for south-bound travelers. An existing primitive trail is also somewhat visible, but only for close-in viewers, due to the amount of overgrowth and the narrow nature of the existing disturbance (roughly 2 to 4 feet in width depending on location along the trail). It is noted, that there are deviations within the main path due to a quest for firmer footing, resulting in a broader impact area.

Project implementation would result in built features that would replace the currently undeveloped nature of the site. Views toward the site would also be broader in nature due to the wider crossing of Escondido Creek, resulting from the removal of some of the mature vegetation that currently is located immediately adjacent to the at-grade crossing.

Starting in the near view, the Project would modify the segment of Country Club Drive visible from this KV. As shown in the simulation, the overall road would be three lanes in width, and the run-up to the intersection would contain four lanes necessary to meet the northern portion of Country Club Drive north of Harmony Grove Road. The road also would be slightly elevated over the existing grade. A new bridge over Escondido Creek would be a wider crossing of the creek than currently exists, and the bridge also would be elevated relative to the Arizona crossing; however, it still appears as a low-profile feature in the simulation view (Photo B, Figure 2.1-9). On the site itself, potential utility uses, as well as residential and recreational uses, would be located on visible parts of the Project parcels from this KV.

From the intersection and through the bridge, and to the southern entry to the project, the simulation depicts the Project-installed pedestrian path on the east side of Country Club Drive. From the intersection and to the south end of the bridge, the simulation also shows the mixed use equestrian trail on the west side that would be installed by the Project (implementation of the remaining part of the multi-use trail is a condition of HGV, and would be implemented by others). The vegetation on either side of the bridge in Escondido Creek is shown as relatively dense, which is appropriate for 10 years growth of fast-growing plants such as willows with a permanent water source.

Particularly in the short-term, during construction and until Project landscaping and creek restoration/enhancement activities have been completed, this would result in open views to disturbed ground and raw structures. Following establishment and approximately 10 years growth of the Project landscaping, the Project would appear more established in its setting.

Excluding a few structures in Lot 2 (Figure 2.1-8b, *Depiction of Lot 2 Topographic Backing from Community Park*), residences in the northern extent of the Project generally are not visible in the KV 1 simulation. Those following east-west alignments at approximately the turn in Country Club Drive and at higher on-site elevations are visible. This turn in pad and structure alignments allows the development to more naturally follow rising topography. Structures would be located on site to the top of the grass-covered slope that forms the linear element bisecting the site. The largest structures (approximately up to 45 feet in height, with some architectural projections above that) would be located at this high point. The structures may not appear to be this height, since the bottom level (parking) may be partially recessed into slope, and farmhouses located to the north of them would partially shield their lowest levels and could lessen seen structure elevation.

As shown in the Figure 2.1-8a simulation, homes built on Lot 2 would be sited on a knoll internal to the Project. Although higher topographic features are located north, east and south of this knoll, from this particular vantage point, the structures surmount the local topographic formation, and are backed by sky rather than hillside. This is a common condition in this part of the County, where topographic features of all sizes are seen from roads that turn and twist, constantly changing the viewer's perspective, and resulting in changed visual experiences as the viewer moves along the road. The worst-case "skylining" of these structures from this particular vantage point is one of the reasons that this key view was chosen for simulation. These structures would not be backed by sky from other vantage points. This includes areas westerly of the Country Club Drive intersection (e.g., in the general location of the County Community Park), where those same homes would appear to be mid-slope in the higher hills behind them. As an example, Figure 2.1-8b depicts the amount of topographic backdrop from the park seating area, which would be representative of other views sharing this other general orientation. Similar conditions would pertain from the south (see discussion of KV 2, below).

The simulation on Figure 2.1-8a also depicts the level to which some elements would be obscured from view from this KV location due to the streetscape proposed for Country Club Drive (which would continue around the curve in the distance, to the general southeastern extent of the visible portion of the Project) and the landscaping between residential structures (and residential types). This includes some proposed retaining walls that are in line-of-sight (where aligned north-south) and/or would be obscured by intervening planting and structures. As shown in the simulation, excluding the few homes on top of the internal knoll to the southeast, the WTWRF and most of the homes trending roughly north-south in the northern portion of the Project would be obscured by landscaping from this viewpoint. The first built elements that are notable consist of the row of farmhouses aligned generally east-west across the topographic bench. The first row of granaries is also visible behind them. Other Project structures south of the first row of granaries are located "behind" those structures, and/or are additionally at lower elevation, which results in their being visually shielded by the first row in the simulation. The hilltops behind the Project, which comprise an important part of the valley skyline, would continue to be visible.

Viewer response from this KV is expected to be adverse in the short-term overall. The community is currently undergoing build-out of HGV. This extremely large project has had an extended grading period, and while some local viewers may now accept this as "the new normal" and be desensitized, others are expected to be more sensitive to views of grading and construction. For new residents of HGV, it would be less noticeable, as ongoing disturbance areas are likely to be part of the existing condition during move in, and many views to the south would be obstructed

by intervening HGV residences for those residents in the village interior. In addition, where views are available, vegetation ultimately would be even more dense and taller than shown in this 10-year depiction, and commensurately less of the built environment would be seen from this location. Even at the 10-year point represented in the simulation, however, it is expected that the viewer exiting from the southbound Country Club Drive section north of Harmony Grove Road (having just passed the existing engineered manufactured slope surmounted by homes of HGV on the east, and the block sound walls to the west, combined with the HGV structures visible through entrance roadways), would find this viewpoint one that is more open and expansive than the views from Country Club Drive in HGV. Escondido Creek will remain in the foreground, and the expansive future HGV equestrian ranch will spread to the west. The backdrop of the higher hills of the DDHP and EFRR will continue to be undeveloped, and continue to provide the ridgelines so cherished by the community. Project conditions would be different from the existing condition, but the community as a whole is expected to retain a neutral or even positive view of the setting.

Ultimately, the Project is expected to continue the visual pattern of village development established by HGV, and which the viewer would have just traversed as they approach this intersection KV. The bridge is expected to provide a visual cue to the entry into the village equestrian center and residential uses south of Harmony Grove Road. The Project-installed landscaping along the east side of the street would introduce a verdant note that currently does not exist, and (ultimately) would visually tie into the similar pathway located on the west side of Country Club Drive through HGV. A notable positive change would be the undergrounding of transmission lines located along the Project western edge (and even along the west side of Country Club Drive if all utilities are combined into single dry-utility routes within roadbed), which would reduce visual "noise" from the seen view. The high hills south of the Project would continue to meet skyline, and would continue to provide views to their iconic San Diego County scrub-covered slopes. In the end, the long-term visual effect of the Project from this KV would be change from an undeveloped parcel to a village extension. Although the built nature of the Project would vary from the existing condition, it is expected to demonstrate a character that is consistent with the village overall.

Key View 2

KV 2 is located south of the Project parcels within the DDHP (refer to Figures 2.1-1, 2.1-3, and 2.1-9) and illustrates the view northerly. Although not anticipated to carry the greatest number of viewers, this locale is a public trail in a protected open space area, and is therefore sensitive. The open nature of the view (lack of intervening topography, structures or high vegetation) and proximity of the Project southern boundary to the trail (approximately 600 feet) renders this a representative "worst-case" view from DDHP/EFRR.

The existing view consists of chaparral habitat dropping rapidly away from the viewer to the north. The non-native grassland portions of the site are lighter green in color than the dense scrub in the foreground, and are bounded on the north by the Escondido Creek line of darker green vegetation. The initial phase building and substantial grading associated with HGV extends to the north from the creek, and comprises a substantial portion of the distant center on both sides of Harmony Grove Road (this condition will change with final buildout of that project). The structures along the western property boundary, as well as those (previously) associated with the HGSA and expected to rebuild are clearly visible. The size of some of the structures on these lots can be notable. In

some cases, it may be the result of combined residence/garage/barn structures (either actually connected, or appearing to be so due to their proximity to one-another and vegetation). In others, it is because the estate-style home contains multiple stories. Although the scattered homes located easterly of the Project are mostly obscured by intervening topography from this viewpoint, the bright blue roof associated with a home to the northeast can draw the viewer's eye. Ridgeline development is skylined on the hills to the west on the left-hand side of the Project, but is generally too distant to be observed to the north in San Marcos from this KV. The lighter-colored structures associated with ERTC and San Marcos commercial/light industrial uses are notable, as is the Palomar Hospital (gray in color, and atypical in terms of height and massing). The overall view from this area depicts an expansive setting in which existing and ongoing development is primarily located in valley areas, additional built structures are located on hillsides and along some ridgelines, and the very highest and steepest areas are generally retained in native scrub habitats.

Project structures would be sited primarily on site grasslands/disturbed areas, and would wrap around the vegetated hill on the east side of the Project; with Project residences being located north of the hill, and throughout the rest of the area to the northern Project boundary. Farmhouse housing typically arranged into four structures per lot, and Project granaries, would comprise the nearest residential uses, and also would obscure housing built downslope to the north of these uses. Approximately 35 acres of BOS would be retained between the viewer and those structures. The few homes on top of the knoll in Lot 2 would be visible in the northeast portion of the Project, backed by the much higher hills to the north. A plantable geo-grid wall would be used to retain the south-facing slope underlying Lots 149 and 156. Depending on the final grading plan and final design/structure setback, 6-foot fire walls may be located at top of slope along Lots 148, 149, 152, 153, and 156 through 158. Landscaping within the Project would wind along the internal Project roads and between residential neighborhoods. Streetscape would also be provided along the small portion of Country Club Drive seen from this KV.

The Project would therefore introduce built elements within Project boundaries, visually extending current residential uses west of the Project onto the Project site. The current view to the notable line of riparian vegetation along Escondido Creek would be softened. It would still exist, but intervening Project planting rather than non-native grasslands would continue a darker green onto the Project. HGV South structures would include buildings denser and taller than some of the abutting or nearby off-site residences. They would not appear out of scale with the homes along the western Project boundary for several reasons: the existing homes are also fairly large in scale, they visually merge into barn and garage structures associated with the off-site homes and which are incorporated into HGV South structures, and the off-site structures are generally lighter in color than the proposed HGV South homes, which attracts the viewer's eye. The height of Project structures generally would be foreshortened. This is because the height of the trail from which this KV was taken the structures would be somewhat visually foreshortened, much as the intervening slopes are foreshortened (see Figure 2.1-3l). In addition, specifically for southern structure edges along the granaries, some berming would cover the lower part of the structures (containing off-street parking and partially recessed into the ground). For these reasons, it is expected that the site would largely be seen in an oblique or almost plan view from this KV, with rooftops encircled by the Project streetscape, and landscaping providing vegetative counterpoint.

The density would appear to be less intense than that seen in HGV. At buildout, HGV will include 742 residential structures with open space areas sited throughout the development, including the

linear drainage feature already visible in the HGV South simulation. HGV South is anticipated to include less than one-third that number of structures, with surrounding and interspersed open space. As a result, although individual structures would be larger (both in reality and because of their closer proximity to the viewer), the development overall is not as expansive as HGV, which provides the background to views from this KV point. In addition, the layout is far more responsive to the natural topography than appears from the HGV rectilinear layout of the lots along the valley bottom.

HGV South would use wide greenswards throughout the development and planned roof gardens on the granaries, which would provide substantive visual "relief" from the built environment. The width of the landscaping between build elements also results in the Project providing a stepped visual transition between the undisturbed open space and the large lot uses to the west to the tighter development footprint visible in HGV (and even City of Escondido areas) from this key view.

The reader should note that the simulation depicts vegetation in non-irrigated areas (along the very southern development footprint at the bottom of the slope) consistent with coloration shown for other non-irrigated areas in the existing conditions photograph. During the hottest months of late summer/early autumn, there may be less green on the south-facing slopes that are not irrigated than is shown on this simulation. This would be consistent with a general lightening of color throughout the Harmony Grove area where vegetation is not irrigated due to thinning of foliage or die back of some grasses. This is expected to constitute a very small part of the Project in any case; however, as irrigation is required throughout interior portions of the Project, as well as within 75 feet of any built structure by the Project FPP, and is provided for any larger park areas as a Project Condition. The (irrigated) geo-grid wall could be distinguishable from the abutting fill slope in the short-term as indicated on the simulation, but would blend into the vegetated slopes as plants within it reach visual maturity.

The potential installation of fire-resistive walls required as part of Project design (if identified as necessary during final design) would occur along lots edge of pad/top of slope visible from KV 2. These 6-foot features could be all block, or could be a combination of block and fire-resistive glass, so long as they are built to standards approved by the FAHJ. The residential structures would have architectural elements extending above these walls, and providing visual variation. Referring to Figure 2.1-9, potentially necessary walls would not exceed the general height of the tops of windows on the ground floor. This height would result in a lower horizontal feature for the backs of six lots facing the viewer, and a more lateral view to the potential feature located along the northeastern most of these southerly lots. Some of the wall(s) would be expected to be obscured by landscaping. Regardless, where visible, the barrier would provide a fairly low mid-ground feature backed by additional buildings, and in a location where the viewer's eye is drawn up and over the Project to the north. There is a small potential for glare/reflection from glass if part of a barrier is "see through." This would be extremely intermittent in nature, however, as visual effects would only occur when the orientation of the sun in the sky (both azimuth and altitude) would result in rays hitting the glass, when there is not cloud cover to reduce glare, when there is not intervening vegetation that shades the glass, and when there is an observer to see the glare (right place at the right time of day). In other words, although some level of glare may occur, it is not expected to result in long-term, ongoing significant effects. These effects would not occur if a solid block wall is implemented. The potential need for installation of one or more of these walls for up

to seven structures would be an incremental addition to the larger development footprint and would not substantially change the projected views from this KV location.

All of the Project electrical needs would be satisfied through on-site photo-voltaic panels. These panels would most likely be placed on structure roofs oriented toward the south/southwest. The structures with solar panels on the southerly facing roofs could be visible to viewers from the elevated trail. During specific times of day, and if the viewer was in a specific viewing location, reflected glare from the roofs could draw the eye. These roofs would be located within an overall larger development, however, and the restriction of this occurrence to specific hours of the day when a viewer is located on the specific section of trail, as well as looking toward the Project, combine to minimize potential adverse effects. The Project would read as part of the overall HGV/existing valley development, and this extension of village residential formats would visually read as transitional and developed, but not inconsistent with other Harmony Grove community built uses.

Viewer response is expected to be adverse in the short-term. The Project would add disturbance in the middle-ground of the view to an area that currently appears to be pasture from this KV. It also, in the near-term, would expand upon the disturbed portion of the valley undergoing buildout of HGV. Following build out of HGV South and installation of vegetation, the response is expected to soften. For new residents of HGV, it would be less noticeable, due to intervening structures and solid sound barriers along the development edge.

Ultimately, the Project is expected to continue the visual pattern of village development established by HGV, which the viewer would see extending to the north of the future equestrian ranch and Harmony Grove Road west of Country Club Drive. The wider break in Escondido Creek vegetation required by the wider Country Club Drive and bridge may be discernible by the viewer from this KV. It would be balanced by additional greensward provided by Project-installed landscaping along the east side of Country Club Drive where trees and irrigated shrubbery currently do not exist, however, and would be consistent with the width of hardscape shown north of Harmony Grove Road. Structures associated with the HGV South expansion of the village would continue a "developed" footprint from the northern extent of the valley into this southern section. The structures would be somewhat foreshortened from being downslope from this KV, however, and although different in number and design from abutting houses to the west and east, appear individually similar in terms of massing and relation to lot vegetation. The inclusion of the broad landscaped areas within HGV South, and the non-grid layout of the development, also would provide a more natural transition between village and non-village portions of Harmony Grove community residential development, and soften the HGV grid pattern that currently draws the eye for viewers from this key view.

The long horizon line seen from this KV would be unchanged by Project development, as would the majority of the seen view. The Project would introduce additional built features into the center of the view, but would not affect the views of nearby native habitat, would largely retain similar areas visible on site, and would extend notable residential uses to the west (and north) of the Project onto site parcels. In the end, the long-term visual effect of the Project from this KV would be change from an undeveloped parcel to a village extension, and provide additional development appearing less dense than the heart of the village between Harmony Grove Road and the developed uses to the west, as well as the open space to the south. Although the built nature of the Project

would vary from the existing condition, it is expected to demonstrate a character from this KV that is consistent with the village and some built elements very near portions of the Project, as well as the development pattern visible in the County, City of Escondido and distant City of San Marcos.

Summary of Resulting Visual Impacts

Overall, the Project would construct built elements within a viewshed that would be compatible with the existing varied visual character. As demonstrated in the above analyses of Project key views and Significance Guideline 1, the Project has incorporated a number of design measures to ensure that the off-site viewer's experience is overall consistent with the character and quality of this existing and developing area. These measures include varied (i.e., not repetitive and monotonous) structure styles that incorporate rural design elements, and large amounts of open space (park areas, visual open space and retained/enhanced biological set-aside). Landscaping known to perform well in San Diego County and to be consistent with the visual quality of HGV and the neighborhood overall would be installed. No architectural design features are proposed that would sharply contrast with surrounding visual elements, or that would create a visually dominant feature. The Project would visually merge into the village pattern provided by HGV, and feather into the existing scattered development on both sides of the Project.

Overall, the density and massing would be different from the immediately abutting uses (i.e., the homes along the west and east sides of the Project), but generally visually consistent with the Harmony Grove Valley as a whole, and providing a visual transition from the more regimented and tighter village core design visible in HGV (anticipated to be true even following HGV vegetation maturity due to HGV core street lines). Areas in which the Project would vary, such as the overall height of the farmhouse and granary structures, would be visually minimized by their distance from off-site viewers, location of these features within the Project, and apparent reduction in scale resulting from the comparative height of the abutting topographic features. Implementation of the Project residences, WTWRF, and new slope along Country Club Drive, therefore, would not change the relative scale or massing of development in the overall area as it is currently building out. The Project would not result in any new visual elements within the viewshed that outweigh in dominance those already visible.

Walls and fences within the Project would comprise a variety of formats that mimic the different design scenarios found on properties under different ownership, and would minimize the perception of a large-scale single-format development. The generally low height and variation in design of these barriers, combined with the rustic elements proposed and the amount of screening ultimately provided by intervening structures or landscaping, would result in these walls and fences (including the single sound wall along Lots 123 and 124) being generally consistent with area privacy/yard barriers. The plantable wall located at the southern extent of the development would be down slope and at distance from viewers looking at it (open view) from the south. It also would be planted and irrigated, so that vegetation ultimately would obscure built elements. The potential fire walls would be restricted in extent (up to approximately seven lots) and generally shielded by structures (from the north) or at distance from the viewer (off-site public viewpoints to the south), or seen by individuals already in proximity to the larger Project footprint (on site on the Summit Trail and passing by these features with lateral views).

Views from off-site primary roadways typically would be lateral/peripheral in nature (generally Harmony Grove Road), or strongly colored by the existing built uses along them more direct or edging views toward the Project are possible (generally Country Club Drive). Smaller streets would generally present more distant views along narrow and winding street corridors framed by ornamental trees or homes, and generally would be either wholly blocked or fleeting in nature. Where Lots 2 residences would briefly superimpose over a backing topographic form from nearby roadways (resulting in apparent skylining), it would occur for travelers as they move through the study area and would affect a focused part of a much larger viewshed for a brief period of time. Before and after that point, the closest higher slopes to the east (at approximately 830 and 1,000 feet) would be visible and providing a backdrop to these homes. This is distinguishable from a number of existing homes that are permanently skylined for views from the valley due to their location on the highest topographic features rimming the valley.

Private views include those from private homes within the Project viewshed. Very few (approximately 10) would have direct views onto the Project. The severity of the overall change resulting from Project development for most private viewers would be relatively low due to several factors, including the combination of open space retained by the Project, the distance between and nature of intervening topography, development, and/or private lot vegetation, as described above.

The long-term visual effect of the Project from both KVs selected for detailed analysis would be related to the change from an undeveloped parcel to a village extension. Although the built nature of the Project would vary from the existing condition, it is expected to demonstrate a character that is consistent with the village overall, as well as the development pattern visible in the County, City of Escondido and distant City of San Marcos.

Although the visual character of the site would change from existing conditions, Project development would be generally consistent with the relative scale of development planned in the area, as well as general distance from the structures, intervening uses and landscaping. The Project would not result in new dominant visual elements within the larger viewshed. The Proposed Project would be visually compatible with existing and planned surrounding uses, as well as the surrounding topographic features. For instance, the harmony court and farmhouse structures, encircling a common driveway and courtyard, mimic the compound formations on HGV. As noted above, the granaries' height and architectural projections would reference the steep and pointed peaks around the valley. Character compatibility, therefore, would result from the diversity of elements that would be visually consistent throughout the Project site based on conformance with the Project Specific Plan, as well as neighboring development (particularly nearby residential portions of the abutting HGV project). The scale and contrast between the proposed development and the surrounding area would not be dominant in views toward the Project site as the greatest number of viewers would either be looking toward the Project from the north (from a setting in the heart of HGV), or from the south, from which vantage point the Project would be seen as the southernmost part of a consistent HGV development pattern. Additionally, retention of the highest on-site existing topographic forms in the southern portion of the Project, retention of sight lines to surrounding mountains and ridgelines, and revegetation with native and/or locally compatible plants would lessen the visual dominance and scale of the proposed development features from all cardinal directions.

Taking all these factors into consideration, although implementation of the Project would represent a change from the past, the combination of all Project elements, in conjunction with its setting at the HGV crossroads, would result in **less than significant** effects on the area's visual character or quality following Project buildout and vegetation maturity.

The introduction of newly broken rock and horizontal drainage facilities in cement across cut slopes into views that would be seen by members of the public as they use Project recreational/nature trails to access DDHP and the EFRR could be adverse. This is because the rock's location in otherwise natural habitat would be viewed from a primitive recreational trail designed to access natural open space, and the color of the newly broken rock would draw the eye and contrast with the natural setting. Contrast with the natural and unmodified nature of the aged surface rocks and existing vegetation that may currently be visible are identified as **significant impacts. (Impact AE-1)**

The conclusions above reflect Project effects following full buildout and attainment of Project maturity. There are, however, short-term visual effects related to potential staggered buildout throughout the development and the short-term period of time following installation prior to landscaping maturity. These impacts would relate to the combination of raw valley and slope soils during the construction period, the potential presence of rock crushing activities (with the industrial appearing crusher) and other construction equipment moving about the site, and increased lighting being visible immediately following Project construction. As described throughout discussion of this guideline, anticipated bridge construction also would result in removal of vegetation, and construction activities for approximately one year adjacent to Harmony Grove Road, which is an identified Scenic Corridor. Creek restoration/enhancement would take place immediately following completion of construction, and riparian species such as willows are rapid growers. Also, the early landscaping installed commensurate with slope completion and street implementation, as well as plantings around structures (installed as vertical construction is completed and homes are readied for sale)—would lessen adverse visual impacts of raw slopes and new buildings on site; and vegetation maturity would be visually attained in approximately 10 years. At that point, raw soil would be covered with Project improvements, and street trees and internal landscaping would buffer the homes from views to the Proposed Project from off site, softening sharp edges, unifying the Project, and softening Project lighting and glare. While temporary in nature and ultimately addressed through Project design and landscaping over the long-term, short-term adverse visual impacts to the Project site's visual character associated with Project construction would be significant and unmitigable. These short-term adverse visual impacts to the Project site's visual character associated with Project construction would be **significant. (Impact AE-2)**

2.1.2.2 *Removal or Substantial Adverse Change of a Valued Feature*

Guideline for the Determination of Significance

The Proposed Project will result in a significant impact if:

2. The Project would result in the removal or substantial adverse change of one or more features that contribute to the valued visual character or image of the neighborhood,

community, or localized area, including but not limited to landmarks (designated), historic resources, trees, and rock outcroppings.

Guideline Source

This guideline is from the County Guidelines for Determining Significance – Visual Resources (2007i). Significance Guideline 2 addresses potential substantial damage to particular resources that represent or characterize a community or neighborhood.

Analysis

This analysis looks at specific on-site elements and whether they constitute valued visual elements in the on-site views. No designated landmarks, or known significant cultural resources exist on site. No identified visual resources such as unique topographical features, or prominent or unique rock outcroppings or ridgelines are located on site. These particular visual resources are located rimming the Harmony Grove Valley, and are off site to the south and west. Temporary effects to surface waters (Escondido Creek) resulting from potential Country Club Drive improvements would be mitigated through enhancement and creation within the creek. These issues are not further discussed. The analysis below addresses potentially visually important trees, native vegetation in the southern portion of the Project parcels, and on-site steep slopes.

On-site Vegetation

A few non-native trees (eucalyptus, California pepper) are clustered near the westward turn in Country Club Drive at the western edge of the property and are therefore highly visible. Although visually notable on the Property as they contrast in color and height with the surrounding non-native grassland in this area, the trees are few in number and do not include a protected species (e.g., oaks). A few isolated oaks are also located in the central eastern portion of the Project. Although these few and isolated trees are not considered significant visual resources, they would be evaluated for potential retention during Project grading. Also, the number of trees installed on the Project as part of the mandatory landscaping scheme, including trees installed as part of the community center adjacent to Country Club Drive, would far exceed the number of any removed trees and would visually replace them. Relative to loss of on-site isolated trees, **no impact** would occur.

Oak woodland occurs along a small, non-RPO drainage in the south end of the property. Although the oak woodlands are shielded from off-site viewers from the north by the central bench topography of the site, they may be visible to the few homes on the west side of the site with views to this portion of the site. These trees do not comprise a scenic element from trails to the south. The higher elevation of those trails results in foreshortening of the trees. Although there is a slightly different texture to the oaks from these higher views, they visually merge with the surrounding scrub in terms of size and do not comprise a distinct element. These trees are not visible from the north as they are located south of the central topographic bench on the property. The very local nature of the views to these trees (from a few homes off site) results in their not being identified as a valued visual element. Regardless, excluding some potential impacts associated with required drainage improvements, they are being retained, and a **less than significant** impact would occur.

There would be some loss of vegetation in the open space area south of the development footprint relative to trail improvements planned by the County. In this area, the Project had intended to retain the existing primitive trail in its current condition. The County is requiring some improvements to this trail to support additional use and improved access to the DDHP and EFRR trail connections. Although specifics would be identified during final design, some parameters have been identified. A 20-foot easement has been placed over the entire trail right-of-way. Although the entire 20-foot easement would not be impacted during construction, this is a conservative easement width that would allow for improvements at any point along the trail. At this time, Park and Recreation staff (Everett Hauser 2016, pers. comm. to PDC) have identified a 4- to 6-foot wide path, with adjacent slopes having a 2 to 5 percent grade within the 20-foot easement. All areas not required for the 4- to 6-foot wide trail footprint would be allowed to revegetate with the vigorous chaparral habitat currently located on both sides of the trail. Biological impacts and mitigation are addressed in Section 2.3 of this EIR. This following discussion addresses potential visual effects.

The trail would wind up slope from the southern edge of the HGV South residential uses to meet the DDHP trail (a fire-break road) that bisects the large hill south of the Project. That bisecting fire break cuts a consistent linear swath through the vegetation as it rises along the slope in an east-west direction and is seen from large distances (Figures 2.1-2a, 2.1-2d and 2.1-3i). As Country Club Drive climbs to the north of Harmony Grove Road, it becomes increasingly visible for south-bound travelers. The existing primitive trail is also somewhat visible, but only for close-in viewers, due to the amount of overgrowth and the narrow nature of the existing disturbance (roughly 2 to 4 feet in width depending on location along the trail). It is noted that there are deviations within the main path due to a quest for firmer footing, resulting in a broader impact area.

The trail envisioned by the County would have a wider footprint overall, and therefore would have increased visibility. In addition, overgrowth would not be allowed to encroach as closely as it currently does along the non-maintained trail. The ultimate impact is not expected to result in a significant visual impact, however. This is the result of several considerations: including (1) the relatively narrow width of the ultimate feature; (2) the elimination of areas where current trail instability has resulted in expansion of the path, deviations from the primary path, in a specific area; (3) the somewhat winding nature of the trail that would be responsive to local variation in terrain as it climbs the slope (as opposed to a consistent straight path forged in one direction); (4) the consistency with the existing path that already is present (including its location in the vicinity of residential uses west of the Project); and (5) the visual consistency with other slope areas in this part of the County which are crisscrossed by trails accessing recreational areas (e.g., EFRR and DDHP). As noted in discussions above, the construction period, when grading and path support efforts would show additional disturbance along the slope, would contribute to the short-term significant and unmitigable visual impact associated with overall Project development. Following revegetation of installation-period disturbance, the trail would be visually consistent with others in the area, and impacts would be **less than significant**.

Overall Topographic Modification and RPO-protected Steep Slopes

General Topographic Modification

In the northwest portion of the site, the western half is a gently sloping valley bottom, sloping down from both the south and east, toward the Project low point and (off-site) Escondido Creek.

The eastern portion of the northern part of the site rises into small scrub-covered hills. An east-west trending bench extends across the roughly center point in the site, separating the Project parcels visually into north and south halves. After a downward slope on the south side of the central bench, the southern part of the Project is located on increasingly steep and higher on-site hills. This area rises to even higher off-site hills to the south, including an iconic (uniform peak shape) form just south of the Project in the DDHP. On-site viewers would be expected to appreciate the local variation in topography. For off-site viewers, however, the on-site forms are relatively small, and visually dominated by off-site higher hills immediately off-site to the east, west and south.

On-site elevations range from approximately 570 feet amsl in the northern portion of the Project near Country Club Drive, to 938 feet amsl at the southernmost property boundary. The Proposed Project would include approximately 850,000 cubic yards of balanced cut and fill, substantially in support of proposed structure pads and Project roadways. The first issue that arises is whether the Project would substantially change the existing topography on site. Preliminary cross sections were prepared for the full length and width of four locations across the site and are presented in Figure 2.1-10, *Topographic Cross Sections.*

Cross Sections. Project grading would respect, and conform to, overall existing topography on site. This does not mean that the projected Project grading would conform exactly to each existing on-site elevation. It means that although the planned precise site elevations at any specific point internal to the Project site may deviate from the existing elevation, based on preliminary grading plans, the post-Project cross sections follow the natural rise and fall in site topography overall and always meet the existing topography within the site at the grading perimeter. It also means that following completion of Project implementation, the off-site viewer would not be expected to be aware of large-scale changes in underlying topography. This would be visually substantially different from a project proposing placement of all proposed uses on a single, flat, created pad. The overall footprint could potentially be smaller, but the elimination of natural landform would be notable. In addition to the cross sections described below, the reader is referred to the simulations on Figures 2.1-8a and 2.1-9, which also illustrate how the Project would follow the site topography, rising and falling with the underlying elevations.

Cross section A-A extends from the northern-most to southern-most Project boundary. It shows that the need to raise the potential WTWRF out of the Escondido Creek floodplain results in an increase in elevation at the north end of the Project relative to the existing condition, as well as attaining higher elevations at Pad 1 than naturally occurs at this location. The modifications, however, would remain lower than the more southerly increases in site elevation and rejoin more existing elevations by the central portion of the development footprint. At the southern extent, part of the central bench would be lowered in elevation, but the end of the grading footprint would daylight at a higher elevation than the pad. This would meet existing terrain at a small highpoint, as well as retaining some shielding of structure base as the pad would be lower than the slope abutting the southern extent of development. The Project follows the existing terrain's increase in elevation, and then reduction in elevation, with another small increase, as the Project is crossed west to east. As shown on the preliminary grading plan cross section, a large open block of terrain in the southern portion of the Project would be left open, with no residential grading. This southern area is the most topographically complex portion of the site, with the steepest incised drainages, and the highest part of the Project property.

Cross section B-B cuts west-east across the Project in an area with the greatest amount of proposed consistent development. It illustrates how the Project follows the existing terrain's increase in elevation, and then reduction in elevation, with another small increase, as the Project is crossed west to east.

Cross section C-C depicts a rise in pad elevations that follows the existing topography from one side of the Project to the other in a northwest to southeast direction. At points the proposed grading is expected to be almost identical to existing grade. Based on the preliminary grading plan, current/modified elevations are not expected to vary from each other more than 10 to 15 feet. In a site with variation from the north end to the south end of the Project of over 350 feet, this is considered visually negligible in terms of elevation (and would likely be considered so even if there was slightly more variation), even before structures and vegetation obscure the ground surface.

Cross section D-D again bisects the site north to south. This cross section was prepared to identify variation between the preliminary grading plan and final slope, (see additional discussion below). As shown, at some points the proposed grading would match or closely overlay existing grade (both high and low points). At some points more central to the Project there are areas of relatively large specific variation (e.g., up to approximately 40 to 45 feet difference in a spot elevation). The overall rise in elevation from north to south in this area is still respected, however, and similar to Cross section A-A above, the large open space area in the southern part of the Project property would be retained, with no residential grading on steepest and highest slopes on the Project property.

Steep Slopes

One of the critical visual elements in topographically diverse portions of the County, such as the Project location, is the presence and visual effect of steep slopes. County-protected steep slopes, i.e., natural slopes exceeding 25 percent slope with a vertical rise of 50 feet or more in elevation, are primarily located in the northeast hillocks of the Project site, on the central slope rising above the valley floor, and in the southern third of the Project. The location of these slopes relative to the Harmony Grove setting is depicted on Figure 2.1-11a, *Slopes Providing the Project Setting*, and a focused view of on-site slopes is provided on Figure 2.1-11b, *Study Area Slope Map*.

The reason these slopes are considered for protection by the County is because, separate and distinct from engineering issues related to slope which are addressed in building and safety codes, RPO steep slopes can be important components of an area's visual character. As such, steep slopes that provide important components to a particular view are provided protection. Steep slopes that do not provide critical view elements may receive a waiver under County standards (i.e., the need to protect these visually unimportant slopes may be "waived") by following a specified analytical process; and other incursions into steep slopes are exempted if they meet specified exemptions or exceptions within the ordinance. Land use plan and ordinance conformance related to waiver and exception categories are discussed in detail in Section 3.1.5, with the steep slope waiver addressed in detail in Appendix C to this EIR. Visual effects associated with a waiver are summarized below relative to this Project.

Important Baseline Information. Contiguous and visually dominant steep slopes (including notable and often connected sections of areas reaching or exceeding 50 percent slopes) are located all along the higher elevations, and generally curve around the southern portions of the Project (Figure 2.1-11a). These slopes contribute to the notable and often abrupt ridgelines in EFRR and DDHP to the south of the Project, as well as in hill formations located to the west; ultimately connecting to Mt. Whitney in the high slopes west of Harmony Grove and Eden Valleys. They also provide visual context for the Project site and tend to minimize the visual impact of smaller topographic features. In other words, the proximity and height of the higher surrounding slopes are so dominant in views toward the Project from the north, that on-site topographic variation in the (approximately) northern half of the site and within the disturbed/ grassland areas is not very prominent or visually "meaningful."

Based on this general setting, and as described further below and shown on Figures 2.1-11a, 2.1-11b and 2.1-11c, *RPO Steep Slopes*, slopes meeting the definition of RPO-protected slopes generally are physically connected to the higher off-site slopes located in the central-southern half of the Project, where the DDHP cuts into the Project on its southeast corner, and in the southern-most ("L") portion of the site to the west. A smaller area is located in the northeast portion of the site, where scrub habitat visually ties an on-site knoll to higher topography to the east (Figure 2.1-11a).

Referring to Figure 2.1-11d, *RPO Steep Slope Preserve and Encroachment Areas*, over 71 percent of all on-site RPO steep slopes (18.7 acres) are located in areas identified for preservation due to sensitive resources, including both steep slopes and native habitat (15.9 acres), or otherwise identified for open space (being outside grading within an HOA lot or subject to temporary grading but revegetated and returned to slope). The steepest on-site slopes, those above 50 percent grade, are all located within the proposed permanent open space set aside; in the southerly portions of the Project. These are also the most visible slopes, seen from off-site locations toward southerly portions of the Project, as well as the most visually abrupt slopes, connecting to the steeper formations associated with areas already protected as part of DDHP. The rest of the site's steep slopes are located within proposed development areas, and must be evaluated for conformance with the RPO and associated visual effects to those slopes resulting from Project implementation. Conformance with the RPO relative to ordinance exceptions identified for roadways/utility rights of way, identification of the Project as "infill" under the ordinance, and conformance with the percentage of impact allowable under the ordinance by lot, are all addressed in Subchapter 3.1.5 of this EIR. The remainder of this aesthetics discussion addresses the issue of RPO visually "insignificant" slopes.

RPO Steep Slope Waiver. As detailed in Appendix C to this EIR, a waiver from the restrictions of the RPO steep slopes and easement requirements (County Code Title 8, Division 6, Chapter 6) can be granted if four findings can be made (RPO Section 86.604[e][2][cc][3]), and as discussed in detail in Section 3.1.5 of this EIR, including land use consistency with the Community Plan. The most critical of these findings relate to whether or not the slope is an insignificant visual feature. As a visual issue, that element is addressed here.

Each of the slope areas for which a waiver is being requested is physically separated from other areas of steep slope, and is visually insignificant and indistinguishable. They are identified on Figure 2.1-11c, as A, B (1, 2 and 3) and C, and also are color coded (purple) on Figure 2.1-11d.

As shown on Figure 2.1-11c and d, they do not flow into contiguous areas of RPO-protected steep slope, but are each surrounded by non-steep slope topography, creating small islands totaling 4.7 acres overall.

The first area is located just east of Country Club Drive where the road turns to trend west just east of Cordrey Drive. Area A (approximately 0.5 acre) is shown on Figure 2.1-12a, *View Toward Central Bench*. Photo a provides a good reference photo for this slope. As can be seen from this panorama, the bench is a topographically uniform feature. Although the argument is not being made that the slopes are modified (there is no known historic photography depicting slopes prior to the agricultural use of the parcels in the 1920s), it appears to be a modified slope, in that it is a uniformly sloping and rounded feature whereas most of the surrounding topographic features are more abrupt and peaked in nature. Regardless, given the visual uniformity, it is difficult to identify any specific area on this slope that is, or is not, steep slope. Photo b identifies the area that modeling (as opposed to the human eye) identifies as RPO steep slope on this north-facing slope. As shown, the approximately 0.5 acre of steep slope called out on Photo B does not stand out as anything different from the rest of the visible disturbed grassland. There is nothing interesting or unique about this 0.5 acre that differentiates it from the non-steep slope areas on the bench. It is completely consistent with and visually indistinguishable from the rest of the central bench depicted in the figure. Non-steep slope area extends "above" the area to the top of (and along) the bench feature, as well as to either side and below. This area is, therefore, both visually insignificant and isolated.

Area B is comprised of three very small vertical "bars" that are located on the south side of the central bench on the western side of the Project. As shown on Figure 2.1-11c, each of these isolated stretches just attains the 50-foot reach required under RPO. They are extremely narrow elements, surrounded on all sides by non-steep slope portions of the slope face, and are indistinguishable from those surrounding non-steep slope areas. These areas are also both visually insignificant and isolated.

Area C includes approximately 4 acres of area proposed for waiver as insignificant slope. It is located south of the bench just discussed, with a portion of this slope located on that south side, and a portion located on the westerly facing slope of increasingly (on- and off-site) steep hill above it. This area is generally not visible to viewers from the north, since so much of the slope is "hidden" from the north. In fact, the closer that one comes to the slope from the north, the less one can see it as it ultimately becomes entirely shielded by the intervening bench. Similar to the discussion of Area A, the on-site top portion of this feature is a very softened knoll, without the sharp and more vertical features of the surrounding peaks.

Viewpoints to this area with the greatest number of viewers sharing the most open and unobstructed views would be from the south/southwest along public trails. For the purposes of this discussion, the Harmony Grove Overlook in EFRR was chosen. This is one location where both shade and a seating area are provided, and the intention is to look northerly over the valley. It is possible to sit down to enjoy a static view from this viewpoint and this makes it likely that many visitors would do so (although currently abutting vegetation obscures views to the site from the bench itself). As can be seen in Figure 2.1-12b, *View Toward Project from Harmony Grove Overlook in Elfin Forest Recreational Reserve*, Photo a, the Project area is visible from the vicinity of the overlook. From this (and other elevated) viewpoints, the amount of vertical differential is not visible to the viewer. In fact, referencing Figure 2.1-12b, Photo b, relative to the unique and

surrounding steep slope mountains, the site looks flat, and without much topographic variation at all in this area. The location of the home being built in RPO steep slope area east of the Project boundary is more identifiable as being on slope. It is within steep slope area contiguous to the higher peak to the east, but still appears relatively flat to the viewer.

Although viewers are expected to be on the move, the site also would be openly visible to viewers from the Del Dios Highlands Trail in the DDHP, south of the Project. The height of the trail on the viewing hill (the only east-west trail in DDHP), and its location on the broad expanse of slopes exceeding 25 percent with a rise exceeding 50 feet, results in the on-site slope fading into the other non-RPO slopes on site. This is demonstrated on Figure 2.1-12c, *View toward Project from Del Dios Highlands Fire Break Trail*, Photo a, where the central portion of the Project can be seen to be located on what appears to be a very gentle slope with varied and somewhat disturbed vegetation rising to the east before lowering into a swale. The slope in question does not stand out as visually unique, memorable, or interesting. In fact, the viewer's eye is drawn over the site to the north, where the hill just north of Harmony Grove Road provides notable (albeit modified) slope features. The eye is then further drawn to the ridgeline in San Marcos, farther to the north, and to the tops of the mountain range beyond that. It should also be noted that this picture was taken with potential use for simulation under the rigorous County requirements in mind. As a result, it focuses on a 60 degree cone-of-vision. This eliminates views to nearby and lateral upper slopes of which the viewer would be aware (and actually see) as they move through the area. This includes the steep slopes in DDHP south of the viewer, as well as those nearby in the DDHP and EFRR to the east and west. Nonetheless, Figure 2.1-12c, Photo b, depicts how the more rolling nature of the lower slopes below the significant peak lines visually fades into connection with valley floor as opposed to reading as steep slope.

From both EFRR and DDHP viewpoints, the lack of unique or notable topography of this isolated feature, combined with its topographic disconnection with steep slopes to the east, north and west, render this slope visually insignificant.

In consideration of the combination of the: (1) generally low visibility; (2) lack of slope significance and/or connection of these slope areas to more contiguous RPO-steep slope areas; (3) requirements for design review and Project conditions; and (4) consistency with environmental protection and development intensification sections of the Community Plan (and referenced General Plan) as discussed in Section 3.1.5; a waiver from the RPO steep slope easement restrictions is considered appropriate for these two areas. Staff reviewed the Steep Slopes Waiver analysis in Appendix C of this EIR, and the Director of PDS issued a preliminary affirmative finding on the waiver as to insignificant slopes in 2016. This addresses the visual issues associated with the RPO-steep slope encroachment of the Project. The Board of Supervisors will consider and make a finding on the waiver during consideration of the Project for approval. This is addressed in the Land Use analysis of the EIR.

2.1.2.3 *Substantial Obstruction, Interruption or Detraction from a Valued Vista*

Guideline for the Determination of Significance

The Proposed Project will result in a significant impact if:

3. The Project would substantially obstruct, interrupt, or detract from a valued focal and/or panoramic vista from:

    - a public road,
    - a trail within an adopted County or State trail system,
    - a scenic vista or highway, or
    - a recreational area.

Guideline Source

This guideline is from the County Guidelines for Determining Significance – Visual Resources (2007i).

Significance Guideline 3 is directed at potentially substantial adverse effects to scenic vistas and public vantage points available from roads, recreational areas, and trails important to be designated as scenic by the County or State. Changes to the resources that compose the view could be significant, depending on the degree and nature of the change, and whether the view would be obstructed.

Analysis

The following analysis discusses views from local scenic highways, as well as trails/recreation areas in the viewshed.

Scenic Highways

As described above, the closest scenic highway to the Project site is the segment of Harmony Grove Road just north of the Project and Escondido Creek. The abutting abrupt hill to the north and the creek vegetation to the south present the closest and visually most affecting elements in the view; viewers have to look over the creek to the site. The Project site is laterally visible to westbound viewers from Harmony Grove Road for approximately 600 feet (or 0.1 mile) east of the intersection with Country Club Drive. For this brief stretch, westward-bound travelers can look southerly over the Escondido Creek vegetation toward the central part of the Project in this area. For eastbound viewers, portions of the site are available to view for a longer period of time (approximately 2,250 feet, or 0.4 mile). From just east of the HGV pump station (located on the south side of Harmony Grove Road), some views are available to the heart of the Project over Escondido Creek vegetation until past the intersection with Country Club Drive, where intervening topography interrupts southerly views as the road prepares to turn northerly. The Project would develop area that is currently in visual open space (generally appearing to be an open field) in these views. Construction-period effects on site and at Escondido Creek are addressed above in Section 2.1.2.1. Discussion as to long-term Project visual effects for westbound and eastbound travelers is provided below.

For travelers heading west, the view would provide a developed vista to the left as a substantial hill feature on the right is rounded. Just prior to seeing the site, views southerly would consist of scrub-covered hills (small but substantial in the view due to their proximity and height relative to the road grade) with intermittent homes, contrasting in immediacy and relative openness with the northerly rock-catch fencing along the hillside to the right. The built structures of the Project would become visible over the creek vegetation, and (initially) include views to residences on Lot 2, and then on Lot 1, which would be located approximately 1,500 feet to the south. Elements of the building associated with the WTWRF may be intermittently visible where not shielded by creek vegetation or Project landscaping. Additional development would extend southerly, and rise up the north-facing slope of the site. These structures and landscaping at the higher elevations would be visible.

The built nature would be different from the existing condition, but not long-lived in the view. Harmony Grove Road views would be peripheral in nature as there are no straight-on views to the site from this portion of the road (all views would be to the side). The primary peak in DDHP would remain visible behind the lower Project site, as would the visible connection to other higher hills to the east and west. Almost as soon as the site would be visible, the continued line of riparian vegetation would continue to draw the viewer's eye along Harmony Grove Road, competing for views to the south. The County park equestrian ring and park uses on the west side of Country Club Drive also would be coming into view, as the intersection of the two roads is approached. This would be expected to draw the eye, as there could be movement there by park users. Once at the intersection, it is expected that attention would continue to be diverted from views to the south. This is because views would be drawn westerly along Harmony Grove Road, to incorporate the equestrian/park uses south of the road and the HGV homes on the small slope west of Country Club Drive in HGV on the north side of the road (see Attachment A, Photo Simulation D, in EIR Appendix B), as well as other road users.

Based on: (1) the brief timeframe when the site might draw the viewer's eye (from rounding the hill to the intersection with Country Club Drive, after which the Project would be located behind the traveler); (2) combined with the peripheral nature of the view and retention of the dominant peak in the DDHP that draws the eye up; as well as (3) competing visual factors to draw the viewer's attention toward closer development associated with HGV; the presence of the Project would be noticeable, but impacts to views from this County-designated scenic corridor would be **less than significant.**

For travelers heading east, the approach to Project views would be quite different. The Project would come into view after passing Wilgen Drive on the left and the HGV pump station on the right. The HGV built environment would be quite notable (see Appendix B, Attachment A, Photo Simulation C), with structures highly visible to the north, as well as on the hill at the junction of Country Club Drive and Harmony Grove Road (HGV Planning Areas II and IV, respectively). The Project structures would be located at a farther distance, relative to these more closely abutting uses, which would reduce their visual impact. Viewers would have to look southeasterly over the creek and the HGV Equestrian Ranch property, as well as through vegetation associated with the HGV public park uses south of Harmony Grove Road in this area. The much higher topographic features associated with DDHP and EFRR would be more openly visible to the viewers and would continue to dominate views in a southerly direction. Looking more easterly, homes generally would be backed by higher hills to the east, but as the viewer moves closer to Country Club Drive,

the internal knoll on which some structures would be located may block views to the hills behind. This condition may continue (or may be blocked by Escondido Creek vegetation) for the short period of time the views are available. The view to these few homes would be transitory, and in any event comprise a small portion of a much larger viewshed. Approximately 0.7 acre of southern willow riparian forest is expected to be impacted during bridge construction, opening a wider area (approximately 100 feet) on either side of the bridge, than currently exists at the Arizona crossing. The creek would be revegetated with fast-growing riparian vegetation. Although vegetation immediately adjacent to the bridge would be subject to some brush thinning required in the FPP, this vegetation would still provide a screen between Harmony Grove Road and the Project as well as a focal point in itself. Once across the intersection with Country Club Drive, immediate views to the south would be blocked by the higher creek vegetation immediately adjacent to the vehicle, and the viewer's attention would be drawn forward to the narrow roadway curving between the encroaching hills on either side.

Based on consistency with the HGV setting, as well as distance to the site where it would be visible, combined with competing visual factors to draw the viewer's attention in other directions, the presence of the Project would be noticeable, but would not substantially obstruct, interrupt, or detract from the panoramic vistas to the higher peaks and ridgelines along this scenic corridor. Therefore, Project-related impacts to this County-designated scenic highway would be **less than significant.**

Trails in Recreational Areas

As described above, scenic vistas are available from public hiking trails along the north-facing slopes within the EFRR and DDHP, located south of the Project site. These views are generally expansive, and encompass portions of the Project site, as well as off-site elements such as surrounding hillsides, neighboring development, and commercial/light industrial development within the City of Escondido to the north. The Proposed Project would place structures within the Project site, and large portions of the development would be visible from specific vantage points along these trails. As previously noted, the most open and direct views are provided from the Del Dios Highlands Trail within the DDHP. These views are experienced by fewer recreationalists than trails in EFRR, and views to Project parcels from the trail are often blocked by the large hill traversed by the trail user. Where available, however, views are closer, and more open than those from EFRR.

The site does not present as visually "pristine." The disturbed grasslands and dirt roads/paths crisscrossing the northern portion of the site are notable. Homes along the western property boundary introduce built structures and human uses into the immediate viewshed, which otherwise consists of chaparral habitat immediately in front of the viewer. Currently, the viewer's eye is drawn to the west and further north, where the HGV construction staging area provides a discordant note west of the Project, and where the expansive graded area north of Harmony Grove Road results in lighter soils that draw the eye and contrast with the green of the Escondido Creek vegetation line and more landscaped residential areas to the north and west. The HGV WRF and HGV homes also present additional structural elements currently visible from the trail. The discordant graded areas and staging area locales on HGV are for the construction period and would not persist. At full buildout, the structural elements will be softened by more mature landscaping

and revegetation would be complete. Overall, the Project would visually read as an extension of the village onto HGV South.

The Proposed Project would place structures within the Project site, and large portions of the development would be visible from specific vantage points along these trails. DDHP provides a direct view into the Project. Views from EFRR are more lateral in nature as the Reserve is located southwest, rather than due south, of the Project parcels. The size and height of the granaries would be visible, as they would be located both closer and at a higher elevation than other existing similarly sized structures – which are either at lower elevation or farther distant from these trails. Although specific Project elements would be more visible due to the relationship to the DDHP trail, overall, the Project would visually read as a more open extension of the existing and planned village onto HGV South. The reader is referred to detailed discussion of KV 2 in Section 2.1.2.1 of this EIR.

In addition, and what may be counter-intuitive, the extremely expansive nature of the views from these trails would also somewhat minimize the Project visual effect. The viewer's eye is naturally drawn up and out, across a broad panorama encompassing the entirety of the Harmony Grove and Eden valleys, as well as San Marcos ridgelines, Mt. Whitney ridgelines, and urban elements.

These prominent peaks, ridgelines, and hills to the west such as Mt. Whitney and in the background of views from this area (in San Marcos) would continue to constitute background topography in both the "before" and "after" visual condition, and would remain dominant visual elements in views for recreationalists. This, combined with the continuation of surrounding existing patterns, retention of scrub on the areas closest to the viewers, and existing on-site features described above would provide continuity between existing and proposed conditions.

On site, and also serving a recreational purpose, is the primitive trail leading from the western Project boundary to the DDHP fire break trail. It is currently sporadically used by pedestrians and equestrians. This trail is currently unimproved. It is narrow, winding, and in some places includes wide areas of deviations within the larger pathway area where terrain is difficult to traverse. The Project would widen this trail to 4 to 6 feet in width, and standardize the trail bed. Areas currently disturbed due to uncontrolled access within the open space would be minimized, as users would be restricted to the improved trail bed. The trail would continue to wind its way through the vegetation in the vicinity of off-site development on the western boundary of the Project. Views to the undisturbed chaparral traversed by the trail would continue, but would be accessible to additional viewers. For trail users heading southerly, Project elements would be unnoticeable as soon as the southern edge of the development is exited. For those heading northerly, effects would be similar to those noted for DDHP at the south end, with development providing more proximate, and even immediate, parts of the view as the user moves closer to the Project homes.

Taking all of the above into consideration, although the Project would result in changes to the views from these trails, it would not substantially obstruct, interrupt, or detract from the panoramic vistas along the trails in these recreational areas; thus, changes would be **less than significant.**

Other Planned Trails

Planned trails are located along Country Club Drive abutting HGV elements south of the Harmony Grove Road, and potentially along Valiano frontage on Country Club Drive north of Harmony Grove Road, and paralleling Escondido Creek.

When implemented, the trails along roadways would be edged by landscaping and developed residential uses north of Escondido Creek. South of the creek, the more open Equestrian Ranch would be edged by the future trail. Each of these trails would be bordered by a roadway. The long and linear nature of the edging roads would tend to draw the trail users eye along the path of travel. Distraction also would be provided by nearby traffic along the roadways. Particularly where the trail user would be moving south along Country Club Drive, the view would lead toward and past the Project, along the roadway and up to the iconic peaks of the DDHP hills in the distance. The experience along these trails is expected to be a mix of recreation and transportation; i.e., the user is expected to be appreciative of the landscaping and long vistas, but cognizant of the need to watch for cross traffic, be prepared for the sound of oncoming vehicles, etc. This contrasts with the recreational experience provided on the trails discussed above. Project visibility would be an element of the view, but as the trails will not exist unless the abutting projects are implemented, users would not be contrasting the experience with trail use through open countryside along these roads. Because the Project would not substantially obstruct, interrupt, or detract from the focal point of the higher peaks to the south along these trails, impacts associated with this future experience are considered **less than significant.**

A future trail segment could be implemented to the north of the Project. The user of this trail would be expected to be focused on the immediately adjacent creek vegetation and potential wildlife activity provided by area birds. These valued sights would be located immediately to the north of the viewer, and away from the Project (south of the viewer). "Active" built portions of the Project associated with residences on Lots 1 and 2 would be located approximately 1,000 feet to the south. As the trail would be in proximity to a major thoroughfare (Harmony Grove Road) just north of the creek, as well as to Country Club Drive (a crossing element in the view), and existing residential uses are located to the east, "detraction" provided by these lots is considered less than significant. No Project elements would be located between the trail user and the Creekside, so no obstruction or interruption, from the focal point of the creek would occur. Because no obstruction or interruption to views of the creek would occur, impacts associated with this future experience are considered **less than significant.**

Other Panoramic Vistas

The Proposed Project would introduce built elements into the distant middle ground of panoramic vistas currently viewed from outlying areas (e.g., from more distant roads or locales), but the Project buildings and landscaping would be a visual extension of these developed areas. The foreground and background (i.e., horizon) view elements would remain unchanged, and would not be obstructed. Although the Project would change the open nature of the northern portion of the Project parcels, it would not change large landforms or the overall geographical configuration of the viewshed. The memorability of the area relies on the distinct visual patterns created by the higher landforms rimming the valley and the vegetated creek corridor within it. The scale of the Proposed Project's built elements would be minimized by distance, elevation (in some cases),

associated landscaping, and contiguous built uses at the Project edges. The Project would not substantially obstruct, interrupt, or detract from the valued panorama of valley area surrounded by notable hills and ridgelines; changes to views from these outlying areas would be **less than significant.**

2.1.2.4 *Inconsistency with Applicable Goals, Policies or Requirements of an Applicable County Community Plan, and Subregional Plan*

Guideline for the Determination of Significance

The Proposed Project will result in a significant impact if:

4. The Project would not comply with applicable goals, policies or requirements of an applicable County Community Plan, Subregional Plan, or Historic District's Zoning.

Guideline Source

This guideline is from the County Guidelines for Determining Significance – Visual Resources (2007i). Additionally, a Project may contribute to a significant adverse cumulative effect even if the Project itself does not cause a significant adverse impact.

Analysis

The site is not subject to an Historic District's zoning. Applicable local land use plans governing visual character and quality include the County's General Plan COS Element and the Elfin Forest and Harmony Grove Community Plan. The COS and various other elements within the San Dieguito Community Plan (Elfin Forest and Harmony Grove portion) include specific goals and policies directed at visual quality and community character (see Section 3.1.5 of this EIR). These goals and policies are additionally identified in the VIA (HELIX 2017e), and a Project consistency evaluation of these applicable goals and policies is provided in Attachment B of the VIA. The reader is also referred to EIR Appendix C, which details conformance with policies specifically related to steep slope waiver review.

In addition, the proposed Specific Plan includes design guidelines for the Project. The Specific Plan establishes the site design and layout, the architecture, and the landscape goals, criteria, and guidance for trails, lighting, walls, and fences, and includes architectural themes, landscape palettes, and fuel modification zone treatments.

In summary, the Project would be consistent with applicable goals and policies related to aesthetics contained within applicable local land use plans**,** and associated visual impacts would be **less than significant.**

2.1.2.5 *Installation of Outdoor Light Fixtures Inconsistent with the County Light Pollution Code*

Guideline for the Determination of Significance

The Proposed Project will result in a significant impact if:

5.A The project will install outdoor light fixtures that do not conform to the lamp type and shielding requirements described in Section 59.105 (Requirements for Lamp Source and Shielding) and are not otherwise exempted pursuant Section 59.108 or Section 59.109 of the San Diego County Light Pollution Code (LPC).

Guideline Source

This guideline is from the County Guidelines for Determining Significance – Dark Skies and Glare (2009a).

Analysis

Project-proposed lighting would include lights similar to or lesser in intensity than other developed areas in the County. Consistent with the existing surrounding area, streetlights are not proposed along roadways within the Project in general; only at intersections where required for safety and directional purposes. Project lighting would include safety and accent lighting at intersections (see Figure 1-21a). Accent lighting would be provided at the two primary Project entries off of Country Club Drive as well as at the community center/Center House accessed from Private Drive I. Primary intersection street lights would be 15 to 20 feet tall, and secondary intersection lights (as well as one light located to illuminate Center House parking area, would be 10 to 15 feet tall. Both types of features would have a shielded down light. The Project entry lighting off of Country Club Drive would be ground-installed can-lighting; low-level and focused on Project name signage so that visitors are aware of the Project location. Additionally, proposed houses would be illuminated from interior lights or individual outdoor safety lighting. Project private parks would be for daytime use only, and would not have night lighting.

Although Project lighting would be expected to produce light levels brighter than currently exists on the Project site, all lighting would adhere to the County of San Diego's dark sky ordinance. Exterior lighting design would include the use of full cut off light fixtures and glare louvers, ensuring that light rays are projected downward and that glare and spillage into the sky or onto adjacent property are restricted to levels permitted by ordinance.

The Project site is located over 20 miles from Palomar Observatory, in Zone B as identified by the LPC (all areas beyond 15 miles). Project lighting would not adversely affect nighttime views or astronomical observations because the proposed lighting would conform to the lamp type and shielding requirements as well as the hours of operation detailed in the LPC. In view of the above considerations, **Project-related impacts would be less than significant**.

2.1.2.6 *Use of Nighttime Lighting Inconsistent with the County Light Pollution Code or Extending onto Adjacent Property and Exceeding Code Limits*

Guideline for the Determination of Significance

The Proposed Project will result in a significant impact if it would:

5.B Operate Class I or Class III outdoor lighting between 11:00 p.m. and sunrise that is not otherwise exempted pursuant Section 59.108 or Section 59.109 of the San Diego County LPC.

Guideline Source

This guideline is from the County Guidelines for Determining Significance – Dark Skies and Glare (2009a).

Analysis

Class I lighting refers to outdoor lighting uses to illuminate outdoor areas used for business (sales or work), recreational, decorative or signage purposes. Class II lights are used for safety purposes; i.e., walkways, roadways, equipment yards, parking lots and general outdoor security).

The majority of Project night lighting would consist of Class II lighting. Consistent with Section 59.108, the limited number of streetlights included in the Project would be low-pressure sodium lights. Project trails and recreational areas would be posted for use from dawn to dusk. As these facilities would not be illuminated, there would be no issue relative to night-lighting. Consistent with Section 59.108, if an evening event is occurring at the Center House recreational area, all lighting would be shut off prior to, or at, 11:00 p.m. There are only three exceptions to all exterior Project-installed lights being off by 11:00 p.m. These include:

- Holiday decorations, if installed by the HOA, and specifically exempted (Section 59.109[f])
- Operational safety lights at the WTWRF (in the unusual event of nighttime need, would be activated by operators' arrival, and only be on for as long as operators are present)
- Identification signs at the Project entrances, provided for directional and safety purposes

Based on compliance with the County's Dark Sky Ordinance visual impacts associated with Project-related Class 1 and 2 nighttime lighting would be **less than significant**.

2.1.2.7 *Use of Nighttime Lighting Extending onto Adjacent Property and Exceeding Light Pollution Code Limits*

Guideline for the Determination of Significance

The Proposed Project will result in a significant impact if it would:

5.C Generate light trespass that exceeds 0.2 foot-candle measured 5 feet onto the adjacent property.

Guideline Source

This guideline is from the County Guidelines for Determining Significance – Dark Skies and Glare (2009a). It should be noted that there is always some level of naturally occurring nighttime illuminance. For example, the typical illuminance from moonlight is 0.03 foot-candle.

Analysis

Light spill, or "trespass" is an important issue for the County. This is where light is cast beyond the area requiring lighting, and enters the adjacent property. Project lighting is also subject to substantial restriction in terms of light spill per County ordinance; conformance is mandatory. The standard is stated as light exceeding 0.2 foot candle more than 5 feet onto the adjacent property.

As part of final mapping for the Project, all lighting must be defined in detail and approved by County staff to demonstrate conformance with the ordinance. This plan will be provided.

Pole spacing would be coordinated with street-tree spacing, and proposed street trees are anticipated to exceed light pole height upon maturity. Lighting design would include the use of full cut off light fixtures and glare louvers, ensuring that light rays are projected downward and that glare and spillage into the sky or onto adjacent property are limited. Each light would provide the lowest light level necessary, and would be limited to less than 4,050 lumens output, maintaining compliance with state and local safety regulations. Some lights would illuminate vertical planes such as signs and walls, or highlight trees and other features. Up-lights, provided to design a sense of place and highlight landscape features, would be turned off between 11:00 p.m. and sunrise, and this is conditioned in the Specific Plan. Code-required lighting at the WRF would be controlled by sensors to turn on only when needed. A potential on-site pump station would not require lighting. Specific locations are addressed below.

Excluding the low lighting proposed for the bridge over Escondido Creek, the low pedestrian-level lights along Country Club Drive on the east-side trail, and entry lighting along Country Club Drive, Project-provided lighting would all be located within the site interior (see Figure 1-21a). Intersection safety lights would be housed in a lamp that covers the entire bulb. Given the height of the fixtures, light would spread from the lamp in a circular pattern onto the ground surrounding the light post, and beyond. The closest fixtures to the Project perimeter, however, would be the lights at the Project entries. Those lights would be provided from ground-mounted can lights and would not exceed the distance to Country Club Drive. Other Project lights would be interrupted by Project structures and landscaping, including trees, sited between the light and Project boundary. Light would be more focused in direction, toward the path, and being lower, would be

even more limited in terms of spill. There would not be any potential for light spill onto adjacent properties.

The entry lights would be up-lights directed toward the sign and isolated Project landscaping foci. These lights would be restricted to the entries, and would be directed toward the Project and away from the roadways. Nearby off-site properties are located on the other side of Country Club Drive, or further south along Cordrey Drive. Country Club Drive and intervening Lots 123 and 124 would provide a buffer between these directed and focused lights and adjacent properties. No adverse impact would occur to adjacent properties based on Project lighting of Project entries.

The lights at the intersection of Private Drives B, D and E, and at the southernmost curve of Private Drive B, would be located adjacent to BOS. That light would be specifically oriented to illuminate only the road in a "toward development" orientation. No spill would occur toward the landscaped slope separating the Project from proposed BOS.

Light spill could also occur from individual homes backing onto adjacent properties to the west and east of the Project. To avoid this potential impact, Project-installed lighting would strictly comply with the LPC. Guidelines requiring private home-based light to be directed and shielded to minimize impacts would be provided to homeowners. Guidelines/by-laws stating that outdoor residential lighting must be shielded and pointed away from open space/directed only onto the lot in question would be provided to all homeowners through the HOA and made a condition of the Administrative Permit. Information regarding beam angles of residential floodlights at higher versus lower mounting heights would be provided to residents. In addition, the privacy fencing/ walls and perimeter vegetation would often interrupt the line of light and provide a hard cut-off. The HOA staff responsible for maintenance on site would periodically inspect the residential lot/ open space interface to confirm that lighting on private lots conforms to the guidelines. Also, if any exceedances occur, the HOA would receive complaints from neighbors and homeowners in violation of the guidelines would be notified of the problem. This also would be a condition of the Project Administrative Permit.

With the measures specified above**,** although Project lighting would produce light levels brighter than currently exist, all lighting would adhere to the County's dark sky ordinance. Impacts associated with light spill would be **less than significant.**

2.1.2.8 *Installation of Highly Reflective Building Materials*

Guideline for the Determination of Significance

The Proposed Project will result in a significant impact if:

5.D The project will install highly reflective building materials, including but not limited to reflective glass and high-gloss surface color, that will create daytime glare and be visible from roadways, pedestrian walkways or areas frequently used for outdoor activities on adjacent properties.

Guideline Source

This guideline is from the County Guidelines for Determining Significance – Dark Skies and Glare (2009a).

Analysis

Substantial glare is generally not anticipated from residential units. Large expanses of glass are not proposed for the Project. In fact, design shows the reverse; windows would often be located below shielding architectural elements. Landscaping, too, would play a role in shielding glass panes from reflective rays.

It is noted that Project electrical energy use would be provided by solar. Project electrical energy goals would be satisfied through use of on-site solar panels on Project structures as described in Table 1-2 of this EIR and Subchapter 2.7, *Greenhouse Gas Emissions*.

Photovoltaic panels are typically constructed of primarily dark absorptive material that is designed to capture as much light energy as possible. To the extent that panels reflect sunlight, they lose their capacity to generate electricity. Anti-reflective coating, stippling, and other methods are used to trap light within the panel and minimize reflection. Because panels would most likely be placed on roofs, they may be visible to viewers from off-site elevated viewpoints. Current technology results in these panels being less reflective than prior models, and some even look like ceramic tiling. To be conservative, however, it is noted that sun may be reflected during some times of day when the panel is located at a particular view angle. If this should occur, there is a chance that glare may be experienced by a viewer. This may occur only for a short duration per day under worst-case conditions (i.e., reflection 365 days per year, assuming no diffusion related to cloud cover or atmospheric conditions).

There also is a small potential for glare/reflection from glass if a dual-paned glass is incorporated into potentially required fire resistive barriers for seven lots along the southern development footprint in the western portion of the Project. This would be extremely intermittent in nature, however, as visual effects would only occur when: (1) the orientation of the sun in the sky (both azimuth and altitude) would result in rays hitting the glass; (2) cloud cover would not reduce glare; (3) intervening vegetation would not shade the glass; and (4) an observer would be present to see the glare (right place at the right time of day). In other words, although some level of glare may occur, it is not expected to result in long-term, ongoing significant effects. These effects would not occur at all if a solid block wall is implemented, which is also possible.

Although potentially occurring to a limited extent, visual impacts related to glare would be **less than significant.**

2.1.2.9 *Conformance with Light Pollution Code*

Guideline for the Determination of Significance

The Proposed Project will result in a significant impact if:

5.E The project does not conform to applicable federal, state or local statute or regulation related to dark skies or glare, including but not limited to the San Diego County Light Pollution Code.

Guideline Source

This guideline is from the County Guidelines for Determining Significance – Dark Skies and Glare (2009a).

Analysis

Considering the above analysis relative to Project lighting type, location, hours of operation and potential for spill onto adjacent properties, the Project would be in compliance with the LPC. **No impact** related to conformance with the LPC would occur.

The reader is referred to the discussion of short-term/construction period visual effects, in Section 2.1.2.1 of this subchapter, for discussion of nuisance visual effects prior to maturity of Project-installed landscaping.

2.1.3 Cumulative Impact Analysis

For visual resources, Projects within the above-described 3-mile Project viewshed (including the Proposed Project) could contribute to regionally cumulative visual effects, and are evaluated in this discussion. The viewshed includes areas with views to, or from, any single point on the Project, and therefore includes those projects that could be seen in concert with the Proposed Project. They would not all be visible at any one time or from one point, however. Only some of them are concentrated in one portion of the viewshed, and in general local topography, vegetation, intervening structures and land uses often block views to or from them.

Each of the cumulative projects within the viewshed is located to the north of the Proposed Project (see Figure 2.1-13, *Cumulative Projects for Visual Analysis*). Developments relevant to visual cumulative impacts are summarized below.

The Montiel development would include eight single-family residences and 120 condominiums. Candera includes 70 condominiums. Both of these projects are sited within existing developed areas north of SR-78 (Montiel is also immediately adjacent to I-15), and would not result in land use changes relative to existing views within the viewshed. These projects would visually blend with other built residential or light industrial uses in their portions of San Marcos and Escondido, respectively, and although within the viewshed, are visually separated from development south of SR-78/East Mission Road by development patterns within these cities.

Three of the cumulative projects comprise more substantial elements within the viewshed, and are also in closer proximity to the Proposed Project. HGV and Valiano are large residential projects within the County in the Harmony Grove and (abutting) Eden valleys. The HGV project is currently under construction, and is expected to be fully built out by the time HGV South is considered for approval, and completes final design. (Home sales began in May 2015, and are ongoing.) The Valiano project is currently undergoing environmental review.

HGV is a contiguous project located immediately to the west, north and northwest of HGV South, and is currently under construction. As noted above, sales began in May 2015. Once completed, this large residential development will include up to 742 single-family residences along with a Village Center, park and recreation areas, and equestrian facilities on 468 acres. Similar to the Proposed Project, but on a much larger scale, HGV is developing residential neighborhoods within the valley on land that previously used for agribusiness (chicken and dairy farms). The chicken ranch agribusiness included 32 long white linear structures that were extremely visible from area roadways and drew the viewer's eye due to their atypical length, width and color. HGV is introducing a large number of buildings and suburban elements, as well as reintroducing an historic drainage (removed during farming) into these areas. Because the HGV site has undergone mass grading and is currently building out, the relatively recent character of this major portion of Harmony Grove has already been altered across a large portion of the valley that extends to the north and includes the HGV site. Now, the homes and sound barriers (including those with partial "see through" panels) built on the pads adjacent to the east side of Country Club Drive (up a notably modified slope); as well as the homes being built and inhabited on the west side of Country Club Drive, along with landscaped and walled project entries, Fourth of July Park, etc., are all open to view. Solid block wall sound barriers on the west side of the road also are notable, as are HGV-installed concrete sidewalks, light standards, three-rail fencing and consistent standardized landscaping along the roadway. Full implementation of the project is assumed.

Valiano is a planned residential community of 326 single-family dwelling units and related facilities, located north of HGV. The development would include park and recreation areas, equestrian staging areas, and an on-site WTWRF. Post development, approximately 146 acres would be retained as open space, including open space lots and easements, as well as biological and agricultural open space preserves.

The third primary cumulative project is a hospital facility located approximately 1.7 miles to the north, a portion of which has been constructed. The Palomar Medical Center was constructed in 2012 and includes an 11-story hospital facility. That project is planned to be expanded in phases. Given the size and height of this hospital building, it is a dominant visual element in the Project area and is visible from various distant vantage points within the viewshed. It is located at a transition point between industrial/commercial and residential development and is adjacent to existing industrial/commercial uses to the east and single-family residences to the west. Despite it being surrounded by existing development, the size contrasts with the smaller industrial and residential buildings in the area. The construction of additional structures at this location would increase the bulk and scale of this cumulative project and would make it more visible and disparate with the visual character.

Direct visual effects of views from public roads and recreational trails are addressed in detail in Sections 2.1.2.1 and 2.1.2.3; in many cases, those direct views also take in more proximate

development, or are broad in scope. The following discussion focuses only on the cumulative views; i.e., those views encompassing the Proposed Project plus one or more of the cumulative projects.

From public recreational trails to the south, views of the Project and HGV are open and would clearly show the introduction of built village uses into the viewshed. (Although views from the public trails in the permanent open space to the south could also include some distant built elements of the proposed Valiano project, beyond HGV, the stand of trees in the southernmost portion of that project, combined with the distance from the trails, would minimize the visual effect of that project.) The contiguous Proposed Project and HGV would introduce residential/suburban elements within the valley into a view that currently contains (the Project) or recently contained (HGV) open grasslands, groves, and agribusiness uses. Additionally, the Palomar Medical Center has introduced large scale buildings and parking facilities adjacent to residential development and undeveloped land. Although even further distant than Valiano, the 11-story size of the hospital structure, combined with limited shielding of its multiple stories and its location skylined on a hilltop, results in it being a notable seen feature from the south. While existing residential uses and HGV construction activities currently are visible within the valley, the combination of these projects results in a change in visual character of the valley related to loss of visual open space, and increase in residential density.

Expansive views incorporating multiple projects also are available from the northwest at higher elevations. From these vantage points, the nearer Valiano development would be in the foreground of expansive views over the valley. That project would visually merge into the northernmost portion of the HGV development, and the viewer would look over both of these projects toward the taller hills rimming the southern edge of the valley, south of HGV South. The Proposed Project would continue visual elements associated with the larger HGV development, but would be visually minimized by distance, as well as the extent to which the southern hills would draw the viewer's gaze upward.

Overall, and taken together, the visual environment of the viewshed within the valley would be modified by the major physical change in composition introduced by the combination of HGV, and to lesser extents, the Proposed Project and Valiano. The visual effect of this change is heightened by the contiguous locales of these projects, which, when taken together, create a larger transformation in the composition and visual pattern of the valley over a 10- to 15-year period. Although each project would be visually consistent with each other in terms of visual pattern, the collective effect of the change created by these projects would contrast with the recent visual character and quality of the area. The Palomar Medical Center also contributes to this adverse effect. Therefore, the cumulative visual impact of the three projects in the valley, combined with the substantial and atypical height and massing changes introduced by the Palomar Medical Center would be significant.

The Project's contribution to this change, however, would not be cumulatively considerable for several reasons.

First, the HGV project on its own is approximately four times the size of the Proposed Project (468 acres versus 111 acres), with a corresponding difference in the magnitude of the built environment, and resultant visibility, between the two projects. When viewed from most vantage

points, the Proposed Project would not substantially contrast with visual patterns, particularly since large open space area would be retained at the highest and most visible portion of the Project. The Project essentially would be perceived as an extension of HGV uses to the north and would visually blend with the emerging visual pattern within the valley.

Second, as the viewer approaches the Project site from Country Club Drive, views would open up compared to the developed surrounding settings. This is because the traveler would be approaching open views to the Project through the more built up portions of Country Club Drive where views would encompass Escondido developments, planned Valiano, and the Village Core of HGV, as well as the steep slopes immediately east of the Village Core, which also have residential uses aligned along Country Club Drive. Approaching the intersection with Harmony Grove Road, the traveler would slow to see Escondido Creek vegetation for the first time, as well as the County parks south of Harmony Grove Road, and beyond those, the Project and the high hills behind. The Project would appear more visually open than what the viewer just experienced, in part because the topography would not curtail views to the east from the road (as happens along Country Club Drive north of Harmony Grove Road), and long and high wall features would not parallel Country Club Drive (as they do in HGV); and in part because the HGV Equestrian Ranch property currently provides (and even once developed would continue to provide) a more open rural appearance right across the street from the Project.

A similar experience would occur for eastbound viewers with sight lines to the Project from west of the Country Club Drive and Harmony Grove Road intersection. These travelers would be moving along a portion of the road where HGV is located to the north, and views to the Proposed Project would be partially obscured or interrupted by open park areas, Escondido Creek, and for some of the route, the HGV Equestrian Ranch property. The closest (most northern) portion of the site would be located south and east of these intervening view elements and would consist of what would visually read from this viewpoint as vegetated slopes with integrated residences against a backdrop of hills that exceed 900 feet east of the Project. The visual impact of the Project would be less strong than that of the more proximate HGV.

The extent of the HGV project, combined with the discordant element provided by the vertical and notably engineered hospital structure, have so substantially changed the nature of the valley that the visual effect of the presence of the Proposed Project would be minimized. As a result, although the Project would contribute to the level of seen development within the Harmony Grove Valley, it would not make a considerable contribution to the cumulative effect, and Project-related cumulative impacts would be **less than significant.**

2.1.4 Significance of Impacts Prior to Mitigation

The following significant impacts related to aesthetics would occur with Project implementation:

Impact AE-1 Landform modification associated with blasting/rock breaking is expected to result in newly exposed rocks and horizontal drainage features across cut slope that would contrast with the adjoining natural hillsides and would be visible from existing and planned trails on and off site.

Impact AE-2 Visual effects during and following the Project construction period related to vegetation removal, grading, bridge construction and vertical development would be substantial until buildout occurs and all vegetation is installed and reaches visual maturity in approximately 10 years.

2.1.5 Mitigation

The following mitigation measure addresses rock staining on the manufactured slopes to ensure long-term visual continuity of the newly broken/exposed rock on manufactured slopes with those rocks that have naturally weathered:

M-AE-1 Exposed newly cut rocks and horizontal drainage features shall be stained in earth tones (through spraying or dripping onto fresh rock face) to soften their contrast on Project cut slopes. Staining of rock shall occur during slope landscape installation and shall be in colors that match the surrounding rock. Application of stain shall be overseen by a qualified expert. Before staining, several test sections will be completed on the rock cut to determine the type of stain that will create the best match with the surrounding rock (i.e., pigmented stains, or creation of new color by leaching minerals from the rock or through photo-reactivity). The slope shall be dry and all loose material and vegetation shall be removed before stain is applied. If necessary, the slope face will be pressure-washed to remove fine-grained particles that could inhibit the stain penetration. Horizontal hillside drainage features will contain color-integrated cement as part of the installation.

Implementation of this mitigation measure would lower the impact to less than significant levels because it would minimize variation in color between naturally aged rock and recently broken rock, as well as horizontal drainage features, that might be visible from trail areas.

No mitigation is available to reduce the short-term visual impacts during and immediately following construction. While temporary in nature and ultimately addressed through Project design and landscaping over the long-term, short-term adverse visual impacts to the Project site's visual character associated with Project construction would be significant and unmitigable.

2.1.6 Conclusion

In addition to the mitigation specified above, a number of Project design features that would become Project Conditions for both construction and operational phases have been incorporated into the Project. These considerations are presented in Table 1-2 of this EIR, and will be made Project Conditions, to ensure their implementation, if the Project is approved. In brief, these design considerations include compliance with the approved conceptual landscape plan, including requirements for timing of installation of landscape (e.g., container box sizes along Country Club Drive, at entries, along Project streets and on manufactured slopes); grading in accordance with the approved Preliminary Grading Plan, designed to follow general rise and fall in existing topography; incorporation of open space corridors and parks totaling a minimum of approximately 60 percent of the site; trails and pathways with equestrian fencing and/or landscaping; screening of trash dumpsters and mechanical units as described on Table 1-2; architectural elements incorporated to reduce apparent size, bulk and scale of structures and to introduce visual interest

as described on Table 1-2; lighting controls to ensure compliance with the County LPC; and signage restrictions as noted on Table 1-2.

Impacts remain potentially significant for two issues: views of newly exposed rock and horizontal drainage features in manufactured slope areas in areas of steep slopes, and views of the Project during the construction-period/initial development. These impacts and proposed mitigation are summarized below.

Regarding Impact AE-1, impacts to manufactured slopes with exposed broken rock and horizontal drainage features would be mitigated to less than significant because, with mitigation M-AE-1 and the staining of newly broken and visible rock/incorporation of color into horizontal drainage features, viewers would observe manufactured slopes that appear more similar to nearby slopes with natural weathered rock.

This is because rock staining is an effective and cost-efficient method of blending the color of fresh or faintly weathered excavated rock faces with that of the surrounding natural rock faces; enhancing both the short- and long-range perspectives. Rock staining products, which are sprayed or dripped onto the fresh rock face, can bring the cut rock to its natural, weathered color within weeks. It is noted that not every stain is compatible with all types of rock, and the final color depends on stain concentration and formulation. As required in the mitigation measure, before staining, test sections would be completed on the rock cut to determine the type of stain that would create the best match with the surrounding rock. Several coats of stain may be required if the fresh and weathered faces look very different. At conclusion, newly cut rock will blend with weathered areas.

Regarding Impact AE-2 and construction-period/initial installation visual impacts, these visual impacts would be adverse. These impacts relate to the combination of raw valley and slope soils during the construction period, the potential presence of rock crushing activities (with the industrial appearing crusher) and other construction equipment moving about the site, and increased lighting being visible immediately following Proposed Project construction. Ultimately, the landscaping installed within each constructed phase—with prioritization of manufactured slopes and areas edging Country Club Drive—would lessen adverse visual impacts of raw slopes and new buildings, and vegetation maturity would be visually attained in approximately 10 years. At that point, raw soil would be covered with Project improvements, and street trees and internal landscaping would buffer the homes from views to the Proposed Project from off site, softening sharp edges, unifying the Project, and shading Project lighting and glare. While temporary in nature and ultimately addressed through Project design and landscaping over the long-term, short-term adverse visual impacts would be significant and unmitigable.

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Photo Locations

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

0 900 Feet

Figure 2.1-1

A. Looking south-southeast over the Project from the northeast corner.

B. Looking onto the central bench from the north central part of the Project.

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On-site Photographs

HARMONY GROVE VILLAGE SOUTH

Figure 2.1-2a

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A. Looking west to HGV future Equestrian Ranch over on-site scrub and non-native grassland.

B. Looking east along the on-site paved road, leading to off-site residential uses.

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On-site Photographs

HARMONY GROVE VILLAGE SOUTH

Figure 2.1-2b

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A. Chimney remnant and on-site non-native grasslands of the Project central bench.

B. Looking east along the central bench, showing slope both north and south.

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On-site Photographs

HARMONY GROVE VILLAGE SOUTH

Figure 2.1-2c

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A. View to the north from the on-site central bench.

B. View from the central bench southerly along the Project western boundary and Cordrey Drive.

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On-site Photographs

HARMONY GROVE VILLAGE SOUTH

Figure 2.1-2d

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Looking east along Escondido Creek from Country Club Drive.

Looking west along Escondido Creek from Country Club Drive.

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Escondido Creek, East and West

HARMONY GROVE VILLAGE SOUTH

Figure 2.1-3a

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Looking westerly from the Project to typical ridgeline development.

Typical Ridgeline Development

HARMONY GROVE VILLAGE SOUTH

Figure 2.1-3b

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View to the Project site from Harmony Grove Road, over Escondido Creek, east of Country Club Drive.

Surrounding Public Viewpoints

HARMONY GROVE VILLAGE SOUTH

Figure 2.1-3c

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View to Project site from Harmony Grove Road just east of the Harmony Grove pump station, looking southeasterly over future park area and Escondido Creek.

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Surrounding Public Viewpoints

HARMONY GROVE VILLAGE SOUTH

Figure 2.1-3d

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View toward Project from north-south portion of Harmony Grove Road.
Project is screened by intervening vegetation and topography.

Surrounding Public Viewpoints

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

Figure 2.1-3e

View to Project site from north side of Harmony Grove Road and Country Club Drive intersection.

Surrounding Public Viewpoints

HARMONY GROVE VILLAGE SOUTH

Figure 2.1-3f

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Looking southerly to Project Site from Country Club Drive crossing of Escondido Creek.

Surrounding Public Viewpoints

HARMONY GROVE VILLAGE SOUTH

Figure 2.1-3g

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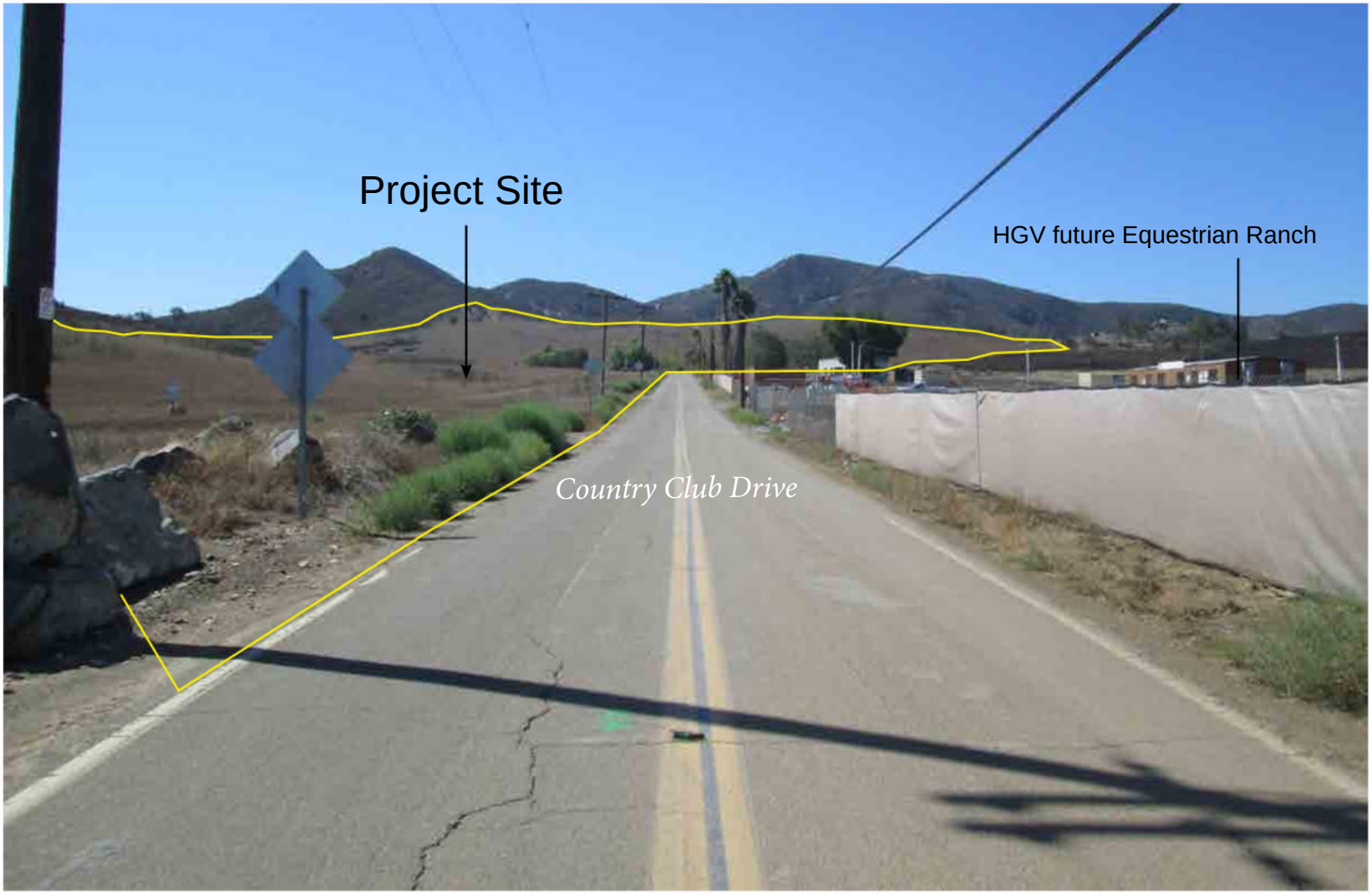

View to Project site from Country Club Drive south of Escondido Creek.

Surrounding Public Viewpoints

HARMONY GROVE VILLAGE SOUTH

Figure 2.1-3h

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View toward Project site from Country Club Drive and Cordrey Drive intersection.

Surrounding Public Viewpoints

HARMONY GROVE VILLAGE SOUTH

Figure 2.1-3i

HELIX Environmental Planning

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View to Project from Coronado Hills Drive and Cyad Drive over Harmony Grove Village, first phase grading.

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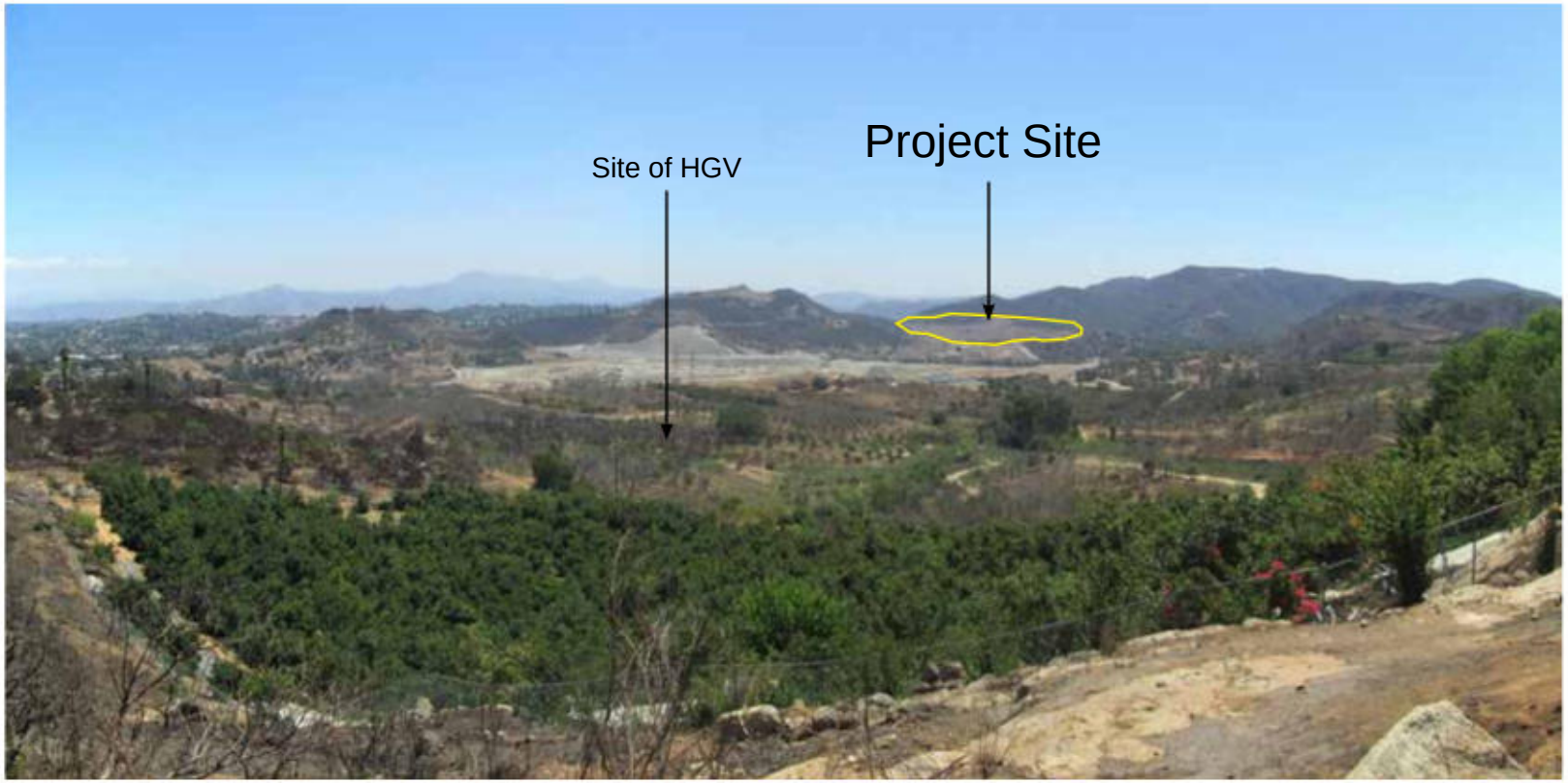
Surrounding Public Viewpoints

HARMONY GROVE VILLAGE SOUTH

Figure 2.1-3j

HELIX Environmental Planning



View to Project site from Seeforever Drive over Harmony Grove Village, first phase grading.

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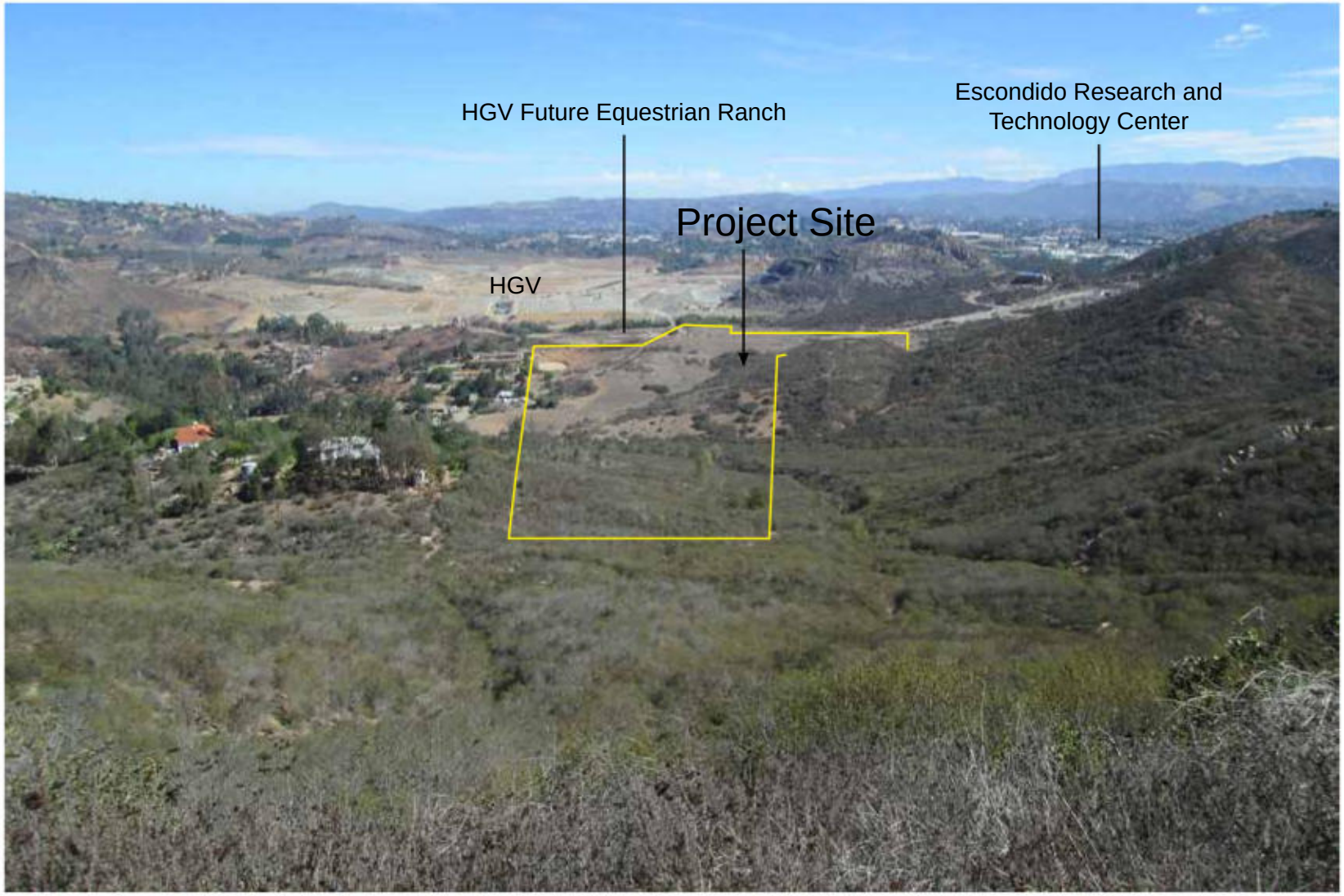
Surrounding Public Viewpoints

HARMONY GROVE VILLAGE SOUTH

Figure 2.1-3k

HELIX Environmental Planning



View to Project site from Del Dios Highlands Trail.

Surrounding Public Viewpoints

HARMONY GROVE VILLAGE SOUTH

Figure 2.1-3l

HELIX Environmental Planning

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View to Project from Harmony Grove Overlook in Elfin Forest Recreational Reserve.

Surrounding Public Viewpoints

HARMONY GROVE VILLAGE SOUTH

Figure 2.1-3m

HELIX Environmental Planning

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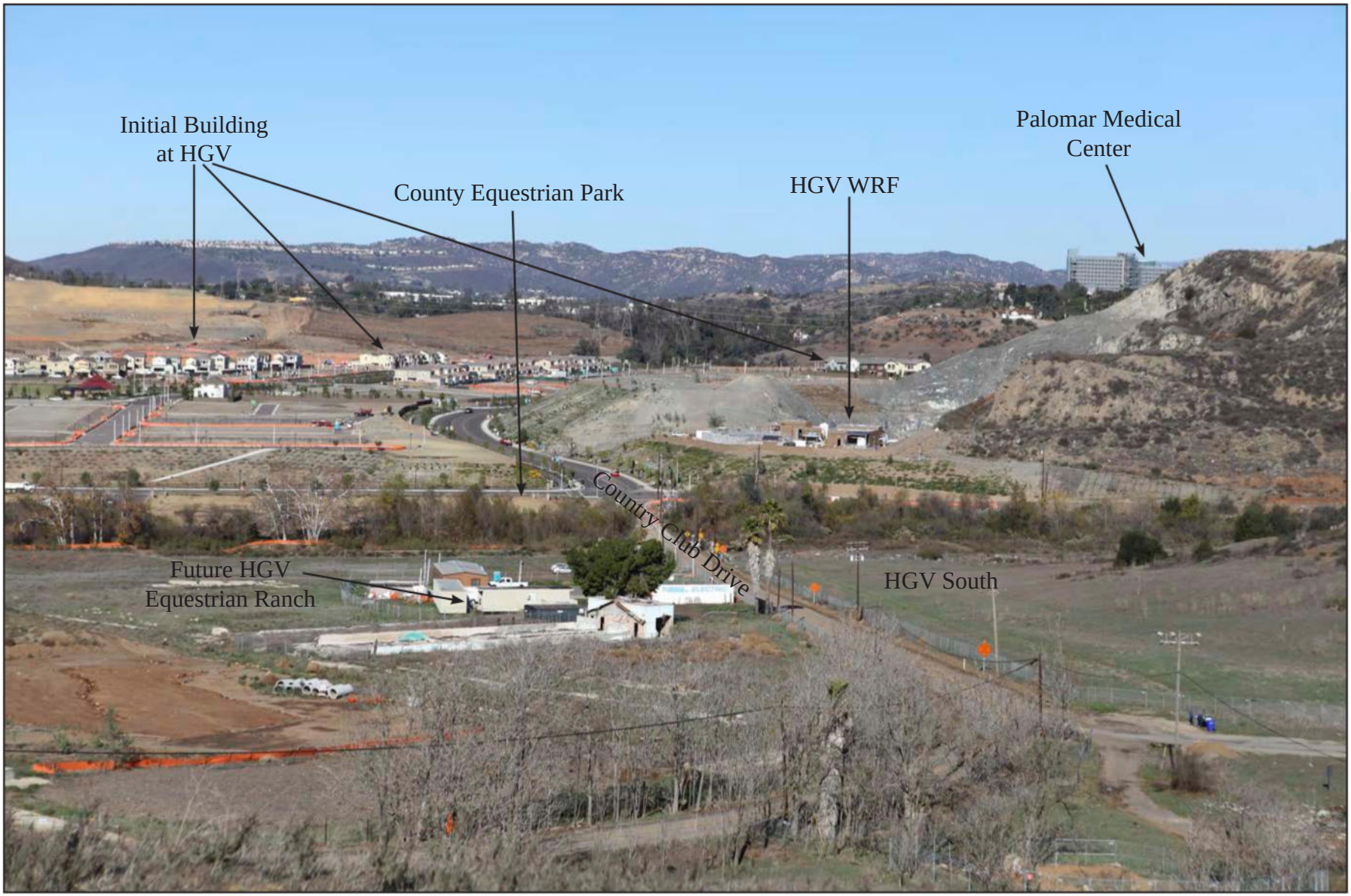


Looking Northerly From HGV South Central Bench

Source: Kovach Group of Companies, 2016

Built Elements Near Harmony Grove Village South

HARMONY GROVE VILLAGE SOUTH

Figure 2.1-4a

HELIX Environmental Planning

I:\PROJECTS\K\KOV\KOV-01_HarmonyGroveSE\Map\ENVEIR\Section2_1_new_2016_0725\Fig2_1-4a_Northerly_SouthofHGV.indd KOV-01 6/10/2016 - NG

HGV Homes, Grading, and Portion of Park, with Existing Single and Multi-story Residences

Source: Kovach Group of Companies, 2016

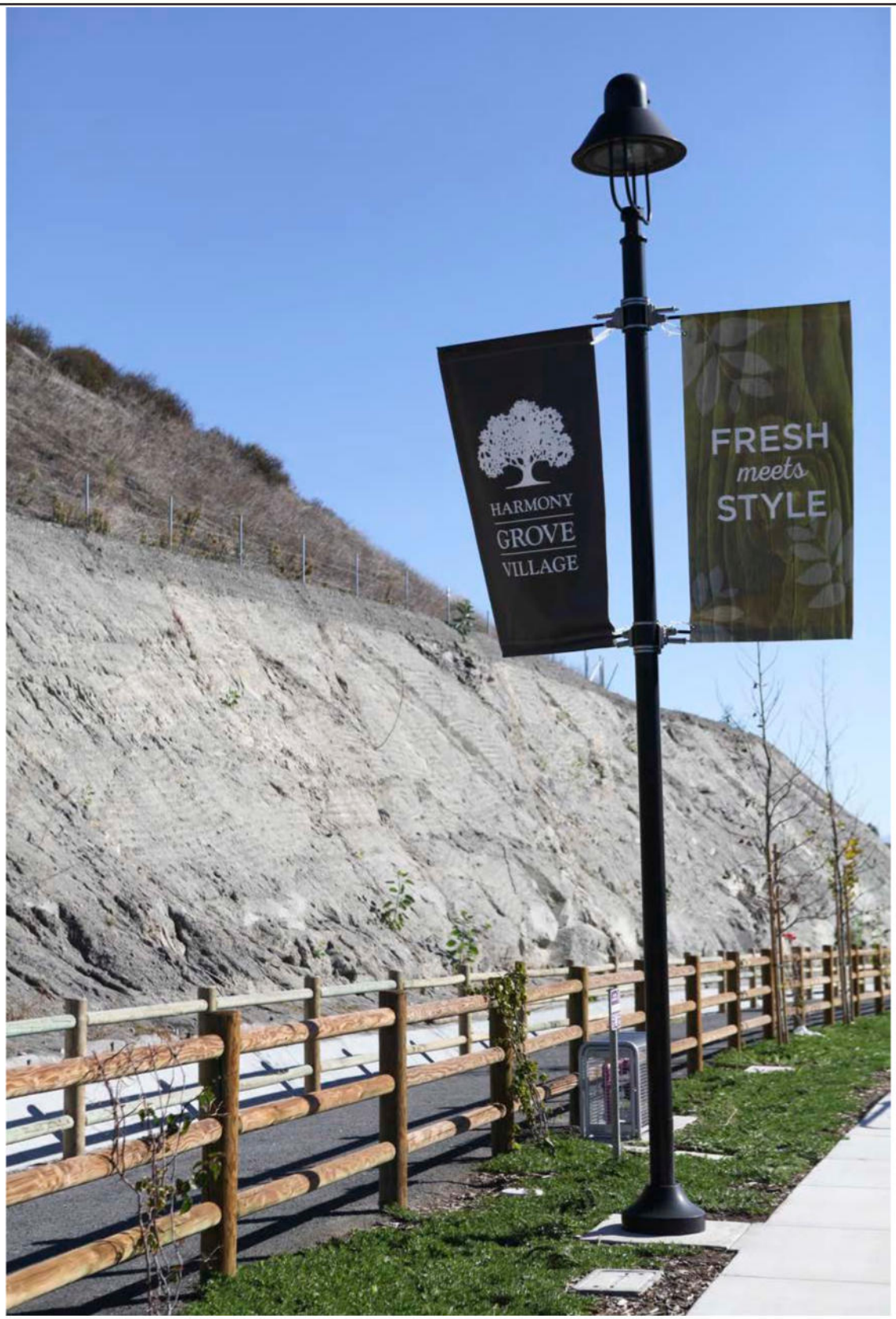
Built Elements Near Harmony Grove Village South

HARMONY GROVE VILLAGE SOUTH

Figure 2.1-4b

HELIX Environmental Planning

I:\PROJECTS\K\KOV\KOV-01_HarmonyGroveSE\Map\ENVEIR\Section2_1_new_2016_0725\Fig2_1-4b_HGV_Homes.indd KOV-01 2/29/2016 - NG



HGV Sidewalk, Pathway and Slope Adjacent to Roadway

Source: Kovach Group of Companies, 2016

Built Elements Near Harmony Grove Village South

HARMONY GROVE VILLAGE SOUTH

Figure 2.1-4c

HELIX Environmental Planning

I:\PROJECTS\K\KOV\KOV-01_HarmonyGroveSE\Map\ENV\EIR\Section2_1_new_2016_0725\Fig2_1-4c_SidewalkPathway.indd KOV-01 5/9/2016 - NG

Northeast of Project

Southwest of Project

Nearby Homes Exceeding Two Stories

Source: Kovach Group of Companies, 2016

Built Elements Near Harmony Grove Village South

HARMONY GROVE VILLAGE SOUTH

Figure 2.1-4d

HELIX Environmental Planning

I:\PROJECTS\K\KOV\KOV-01_HarmonyGroveSE\Map\ENVEIR\Section2_1_new_2016_0725\Fig2_1-4d_HomesExceedingOneStory.indd KOV-01 2/29/2016 - NG

East Mission Road
San Elijo Road
Nordahl Road
78
15
56
Olivenhain Reservoir
Lake Hodges
Via Rancho Parkway
San Dieguito River

Property Boundary
3-mile Buffer
Areas with Views to/from Project

SANDAG Technical Services - GIS

I:\PROJECTS\KOV\KOV-01_HarmonyGrove\EIR\Map\ENVEIR\Section2_1_new_2016_0725\Fig2_1-5_Viewshed.mxd KOV-01 3/1/2016 - NG

Viewshed Analysis

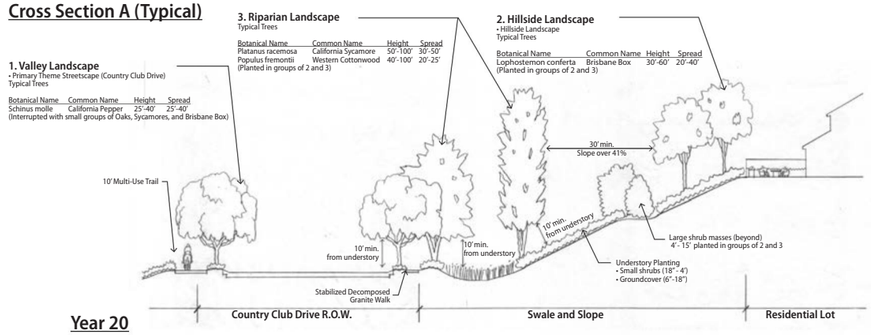
HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

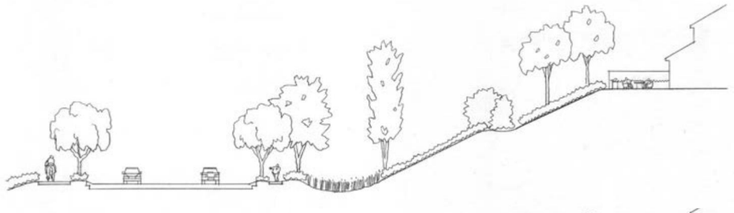
N 0 4,000 Feet

Figure 2.1-5

Cross Section A (Typical)



Year 20



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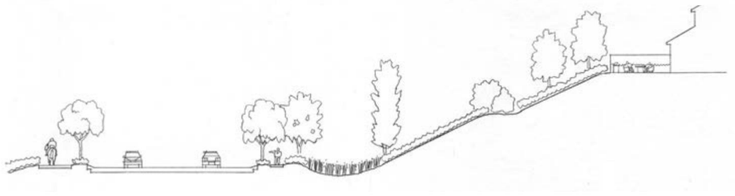
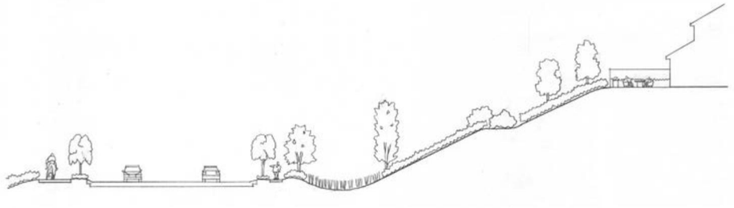


Year 10



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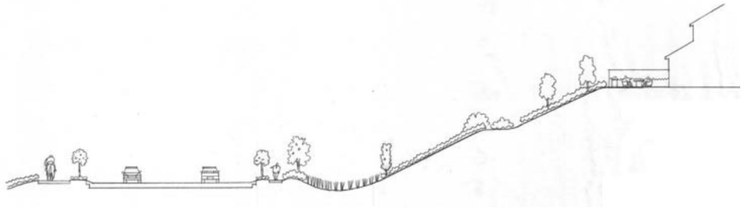
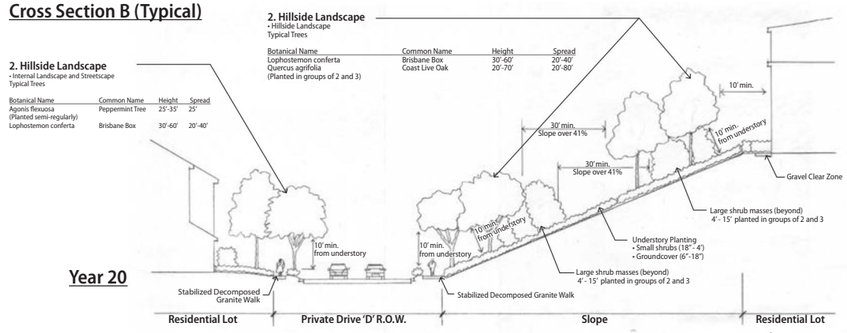
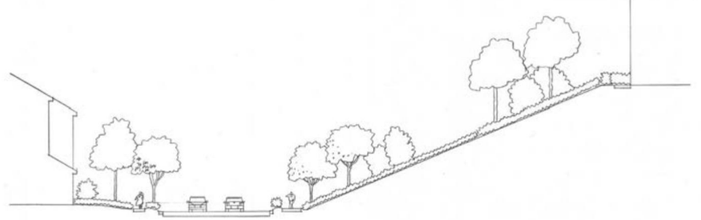


Year 0

Cross Section B (Typical)



Year 20



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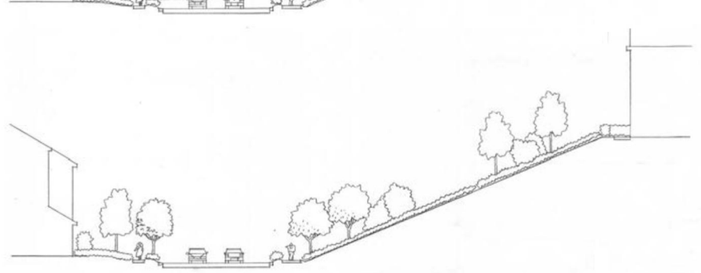

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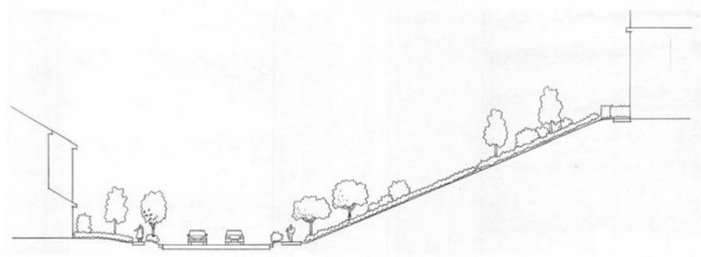

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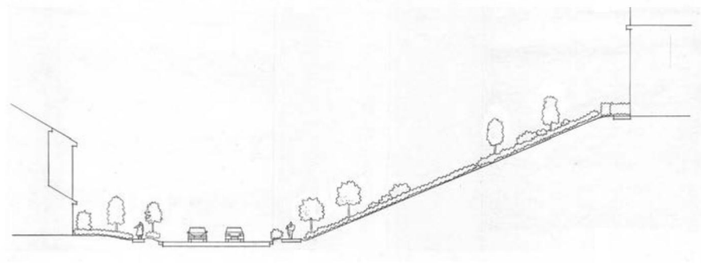

Year 0

Conceptual Landscape Cross Sections

Harmony Grove Village South

0 20 40'

2016/01/12

Source: SWA 2016

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Conceptual Landscape Cross Sections

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

Figure 2.1-6

Escondido Creek
Private Access Road
Country Club Drive
Private Drive 'J'
Private Drive 'K'
4' High
400' Long
3' High
80' Long
Private Drive 'I'
Private Drive 'A'
Private Drive 'H'
4' High
500' Long
2' - 8' High
110' Long
Private Drive 'G'
Private Drive 'C'
Private Drive 'D'
Private Drive 'F'
2' - 4' High
450' Long
4' High
300' Long
Cordrey Drive
Private Drive 'B'
Private Drive 'E'
0' High
20' High
0' High
220' Long
Property Boundary
Study Area
Retaining Wall
I:\PROJECTS\KV\KOV\KOV-01_HarmonyGroveSE\Map\ENV\EIR\Fig2_1-7a_WallFenceProject.mxd KOV-01 6/10/2016 - NG
Source: PDC 2015

Preliminary Retaining Wall Placement

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

N 0 250 Feet

Figure 2.1-7a

Source: DUDEK 2016

Potential Fire Walls

HARMONY GROVE VILLAGE SOUTH

Figure 2.1-7b

HELIX Environmental Planning

I:\PROJECTS\KOV\KOV-01_HarmonyGroveSE\Map\ENVIR\Fig2_1.7b_PotentialFireWalls.indd KOV-01 12/21/2016 - NG

A. View Looking Southerly from KV 1

B. Project Photo-simulation from KV 1 at Country Club Drive and Harmony Grove Road Intersection

Source: KTV&A 2016

Project Photo and Simulation from Key View 1

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

Figure 2.1-8a

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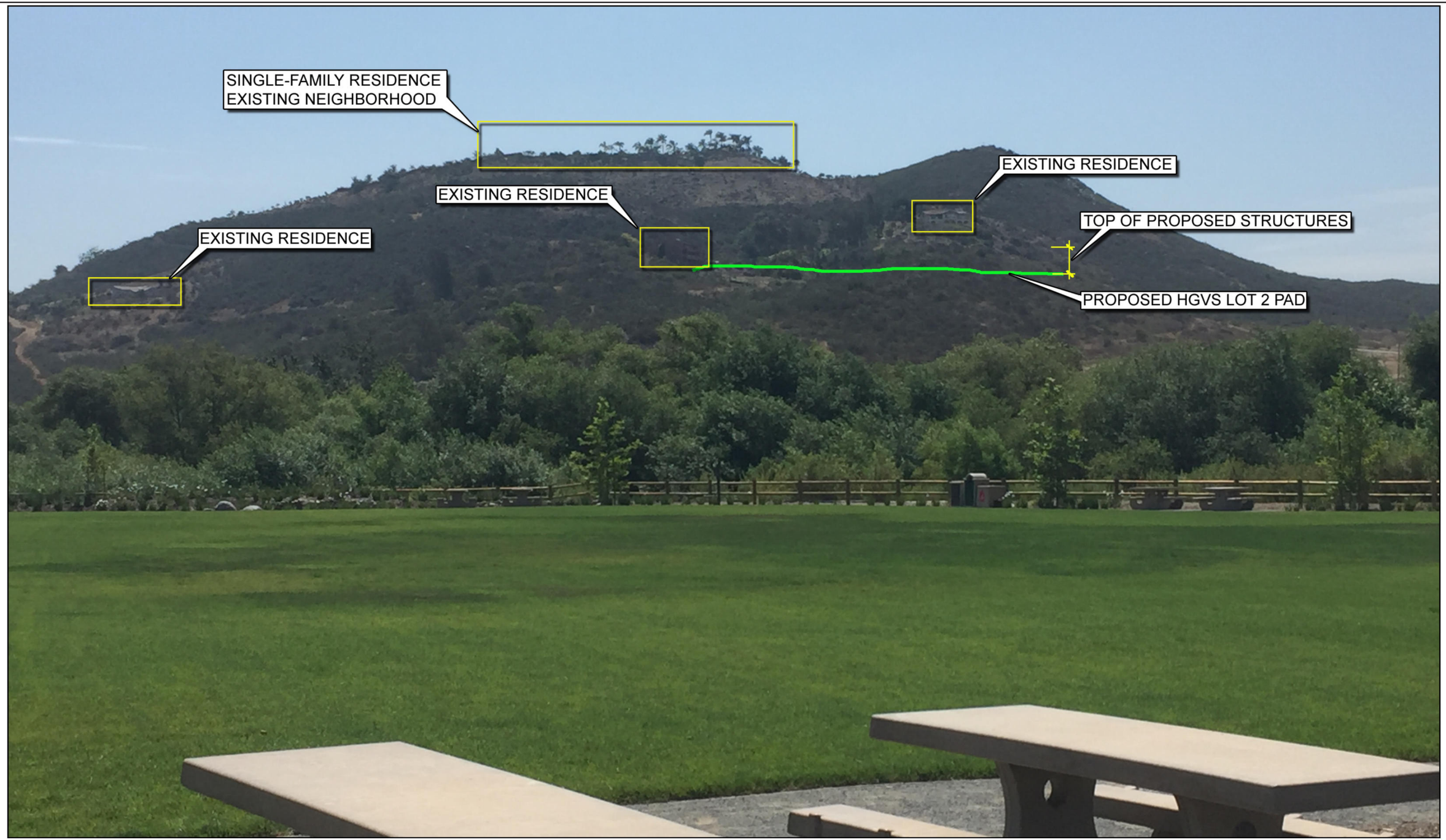

Source: Kovach Group of Companies and PDC, 2016

Depiction of Lot 2 Topographic Backing from Community Park

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

Figure 2.1-8b

I:\PROJECTS\KKOV\KOV-01_HarmonyGroveSE\Map\ENV\EIR\Fig2_1-8b_Lot2.indd KOV-01 7/14/2016 - NG

A. View Looking Northerly from KV 2

B. Project Photo-simulation from KV 2 on Del Dios Highlands Fire Break Trail

Source: KTV&A 2016

Project Photo and Simulation from Key View 2

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

Figure 2.1-9

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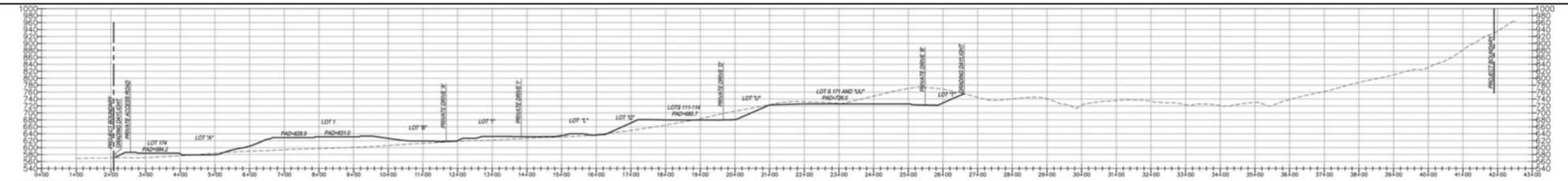
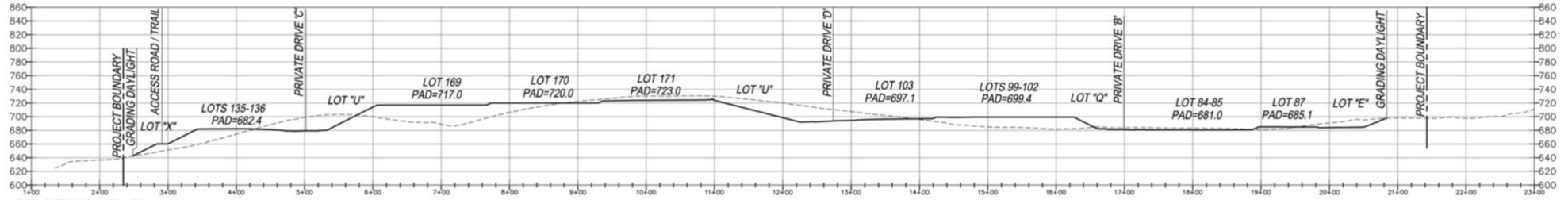


SECTION A-A



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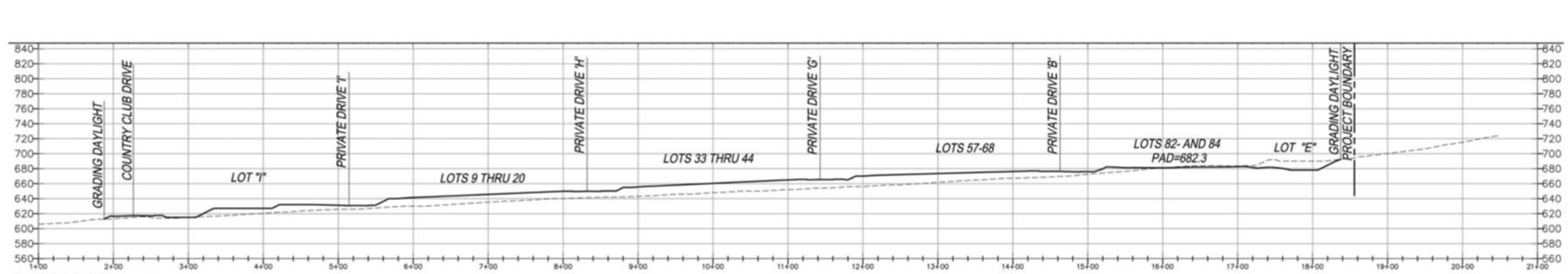

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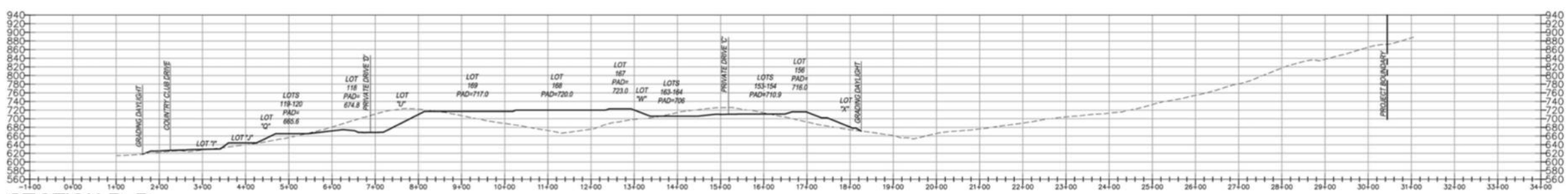

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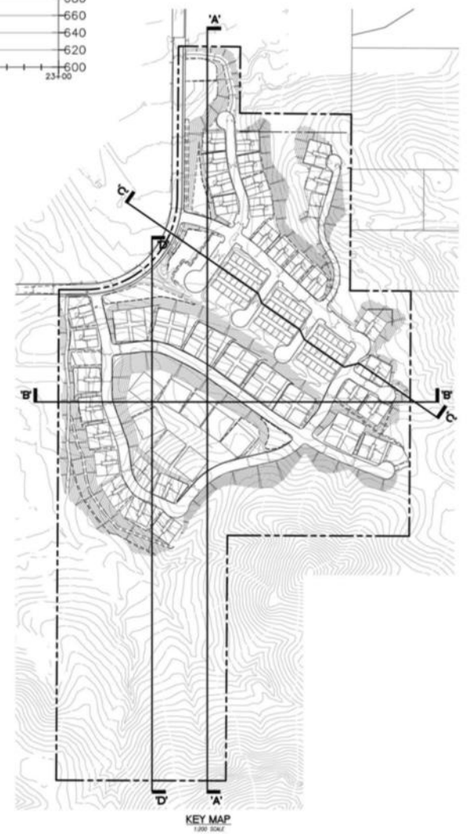

Source: PDC 2016

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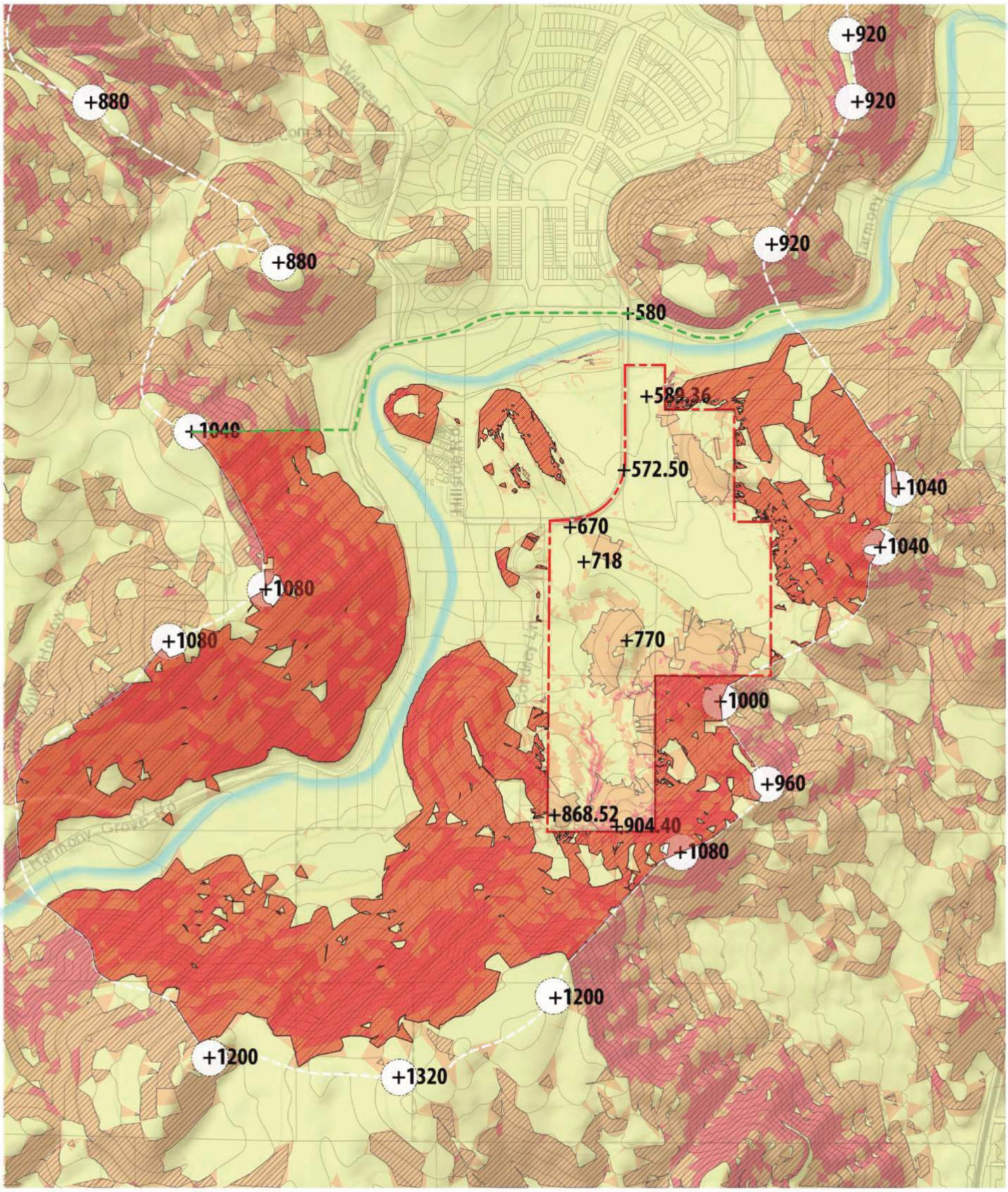
Topographic Cross Sections

HARMONY GROVE VILLAGE SOUTH

Figure 2.1-10

HELIX Environmental Planning



Source: SWA 2015

Slopes Providing the Project Setting

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

Figure 2.1-11a

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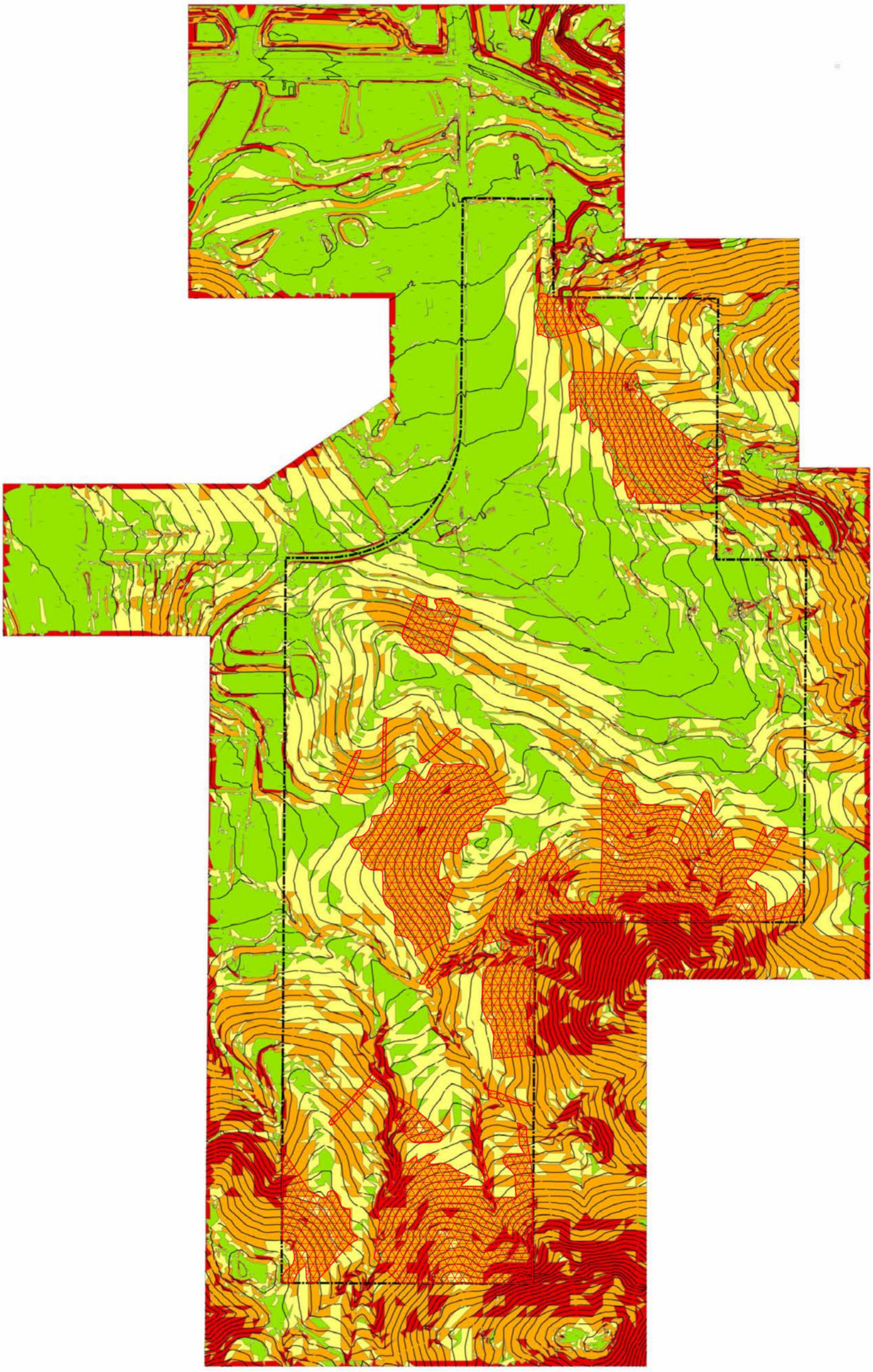

SLOPE TABLE

Semi-Rural 0.5	Acreage	Density	Allowable Dwelling Units
Slope less than 25%	66.7	2 dwelling units per acre	133
Slope 25% to less than 50%	39.7	1 dwelling unit per acre	39
Slope 50% or greater	4.6	1 dwelling unit per 2 acres	2
Total	111		174

LEGEND

- LESS THAN 15%
- 15% AND GREATER UP TO 25%
- 25% AND GREATER UP TO 50%
- 50% AND GREATER
- RPO DEFINED STEEP SLOPES

0 100 200 400 600

Source: PDC 2016

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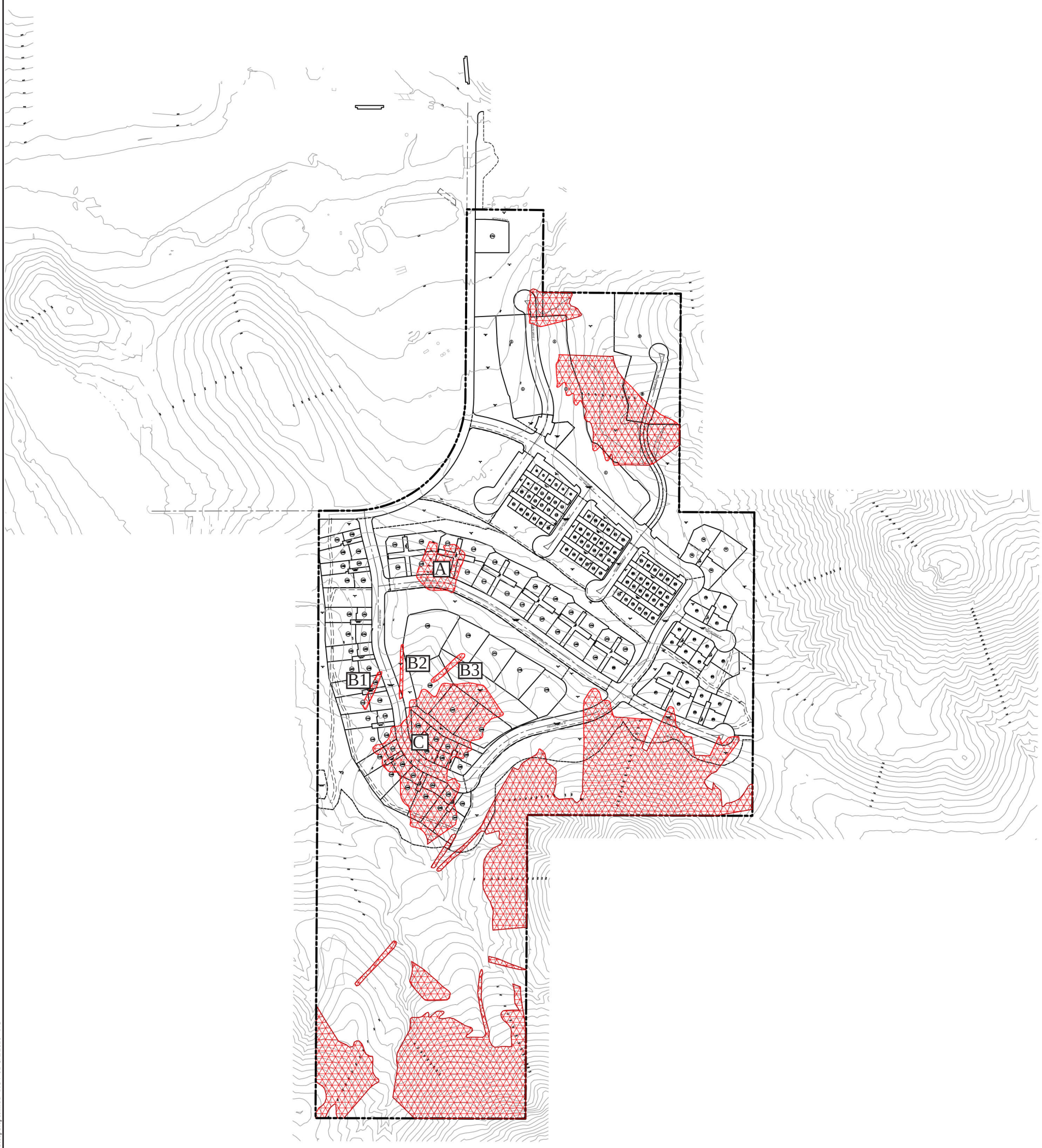
Study Area Slope Map

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

Figure 2.1-11b



Source: PDC 2015

RPO Steep Slopes

HARMONY GROVE VILLAGE SOUTH

Figure 2.1-11c

HELIX Environmental Planning

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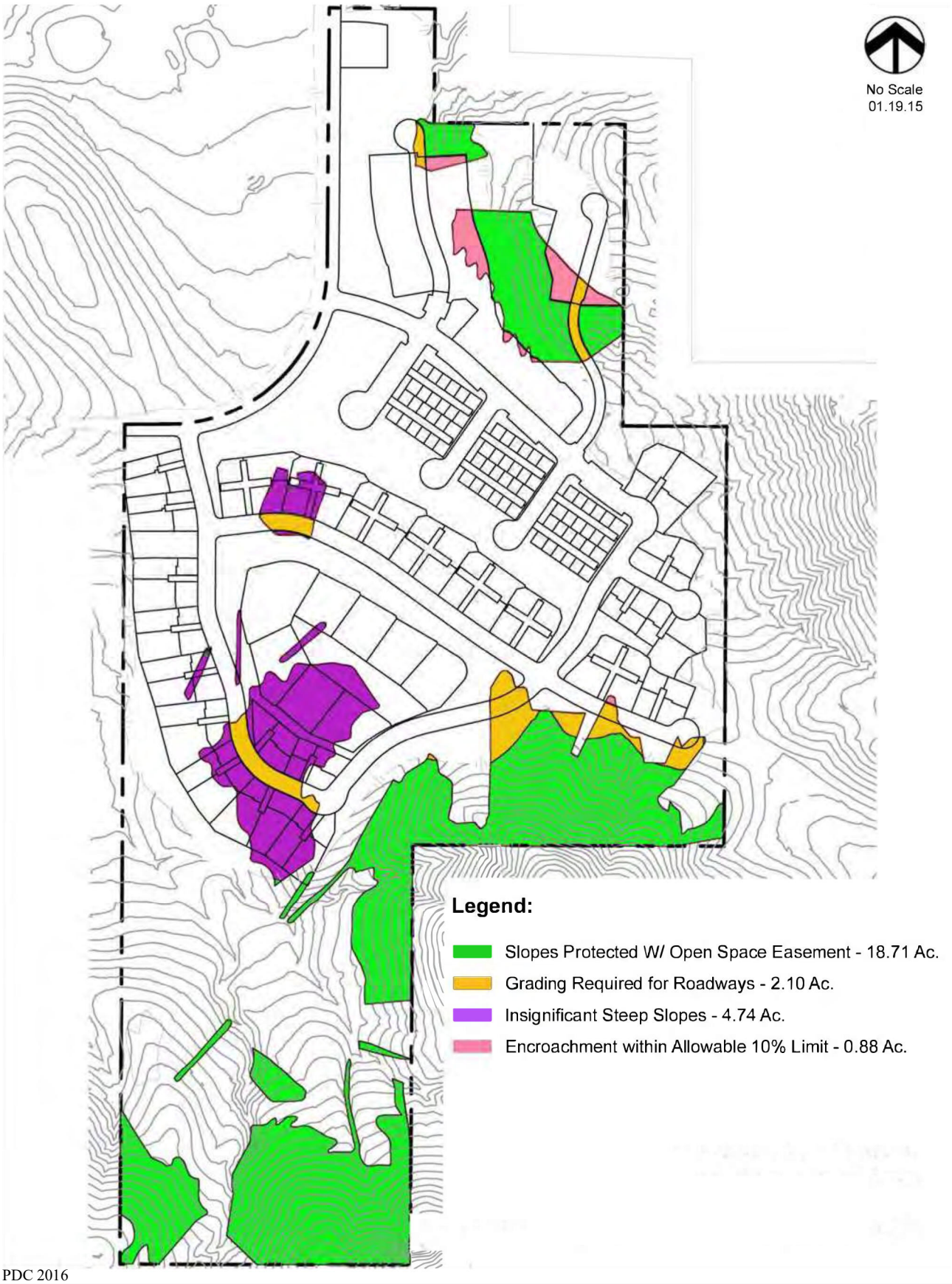

Source: PDC 2016

RPO Steep Slope Preserve and Encroachment Areas

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

Figure 2.1-11d

I:\PROJECTS\K\KOV\KOV-01_HarmonyGroveSE\Map\ENV\EIR\Fig2_1-11d_SteepSlopeEncroachment.indd KOV-01 12/21/2016 - NG

a. The Central Bench

b. Central Bench Steep Slope Area

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View toward Central Bench

HARMONY GROVE VILLAGE SOUTH

Figure 2.1-12a

HELIX Environmental Planning

a. View Toward the Project

b. Steep Slope Area South of the Central Bench

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View toward Project from Harmony Grove Overlook in Elfin Forest Recreational Reserve

HARMONY GROVE VILLAGE SOUTH

Figure 2.1-12b

HELIX Environmental Planning

a. View Toward the Project

b. Steep Slope Area South of the Central Bench

View toward Project from Del Dios Highlands Fire Break Trail

HARMONY GROVE VILLAGE SOUTH

Figure 2.1-12c

HELIX Environmental Planning

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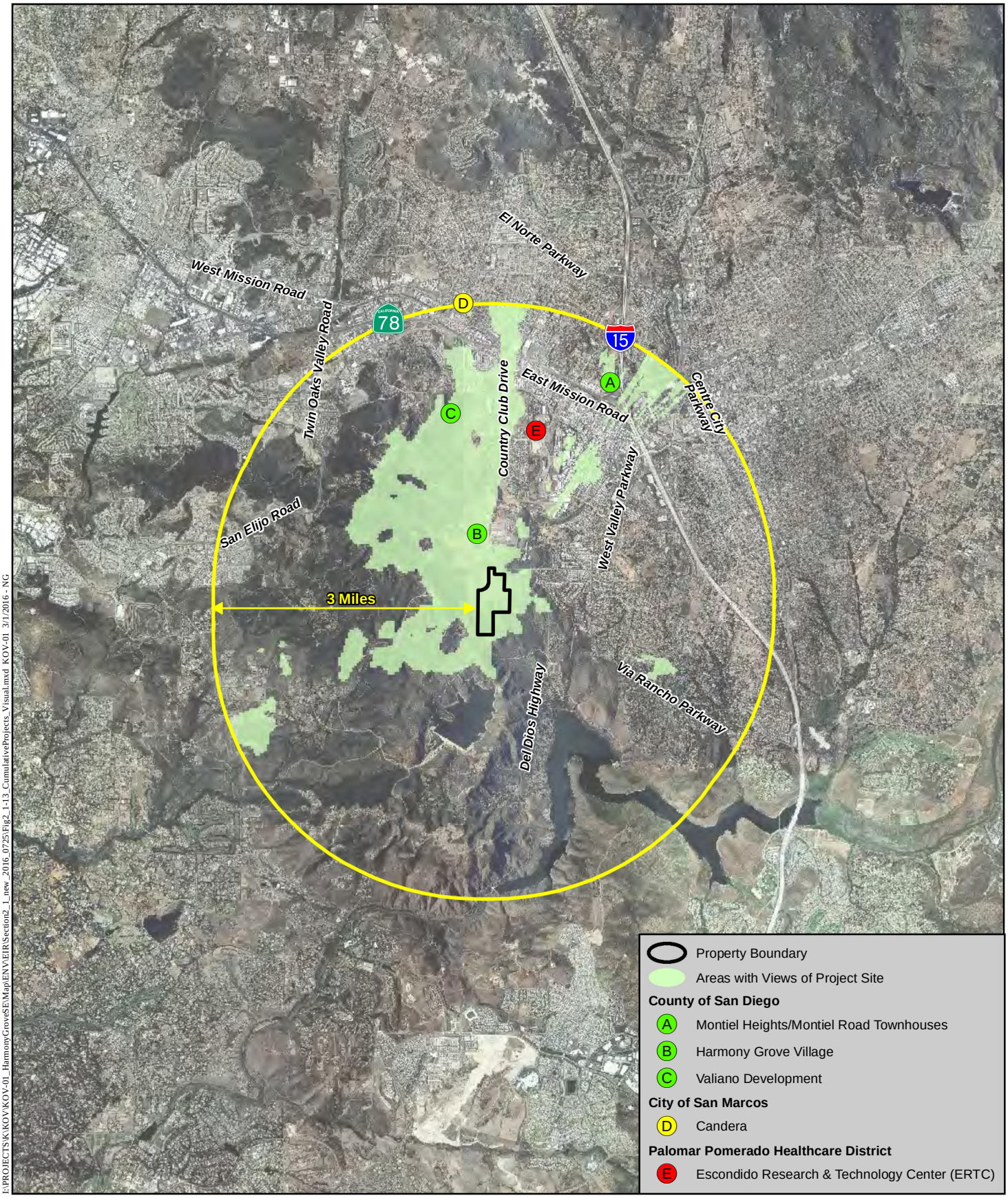

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Cumulative Projects for Visual Analysis

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

N 0 1.5 Miles

Figure 2.1-13

SUBCHAPTER 2.2

TRANSPORTATION/TRAFFIC

2.2 Transportation/Traffic

The following summary of transportation and circulation impacts is based upon the *Traffic Impact Analysis (TIA) Harmony Grove Village South*, prepared by Linscott, Law & Greenspan Engineers (LLG 2017, as augmented), which was prepared in conformance with the County's Report Format & Content Requirements: Transportation and Traffic (2011). Since the Proposed Project has the potential to impact road segments and intersections within the County and the City of Escondido, the TIA methodology and significance thresholds utilized each jurisdiction's requirements, as discussed further in Section 2.2.2. The TIA can be found in its entirety in Appendix D, along with all supporting tables, figures and traffic modeling results.

2.2.1 Existing Conditions

2.2.1.1 *Existing Roadway Characteristics*

The study area was based on the criteria identified in the County's Report Format & Content Requirements: Transportation & Traffic (2011c) addressing Project direct trips. According to the criteria, "the scope of the full direct and cumulative traffic assessment shall include those roads and intersections that will receive 25 peak hour trips." This ensures that the overall study area incorporates locations which would receive 25 Project trips, regardless of actual cumulative projects volumes (thereby ensuring that a small percentage of Project direct trips does not eliminate a road segment or intersection from consideration). The peak hour represents the highest number of trips at any one time on area roads and is directly related to daily work and commute schedules, including schools (especially in the a.m. peak hour). In addition, the County criteria state that a full traffic impact study should include all regional arterials (including all State surface routes), intersections, and mainline freeway locations where the proposed project will add 50 or more peak hour trips to the existing roadway traffic.

Based on these criteria, the Project study area evaluated in the TIA captures 14 street segments, 2 freeway segments, and 19 intersections, including future roadways and intersections, within the County and Escondido. Figure 2.2-1, *Existing Conditions*, shows the existing roadway network and those intersections that were included in the TIA. A brief description of the existing Project area roadways is below, and a description of future roadways and intersections currently under construction or planned for construction are described under Harmony Grove Village Network Conditions. Roadway widths in this description are approximate.

Auto Park Way is classified as a Six-Lane Super Major Road in the City of Escondido *General Plan Mobility Element,* with a buildout level of service (LOS) E capacity of 50,000 average daily trips (ADT). From Mission Road to Meyer Avenue, Auto Park Way is currently constructed as a six-lane divided roadway. From Meyer Avenue to Country Club Drive, it is currently built as a four-lane divided roadway with a carrying capacity of 37,000. Therefore, the average carrying capacity between a six-lane and four-lane roadway of 43,500 ADT was used in the existing and near-term analysis. Bicycle lanes and sidewalks are provided on both sides of the roadway. Curbside parking is not allowed and the posted speed limit is 40 mph.

Citracado Parkway is classified as a Four-Lane Major Road in the City of Escondido *General Plan Mobility Element,* with a buildout LOS E capacity of 37,000 ADT. From Avenida Del Diablo

to West Valley Parkway, Citracado Parkway is currently built as a two-lane roadway including a wide, landscaped median with an existing LOS E capacity of 10,000 ADT. The posted speed limit is 40 mph. There are no bike lanes or bus stops on this portion of the roadway. Additional information on improvements to Citracado Parkway recently completed by the HGV project is provided under Harmony Grove Village Network Conditions.

West Valley Parkway is classified as a Four-Lane Major Road from Citracado Parkway to Auto Park Way in the City of Escondido *General Plan Mobility Element,* with an LOS E capacity of 37,000 ADT, and as a Six-Lane Major Road from Auto Park Way to the I-15 Ramps with an LOS E capacity of 50,000. Between 11th Avenue and Auto Park Way, West Valley Parkway is currently built as a four-lane divided roadway with a raised landscaped median, curb, gutter and sidewalks with an existing LOS E capacity of 37,000 ADT. Bike lanes are provided intermittently along both sides of the roadway and parking is not permitted. The posted speed limit is between 45-50 mph. From Auto Park Way to the I-15 Southbound Ramps, West Valley Parkway is built as an eight-lane divided roadway with an existing LOS E capacity of 70,000 ADT, exceeding its *Mobility Element* classification. The existing eight-lane capacity was used in all analysis scenarios.

9th Avenue is classified as a Four-Lane Collector in the City of Escondido *General Plan Circulation Element,* with an LOS E capacity of 34,200 ADT. From Valley Parkway to Auto Park Way, 9th Avenue is currently built as a 60-foot wide two-lane roadway with a continuous two-way left-turn lane. Therefore, a carrying capacity of 15,000 ADT was used in the existing and near-term analysis. The posted speed limit is 35 mph. Curbside parking is permitted and there are no bike lanes or bus stops.

Country Club Drive is classified as a Two-Lane Local Collector in the City of Escondido *General Plan Mobility Element* from Auto Park Way to Hill Valley Drive. The roadway segment has a LOS E capacity of 10,000 ADT and is currently built as a two-lane undivided roadway. Starting at the industrial development approximately 0.25 mile west of Auto Park Way, frontage improvements have been completed to widen the southbound lane and to provide a sidewalk on the west side of the roadway allowing for curbside parking. No curbs, gutters or sidewalks are provided, and parking is not permitted on the east side of the roadway. The posted speed limit is 45 mph. A carrying capacity of 10,000 ADT was used in all analysis scenarios.

Country Club Drive is an unclassified roadway in the County *General Plan Mobility Element* from Hill Valley Drive to Hillside Road. It is currently built as a two-lane undivided roadway from Hill Valley Drive to Kauana Loa Drive with minimal shoulders and a 45-mph speed limit. Based on these roadway characteristics, it currently functions as a 2.2F Light Collector with an LOS E capacity of 9,700 ADT. See Harmony Grove Village Network Conditions below for further descriptions of Country Club Drive from Kauana Loa Drive to Harmony Grove Road.

Harmony Grove Road is classified as a 2.2E Light Collector from Wilgen Drive to Country Club Drive with an LOS E capacity of 16,200 ADT and as a 2.2B Light Collector with a Continuous Turn Lane from Country Club Drive to Kauana Loa Drive with an LOS E capacity of 19,000 ADT in the County *General Plan Mobility Element*. For more details on the existing conditions of Harmony Grove Road within the County's jurisdiction, see Harmony Grove Village Network Conditions provided below.

From Kauana Loa Drive to Enterprise Street, Harmony Grove Road is an unclassified roadway in both the County's *Mobility Element* and the City of Escondido's *General Plan Mobility Element*. It is currently built as a two-lane undivided roadway with capacity improvements along the industrial frontage approaching Enterprise Street where curb, gutter and sidewalks are provided. The posted speed limit is 40 mph. The roadway is located in both County and City jurisdiction; however, the majority of the roadway abuts the County line. Given these roadway characteristics, this portion of Harmony Grove Road currently functions as a 2.2F Light Collector with an LOS E capacity of 9,700 ADT. This capacity was used in all analysis scenarios.

Kauana Loa Drive is an unclassified roadway in the County of San Diego *General Plan Mobility Element*. From Country Club Drive to Harmony Grove Road, Kauana Loa Drive is currently constructed as a two-lane undivided roadway. Parking is generally not allowed along the roadway and the posted speed limit is 40 mph. No curbs, gutters, or sidewalks are provided. East of Country Club Drive, Kauana Loa Drive provides a paved shoulder with a 40-mph speed limit. Based on these roadway characteristics, it currently functions as a 2.3C Minor Collector with an LOS E capacity of 8,000 ADT.

Harmony Grove Village Parkway is described below under Harmony Grove Village Network Conditions.

State Route 78 (SR-78) is generally a six-lane east/west freeway. Additional auxiliary lanes are provided at the Nordahl Road interchange and at the I-15 junction. Ramp meters are provided at the Nordahl Road on-ramps. According to the *Caltrans Guidelines for the Preparation of Traffic Impact Studies, December 2002*, a capacity of 2,000 vehicles per hour (vph) per lane was used for mainline operations with 1,200 vph per lane for auxiliary lanes.

Harmony Grove Village Network Conditions

The HGV project, located north of Harmony Grove Road and bound by Country Club Drive and Wilgen Drive, is currently under construction. The project is developing as a rural residential community with a small community/commercial core. The project includes the development of 710 residential single-family units, 32 live/work lofts with 16,500 s.f. of retail, a 25,000-s.f. village core, an equestrian park, public and private parks, an institutional site (assumed to be a tack and feed store), and a fire station site. As part of the project, and as of 2016, a new road named Harmony Grove Village Parkway has been constructed to connect Country Club Drive to the southern extension of Citracado Parkway. Harmony Grove Village Parkway is identified in the County *General Plan Mobility Element* by its previous name of "Lariat Drive" and is ultimately classified as a 2.1C Community Collector with Intermittent Turn Lanes for an LOS E capacity of 19,000 ADT. The segment from Country Club Drive to Harmony Grove Road has already been completed, and provides a graded width of 74 feet with a paved width of 54 feet including curb, gutter and sidewalks for an LOS E capacity of 19,000 ADT. East of Harmony Grove Road to Citracado Parkway, it has been constructed to a graded width of 60 feet with a paved width of 40 feet including curb, gutter, and sidewalks for an LOS E capacity of 16,200 ADT.

Citracado Parkway has been extended northward from its prior terminus at Avenida Del Diablo for a short distance to intersect with the new Harmony Grove Village Parkway roadway. At the

Avenida Del Diablo intersection with Citracado Parkway, the eastbound and westbound directions are right-turn only; in addition, the southbound direction has a restricted left-turn movement.

Within the study area, Country Club Drive from Kauana Loa Drive to the northerly boundary of HGV has been improved to modified Rural Light Collector standards per the previously adopted General Plan (corresponding with a 2.2F Light Collector on the currently adopted General Plan) for an LOS E capacity of 9,700 ADT. South of the HGV project boundary to Harmony Grove Village Parkway, Country Club Drive has been improved to Rural Collector standards per the previously adopted General Plan (corresponding with 2.2E Light Collector on the currently adopted General Plan) with an LOS E capacity of 16,200 ADT. South of Harmony Grove Village Parkway to Harmony Grove Road, it has been constructed for an LOS E capacity of 19,000 ADT.

Harmony Grove Road has been improved from Wilgen Drive to Country Club Drive to a graded width of 74 feet and a paved width of 54 feet with curb and gutters for an LOS E capacity of 19,000 ADT. Although the County *General Plan Mobility Element* classifies this segment as a 2.2E Light Collector with an LOS E capacity of 16,200 ADT, because the roadway has been improved to 2.2C Light Collector standards (19,000 ADT), this capacity was used in all near-term and buildout analyses.

From Country Club Drive to Harmony Grove Village Parkway, Harmony Grove Road was improved to provide a graded width of 36 feet with a paved width of 28 feet where feasible. Built to these standards, the roadway functions as a modified Rural Light Collector with an LOS E capacity of 16,200 ADT.

In addition, traffic signals have installed at the Harmony Grove Road/Harmony Grove Village Parkway intersection, the Harmony Grove Road/Country Club Drive intersection, and the Citracado Parkway/Avenida del Diablo intersection has been upgraded to include one restricted left-turn lane in east-, west-, and southbound directions. These lanes accommodate projected Project traffic.

Because these improvements were expected to be completed (and have been completed) prior to opening day of the Proposed Project, they were included in the existing street network assumptions. Appendix A of the TIA contains a copy of the HGV Conditions of Approval (COA), which required the improvements discussed above.

2.2.1.2 *Existing Traffic Volumes*

Weekday a.m. and p.m. peak hour intersection turning movement and 24-hour bi-directional daily traffic counts were conducted in February and June of 2014 when schools were in session. The peak hour counts were conducted between the hours of 7:00-9:00 a.m. and 4:00-6:00 p.m.

Freeway volumes were taken from the most recent Caltrans Performance Measurement System (PeMS) data. The PeMS software distributes real-time peak hour and average daily traffic volumes and provides a graphical representation of volumes at each PeMS station location. Where available, peak hour freeway volume data were obtained. ADT freeway volumes were taken from the most recent Caltrans ADT data.

Harmony Grove Village Traffic Volumes

As stated under Harmony Grove Village Network Conditions, the HGV project is currently under construction. With the completion of the project anticipated in the near term, a conservative assumption was made that the total traffic generated by HGV would be on the street system prior to the opening day of the Proposed Project. It is therefore included under existing baseline conditions, and assumes the greatest number of trips from that project on the road. The trip assignment taken from the HGV Final EIR was added to the existing 2014 traffic data to arrive at the final existing traffic volume conditions.

Table 2.2-1, *Existing Traffic Volumes,* is a summary of the most recent available average daily traffic volumes (ADTs). Appendix B of the TIA (Appendix D to this EIR) contains the manual count sheets and the freeway mainline traffic data as well as a copy of the project assignment for HGV. Figure 2.2-2, *Existing Traffic Volumes*, depicts the volumes at the study area intersections and segments.

2.2.1.3 *Existing Levels of Service*

LOS is the term used to denote the different operating conditions which occur on a given roadway segment under various traffic volume loads. It is a qualitative measure used to describe a quantitative analysis taking into account factors such as roadway geometries, signal phasing, speed, travel delay, freedom to maneuver, and safety. LOS provides an index to the operational qualities of a roadway segment or an intersection. LOS designations range from A to F, with LOS A representing the best operating conditions and LOS F representing the worst operating conditions. LOS designation is reported for signalized intersections, unsignalized intersections, and roadway segments.

Signalized intersections were analyzed under a.m. and p.m. peak hour conditions. Average vehicle delay was determined utilizing the methodology found in Chapter 16 of the 2000 Highway Capacity Manual (HCM), with the assistance of the Synchro (version 7.0) computer software. The delay values (represented in seconds) were qualified with a corresponding intersection LOS. A more detailed explanation of the methodology is attached in EIR Appendix D**.**

Unsignalized intersections also were analyzed under a.m. and p.m. peak hour conditions. Average vehicle delay and LOS were determined based upon the procedures found in Chapter 17 of the *HCM,* with the assistance of the *Synchro* (version 7.0) computer software. A more detailed explanation of the methodology is attached in EIR Appendix D.

Street segment analysis is based upon the comparison of ADTs to the County and City of Escondido *Roadway Classification, Level of Service, and ADT Tables,* depending on which jurisdiction the street segment is located within. These tables provide segment capacities for different street classifications, based on traffic volumes and roadway characteristics. Copies of the County and City capacity tables are attached in Appendix D.

Freeway segments were analyzed during the a.m. and p.m. peak hours based on the methodologies as outlined in the San Diego Traffic Engineers' Council/Institute of Transportation Engineers (SANTEC/ITE) Guidelines developed by Caltrans. The freeway segments LOS is based on a Volume to Capacity (V/C) method. Page 5 of Caltrans' *Guide for the Preparation of Traffic Impact*

Studies (December 2002) documents a maximum service flow rate of 2,000 passenger cars per hour per lane. The freeway segments were analyzed using the existing mainline lane conditions at the location where PeMS data was collected. The freeway LOS operations are summarized in Table 2.2-2, *Caltrans District 11 Freeway Segment Level of Service Definitions*.

Existing Roadway Segments

Table 2.2-3, *Existing Street Segment Operations*, summarizes the existing intersections LOS. All street segments are calculated to currently operate at acceptable levels of service except for:

City of Escondido

- Segment #5. 9th Avenue from Valley Parkway to Auto Park Way (LOS D)

Existing Intersections

Table 2.2-4, *Existing Intersection Operations*, summarizes the existing intersections LOS. All intersections are calculated to currently operate at acceptable levels of service except for:

City of Escondido

- Intersection #7. Valley Parkway/I-15 NB Ramps (LOS D during the p.m. peak hour)

Existing Freeway Segments

Table 2.2-5, *Existing Freeway Mainline Operations*, summarizes the existing freeway segments LOS. All eastbound and westbound segments of SR-78 east and west of Nordahl Road currently operate at acceptable levels during both the a.m. and p.m. peak hours except for the following:

- Mainline #1. SR-78 Westbound, west of Nordahl Road (LOS E during the a.m./p.m. peak hours)

2.2.1.4 *Regulatory Setting*

County Zoning Ordinance, Parking Regulations, Sections 6750- 6799

The County's Zoning Ordinance sets the standards for parking, including requirements for new uses and structures; existing uses and structures; conversion, alterations, or expansion of existing uses or structures; computation of vehicle and bicycle space requirements; location of parking to building sites; parking space dimensions; design of bicycle storage; design standards for off-street parking; loading spaces; variances from parking regulations; and parking of commercial vehicles in residential, agricultural, and certain special purpose zones. The County of San Diego Off-Street Parking Design Manual implements Section 6793(c) of the County Zoning Ordinance. This section of the Ordinance relates to the design, dimensions, construction, landscaping, and surfacing of parking and bicycle spaces, and driveways.

San Diego County Public Road Standards

These standards provide minimum design and construction requirements for public road improvement projects located within the unincorporated areas of the County. These standards apply to County initiated public road improvement projects as well as privately initiated public road improvement projects.

San Diego County Private Road Standards

These standards provide minimum design and construction requirements for private road improvements based on ADT and required as conditions of land development approval in unincorporated areas of the County. Levels of service are not established for private roads.

County of San Diego Consolidated Fire Code

The County of San Diego, in collaboration with the local fire protection districts, created the SDCFC in 2001. The SDCFC contains the County's and fire protection districts' amendments to the California Fire Code. Adequate emergency ingress/egress is necessary for both citizen evacuation and emergency vehicle access in the event of a fire or other emergency. Section 902.2 of the SDCFC dictates minimum design standards for Fire Apparatus Access Roads and secondary access requirements. Road standard requirements for emergency vehicles specify a minimum 12-foot paved lane or 24-foot travel-way.

County of San Diego Regulatory Ordinances, Sections 77.201 – 77.220, Transportation Impact Fee

The San Diego County Transportation Impact Fee (TIF) Ordinance, as amended in December 2012, requires the assessment and collection of fees for roadway impacts as a condition of approval of a subdivision map or prior to issuance of a development permit, including a building permit. The County TIF Ordinance defrays the actual or estimated costs of constructing planned transportation facilities necessary to accommodate increased traffic generated by future development consistent with Section 66000 et seq. of the California Government Code (Mitigation Fee Act). Application of this fee includes, but is not limited to, development for residential, commercial, and industrial land uses. The fees are collected to fund identified transportation facilities, or portions thereof, that provide increased road capacity necessitated by the cumulative impacts of future development.

2.2.2 Analysis of Project Effects and Determination as to Significance

2.2.2.1 *Project Trip Generation*

Trip generation rates for the "single-family residential" land use type of 10 ADTs per DU were used to calculate the Project's ADT (SANDAG 2002). Therefore, the Project is calculated to

generate 4,500[1] ADT, with a total of 360 trips during the a.m. peak hour (108 inbound/ 252 outbound trips) and 450 total trips during the p.m. peak hour (315 inbound/135 outbound).

In addition to residential uses, some limited commercial/civic uses listed in the Project's Specific Plan are also assumed. Although the specific commercial retail tenant is not known at this time, square footage, and assumptions related to the types of uses that allowed at the site have been identified.

The Project would include a pedestrian-oriented 5,000 s.f. community center (Center House) which would contain a minimum of 1,500 s.f. of commercial uses. The Center House is designed to feature a use such as a café, coffee shop, hair or nail salon, or day spa. The Center House also would include such uses as a park, overnight accommodations of up to four rooms (available only to HGV South and HGV guests), a gym, an event lawn, and private recreational facilities like a pool or clubhouse available to HGV South residents only. Appendix F to the TIA (EIR Appendix D) shows Project trip generation calculations, including the commercial/civic land uses and associated mixed-use reductions.

By placing the residential units within 0.5 mile of the commercial/civic uses, it will promote walking and cycling, and the related reduction of vehicular travel within HGV South and adjacent HGV. The nature of the commercial/civic uses would be locally serving, and the majority of trips would be expected to be pass-by or diverted trips already on the road for another purpose. Residents within the community would be able to visit the business without generating additional primary vehicle trips. As such, trips from outside the Harmony Grove Villages area would not be expected to/from these uses in any meaningful way. Therefore, the residential distribution discussed above adequately includes any trips associated with these non-residential uses.

2.2.2.2 *Project Trip Distribution and Assignment*

Project trip distribution was developed based on the distribution used for the adjacent HGV project, including the proposed network improvements currently under construction. The HGV project utilized a SANDAG Select Zone Assignment that distributes trips in the area based on the location of residential and employment opportunities in the surrounding vicinity. The Final Certified EIR for HGV was approved by both the County of San Diego Board of Supervisors and City of Escondido Figure 2.2-3, *Project Traffic Distribution*, shows the Project traffic distribution, and Figure 2.2-4, *Project Traffic Volumes*, shows the assignment of the total Project trips.

Generally, eight percent of trips were distributed to/from the southwest on Harmony Grove Road, 22 percent were distributed to/from Country Club Drive in the north, and 70 percent were distributed to/from Harmony Grove Road in the northeast.

The trigger point at which a Project's impact becomes significant is identified in two steps. First, identify the allowable increase in delay (intersections) or volume-to-capacity (street segments). This is typically the point where the LOS deteriorates to an unacceptable level, or, for locations

[1] The Project currently proposes 453 DUs. The base analysis provided in the TIA assumed 450 DUs. The increase of three DUs would result in an additional 30 ADT, with 2 a.m. peak hour and 3 p.m. peak hour trips added to traffic modeling. As stated in the TIA in Section 2.2, this increase would have a nominal effect on the analysis and would not change the significance conclusions.

operating at unacceptable levels without the project, the increase allowed by the jurisdiction at such locations. The second step is to ascertain to the proportion of project traffic that can be added before crossing this threshold. For street segments this is a straightforward calculation of the allowable increase divided by the total project traffic on a particular segment. As intersection delay does not increase in a linear fashion with increased traffic, a trial-and-error process is used to determine the proportion of project traffic corresponding to the threshold. Specific guidelines as to the significance of impacts are addressed in Section 2.2.2.3, immediately below, for roadway segments, and in Sections 2.2.2.4 and 2.2.2.5 for intersections.

2.2.2.3 *Roadway Segments*

Guidelines for the Determination of Significance

County

A significant traffic impact would occur if:

1. The additional or redistributed ADT generated by the Proposed Project would cause on-site Mobility Element roads to operate below LOS C during peak traffic hours.[2]

2. The additional or redistributed ADT generated by the Proposed Project would significantly increase congestion on a Mobility Element road or state highway currently operating at LOS E or F, or would cause a Mobility Element road or state highway to operate at a LOS E or F as a result of the Proposed Project as identified in Matrix 1, below.

Matrix 1
MEASURES OF SIGNIFICANT PROJECT IMPACTS TO CONGESTION ON MOBILITY ELEMENT ROAD SEGMENTS

Allowable Increases on Congested Road Segments			
LOS	**Two-lane Road**	**Four-lane Road**	**Six-lane Road**
E	200 ADT	400 ADT	600 ADT
F	100 ADT	200 ADT	300 ADT

Notes:
1. By adding Proposed Project trips to all other trips from a list of projects, this same table is used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project that contributes additional trips must mitigate a share of the cumulative impacts.
2. The County may also determine impacts have occurred on roads even when a project's traffic or cumulative impacts do not trigger an unacceptable LOS, when such traffic uses a significant amount of remaining road capacity.

3. The Proposed Project would cause a Mobility Element road to exceed the thresholds presented in Matrix 2, below.

[2] Mobility Element Policy 2.1 addresses *Mobility Element* roads. It states that development projects are required "to provide associated road improvements necessary to achieve a level of service of "D" or higher on all ME roads except for those where a failing level of service has been accepted by the County pursuant to the criteria specifically identified in the accompanying text box (Criteria for Accepting a Road Classification with Level of Service E/F)."

Matrix 2
MEASURE OF SIGNIFICANT PROJECT TRAFFIC IMPACTS FOR MOBILITY ELEMENT ROADS, SIGNALIZED INTERSECTIONS, AND RAMPS

LOS with Project	Allowable Change Due to Project Impact						
	Freeways*		Roadway Segments[1]		Signalized Intersections	Ramps	Ramps with >15 min. delay
	V/C	Speed (mph)	V/C	Speed (mph)	Delay (sec.)[2]	Delay (min.)[2]	Delay (min.)[2]
E and F	0.01	1	0.02	1	2	-	2

[1] For County arterials that are not identified in SANDAG's RTP as regionally significant arterials, significance may be measured based upon an increase in ADT. The allowable change in ADT due to Project impacts in this instance would be identified in Threshold Matrix 1.
[2] Delay = Average stopped delay per vehicle measured in seconds (sec.) or minutes (min.)
> = greater than
* It is noted that the County does not have jurisdiction over freeways. Caltrans, the agency with jurisdiction over freeways within the study area, considers impacts to freeways significant if additional traffic causes the operations to degrade by 0.01 for segments operating at LOS E or F. The Caltrans thresholds are used in the analysis below.

4. The additional or redistributed ADT generated by the Proposed Project would cause a residential street to exceed its design capacity.

City of Escondido

A street segment is considered significantly impacted when the project traffic degrades the LOS from acceptable to unacceptable. Unacceptable LOS is D or below. If a segment is operating at LOS C and decreases to D, E or F, then a significant impact is calculated.

Guidelines Sources

Guidelines for identification of potential significant impacts were based on the County Guidelines for Determining Significance – Transportation and Traffic (2011c), for study locations within the County. For study area intersections and segments located in the City of Escondido or on Caltrans facilities, the SANTEC/ITE *Guidelines for Traffic Impact Studies* in the San Diego Region (2000) were applied.

Analysis

As shown in Figure 2.2-5, *Existing Plus Project Traffic Volumes*, and Table 2.2-6, *Roadway Segment Operations Under Existing and Existing Plus Cumulative Plus Project Conditions*, one segment on Country Club Drive would operate at unacceptable LOS in the City of Escondido due to the addition of Project traffic: Auto Park Way to Hill Valley Drive. The LOS of this segment would decrease from C to D. With regard to the County street segments, the addition of Project traffic would not increase congestion on any Mobility Element road or State highway, cause a Mobility Element road to exceed the thresholds in Matrix 2, or cause a residential street to exceed its design capacity. Therefore, **one significant impact to roadway segments under Existing Plus Project conditions would occur. (Impact TR-1a)**

2.2.2.4 *Signalized Intersections*

Guidelines for the Determination of Significance

County

A significant traffic impact would occur if:

1. The additional or redistributed ADT generated by the Proposed Project would significantly increase congestion on a signalized intersection currently operating at LOS E or LOS F, or would cause a signalized intersection to operate at a LOS E or LOS F as identified in Matrix 3, below.

2. Based upon an evaluation of existing accident rates, the signal priority list, intersection geometrics, proximity of adjacent driveways, sight distance or other factors, the Proposed Project would significantly impact the operations of the intersection.

Matrix 3
MEASURES OF SIGNIFICANT PROJECT IMPACTS
TO CONGESTION ON INTERSECTIONS:
ALLOWABLE INCREASES ON CONGESTED INTERSECTIONS

LOS	Signalized	Unsignalized
E	Delay of 2 seconds or less	20 or less peak period trips on a critical movement
F	Either a delay of 1 second, or 5 or less peak period trips on a critical movement	5 or less peak period trips on a critical movement

Notes:
1. A critical movement is an intersection movement (right-turn, left-turn, through movement) that experiences excessive queues, which typically operate at LOS F. Also, if a project adds significant volume to a minor roadway approach, a gap study should be provided that details the headways between vehicles on the major roadway.
2. By adding Proposed Project trips to all other trips from a list of projects, these same tables are used to determine if total cumulative impacts are significant. If cumulative impacts are found to be significant, each project is responsible for mitigating its share of the cumulative impact.
3. The County may also determine impacts have occurred on roads even when a project's direct or cumulative impacts do not trigger an unacceptable LOS, when such traffic uses a significant amount of remaining road capacity.
4. For determining significance at signalized intersections with LOS F conditions, the analysis must evaluate both the delay and the number of trips on a critical movement, exceedance of either criteria result in a significant impact.

City of Escondido

A signalized intersection is considered to be significantly impacted when Project traffic degrades LOS from acceptable to unacceptable. Unacceptable LOS is D or below. If an intersection is operating at LOS D, E or F, then a significant impact is calculated when the Proposed Project adds more than 2 seconds of delay.

Guideline Sources

For study area intersections within the County, these guidelines are based on the County Guidelines for Determining Significance – Transportation and Traffic (2011c). For study area

intersections located in the City of Escondido, the SANTEC/ITE *Guidelines for Traffic Impact Studies in the San Diego Region* (2000) were applied.

Analysis

As shown in Table 2.2-7, *Intersection Operations Under Existing and Existing Plus Cumulative Plus Project Conditions*, all signalized intersections are calculated to operate at acceptable levels of service with the exception of the following intersection in the County:

- Country Club Drive/Harmony Grove Road (LOS F during the p.m. peak hours)

The Project traffic would cause this intersection to have a change in delay of greater than 2 seconds. With regard to the City of Escondido, the Project would not cause an intersection to operate at D, E, or F while also adding more than 2 seconds of delay. As a result, **one significant impact to intersections under Existing Plus Project conditions would occur. (Impact TR-2a)**

2.2.2.5 *Unsignalized Intersections*

Guidelines for the Determination of Significance

County

A significant traffic impact would occur if:

3. The additional or redistributed ADT generated by the Proposed Project would add 21 or more peak hour trips to a critical movement of an unsignalized intersection, and cause an unsignalized intersection to operate below LOS D.

4. The additional or redistributed ADT generated by the Proposed Project would add 21 or more peak hour trips to a critical movement of an unsignalized intersection currently operating at LOS E.

5. The additional or redistributed ADT generated by the Proposed Project would add six or more peak hour trips to a critical movement of an unsignalized intersection, and cause the unsignalized intersection to operate at LOS F.

6. The additional or redistributed ADT generated by the Proposed Project would add six or more peak hour trips to a critical movement of an unsignalized intersection currently operating at LOS F.

7. Based upon an evaluation of existing accident rates, the signal priority list, intersection geometrics, proximity of adjacent driveways, sight distance or other factors, the Proposed Project would significantly impact the operations of the intersection.

City of Escondido

An unsignalized intersection is considered significantly impacted when Proposed Project traffic degrades the LOS from acceptable to unacceptable. Unacceptable LOS is D or below. If an

intersection is operating at LOS D, E or F, then a significant impact is calculated when the Proposed Project adds more than 2.0 seconds of delay.

Guideline Sources

For study area intersections within the County, these guidelines are based on the County Guidelines for Determining Significance – Transportation and Traffic (2011c). For study area intersections located in the City of Escondido and the City of San Marcos, the SANTEC/ITE *Guidelines for Traffic Impact Studies in the San Diego Region* (2000) were applied.

Analysis

As shown in Table 2.2-7, all unsignalized intersections in the County are calculated to operate at acceptable levels of service with the addition of Project traffic. There are no unsignalized intersections in the study area within the City of Escondido. As a result, **impacts to unsignalized intersections under Existing Plus Project conditions would be less than significant.**

2.2.2.6 *Freeway Mainline Segments*

Guidelines for the Determination of Significance

A significant traffic impact would occur if:

8. The Proposed Project would cause a freeway segment to exceed the thresholds presented in Matrix 2, above.

Guideline Source

For all freeway segments within the study area, this guideline is based on the SANTEC/ITE Guidelines

Analysis

Under Existing Plus Project conditions, the WB segment of SR-78, west of Nordahl Road, would operate at LOS E during the a.m./p.m. peak hours (Table 2.2-8, *Freeway Segment Operations Under Existing and Existing Plus Cumulative Plus Project Conditions*). The increase in V/C from the Project would be 0.006 in the a.m. peak hour and 0.003 in the p.m. peak hour, both of which are lower than the significance threshold of 0.01 V/C. Therefore, **the Project would result in less than significant impacts to freeway segments.**

2.2.2.7 *Traffic Hazards Due to an Existing Transportation Design Feature*

Guidelines for the Determination of Significance

The determination of significant hazards to an existing transportation design feature would be on a case-by-case basis, considering the following factors:

9. Design features/physical configurations of access roads may adversely affect the safe movement of all users along the roadway.

10. The percentage or magnitude of increased traffic on the road due to the Proposed Project may affect the safety of the roadway.

11. The physical conditions of the Project site and surrounding area, such as curves, slopes, walls, landscaping or other barriers, may result in conflicts with other users or stationary objects.

12. Conformance of existing and proposed roads to the requirements of the private or public road standards, as applicable.

Guidelines Sources

These guidelines, which apply to the entire study area, regardless of jurisdiction, are based on the County Guidelines for Determining Significance – Transportation and Traffic (2011c).

Analysis

The Proposed Project circulation system, including driveway corner sight distances, was designed in conformance with applicable County standards and requirements and would not significantly impact the safe movement of users along the area roadways. Project access would be from Country Club Drive, south of Harmony Grove Village Road, at Project driveways Private Drive C and Private Drive A (see Figure 1-6a of this EIR).

As part of the Project, improvements to Country Club Drive, currently an unclassified substandard Rural Residential Road, would be made to improve the street to a public enhanced Residential Collector. This would include increasing the paved width to incorporate three travel lanes. With the above improvements in place, this street segment would be expected to operate at LOS B. To improve the flow along Country Club Drive, southbound left-turn pockets from Country Club Drive to the Project driveways are proposed. This would allow for left-turning vehicles to queue outside the flow of traffic, thereby increasing the capacity of Country Club Drive.

It should be noted that a design speed exception is requested for a portion of Country Club Drive adjacent to Cordrey Drive. The request is for a reduced design speed on Country Club Drive from 30 mph to 27.5 mph at the existing crest vertical curve near the intersection of Cordrey Drive. A copy of the design exception request is included in Appendix J of the TIA (Appendix D to this EIR). Per Appendix D, this request would not affect the roadway's ability to serve the approximately 600 ADT on that section of Country Club Drive.

As the Project access/exit points are located on a curve along Country Club Drive, a review of corner and stopping sight distances for these locations shall be conducted in accordance with County Private and Public Road Standards. The Project will be required to meet the County's Road Standards for sight distance to ensure that adequate sight distance is met. Sight lines are open from the primary Project driveway. It is noted that the Project will construct and improve the profile of Country Club Drive by lengthening the crest vertical curve south of the southernmost driveway, thus improving the stopping sight distance.

In addition, through the HGV Project, the intersection of Country Club Drive at Harmony Grove Road is being improved to provide a traffic signal with north/south "split" phasing and east/west

"protected" left-turn phasing with dedicated left-turn lanes in the eastbound, westbound and southbound directions. Crosswalks and pedestrian and equestrian-level push buttons are proposed for this intersection. No improvements were proposed by HGV for the southern leg of the intersection. The Proposed Project would improve the northbound approach to this intersection on Country Club Drive (between the proposed bridge and the intersection) to include on southbound lane, one northbound left-turn lane, one northbound through lane, and one northbound right-turn lane. The projected LOS F for this intersection would be improved to LOS D.

The Proposed Project would also include the construction of numerous internal roadways. These roadways are proposed to be constructed to County private-road standards, with paved widths varying from 24 feet to 36 feet within the property. Circulation would be provided via an internal loop road comprised of private drives, with seven cul-de-sacs branching off the loop (refer to Figure 1-6a). The construction of on-site roadways to County standards would facilitate adequate on-site circulation with the Project site.

Therefore, although the Proposed Project would result in increased traffic on new and existing roadways, **impacts associated with safety of those roadways would be less than significant.**

2.2.2.8 *Traffic Hazard to Pedestrians or Bicyclists or Equestrians*

Guidelines for the Determination of Significance

The determination of significant hazards to pedestrians or bicyclists or equestrians would be on a case-by-case basis, considering the following factors:

13. Design features/physical configurations on a road segment or at an intersection that may adversely affect the visibility of pedestrians or bicyclists or equestrians to drivers entering and exiting the site, and the visibility of cars to pedestrians and bicyclists.

14. The amount of pedestrian activity at the Project access points that may adversely affect pedestrian safety.

15. The preclusion or substantial hindrance of the provision of a non-motorized trail facility on a roadway adjacent to the Project site.

16. The percentage or magnitude of increased traffic on the road due to the Proposed Project that may adversely affect non-motorized trail safety.

17. The physical conditions of the Project site and surrounding area, such as curves, slopes, walls, landscaping or other barriers that may result in vehicle/pedestrian or vehicle/ bicycle or vehicle/equestrian conflicts.

18. Conformance of existing and proposed roads to the requirements of the private or public road standards, as applicable.

19. The potential for a substantial increase in non-motorized trail activity without the presence of adequate facilities.

Guidelines Source

These guidelines, which apply to all of the study area, regardless of jurisdiction, are based on the County Guidelines for Determining Significance – Transportation and Traffic (2011c).

Analysis

As described in Section 1.2.2.2, a trail system would extend internally through the Proposed Project, as well as connect to surrounding neighborhoods and existing adjacent trails in the area. As depicted on Figures 1-14a and 1-17, a 10-foot wide, soft-surface public multi-use trail ultimately would extend along the west side of Country Club Drive as part of the HGV Equestrian Ranch implementation. A 5 to 6-foot walkway would be installed by the Proposed Project on the east side of Country Club Drive, separated from the roadway by a 4 to 5-foot landscaped parkway. Both of these trail/pathways would connect to various parks, open space areas, and the Project private trail system. The public trail would be built to County Trail Design Standards and would be fenced on one or both sides. The proposed private pathways within the Project would abut each street and be 4 to 5 feet in width. Trail safety and rules signage would be posted at strategic locations along the trails. The internal roadways would be painted with sharrows to indicate to motorists that bicyclists share the roadways with vehicular traffic. Hazards for equestrian crossings at signalized and unsignalized intersections are similar to those for pedestrians and bicyclists. Due to low traffic loading there are no signalized intersections in the immediate vicinity of the Project access locations. Pedestrian and equestrian crossings at unsignalized intersections are legal at all intersections, whether marked or unmarked. Due care is required for all crossing parties and for drivers of automobiles as required by State law. On-site roads will have lower posted speeds than Country Club Drive and Harmony Grove Road and present fewer hazards for pedestrian and equestrian crossings.

Additionally, the Project improvements to Country Club Drive (installation of a third lane and installation of the pathway on the east side of the road) would be constructed in accordance with County standards and would not include design features or physical configurations on a road segment or at an intersection that would adversely affect the visibility of other non-motorized users to drivers entering and exiting the site, and the visibility of cars to other non-motorized users. The Project contributions to/implementation of the bridge crossing of Escondido Creek also would be expected to lessen hazards to non-motorized travelers on Country Club Drive. Currently, pedestrians/bicyclists/equestrians cross the creek on the Arizona crossing, which is relatively narrow, and visually encroached upon by the riparian habitat on either side of the crossing. Visibility to the crossing from east-west Harmony Grove Road is not open until the road user is already heading south on Country Club Drive. Any potential for conflict with a non-motorized user can only be known with only a short time to react. Also, the ability of the non-motorized user to get off the road is constrained. On the east side of the road there is ponded water, with the depth not apparent from the surface due to the water quality. On the west side of the road, there is small, but sharp drop of about 5 feet with rip-rap, where the culverts that carry water under the crossing open to the west, and where scour from fast-flowing waters has lowered the creek bed. The bridge, which would need to accommodate non-motorized users, would be expected to contain a separated pathway connecting to off-site trails, which would improve visibility, as well as safety, of all users crossing the creek. The Proposed Project also would not preclude or substantially hinder the provision of a planned bike lane or pedestrian facility on a roadway adjacent to the Project site. It

would implement a pedestrian pathway on the east side of Country Club Drive, and allow for future implementation of the multi-purpose trail on the west side of the road.

The Project would be constructed in phases, and each phase would consist of sub-phases, none of which would generate more traffic than the ADT identified for the Project overall. As such, no capacity impacts are anticipated to occur during any construction phase, and all appropriate work zone traffic control plans would be prepared during construction.

For these reasons, **impacts to pedestrian, equestrian, and bicyclist safety would be less than significant**.

2.2.2.9 *Alternative Transportation*

Guideline for the Determination of Significance

A significant impact to alternative transportation would occur if:

20. The Proposed Project would not comply with County's General Plan objectives supporting alternate forms of transportation to reduce demand on the road system.

Guideline Source

This guideline is based on the County Guidelines for Determining Significance – Transportation and Traffic (2011c). The objectives would be implemented through specific policies of the Conservation and Open Space (COS) Element (see Section 3.1.5 for discussion of applicable General Plan policies).

Analysis

The County General Plan provides for balanced population growth and development with infrastructure needs and resource protection. It achieves this by emphasizing Smart Growth and land planning principles that will reduce vehicle miles traveled (VMT) by locating future development in and near areas close to jobs, services, and public facilities to maximize the use of existing infrastructure, thus resulting in a reduction of GHGs.[3]

Specifically, Goal COS-16 states a goal of having "Transportation and mobility systems that contribute to environmental and human sustainability and minimize GHG and air pollutant emissions." Mobility Element Policy ME-8.1 seeks to locate transit stops and facilities in areas that facilitate transit ridership, and designate such locations as part of planning efforts for Town Centers, transit nodes, and large-scale commercial or residential development projects. With the Nordahl Road Station, opportunities will be available for shuttle and bus service on Country Club Drive. Currently, there is bus service on Citracado Parkway and design plans for construction of a connection of Harmony Grove Road and Avenida Del Diablo and to I-15 are complete. The City of Escondido expects the construction to start in 2016. Ultimately, the location and extent of public

[3] The reader should note that per the County's GHG guidelines, the Project would achieve the County's GHG reduction goals and impacts associated with GHG emissions would not be significant. The Proposed Project would be consistent with the goals and strategies of local and State plans, policies, and regulations to reduce GHG emissions from land use and development (refer to Subchapter 2.7 of this EIR).

transportation service in this part of the County is under the purview of North County Transit District. Refer to the Section 3.1.5 for an analysis of the General Plan goals and policies.

The Proposed Project incorporates and would facilitate Smart Growth principles and alternative transportation, by virtue of its location and inclusion of a multi-use trail network. As described above, the proposed pathways/trails would connect to both internal private park and public Center House areas as well as off-site public trails and other uses. The Project also would include installation of an electric vehicle recharge station near the Center House (see Figure 1-8 of this EIR). The Proposed Project would be built in proximity to the nearby Palomar Medical Center, Palomar Power Plant, Stone Brewing Company, and many other manufacturing, retail, and office/business park uses within 2 miles of the Project site. Retail opportunities in the HGV Village Center would be located less than 0.5 mile from the Proposed Project, and accessible by the Project-provided pathway and, ultimately, the HGV multi-use trail; potential retail uses at the HGV Equestrian Ranch would be located across the street from the Project. Placing residential uses within this distance to transportation, employment, shopping, and services, helps minimize travel times and is consistent with the goals of Senate Bill 375 (SB 375; Sustainable Communities and Climate Protection Act of 2008). This proximity to a variety of service and employment uses would be expected to incrementally reduce the average trip length for the average commuter residing at HGV South from 7.9 to 7.88 miles per trip (LLG 2016).

In summary, the Proposed Project incorporates and would facilitate smart growth principles and alternative transportation for pedestrians and cyclists, which would support alternate forms of transportation and reduce demand on the vehicular travel system. For these reasons, **impacts to alternative transportation would be less than significant**.

2.2.3 Cumulative Impact Analysis

Other future development projects in the vicinity of the Proposed Project have the potential to contribute additional vehicle trips and traffic impacts to the same road segments and intersections as those evaluated in the Proposed Project traffic analysis. The impacts associated with the Proposed Project in combination with this cumulative traffic are addressed in the Existing Plus Cumulative Plus Project analysis scenario, in which existing traffic plus cumulative traffic projected to occur through Project buildout are combined with Proposed Project traffic.

Based on the research conducted for the cumulative condition, 2 County projects, 31 City of San Marcos projects, and 5 City of Escondido projects were identified for inclusion in the TIA, for a total of 37 cumulative projects. These projects are discussed in detail in the TIA contained in Appendix D.

Figure 2.2-6 depicts the *Existing Plus Cumulative Traffic Volumes* and Figure 2.2-7 shows the *Existing Plus Cumulative Plus Project Traffic Volumes* in the study area.

2.2.3.1 *Existing Plus Cumulative Plus Project Impacts*

Several network improvements are proposed by the cumulative projects. Because the timeframe for construction of the majority of these improvements is unknown, however, the existing lane geometries, with the inclusion of the HGV network improvements currently under construction, were assumed as the baseline conditions in the Existing Plus Cumulative scenarios. This is a

conservative approach in that cumulative project volumes are included without including the corresponding cumulative network mitigation.

In addition, the Citracado Parkway Extension project was not included in the near-term conditions per information provided by City of Escondido staff. The extension project is delayed due to funding issues. In October 2015, the City of Escondido's attempt to receive funding through the Transportation Investment Generating Economic Recovery (TIGER) grant program, distributed by the U.S. Department of Transportation, was denied. Therefore, due to a lack of funding and an unknown timeframe for completion, this connection was not included in the near-term analysis.

Roadway Segments

As shown on Figure 2.2-7 and Table 2.2-6, six roadway segments would operate at an unacceptable LOS in the Existing Plus Cumulative Plus Project scenario. The Proposed Project's traffic, in conjunction with cumulative traffic, would exceed the threshold limits indicated in Matrix 1 as the Project-induced increase in V/C would be greater than 0.02 for LOS E or F for one street segment in the City of Escondido, and the Project would add more than 200 or 100 ADT to County street segments operating at LOS E or F, respectively. Therefore, **cumulative impacts to the following six roadway segments would be significant (Impacts TR-1b, TR-3, TR-4, TR-5, TR-6, and TR-7)**:

City of Escondido

TR-1b: Country Club Drive from Auto Park Way to Hill Valley Drive (LOS F)

County

TR-3: Country Club Drive from Hill Valley Drive to Kauana Loa Drive (LOS E)[4]

TR-4: Harmony Grove Road from Country Club Drive to Harmony Grove Village Parkway (LOS E)

TR-5: Harmony Grove Road from Harmony Grove Village Parkway to Kauana Loa Drive (LOS E)

TR-6: Harmony Grove Road from Kauana Loa Drive to Enterprise Street (LOS F)

TR-7: Harmony Grove Village Parkway from Harmony Grove Road to Citracado Parkway (LOS E)

[4] Subsequent to Project modeling, the Valiano project (one of the cumulative projects along Country Club Drive) revised a primary project entrance, resulting in additional trips between Hill Valley Drive and Kauana Loa Drive. As a result, the existing plus cumulative plus project loading would be LOS F rather than LOS E. Both LOS E and LOS F comprise significant cumulative impacts and require mitigation. The mitigation identified for Impact TR-3 also adequately mitigates LOS F conditions to acceptable LOS.

Signalized Intersections

Figure 2.2-7 and Table 2.2-7 illustrate the ADT for each signalized intersection analyzed in the Existing Plus Cumulative Plus Project condition. Under this scenario, two signalized intersections in the City of Escondido would operate at an unacceptable LOS D with a Project-related increase in delay of greater than two seconds. In addition, one signalized intersection in the County would experience Project-induced increase in delay to LOS F. Therefore, **the Proposed Project, along with other cumulative projects, would cause a significant cumulative impact to the following signalized intersections (Impact TR-8, TR-9, and TR-2b)**:

City of Escondido

TR-8: Auto Park Way/Country Club Drive (LOS D during the a.m. peak hour)

TR-9: Valley Parkway/Citracado Parkway (LOS D during the a.m. peak hour)

County

TR-2b: Country Club Drive/Harmony Grove Road (LOS F during the p.m. peak hour)

Unsignalized Intersections

Under the Existing Plus Cumulative Plus Project scenario, one unsignalized intersection in the County would operate at an unacceptable LOS E or F (Figure 2.2-7 and Table 2.2-7). The Project would add greater than 20 peak hour trips or 5 peak hour trips, respectively, to the northbound critical movement; therefore, **the Project would cause a significant cumulative impact to the following unsignalized intersection (Impact TR-10)**:

TR-10: Harmony Grove Road/Kauana Loa Drive (LOS E and F during the a.m. and p.m. peak hours, respectively)

Freeway Mainline Segments

As shown on Figure 2.2-7 and Table 2.2-8, the segment of westbound SR-78 west of Nordahl Road would operate at an unacceptable LOS in the Existing Plus Cumulative Plus Project scenario. The Proposed Project traffic in conjunction with cumulative traffic along this segment of SR-78, however, would not exceed the significance criteria in Matrix 2 (above). Therefore, **cumulative impacts to freeway mainline segments would be less than significant.**

2.2.4 Buildout Impact Analysis

As the Project's proposed land use would generate more traffic than projected for the parcel in the 2011 General Plan, a buildout analysis was completed. Per County criteria, a buildout analysis is conducted to determine whether the proposed land use changes would require any changes to the Mobility Element roadway classifications.

Using SANDAG's trip generation rates, the General Plan land use designation for the Project's parcel could produce approximately 2,220 ADT (Buildout without Project scenario). As discussed

under Section 2.2.2.1, the Project proposes a land use designation that would produce 4,500 ADT (Buildout with Project scenario). Therefore, the Buildout with Project scenario assumes an increase of 2,280 ADT over the Buildout without Project Scenario. In addition, SANDAG Series 12 Year 2035 traffic volumes, the adopted 2011 General Plan roadway classifications, and the projects in the cumulative analysis under Section 2.2.3 were used in the analysis.

As shown in Table 2.2-9, *Roadway Segment Operations under Buildout Conditions,* under both scenarios all roadway segments are calculated to operate at acceptable LOS except for the Country Club Drive between Auto Park Way and Hill Valley Drive segment, which is forecasted to operate at LOS D. Therefore, under buildout, the Project itself would not decrease LOS to an unacceptable level compared to the General Plan land use.

As discussed earlier, the Project would have both direct (operations at LOS D; TR-1a) and cumulative (operations at LOS F; TR-1b) significant impacts on this roadway segment. (The LOS for the cumulative scenario is worse than the buildout scenario due to major, planned roadway improvements being finished by the buildout scenario but not by the cumulative scenario, such as the Citracado Parkway extension.) In accordance with these significant impacts, mitigation measures M-TR-1a and M-TR-1b are proposed below that would improve operations on Country Club Drive between Auto Park Way and Hill Valley Drive segment.

2.2.5 Significance of Impacts Prior to Mitigation

The Proposed Project would result in the following significant direct and cumulative impacts to a number of roadway segments and intersections (both signalized and unsignalized):

Direct and Cumulative Impacts

Under Existing Plus Project and Existing Plus Cumulative Plus Project conditions, significant direct and/or cumulative impacts would occur along six analyzed roadway segments:

City of Escondido

Impact TR-1a and 1b Country Club Drive from Auto Park Way to Hill Valley Drive (LOS D, Direct; LOS F, Cumulative)

County

Impact TR-3 Country Club Drive from Hill Valley Drive to Kauana Loa Drive (LOS E; Cumulative)

Impact TR-4 Harmony Grove Road from Country Club Drive to Harmony Grove Village Parkway (LOS E; Cumulative)

Impact TR-5 Harmony Grove Road from Harmony Grove Village Parkway to Kauana Loa Drive (LOS E; Cumulative)

Impact TR-6 Harmony Grove Road from Kauana Loa Drive to Enterprise Street (LOS F; Cumulative)

Impact TR-7 Harmony Grove Village Parkway from Harmony Grove Road to Citracado Parkway (LOS E; Cumulative)

Under Existing Plus Cumulative Plus Project conditions, significant direct and/or cumulative impacts would occur at three analyzed signalized intersections:

City of Escondido

Impact TR-8 Auto Park Way/Country Club Drive (LOS D during the a.m. peak hour; Cumulative)

Impact TR-9 Valley Parkway/Citracado Parkway (LOS D during the a.m. peak hour; Cumulative)

County

Impact TR-2a and 2b Country Club Drive/Harmony Grove Road (LOS F during the p.m. peak hour; Direct and Cumulative)

Under Existing Plus Cumulative Plus Project conditions, significant cumulative impacts would occur at one analyzed unsignalized intersection:

County

Impact TR-10 Harmony Grove Road/Kauana Loa Drive (LOS E and F during the a.m. and p.m. peak hours, respectively; Cumulative)

2.2.6 Mitigation

Mitigation for Direct and Cumulative Significant Impacts

As enumerated in Section 2.2.4, the Proposed Project would result in significant impacts to local roadway segments and intersections in Escondido and the County. Mitigation measures proposed to address the Proposed Project's contribution to direct and cumulative impacts are identified below.

Direct impacts are those impacts caused by project-related development. Cumulative impacts can result from individually minor, but collectively significant projects taking place over a period of time (CEQA Guidelines §15355), and are caused collectively by all development within the community. The CEQA Guidelines recognize that mitigation for cumulative impacts may involve the adoption of ordinances or regulations (CEQA Guidelines §15130) such as, but not limited to, the County-adopted TIF Program (described below).

City of Escondido

The City of Escondido requires that physical improvements be implemented for direct impacts where a project reduces LOS below acceptable LOS C thresholds. A fair share payment toward

future improvements is required where the addition of project traffic is cumulative to the overall LOS D or worse pre-project conditions.

County

The County Board of Supervisors adopted the TIF ordinance, which provides a mechanism for the County to obtain funding to mitigate anticipated cumulative transportation/circulation impacts, by requiring payment of an impact fee designated in the ordinance. The TIF Program covers all cumulative impacts within the unincorporated area for General Plan conforming projects to support adequate circulation through Year 2030. The TIF is paid at time of building permit issuance. The County updated the TIF Program in December 2012. The TIF Program identifies transportation facilities needed to address cumulative impacts within designated areas of the County (TIF Areas) and then provides for payment of fees to cover a project's "fair share" of the cost. TIF fees are segregated by TIF Area, Region, State Highway, and Ramps, and are used to help fund transportation improvements within those identified locations. Since the project proposes a GPA, it will need to participate on a fair share basis (contribute funds) in an update to the TIF program to cover the changes in land use.

Roadway Segments

City of Escondido

M-TR-1a and 1b Prior to occupancy of 80 Project units, Country Club Drive shall be widened to provide a paved width of 36 feet consisting of two travel lanes and a 10-foot striped center turn lane starting 220 feet southwest of Auto Park Way for a length of approximately 830 feet. Improvements will include connecting the existing sidewalk along the northern side of this roadway section with a 5-foot sidewalk complete with a 6-inch curb and gutter and providing a 4-foot decomposed granite pathway along the south side of this segment with a 6-inch asphalt berm. With the additional 12 feet added to the paved width, the roadway capacity of this Local Collector would increase to 15,000 ADT.[5]

County

M-TR-3 Prior to occupancy of 80 Project units, the Project shall widen Country Club Drive at the Country Club Drive/Eden Valley Lane intersection to provide a dedicated northbound left-turn lane onto Eden Valley Lane.

M-TR-4 The Project shall make a payment toward the County of San Diego TIF program to address cumulative impacts to the segment of Harmony Grove Road between Country Club Drive and Harmony Grove Village Parkway.

M-TR-5 The Project shall make a payment toward the County of San Diego TIF program to address cumulative impacts to the segment of Harmony Grove Road between Harmony Grove Village Parkway and Kauana Loa Drive.

[5] Because this mitigation would be located in the City of Escondido it is currently identified as significant and unmitigated as described under Section 2.2.7.

M-TR-6 Project payment toward the County of San Diego TIF program as part of mitigation provided under M-TR-10, below, will mitigate impacts to this segment of Harmony Grove Road between Kauana Loa Drive and Enterprise Street.

M-TR-7 Prior to occupancy of 135 Project units, the Project shall provide a northbound to eastbound right-turn overlap phase at the Harmony Grove Road/Harmony Grove Village Parkway signalized intersection.

Intersections

City of Escondido

M-TR-8 Prior to occupancy of 293 Project units, the Project shall restripe the eastbound approach of the Auto Park Way/Country Club Drive intersection to provide one left-turn lane, one shared left-turn/through lane, and one right-turn lane with a signal timing modification to change the east/west approach to "split" phasing.[6]

M-TR-9 Prior to occupancy of 54 Project units. the Project shall pay a fair share toward the approved Citracado Parkway Extension Project, which would improve the intersection operations with an additional through lane in the southbound direction.[7]

County

M-TR-2a and 2b Prior to occupancy of 23 Project units, the Project shall widen the northbound approach of Country Club Drive to Harmony Grove Road to provide one left-turn, one through lane, and one dedicated right-turn lane with an overlap phase in order to mitigate this direct and cumulative impact to the Harmony Grove Road Country Club intersection. In addition, the Project shall make a payment toward the County of San Diego TIF Program.

M-TR-10 The Project shall make a payment toward the County of San Diego TIF program to address cumulative impacts to the Harmony Grove Road/Kauana Loa Drive unsignalized intersection.

2.2.7 Conclusion

This section presents the rationales for the conclusions of impact levels resulting after implementation of the Project and the proposed mitigation measures. If the Project is approved, each of the mitigation measures committed to below would be made a Condition of Approval, which would require implementation of the stated measures.

[6] Because this mitigation would be located in the City of Escondido it is currently identified as significant and unmitigated as described under Section 2.2.7.

[7] Because this mitigation would be located in the City of Escondido and there is no current funding mechanism, the impact is currently identified as significant and unmitigated as described under Section 2.2.7.

Specific to the cumulative impacts addressed below, County mitigation requires participation in the TIF Program. This program was specifically designed to address cumulative issues (i.e., incremental Project effects which, when combined with the incremental adverse effects of other area-wide projects, reach a level of impact requiring mitigation). Required improvements are specified through the 2030 planning horizon, and funds are collected from projects coming on line in order to collect fees to cover costs of those improvements when implemented. The Project will be required to contribute funding toward an update to the TIF program to include the Project and its increased density. Because the TIF Program was designed to address cumulative concerns and the associated appropriate payment for specified improvements, participation in the TIF Program constitutes effective and adequate mitigation for Project cumulative impacts when the facility is identified as a "TIF-eligible Facility" in the 2012 *County of San Diego TIF Transportation Needs Assessment Report*.

Development of the Proposed Project would result in potentially significant direct traffic impacts to only one study area roadway segment and one intersection. Both of these facilities also would have cumulative impacts. As discussed above, the Project would have only cumulative impacts to an additional five roadway segments and three intersections (including two signalized intersections and one unsignalized intersection). The remainder of this discussion addresses impacts by jurisdiction: those projected to occur within County jurisdiction and those projected to occur within City of Escondido jurisdiction.

The Proposed Project would add direct and cumulative traffic to the segment of Country Club Drive from Auto Park Way to Hill Valley Drive in the City of Escondido, resulting in direct and cumulative impacts (TR-1a and 1b). Project effects would be mitigated through the widening of Country Club Drive to provide a paved width of 36 feet consisting of two travel lanes and a 10-foot striped center turn lane starting 220 feet southwest of Auto Park Way for a length of approximately 830 feet. Improvements would include connecting the existing sidewalk along the northern side of this roadway section with a 5-foot sidewalk complete with a 6-inch curb and gutter and providing a 4-foot decomposed granite pathway along the south side of this segment with a 6-inch asphalt berm. With the additional 12 feet added to the paved width, the roadway capacity of this Local Collector would increase to 15,000 ADT. These measures would improve traffic flow by providing improved intersection operations with re-striped traffic lanes. The mitigation would improve Country Club Drive operations in the City of Escondido and allow it to operate more efficiently compared to pre-Project conditions.

The Proposed Project would result in cumulative impacts to two City of Escondido signalized intersections: Auto Park Way/Country Club Drive (TR-8) and Valley Parkway/Citracado Parkway (TR-9). For Auto Park Way/Country Club Drive, the impact would be mitigated through restriping the eastbound approach at this intersection to provide one left-turn lane, one shared left-turn/ through lane, and one right-turn lane with a signal timing modification to change the east/west approach to "split" phasing. Implementation of the noted improvements to the noted segment of Country Club Drive would also mitigate the cumulative impact at this intersection in the City of Escondido to less than significant. The described improvements would return the forecasted LOS operations at this intersection to better than pre-Project conditions. For Valley Parkway/Citracado Parkway (TR-9), payment of a fair share toward the proposed future intersection improvements would support implementation of an additional through lane in the southbound direction, and would mitigate this cumulative impact to below a level of significance. (Consideration also was

given to an alternate proposal; the provision of an eastbound to southbound right-turn overlap phase to improve the a.m. LOS and reduce the cumulative impacts. The City has a right-turn restriction for this movement during the a.m. peak hour, however, which makes this improvement infeasible.)

Implementation of these roadway and intersection improvements in the City of Escondido would adequately mitigate the impacts. Therefore, once implemented, the Proposed Project's contribution to these direct and cumulative impacts in Escondido would be reduced to a less than significant level. Because the City of Escondido is a lead agency under CEQA for impacts within their jurisdiction, however; it is Escondido, and not the County, that has responsibility for approval/assurance of implementation of those improvements. As such, the County cannot guarantee ultimate implementation or timing of City of Escondido-approved mitigation. Therefore, the mitigation measure is not currently feasible. Thus, impacts within Escondido are identified as remaining significant and unavoidable pending City of Escondido action.

The Proposed Project would add to cumulative impacts to five roadway segments in the County: Country Club Drive from Hill Valley Drive to Kauana Loa Drive (TR-3), Harmony Grove Road from Country Club Drive to Harmony Grove Village Parkway (TR-4), Harmony Grove Road from Harmony Grove Village Parkway to Kauana Loa Drive (TR-5), Harmony Grove Road from Kauana Loa Drive to Enterprise Street (TR-6), and Harmony Grove Village Parkway from Harmony Grove Village Road to Citracado Parkway (TR-7). Two of these segments are identified as TIF-eligible facilities: TR-4 and TR-5. Project impacts for those two segments would be addressed through payment toward the County TIF Program, which would mitigate the cumulative impact at these locations to below a level of significance.

Relative to TR-3, the provision of the left-turn lane at the Country Club Drive/Eden Valley Lane intersection would provide a refuge lane for left-turning vehicles. This would improve the flow of northbound through traffic on Country Club Drive between Hill Valley Drive and Kauana Loa Drive, and reduce the potential for vehicular conflict due to the slowing of northbound traffic. Implementation of this mitigation measure would be expected to reduce this cumulative impact to less than significant.

Harmony Grove Road between Kauana Loa Drive and Enterprise Street (TR-6) is not a part of the General Plan roadway network and is an unclassified roadway on the Mobility Element. Therefore, it does not have any planned improvements beyond its existing configuration. Ultimately, construction of the Citracado Parkway Extension Project within the City of Escondido is planned to cul-de-sac Harmony Grove Road just east of Kauana Loa Drive. This would reduce traffic volume along this roadway and improve operations to acceptable LOS D or better as a result of a substantial shift in traffic patterns (as studied extensively in the Citracado Parkway Final EIR, approved February 2012 and included in the City's certified General Plan Update EIR). However, the City has no current plans to construct the Citracado Parkway Extension Project at this time, and does not have a financing plan to fund this improvement into which the Applicant could pay a fair share (LLG 2017). Also, the County is without jurisdiction to ensure the construction of the Citracado Parkway Extension Project and has no plans to make any improvements beyond its current configuration. This mitigation is therefore not considered feasible at this time.

Regardless, the segment is bound by two intersections, Harmony Grove Road/Kauana Loa Drive in the County and Harmony Grove Road/Enterprise Street in Escondido. The County intersection is located within the portion of Harmony Grove Road that is classified as a TIF-eligible facility. Therefore, the Project's TIF payment mitigates the shared intersection, which would improve operations on adjacent legs, both TIF and Non-TIF eligible. As such, cumulative improvements from TR-10 would apply to this impact, and implementation of mitigation measure TR-10 would be expected to reduce this cumulative impact to less than significant.

For TR-7 (Harmony Grove Village Parkway from Harmony Grove Village Road to Citracado Parkway), this segment is currently built to Community Collector standards providing 16,200 ADT of capacity. It is classified in the Mobility Element to be improved to a Community Collector providing additional capacity to 19,000 ADT. The segment is not, however, currently included as a TIF-eligible facility.

The segment is bound by two intersections: Harmony Grove Road/Harmony Grove Village Parkway in the County and Avenida Del Diablo/Citracado Parkway in Escondido. Both of these intersections are calculated to operate at LOS C or better during peak hours with both Project and cumulative project traffic volumes. As such, this segment also would be expected to operate at correspondingly acceptable LOS. Nonetheless, the cumulative contribution exceeds the County's threshold and a cumulative impact is identified.

Even though the intersection at Harmony Grove Road/Harmony Grove Village Parkway is calculated to operate at LOS C or better during peak hours with both Project and cumulative project traffic volumes, the construction of the northbound to eastbound right-turn overlap phase at this intersection would provide additional improvements to both a.m. and p.m. peak hour delays by 1.3 and 2.1 seconds, respectively. Where intersections operate at acceptable LOS, their adjoining segments also operate at acceptable LOS because the intersections control the system. Considering that the adjacent intersections currently operate acceptably, the intersection improvements would be expected to reduce this cumulative impact to less than significant.

The Proposed Project would result in a direct and cumulative impact to one County signalized intersection, Country Club Drive/Harmony Grove Road (TR-2a and 2b). To mitigate these impacts, the northbound approach would be widened to provide left- and right turn lanes (as well as through lanes), along with payment toward the County TIF Program. The implementation of the direct improvements would occur prior to occupancy of 23 Project units, thereby reducing Project effects on the intersection to less than significant levels, as well as the cumulative effect. Payment toward the TIF Program would reduce cumulative effects to a less than significant level by supporting County regional road improvements as needed.

The Proposed Project would result in a cumulative impact to one County unsignalized intersection, Harmony Grove Road/Kauana Loa Drive (TR-10). This intersection is located within the portion of Harmony Grove Road that is classified as a TIF-eligible facility. Therefore, payment toward the County TIF program would mitigate this cumulative intersection impact to below a level of significance.

Conclusion Summary

In conclusion, all direct and cumulative impacts within County of San Diego jurisdiction would be mitigated to below a level of significance through implementation of the specified mitigation measures.

The Proposed Project would add direct and cumulative traffic to the segment of Country Club Drive from Auto Park Way to Hill Valley Drive in the City of Escondido, resulting in direct and cumulative impacts (TR-1a and 1b). Project effects would be mitigated through the widening of Country Club Drive to provide a paved width of 36 feet consisting of two travel lanes and a 10-foot striped center turn lane starting 220 feet southwest of Auto Park Way for a length of approximately 830 feet. Improvements would include connecting the existing sidewalk along the northern side of this roadway section with a 5-foot sidewalk complete with a 6-inch curb and gutter and providing a 4-foot decomposed granite pathway along the south side of this segment with a 6-inch asphalt berm. With the additional 12 feet added to the paved width, the roadway capacity of this Local Collector would increase to 15,000 ADT.

The Proposed Project would result in cumulative impacts to two City of Escondido signalized intersections: Auto Park Way/Country Club Drive (TR-8) and Valley Parkway/Citracado Parkway (TR-9). For Auto Park Way/Country Club Drive, the impact would be mitigated through restriping the eastbound approach at this intersection to provide one left-turn lane, one shared left-turn/ through lane, and one right-turn lane with a signal timing modification to change the east/west approach to "split" phasing. Implementation of the noted improvements to the noted segment of Country Club Drive would also mitigate the cumulative impact at this intersection in the City of Escondido to less than significant. The described improvements would return the forecasted LOS operations at this intersection to better than pre-Project conditions. For Valley Parkway/Citracado Parkway, payment of a fair share toward the proposed future intersection improvements would support implementation of an additional through lane in the southbound direction, and, once implemented, would mitigate this cumulative impact to below a level of significance.

Implementation of these roadway and intersection improvements in the City of Escondido would adequately mitigate the identified impacts. Therefore, once implemented, the Proposed Project's contribution to direct and cumulative impacts in Escondido would be reduced to a less than significant level based on the implementation of the noted improvements.

Because the City of Escondido is a lead agency under CEQA for impacts within their jurisdiction, however, it is Escondido, and not the County, that has responsibility for approval/assurance of implementation of those improvements. As such, the County cannot guarantee ultimate implementation or timing of City of Escondido-approved mitigation in this County EIR. Thus, although appropriate mitigation has been identified to lower all Project-related impacts within the City to less than significant levels under CEQA once implemented, impacts within Escondido are identified as remaining significant and unavoidable pending City action.

Table 2.2-1
EXISTING TRAFFIC VOLUMES

Street Segment	ADT[a]	Jurisdiction
Auto Park Way		
1. Mission Road to Country Club Drive	26,110	Escondido
Citracado Parkway		
2. Avenida Del Diablo to West Valley Parkway	6,170	Escondido
Valley Parkway		
3. 11th Avenue to Citracado Parkway	24,110	Escondido
4. Auto Park Way to I-15 SB Ramps	37,280	Escondido
9th Avenue[b]		
5. West Valley Parkway to Auto Park Way	11,630	Escondido
Country Club Drive		
6. Auto Park Way to Hill Valley Drive	6,490	Escondido
Country Club Drive		
7. Hill Valley Drive to Kauana Loa Drive	5,980	County
8. Kauana Loa Drive to Harmony Grove Village Parkway	3,260	County
9. Harmony Grove Village Parkway to Harmony Grove Road	2,430	County
Harmony Grove Road		
10. Wilgen Drive to Country Club Drive	8,370	County
11. Country Club Drive to Harmony Grove Village Parkway	7,510	County
12. Harmony Grove Village Parkway to Kauana Loa Drive	5,890	County
13. Kauana Loa Drive to Enterprise Street	7,310	County/Escondido
Harmony Grove Village Parkway		
14. Harmony Grove Road to Citracado Parkway	8,220	County
Freeway Mainline Segments		
1. SR-78 West of Nordahl Road	159,000	Caltrans
2. SR-78 East of Nordahl Road	164,000	Caltrans

[a] Average Daily Traffic (ADT) Volumes collected in February and June of 2014 when schools were in session. Caltrans volumes taken from most recent available data

[b] 9th Avenue provides a paved width of 60 feet with a 12-foot center turn lane and 24-foot travel lanes in each direction (8-foot parking lane plus 16-foot travel lane). Therefore, a capacity of 15,000 ADT was used in the analysis

[c] Country Club Drive from Harmony Grove Village Parkway to Harmony Grove Road and Harmony Grove Village Parkway from Harmony Grove Road to Citracado Parkway were under construction at the time of data collection. With the construction of Harmony Grove Village and the new roadways in the area, the existing counts to portions of Country Club Drive, Harmony Grove Road, and Harmony Grove Village Parkway were adjusted to account for the rerouting of existing traffic and to incorporate the projected trips generated by the HGV project

Table 2.2-2
CALTRANS DISTRICT 11
FREEWAY SEGMENT LEVEL OF SERVICE DEFINITIONS

LOS	V/C	Congestion/Delay	Traffic Description
Used for Freeways, Expressways and Conventional Highways			
A	<0.41	None	Free flow
B	0.42-0.62	None	Free to stable flow, light to moderate volumes
C	0.63-0.80	None to minimal	Stable flow, moderate volumes, freedom to maneuver noticeably restricted
D	0.81-0.92	Minimal to substantial	Approaches unstable flow, heavy volumes, very limited freedom to maneuver
E	0.93-1.00	Significant	Extremely unstable flow, maneuverability and psychological comfort extremely poor
Used for Freeways and Expressways			
F(0)	1.01-1.25	Considerable: 0-1 hour delay	Forced flow, heavy congestion, long queues form behind breakdown points, stop and go
F(l)	1.26-1.35	Severe 1-2 hour delay	Very heavy congestion, very long queues
F(2)	1.36-1.45	Very Severe: 2-3 hour delay	Extremely heavy congestion, longer queues, more numerous breakdown points, longer stop periods
F(3)	>1.46	Extremely Severe: 3+ hours of delay	Gridlock

Table 2.2-3
EXISTING STREET SEGMENT OPERATIONS

City of Escondido Street Segments	Currently Built As	Existing Capacity (LOS E)[a]	ADT[b]	LOS[c]	V/C[d]
Auto Park Way					
1. Mission Road to Country Club Drive[e]	4-Lane Divided	43,500	26,110	B	0.600
Citracado Parkway					
2. Avenida Del Diablo to Valley Parkway	2-Lane Undivided	15,000	6,170	B	0.411
Valley Parkway					
3. 11th Avenue to Citracado Parkway	4-Lane Divided	37,000	24,110	C	0.652
4. Auto Park Way to I-15 SB Ramps	8-Lane Divided	70,000	37,280	B	0.533
9th Avenue					
5. Valley Parkway to Auto Park Way	2-Lane Undivided	15,000	11,630	D	0.775
Country Club Drive					
6. Auto Park Way to Hill Valley Drive	2-Lane Undivided	10,000	6,490	C	0.649
County of San Diego Street Segments	**Currently Built As**	**Existing Capacity (LOS E)[a]**	**ADT[b]**	**LOS[c]**	
Country Club Drive					
7. Hill Valley Drive to Kauana Loa Drive[f]	2-Lane Undivided	9,700	5,980	B	
8. Kauana Loa Drive to Harmony Grove Village Parkway[g]	2-Lane Undivided	9,700	3,260	A	
9. Harmony Grove Village Parkway to Harmony Grove Road[h]	2-Lane Undivided	19,000	2,430	A	
Harmony Grove Road					
10. Wilgen Drive to Country Club Drive[i]	2-Lane Undivided	19,000	8,370	C	
11. Country Club Drive to Harmony Grove Village Parkway[j]	2-Lane Undivided	16,200	7,510	D	
12. Harmony Grove Village Parkway to Kauana Loa Drive[j]	2-Lane Undivided	16,200	5,890	C	
13. Kauana Loa Drive to Enterprise Drive[k]	2-Lane Undivided	9,700	7,310	C	

Table 2.2-3 (cont.)
EXISTING STREET SEGMENT OPERATIONS

County of San Diego Street Segments (cont.)	Currently Built As	Existing Capacity (LOS E)[a]	ADT[b]	LOS[c]	V/C[d]
Harmony Grove Village Parkway					
14. Harmony Grove Road to Citracado Parkway[l]	2-Lane Undivided	16,200	8,220	D	

Notes:
[a] Capacities based on City of Escondido and County of San Diego Roadway Classification Tables
[b] Average Daily Traffic Volumes
[c] Level of Service
[d] Volume to Capacity ratio
[e] Auto Park Way is currently built as a 6-Ln Major from Mission Road to Meyers Avenue and a 4-Ln Major from Meyers Avenue to Country Club Drive. Therefore, a 5-Ln Major road capacity of 43,500 was used in the analysis
[f] Although Country Club Drive is not a Mobility Element roadway, due to the increased paved width and 45 mph speed limit and reduced shoulder, the roadway functions as a 2.2F Light Collector with an LOS "E" capacity of 9,700 ADT
[g] Country Club Drive from Kauana Loa Drive to the northerly boundary of Harmony Grove Village is currently being improved to modified Rural Light Collector standards per the previously adopted General Plan (corresponding with a 2.2F Light Collector on the 2011 General Plan) with an ADT capacity of 9,700. South of the HGV project boundary to Harmony Grove Village Parkway, Country Club Drive is being improved to Rural Collector standards per the previously adopted General Plan (corresponding with 2.2E Light Collector on the 2011 General Plan) with an ADT capacity of 16,200. For purposes of being conservative, the 9,700 ADT capacity was used in the buildout assessment
[h] From Harmony Grove Village Parkway to Harmony Grove Road, Country Club Drive is being improved to Town Collector standards per the previously adopted General Plan (corresponding with 2.1C Community Collector in the 2011 General Plan) with an ADT capacity of 19,000
[I] Harmony Grove Road from Wilgen Drive to Country Club Drive is currently being improved to 2.2C Light Collector standards with an ADT capacity of 19,000
[j] Harmony Grove Road from Country Club Drive to Kauana Loa Drive functions as a Rural Light Collector with a LOS C capacity of 16,200 ADT
[k] Harmony Grove Road from Kauana Loa Drive to Enterprise Street is currently built as a two-lane roadway with curb, gutter and sidewalk improvements for the majority of the roadway with a posted speed limit of 40 mph. The roadway is located in both the County and City's jurisdiction; however, the majority of the roadway abuts the County line. Therefore, an LOS E capacity of 9,700 ADT was used in the analysis.
[l] Harmony Grove Village Parkway is currently under construction to be built to 2.2E Light Collector standards with an ADT capacity of 19,000

Table 2.2-4
EXISTING INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing	
			Delay[a]	LOS[b]
City of Escondido Jurisdiction				
1. Nordahl Road / SR-78 WB Ramps	Signal	AM	22.4	C
		PM	25.2	C
2. Nordahl Road / SR-78 EB Ramps	Signal	AM	21.6	C
		PM	20.4	C
3. Auto Park Way / Mission Road	Signal	AM	32.1	C
		PM	33.7	C
4. Auto Park Way / Country Club Drive	Signal	AM	16.8	B
		PM	17.5	B
5. Harmony Grove Road / Enterprise St	Signal	AM	13.1	B
		PM	14.8	B
6. Avenida Del Diablo / Citracado Pkwy	Signal	AM	10.0	B
		PM	9.5	A
7. Valley Pkwy / I-15 NB Ramps	Signal	AM	26.5	C
		PM	35.1	D
8. Valley Pkwy / I-15 SB Ramps	Signal	AM	31.1	C
		PM	32.7	C
9. Valley Pkwy / Auto Park Way	Signal	AM	30.6	C
		PM	32.2	C
10. Valley Pkwy / 9th Avenue	Signal	AM	26.6	C
		PM	36.2	C
11. Valley Pkwy / 11th Avenue	Signal	AM	16.1	B
		PM	14.2	B
12. Valley Pkwy / Citracado Pkwy	Signal	AM	30.1	C
		PM	24.7	C
13. Auto Park Way / I-15 SB Ramps	Signal	AM	17.7	B
		PM	24.1	C
14. Auto Park Way / I-15 NB Ramps	Signal	AM	21.9	C
		PM	21.0	C

Table 2.2-4 (cont.)
EXISTING INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	Existing	
			Delay[a]	LOS[b]
County of San Diego Jurisdiction				
15. Country Club Drive / Kauana Loa Drive	AWSC[c]	AM	8.2	A
		PM	8.8	A
16. Country Club Drive / Harmony Grove Village Parkway	AWSC	AM	8.9	A
		PM	10.3	B
17. Country Club Drive / Harmony Grove Road	Signal	AM	30.5	C
		PM	36.6	D
18. Harmony Grove Road / Kauana Loa Drive	MSSC[d]	AM	12.0	B
		PM	15.2	C
19. Harmony Grove Road / Harmony Grove Village Parkway	Signal	AM	24.2	C
		PM	20.9	C

Notes:
[a] Average delay expressed in seconds per vehicle
[b] Level of Service
[c] AWSC - All-Way Stop Controlled intersection. Average delay reported
[d] MSSC - Minor Street Stop Controlled intersection. Minor street left-turn delay is reported

Signalized	
Delay/LOS Thresholds	
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

Unsignalized	
Delay/LOS Thresholds	
Delay	LOS
0.0 ≤ 10.0	A
10.1 to 15.0	B
15.1 to 25.0	C
25.1 to 35.0	D
35.1 to 50.0	E
≥ 50.1	F

Table 2.2-5
EXISTING FREEWAY MAINLINE OPERATIONS

Freeway Segment	Dir.	# of Lanes[a]	Hourly Capacity[b]	Volume[c]	Peak Hour Volume[d]		V/C[e]		LOS[f]	
					AM	PM	AM	PM	AM	PM
State Route 78										
West of Nordahl Road	EB	3M+1A	7,200	159,000	4,994	4,983	0.694	0.692	C	C
	WB	3M	6,000		5,862	5,625	0.977	0.938	E	E
East of Nordahl Road	EB	3M+1A	7,200	164,000	4,144	5,097	0.576	0.708	B	C
	WB	4M+1A	9,200		5,663	5,070	0.616	0.551	B	B

Notes:
[a] Lane geometry taken from PeMS lane configurations at corresponding postmiles including SR-78 recent improvements
[b] Capacity calculated at 2000 vehicles per hour (vph) per lane for mainline lanes and 1200 vph for auxiliary lanes, from Caltrans Guide for the Preparation of Traffic Impact Studies, Dec 2002
[c] Existing ADT volumes taken from most recent Caltrans traffic volumes
[d] Peak hour volumes taken from most recent PeMS traffic volumes
[e] V/C = (Peak Hour Volume/Hourly Capacity)
[f] LOS = Level of Service

General Notes:
M = Mainline
A = Auxiliary Lane

LOS	V/C
A	<0.41
B	0.62
C	0.80
D	0.92
E	1.00
F(0)	1.25
F(1)	1.35
F(2)	1.45
F(3)	>1.46

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Table 2.2-6
ROADWAY SEGMENT OPERATIONS UNDER EXISTING AND EXISTING PLUS CUMULATIVE PLUS PROJECT CONDITIONS

City of Escondido Street Segments	Existing Capacity (LOS E)[a]	Existing			Existing + Project				Existing + Cumulative Projects			Existing + Project + Cumulative Projects				Impact Type
		ADT[b]	LOS[c]	V/C[d]	ADT	LOS	V/C	Δ[e]	ADT	LOS	V/C	ADT	LOS	V/C	Δ[e]	
Auto Park Way																
1. Mission Road to Country Club Drive	43,500	26,110	B	0.600	27,325	B	0.628	0.028	28,480	B	0.655	29,695	C	0.683	0.028	None
Citracado Parkway																
2. Avenida Del Diablo to Valley Parkway	15,000	6,170	B	0.411	7,970	B	0.531	0.120	6,610	B	0.441	8,410	C	0.561	0.120	None
Valley Parkway																
3. 11th Avenue to Citracado Parkway	37,000	24,110	C	0.652	25,145	C	0.680	0.028	24,800	C	0.670	25,835	C	0.698	0.028	None
4. Auto Park Way to I-15 SB Ramps	70,000	37,280	B	0.533	38,315	C	0.547	0.014	39,910	C	0.570	40,945	C	0.585	0.015	None
9th Avenue																
5. Valley Parkway to Auto Park Way	15,000	11,630	D	0.775	11,900	D	0.793	0.018	14,370	E	0.958	14,640	E	0.976	0.018	None
Country Club Drive																
6. Auto Park Way to Hill Valley Drive	10,000	6,490	C	0.649	**7,615**	**D**	**0.762**	**0.113**	9,530	E	0.953	**10,655**	**F**	**1.066**	**0.113**	**Direct & Cumulative**

County of San Diego Street Segments	Existing Capacity (LOS E)[a]	Existing		Existing + Project			Existing + Cumulative Projects		Existing + Project + Cumulative Projects			Impact Type
		ADT[b]	LOS[c]	ADT	LOS	Δ[e]	ADT	LOS	ADT	LOS	Δ[e]	
Country Club Drive												
7. Hill Valley Drive to Kauana Loa Drive	9,700	5,980	B	7,105	C	—	8,260	D	**9,385**	**E**	**1,125**	**Cumulative**
8. Kauana Loa Drive to Harmony Grove Village Parkway	9,700	3,260	A	4,250	A	—	5,980	B	6,970	C	—	None
9. Harmony Grove Village Parkway to Harmony Grove Road	19,000	2,430	A	3,420	B	—	3,810	B	4,800	B	—	None
Harmony Grove Road												
10. Wilgen Drive to Country Club Drive	19,000	8,370	C	8,730	C	—	11,690	D	12,050	D	—	None
11. Country Club Drive to Harmony Grove Village Parkway	16,200	7,510	D	10,660	D	—	10,680	D	**13,830**	**E**	**3,150**	**Cumulative**
12. Harmony Grove Village Parkway to Kauana Loa Drive	16,200	5,890	C	7,240	D	—	9,770	D	**11,120**	**E**	**1,350**	**Cumulative**
13. Kauana Loa Drive to Enterprise Street	9,700	7,310	C	8,525	D	—	11,520	F	**12,735**	**F**	**1,215**	**Cumulative**
Harmony Grove Village Parkway												
14. Harmony Grove Road to Citracado Parkway	16,200	8,220	D	10,020	D	—	10,360	D	**12,160**	**E**	**1,800**	**Cumulative**

Notes:
[a] Capacities based on City of Escondido and County of San Diego Roadway Classification Tables. See Table 2.2-3 for detailed notes on roadway capacities for Country Club Drive, Harmony Grove Road, and Harmony Grove Village Parkway
[b] ADT - Average Daily Traffic Volumes
[c] LOS - Level of Service
[d] V/C - Volume to Capacity ratio
[e] Δ denotes the Project-induced increase in V/C for City of Escondido roadway segments. Δ denotes the Project-induced increase in ADT for segments operating at LOS E or F located in the County of San Diego
[f] Auto Park Way is currently built as a 6-Lane Major from Mission Road to Meyers Avenue and a 4-Lane Major from Meyers Avenue to Country Club Drive. Therefore, a 5-Lane Major road capacity of 43,500 was used in the analysis
General Note: **Bold** typeface and **shading** represents a significant impact.

Table 2.2-7
INTERSECTION OPERATIONS UNDER EXISTING AND EXISTING PLUS CUMULATIVE PLUS PROJECT CONDITIONS

Intersection	Control Type	Peak Hour	Existing		Existing + Project			Existing + Cumulative Projects		Existing + Project + Cumulative Projects			Impact Type
			Delay[a]	LOS[b]	Delay	LOS	Δ [c]	Delay	LOS	Delay	LOS	Δ [c]	
City of Escondido Jurisdiction													
1. Nordahl Road / SR-78 WB Ramps	Signal	AM	22.4	C	22.5	C	0.1	27.1	C	30.1	C	3.0	None
		PM	25.2	C	25.7	C	0.5	31.6	C	32.1	C	0.5	
2. Nordahl Road / SR-78 EB Ramps	Signal	AM	21.6	C	21.6	C	0.0	22.1	C	22.9	C	0.8	None
		PM	20.4	C	21.1	C	0.7	29.4	C	31.9	C	2.5	
3. Auto Park Way / Mission Road	Signal	AM	32.1	C	32.1	C	0.0	51.9	D	52.6	D	0.7	None
		PM	33.7	C	34.1	C	0.4	49.5	D	50.0	D	0.5	
4. Auto Park Way / Country Club Drive	Signal	AM	16.8	B	19.5	B	2.7	30.7	C	**37.3**	**D**	**6.6**	**Cumulative**
		PM	17.5	B	18.9	B	1.4	22.4	C	25.3	C	2.9	
5. Harmony Grove Road / Enterprise St	Signal	AM	13.1	B	13.1	B	0.0	15.0	B	15.4	B	0.4	None
		PM	14.8	B	15.7	B	0.9	17.3	B	18.7	B	1.4	
6. Avenida Del Diablo / Citracado Pkwy	Signal	AM	10.0	B	10.2	B	0.2	10.4	B	10.6	B	0.2	None
		PM	9.5	A	10.1	B	0.6	10.3	B	11.1	B	0.8	
7. Valley Pkwy / I-15 NB Ramps	Signal	AM	26.5	C	26.7	C	0.2	31.0	C	31.2	C	0.2	None
		PM	35.1	D	36.0	D	0.9	39.3	D	40.6	D	1.3	
8. Valley Pkwy / I-15 SB Ramps	Signal	AM	31.1	C	31.8	C	0.7	39.9	D	39.9	D	0.0	None
		PM	32.7	C	33.2	C	0.5	63.0	E	64.6	E	1.6	
9. Valley Pkwy / Auto Park Way	Signal	AM	30.6	C	30.7	C	0.1	38.4	D	38.5	D	0.1	None
		PM	32.2	C	32.4	C	0.2	46.3	D	46.3	D	0.0	
10. Valley Pkwy / 9th Avenue	Signal	AM	26.6	C	27.1	C	0.5	31.3	C	31.7	C	0.4	None
		PM	36.2	C	36.9	D	0.7	49.4	D	50.7	D	1.3	
11. Valley Pkwy / 11th Avenue	Signal	AM	16.1	B	16.4	B	0.3	16.2	B	16.8	B	0.6	None
		PM	14.2	B	15.2	B	1.0	16.9	B	17.1	B	0.2	
12. Valley Pkwy / Citracado Pkwy	Signal	AM	30.1	C	33.8	C	3.7	36.7	D	**44.0**	**D**	**7.3**	**Cumulative**
		PM	24.7	C	27.2	C	2.5	26.6	C	29.1	C	2.5	
13. Auto Park Way / I-15 SB Ramps	Signal	AM	17.7	B	18.6	B	0.9	19.1	B	20.5	C	1.4	None
		PM	24.1	C	24.4	C	0.3	27.1	C	27.9	C	0.8	
14. Auto Park Way / I-15 NB Ramps	Signal	AM	21.9	C	22.1	C	0.2	22.5	C	22.7	C	0.2	None
		PM	21.0	C	21.6	C	0.6	21.7	C	22.3	C	0.6	
County of San Diego Jurisdiction													
15. Country Club Drive / Kauana Loa Drive	AWSC[e]	AM	8.2	A	8.7	A	—[d]	9.8	A	10.7	B	—	None
		PM	8.8	A	9.7	A	—	10.6	B	12.2	B	—	
16. Country Club Drive / Harmony Grove Village Parkway	AWSC	AM	8.9	A	9.4	A	—	10.0	B	10.8	B	—	None
		PM	10.3	B	11.4	B	—	11.1	B	12.4	B	—	
17. Country Club Drive / Harmony Grove Road	Signal	AM	30.5	C	39.7	D	—	40.4	D	43.1	D	—	**Direct & Cumulative**
		PM	36.6	D	**>100.0**	**F**	**>2.0**	49.9	D	**>100.0**	**F**	**>2.0**	
18. Harmony Grove Road / Kauana Loa Drive	MSSC[f]	AM	12.0	B	14.2	B	—	25.6	D	**48.6**	**E**	**75[g]**	**Cumulative**
		PM	15.2	C	18.4	C	—	32.2	D	**63.5**	**F**	**40[g]**	
19. Harmony Grove Road / Harmony Grove Village Parkway	Signal	AM	24.2	C	25.1	C	—	25.5	C	26.6	C	—	None
		PM	20.9	C	24.1	C	—	24.9	C	26.9	C	—	

Notes:
[a] Average delay expressed in seconds per vehicle;
[b] LOS - Level of Service;
[c] Δ denotes the Project-induced increase in V/C for City of Escondido roadway segments. Δ denotes the Project-induced increase in delay for signalized intersections and Project traffic added to the critical movement for unsignalized intersections located in the County of San Diego;
[d] Project increases in delay or number of trips only shown for County intersection where LOS E or F operations are reported;
[e] AWSC: All Way Stop Controlled Intersection. Average intersection delay is reported;
[f] MSSC: Minor Street Stop Controlled Intersection. Minor street left-turn delay is reported; [g] Both the northbound left-turn and right-turn volumes are shown for the LOS E/F intersection since the existing geometry provides one shared lane for both movements
General Note: **Bold** typeface and **shading** represents a significant impact.

Table 2.2-8
FREEWAY SEGMENT OPERATIONS UNDER EXISTING AND EXISTING PLUS CUMULATIVE PLUS PROJECT CONDITIONS

Freeway Segment	Dir.	# of Lanes[a]	Hourly Capacity[b]	Existing[c]		V/C[d]		LOS[e]		Existing + Project		V/C		LOS		Δ[f] V/C		Impact Type
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	
State Route 78 (SR-78)																		
West of Nordahl Road	EB	3M+1A	7,200	4,994	4,983	0.694	0.692	C	C	5,010	5,030	0.696	0.699	C	C	0.002	0.007	None
	WB	3M	6,000	5,862	5,625	0.977	0.938	E	E	5,900	5,645	0.983	0.941	E	E	0.006	0.003	None
East of Nordahl Road	EB	3M+1A	7,200	4,144	5,097	0.576	0.708	B	C	4,156	5,104	0.577	0.709	B	C	0.002	0.001	None
	WB	4M+1A	9,200	5,663	5,070	0.616	0.551	B	B	5,668	5,086	0.616	0.553	B	B	0.001	0.002	None
Freeway Segment	**Dir.**	**# of Lanes[a]**	**Hourly Capacity[b]**	**Existing + Cumulative Projects**		**V/C[d]**		**LOS[e]**		**Existing + Project + Cumulative Projects**		**V/C**		**LOS**		**Δ[f] V/C**		**Impact Type**
				AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	AM	PM	
State Route 78 (SR-78)																		
West of Nordahl Road	EB	3M+1A	7,200	5,547	5,535	0.770	0.769	C	C	5,563	5,582	0.773	0.775	C	C	0.002	0.007	None
	WB	3M	6,000	6,511	6,248	1.085	1.041	F(0)	F(0)	6,549	6,268	1.091	1.045	F(0)	F(0)	0.006	0.004	None
East of Nordahl Road	EB	3M+1A	7,200	4,424	5,442	0.615	0.756	B	C	4,436	5,449	0.616	0.757	B	C	0.002	0.001	None
	WB	4M+1A	9,200	6,046	5,413	0.657	0.588	C	B	6,051	5,429	0.658	0.590	C	B	0.001	0.002	None

Notes:
[a] Lane geometry taken from 2011 PeMS lane configurations at corresponding postmile, including recent SR 78 improvements
[b] Existing volumes taken from PeMS peak hour data
[c] Capacity calculated at 2000 vehicles per hour (vph) per mainline lane (pcphpl) and 1200 vph per lane for auxiliary lanes from Caltrans Guide for the Preparation of Traffic Impact Studies, Dec 2002
[d] V/C = Peak Hour Volume/Hourly Capacity
[e] LOS = Level of Service
[f] Δ denotes the Project-induced increase in V/C. Per SANTEC/ITE Guidelines, a significant impact occurs when the V/C is reduced by 0.01 for LOS E or F.

General Notes:
M = Mainline
A = Auxiliary Lane

LOS	V/C
A	<0.41
B	0.62
C	0.80
D	0.92
E	1.00
F(0)	1.25
F(1)	1.35
F(2)	1.45
F(3)	>1.46

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Table 2.2-9
ROADWAY SEGMENT OPERATIONS UNDER BUILDOUT CONDITIONS

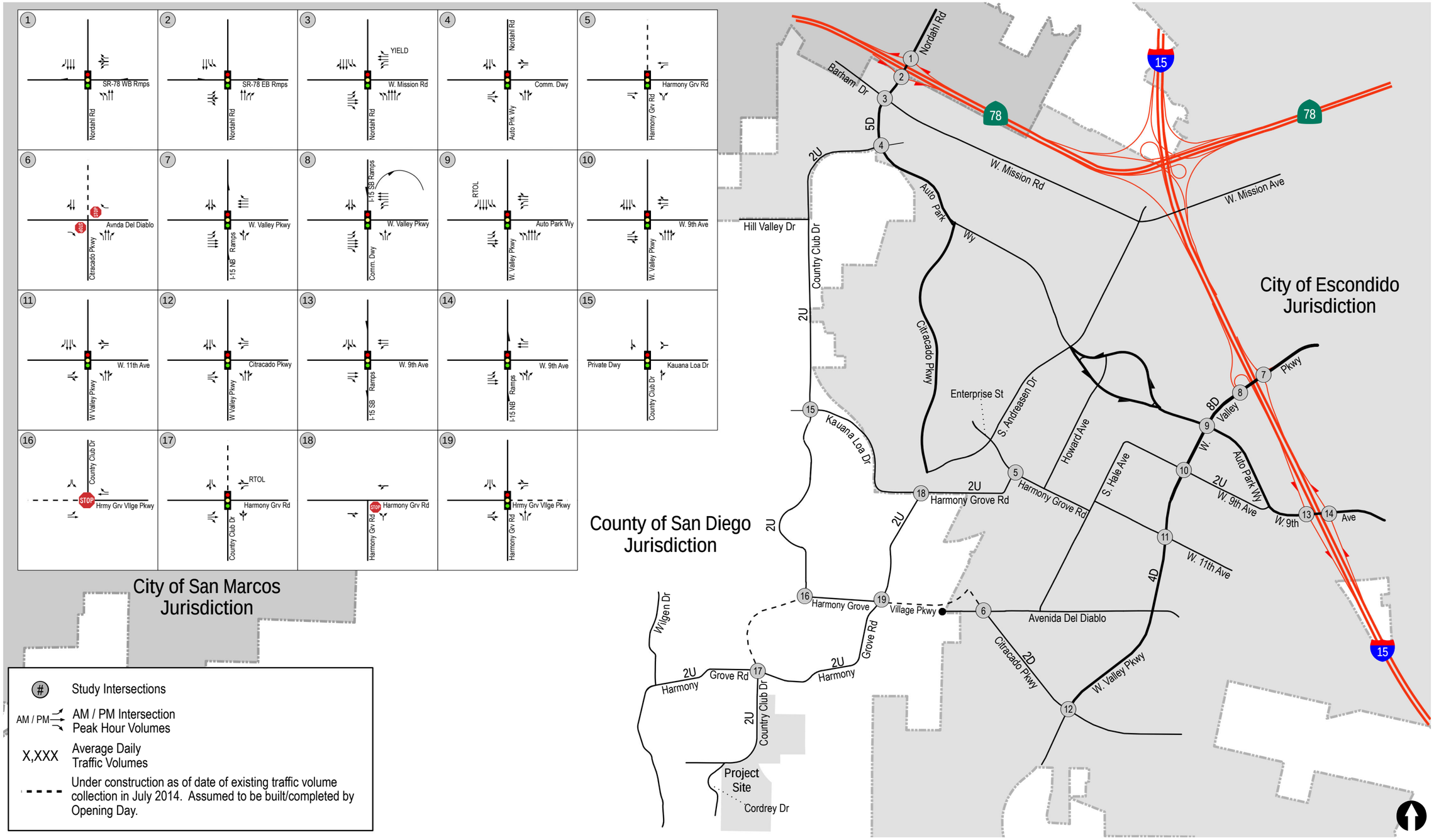
City of Escondido Street Segments	General Plan Capacity (LOS E)[a]	Buildout without Project (General Plan Land Use)			Buildout with Project (Proposed Project Land Use)		
		ADT[b]	LOS[c]	V/C[d]	ADT[b]	LOS[c]	V/C[d]
Auto Park Way							
1. Mission Road to Country Club Drive	50,000	31,600	C	0.632	32,216	C	0.644
Citracado Parkway							
2. Avenida Del Diablo to Valley Parkway	37,000	24,900	C	0.673	25,812	C	0.698
Valley Parkway							
3. 11th Avenue to Citracado Parkway	37,000	18,800	B	0.508	19,324	B	0.522
4. Auto Park Way to I-15 SB Ramps	70,000[e]	50,000	C	0.714	50,524	C	0.722
9th Avenue							
5. Valley Parkway to Auto Park Way	34,200	10,800	A	0.316	10,937	A	0.320
Country Club Drive							
6. Auto Park Way to Hill Valley Drive	10,000	7,500	D	0.750	8,070	D	0.807

County of San Diego Street Segments	General Plan Capacity (LOS E)[a]	Buildout without Project (General Plan Land Use)		Buildout with Project (Proposed Project Land Use)	
		ADT[b]	LOS[c]	ADT[b]	LOS[c]
Country Club Drive					
7. Hill Valley Drive to Kauana Loa Drive	9,700	6,300	B	6,870	C
8. Kauana Loa Drive to Harmony Grove Village Parkway	9,700	3,600	A	4,102	A
9. Harmony Grove Village Parkway to Harmony Grove Road	19,000	3,900	B	4,402	B
Harmony Grove Road					
10. Wilgen Drive to Country Club Drive	16,200	8,000	C	8,182	C
11. Country Club Drive to Harmony Grove Village Parkway	19,000	9,900	D	11,496	D
12. Harmony Grove Village Parkway to Kauana Loa Drive	19,000	9,100	C	9,784	D
13. Kauana Loa Drive to Enterprise Drive	9,700	5,500	A	5,500	A

Table 2.2-9 (cont.)
ROADWAY SEGMENT OPERATIONS UNDER BUILDOUT CONDITIONS

County of San Diego Street Segments	General Plan Capacity (LOS E)[a]	Buildout without Project (General Plan Land Use)		Buildout with Project (Proposed Project Land Use)	
		ADT[b]	LOS[c]	ADT[b]	LOS[c]
Harmony Grove Village Parkway					
14. Harmony Grove Road to Citracado Parkway	19,000	9,200	C	10,112	D

Notes:
[a] Capacities based on City of Escondido and County of San Diego Roadway Classification Tables
[b] ADT – Average Daily Traffic Volumes
[c] LOS – Level of Service
[d] V/C – Volume to Capacity ratio
[e] From Auto Park Way to the I-15 Southbound Ramps, W. Valley Parkway is currently built as an eight-lane divided roadway with an existing LOS E capacity of 70,000 ADT, exceeding its *Mobility Element* classification; the existing eight-lane capacity was used in the buildout assessment



Source: Linscott Law & Greenspan Engineers, 2018

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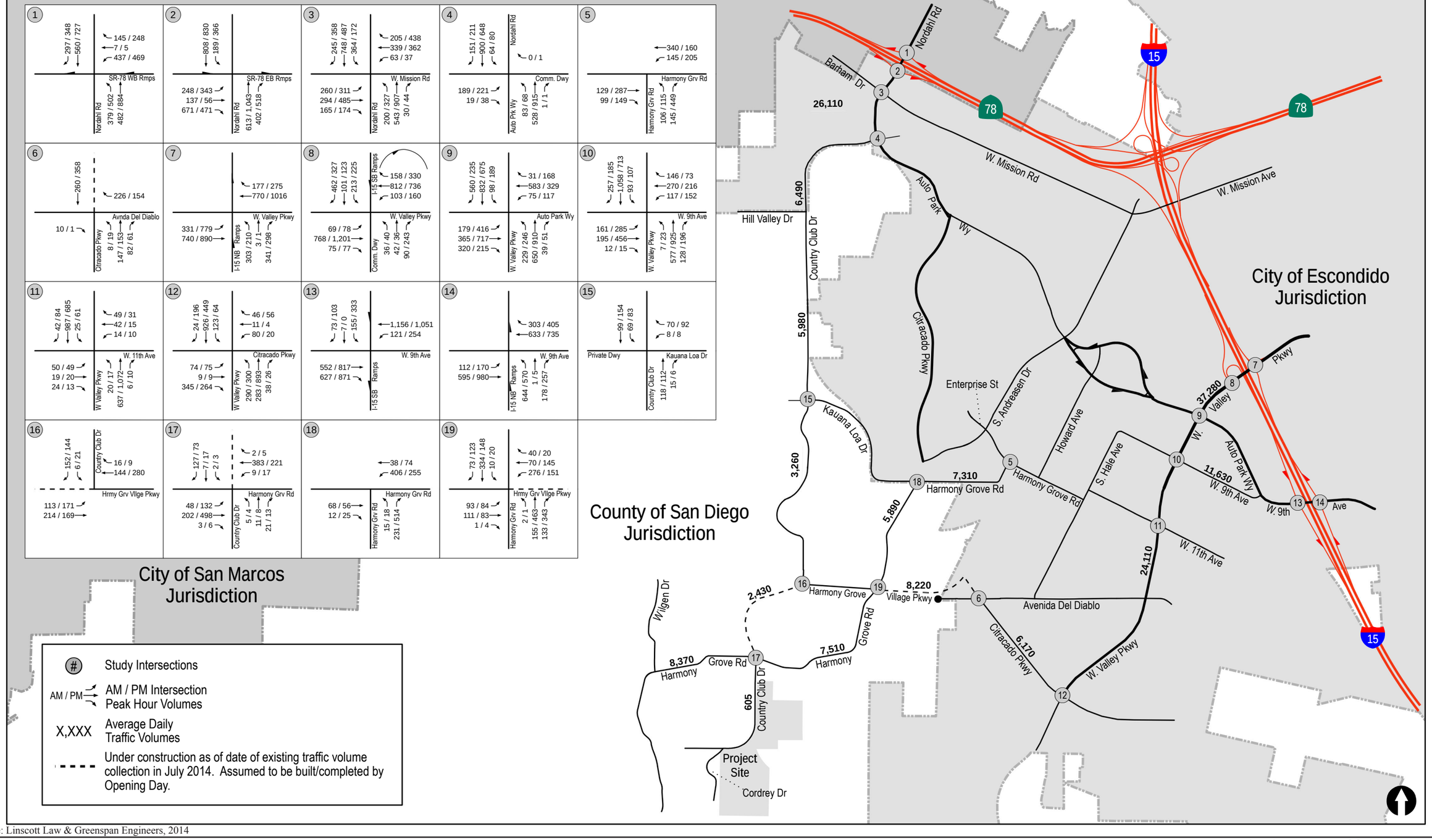
Existing Conditions

HARMONY GROVE VILLAGE SOUTH

Figure 2.2-1

HELIX Environmental Planning



Source: Linscott Law & Greenspan Engineers, 2014

Existing Traffic Volumes

HARMONY GROVE VILLAGE SOUTH

Figure 2.2-2

HELIX Environmental Planning

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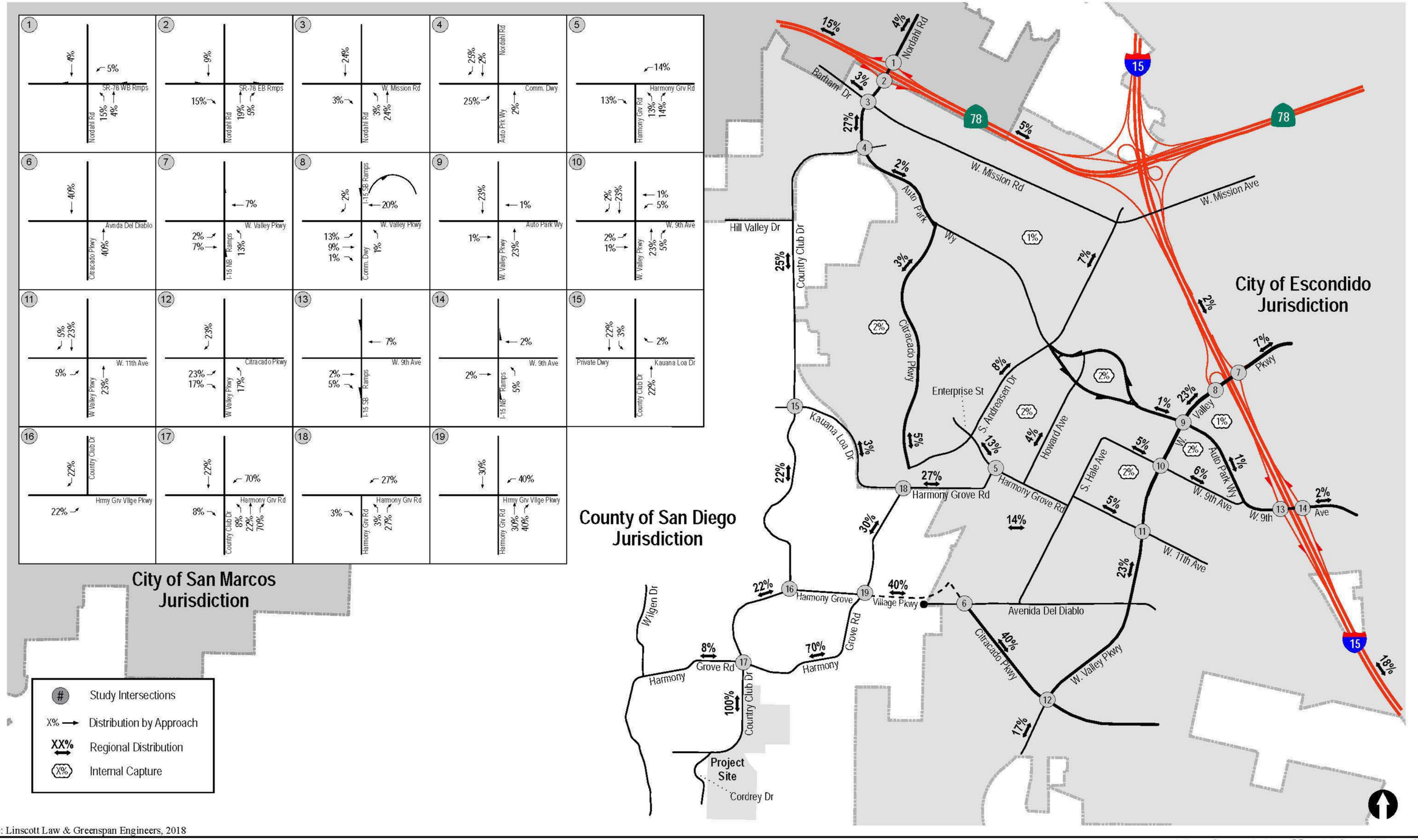

Source: Linscott Law & Greenspan Engineers, 2018

Project Traffic Distribution

HARMONY GROVE

Figure 2.2-3

HELIX Environmental Planning

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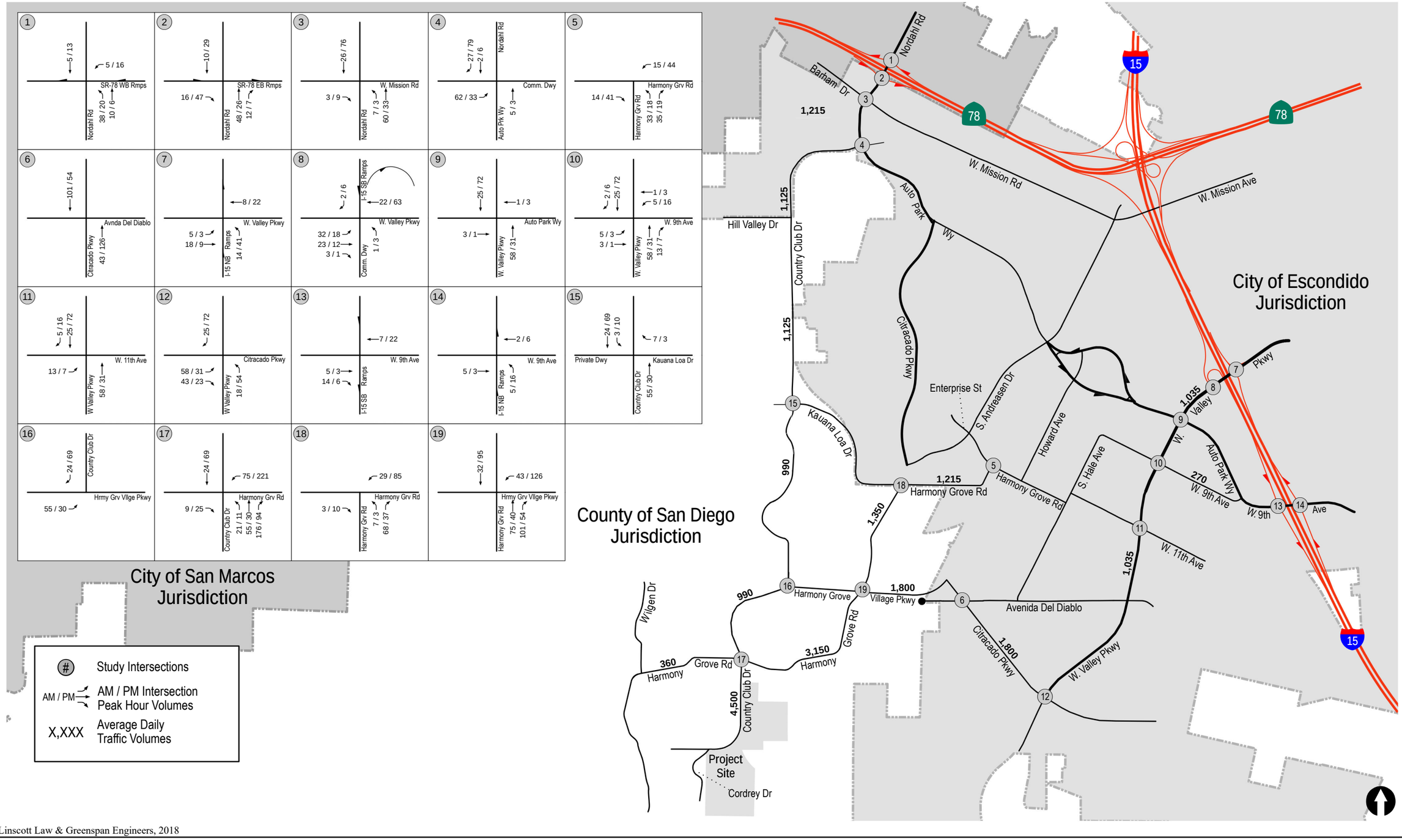

Source: Linscott Law & Greenspan Engineers, 2018

Project Traffic Volumes

HARMONY GROVE

Figure 2.2-4

HELIX Environmental Planning

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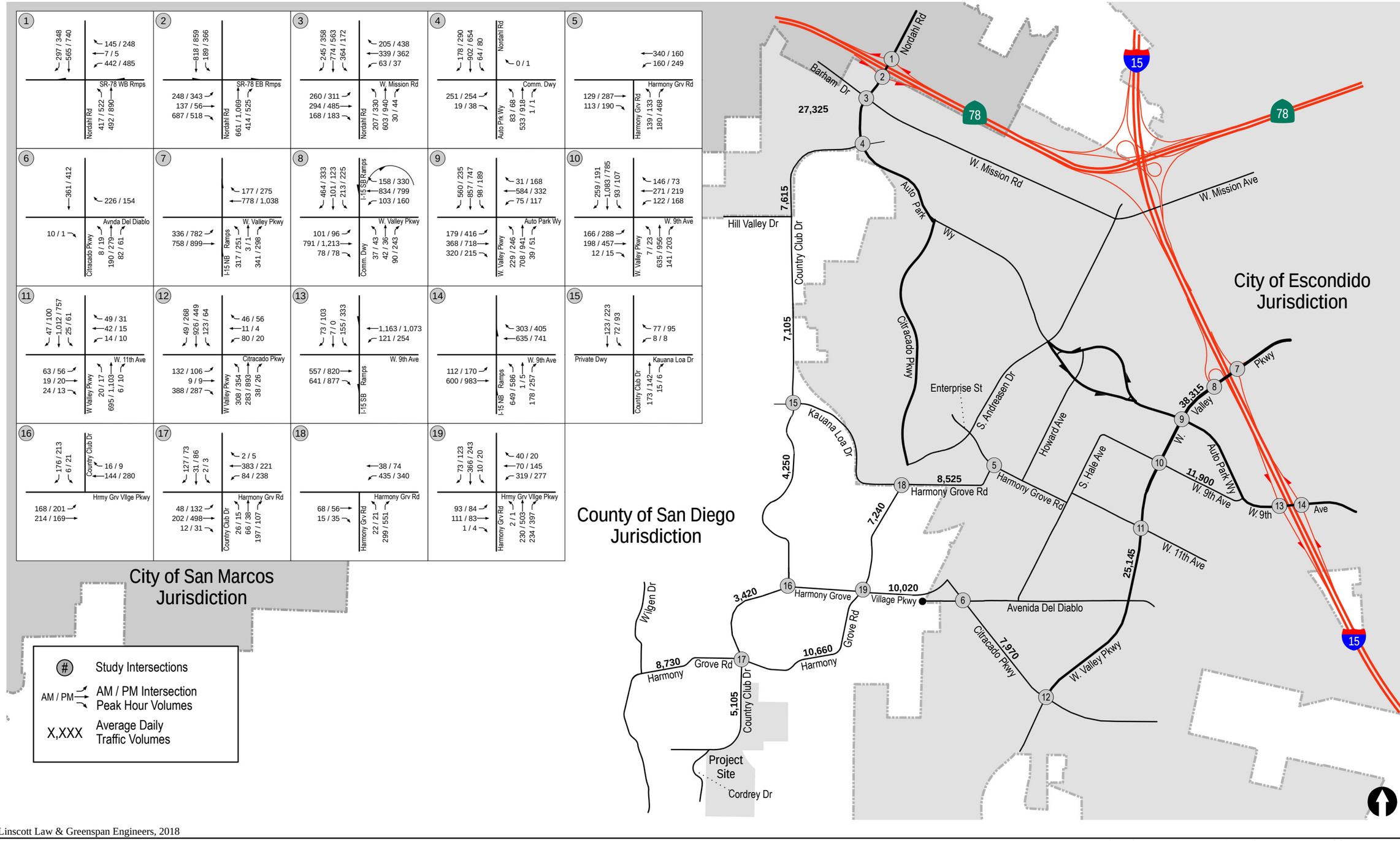

Source: Linscott Law & Greenspan Engineers, 2018

Existing Plus Project Traffic Volumes

HARMONY GROVE

Figure 2.2-5

HELIX Environmental Planning

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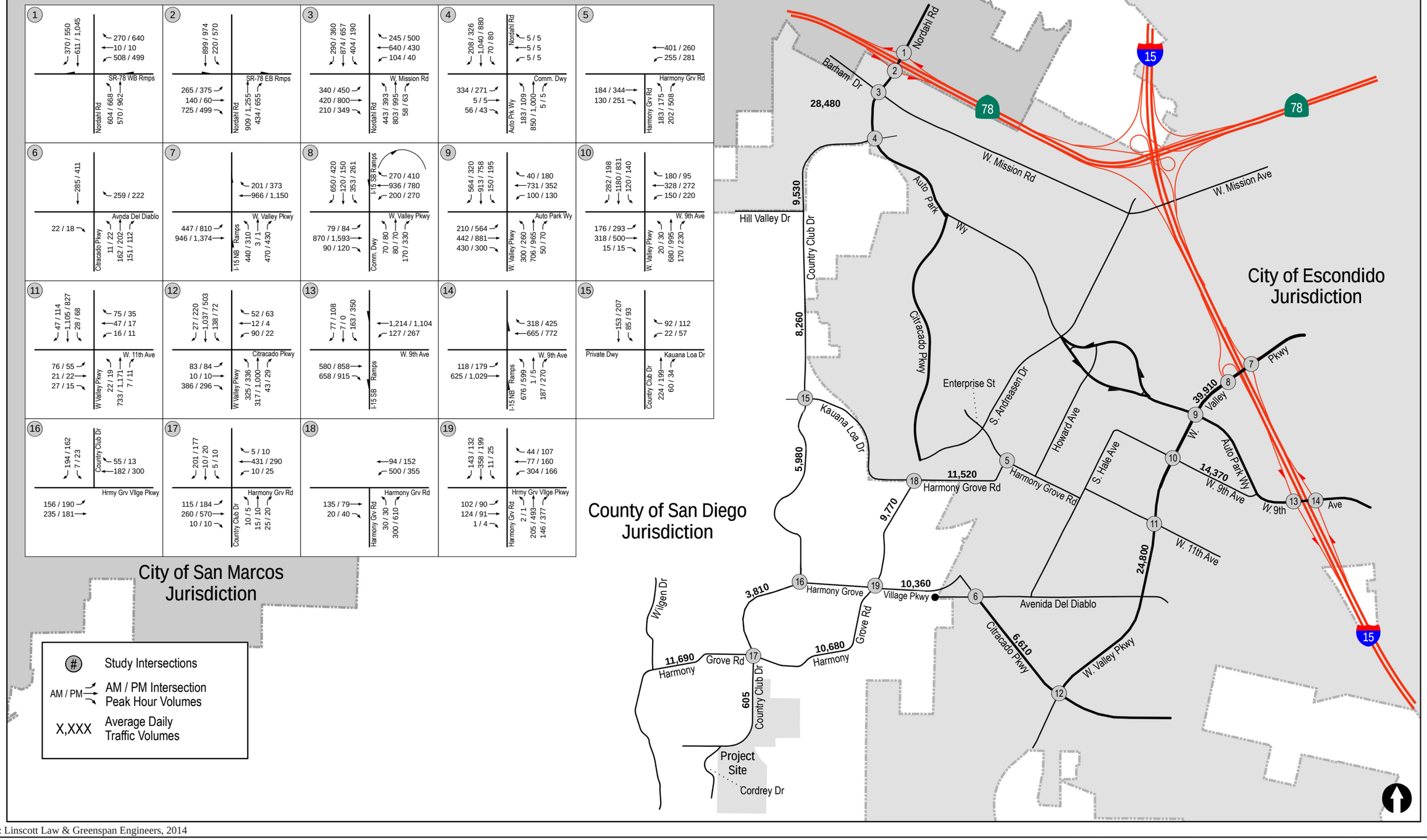

Source: Linscott Law & Greenspan Engineers, 2014

Existing Plus Cumulative Traffic Volumes

HARMONY GROVE

Figure 2.2-6

HELIX Environmental Planning

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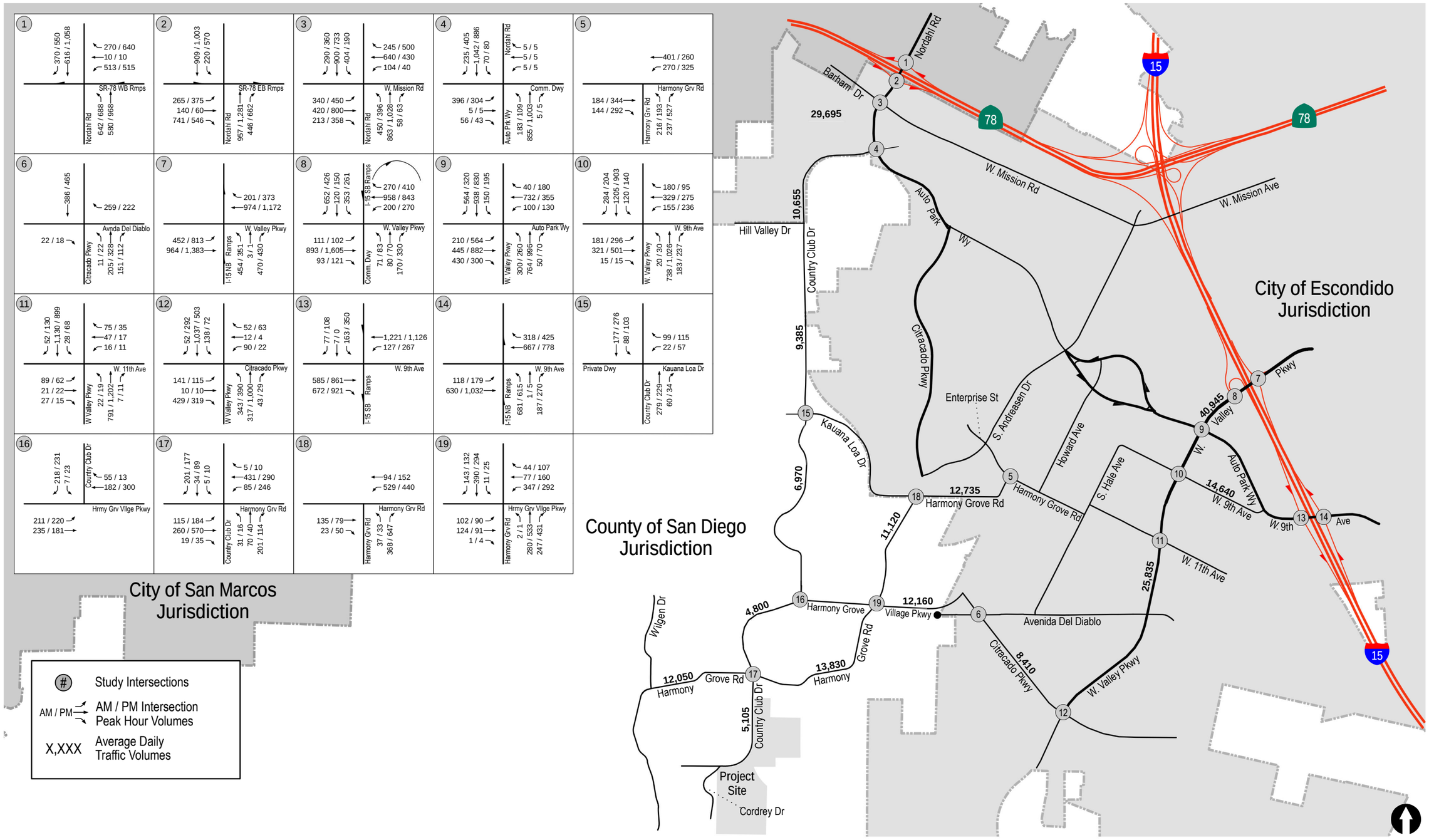

Source: Linscott Law & Greenspan Engineers, 2018

Existing Plus Cumulative Plus Project Traffic Volumes

HARMONY GROVE

Figure 2.2-7

HELIX Environmental Planning

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SUBCHAPTER 2.3

BIOLOGICAL RESOURCES

2.3 Biological Resources

This subchapter describes existing biological conditions within the Proposed Project site and vicinity, identifies associated regulatory requirements and evaluates potential impacts (including cumulative impacts) and mitigation measures related to implementation of the Proposed Project. A Biological Technical Report (BTR) was prepared for the Project by HELIX (2017c), which was prepared in conformance with the County Guidelines for Determining Significance and Report Format and Content Requirements – Biological Resources (County 2010) and is summarized below; the complete updated report is included as Appendix E of this EIR.

2.3.1 Existing Conditions

2.3.1.1 *Existing Setting*

Land Uses

The study area is generally located within the northern coastal foothills ecoregion of north San Diego County. It occurs within the northeastern portion of the Elfin Forest – Harmony Grove portion of the San Dieguito Community Planning Area. Generalized climate in the region is regarded as dry, subhumid mesothermal, with warm dry summers and cold moist winters. Mean annual precipitation is between 14 and 18 inches, and the mean annual temperature is between 60 and 62 degrees Fahrenheit. The frost-free season is 260 to 300 days.

Important biological resources in the region generally include core blocks of chaparral in the Harmony Grove hills and coastal sage scrub in the Elfin Forest area, in addition to perennial waters and riparian habitat associated with Escondido Creek and San Dieguito River corridors. Oak woodlands and chaparral typify the biological character of much of the area. The region hosts core populations of sensitive plants, including Encinitas baccharis, wart-stemmed ceanothus, and summer holly, in addition to important habitat for several sensitive animals, including coastal California gnatcatcher and least Bell's vireo, among others.

In the context of the Draft North County Multiple Species Conservation Program (MSCP), the study area occurs within a Draft Pre-Approved Mitigation Area (PAMA), north of Preserve Areas associated with the Del Dios Highlands Preserve (DDHP) and Elfin Forest Recreational Reserve (EFRR), south and east of Pre-negotiated Take Authorized Areas associated with HGV, and west of PAMA and undesignated City of Escondido lands. The dominant habitat type is southern mixed chaparral, which covers approximately 46.8 acres; the next highest habitat type is non-native grassland, which covers approximately 42.5 acres of the site.

Biological Surveys

General biological surveys of the Proposed Project site were conducted, consistent with County Requirements, by HELIX on March 7, July 24 and August 26, 2014, September 4, 2015, and March 31 and April 3, 2017. The study area was examined for general biological data, including vegetation mapping and species inventories. The locations of special status plant and animal species incidentally observed or otherwise detected were mapped.

An initial rare plant survey was conducted in the study area by HELIX on April 30, 2014. A focused inventory of wart-stemmed ceanothus and follow-up survey for Encinitas baccharis was conducted on November 3. Updated rare plant surveys were conducted by HELIX on March 31, April 3, May 19, June 2, June 16, and June 30, 2017, concurrent with the updated general biological survey and Hermes copper surveys. Opportunistic inspections for target rare plant species were also made during the other biological surveys performed in 2014, 2015, and 2016. Based on the habitat assessments completed as part of the general biological surveys in March and August, year 2014 protocol-level surveys for Hermes copper butterfly (*Lycaena hermes*), burrowing owl (*Athene cunicularia*), coastal California gnatcatcher (*Polioptila californica californica*), and least Bell's vireo (*Vireo bellii pusillus*) were conducted. Hermes copper surveys were updated again in 2017 to verify continued absence of the species within the study area. In accordance with County Guidelines, four surveys for the Hermes copper butterfly were completed between May 21 and July 7, 2014, and then again between May 19 and June 30. Four surveys for the burrowing owl were made from April 9 through July 3, 2014 in accordance with California Department of Fish and Wildlife (CDFW) and County guidelines. In accordance with U.S. Fish and Wildlife Service (USFWS) protocol, three surveys for coastal California gnatcatcher were completed in May 2014, and eight surveys for least Bell's vireo were completed in April through July 2014.

A wetland jurisdictional delineation was performed by HELIX on March 14, 2014. A focused follow-up delineation was conducted on January 13, 2016 to obtain additional information at a wetland sampling point in a western portion of the site. In addition, the study area was examined for evidence of vernal pools during all biological surveys.

All portions of the Project site were surveyed for potential resources and evaluated for Project impacts, as were areas anticipated to encompass Country Club Drive upgrades, including the crossing of Escondido Creek. More information on the extent of these surveys is provided in the BTR for this Project (Appendix E).

While 2014 was a year of low rainfall, most of the special status plant species with potential to occur in the study area (based on geographic range, habitat and soil requirements, and database records) are perennial species (many are shrubs), and as such, are readily identifiable year-round and in low rainfall years. Therefore, the low rainfall in 2014 is not considered to have adversely affected the results of the 2014 rare plant surveys. Regardless, 2017 is considered an optimal year, and additional surveys have been completed.

Noted animal species were identified by direct observation, vocalizations, or the observance of scat, tracks, or other signs. The lists of species identified are not necessarily comprehensive accounts of all species that utilize the study area as species that are nocturnal, secretive, or seasonally restricted may not have been observed. Those species that are of special status and have potential to occur in the study area, however, are still addressed in this EIR.

Habitats

Eleven vegetation communities/habitat types occur in the study area, as shown on Figure 2.3-1, *Vegetation and Sensitive Resources*. The numeric codes in parentheses following each community/habitat type name are from the Holland classification system (Holland 1986), as

added to by Oberbauer (2008), as presented in the County's Biology Guidelines (County 2010). The communities/habitat types are described below in order by Holland code.

Non-native Vegetation

Non-native vegetation is a category describing stands of naturalized trees and shrubs (e.g., acacia [*Acacia* sp.], peppertree [*Schinus* sp.]), many of which are also used in landscaping. As described above, non-native vegetation in the study area is comprised of plant species such as Peruvian peppertree and tree of heaven. It appears that these trees were purposely planted around a former home site and may have spread to other small areas of the study area. Non-native vegetation also occurs around an off-site residence in the southwestern corner of the study area. Approximately 0.8 acre of non-native vegetation is mapped on site.

Disturbed Habitat

Disturbed habitat includes areas in which the vegetative cover comprises less than 10 percent of the surface area (disregarding natural rock outcrops) and where there is evidence of soil surface disturbance. Disturbed habitat supports a predominance of non-native and/or weedy species that are indicators of such surface disturbance (County 2010). Disturbed habitat in the study area includes unvegetated areas such as dirt roads and areas of eroded land vegetated by non-native sparse arrangements of grasses and forbs. Disturbed habitat also occurs along Country Club Drive and adjacent to residences. Approximately 3.6 acres of disturbed habitat is mapped on site.

Urban/Developed

Urban/developed land includes areas that have been constructed upon or otherwise covered with a permanent, unnatural surface and may include, for example, structures, pavement, irrigated landscaping, or hardscape to the extent that no natural land is evident. These areas no longer support native or naturalized vegetation (County 2010). Urban/developed land in the study area consists of Country Club Drive, Harmony Grove Road, residential properties, paved access to residential properties, and graveled access to a beekeeping area. Approximately 0.9 acre of urban/developed land is mapped on site.

Diegan Coastal Sage Scrub (including Disturbed)

Coastal sage scrub is one of the two major shrub types that occur in southern California, occupying xeric sites characterized by shallow soils (the other is chaparral). Diegan coastal sage scrub may be dominated by a variety of species depending upon soil type, slope, and aspect. Typical species found within Diegan coastal sage scrub include California sagebrush (*Artemisia californica*), California buckwheat, laurel sumac (*Malosma laurina*), lemonadeberry (*Rhus integrifolia*), white sage (*Salvia apiana*), and black sage (*Salvia mellifera*; Holland 1986). Disturbed Diegan coastal sage scrub contains many of the same shrub species as undisturbed Diegan coastal sage scrub, but is sparser and has a higher proportion of non-native, annual species. The total amount of coastal sage scrub reported in the Draft MSCP North County Plan area is 29,888 acres, of which 23,463 acres are located within areas designated as PAMA (County 2009). Dominant species in the Diegan coastal sage scrub within the study area include California buckwheat and black sage. The habitat generally occurs in a patchy and fragmented distribution in the northern half of the study area, as relatively small isolated stands and stands

that intergrade with adjacent chaparral. In general, the stands that occur in the southern-central and western portions of the site are of low quality and "Low Value" in accordance with the Southern California Coastal Sage Scrub Natural Community Conservation Planning (NCCP) Conservation Guidelines and Logic Flow Chart (CDFW 1993a, 1993b). There is also a single patch of disturbed coastal sage scrub on the south side of Escondido Creek considered low quality and value due to its sparseness and species composition. The stands that occur in the northern, central, and eastern portions of the site are of moderate quality and "Intermediate Value" in accordance with the NCCP Conservation Guidelines and Logic Flow Chart due to their size, location, species composition, and function. Approximately 10.9 acres of Diegan coastal sage scrub is mapped on site, including 4.6 acres of Low Value and 6.3 acres of Intermediate Value scrub. This represents less than 0.10 percent (0.04 percent) of the total amount reported in the Draft MSCP North County Plan area.

Coastal Sage-Chaparral Transition

Coastal sage-chaparral transition is a mixture of sclerophyllous (hard-leaved plants adapted to arid conditions) chaparral shrubs and drought-deciduous sage scrub species regarded as an ecotone (transition) between two vegetation communities. This singular community contains floristic elements of both communities in the study area including California buckwheat, black sage, California sagebrush, San Diego honeysuckle (*Lonicera subspicata* var. *denudata*), and chamise (*Adenostoma fasciculatum*). This community occurs in the northwestern portion of the study area between Diegan coastal sage scrub and southern mixed chaparral. The total amount of coastal sage scrub/chaparral reported in the Draft MSCP North County Plan area is 5,179 acres, of which 4,040 acres are located within areas designated as PAMA (County 2009e). Approximately 4.5 acres of coastal sage-chaparral transition is mapped on site, which represents less than 0.10 percent (0.09 percent) of the total amount reported in the Draft MSCP North County Plan area.

Southern Mixed Chaparral

Southern mixed chaparral is typically found on granitic soils and is composed of broad-leaved, sclerophyllous shrubs that can reach 6 to 10 feet in height and form dense, often nearly impenetrable stands with poorly developed understories. Depending upon relative proximity to the coast, characteristic species may include, for example, chamise, Ramona ceanothus (*Ceanothus tomentosus*), Nuttall's scrub oak (*Quercus dumosa*), toyon (*Heteromeles arbutifolia*), mission manzanita (*Xylococcus bicolor*), sugar bush (*Rhus ovata*), spiny redberry, bushrue (*Cneoridum dumosum*), and San Diego honeysuckle (Holland 1986). Dominant species in this vegetation community in the study area include black sage and mountain mahogany (*Cercocarpus betuloides*). Other shrubs present in the study area include Ramona ceanothus, mission manzanita, sugar bush, toyon, chamise, spiny redberry, scrub oak (*Quercus berberidifolia*), saw-toothed goldenbush (*Hazardia squarrosa* var. *grindelioides*), bushrue, and San Diego honeysuckle. Southern mixed chaparral in the study area is located around the southern and eastern edges of the study area. Approximately 46.8 acres of southern mixed chaparral is mapped on site.

Non-native Grassland

Non-native grassland is a mixture of annual grasses and broad-leaved, herbaceous species. Annual species comprise from 50 percent to more than 90 percent of the vegetative cover, and most annuals are non-native species. Non-native grasses typically comprise at least 30 percent of the vegetative cover, although this percentage can be much higher in some years and lower in others, depending on land use and climatic conditions. Usually, the grasses are less than 3 feet in height and form a continuous or open cover. Emergent shrubs and trees may be present but do not comprise more than 15 percent of the total cover (County 2010). Most of the non-native grasses originated from the Mediterranean region, an area with a long history of agriculture and a climate similar to California. In the study area, non-native grassland is dominated by common ripgut grass (*Bromus diandrus*) and oats (*Avena* sp.). A variety of other non-native grasses and forbs are also present. The total amount of non-native grassland reported in the Draft MSCP North County Plan area is 22,355 acres, of which 14,841 acres are located within areas designated as PAMA (County 2009e). Non-native grassland occurs throughout the northern half of the study area. Approximately 42.4 acres of non-native grassland is mapped on site, which together represent less than 1.0 percent (0.19 percent) of the total amount reported in the Draft MSCP North County Plan area. With respect to the local area, the next largest patch of non-native grassland is an approximately 20-acre patch located immediately west of the site near the Harmony Grove Spiritualist Association (HGSA) center. Additional patches, approximately 4.0 to 2.0 acres each, occur further to the northwest and west of the HGSA center, and an approximately 7.0-acre patch occurs further to the west, on the north and west side of Harmony Grove Road, at the base of the slope immediately adjacent to Wilgen Drive. Additional non-native grassland occurs further to the north of the site, adjacent to HGV, and further to the northeast, in the vicinity of Harmony Grove Road and Citracado Parkway.

Southern (Willow) Riparian Forest

Southern riparian forests are composed of winter-deciduous trees (such as willows [*Salix* spp.], Fremont cottonwood [*Populus fremontii*], and western sycamore (*Platanus racemosa*]) that require water near the soil surface. The canopies of individual tree species overlap so that a canopy cover of 100 percent may occur in the upper tree stratum. The southern riparian forest in the study area is dominated by willows, so it has been labeled southern [willow] riparian forest. Dominant species observed in this vegetation community in the study area include red willow (*Salix laevigata*), arroyo willow (*S. lasiolepis*), black willow (*S. gooddingii*), and Fremont cottonwood. Other species include mule fat (*Baccharis salicifolia*), cattail (*Typha* sp.), and great marsh evening-primrose (*Oenothera elata* ssp. *hookeri*). Approximately 0.71 acre of southern willow riparian forest associated with Escondido Creek is mapped in the off-site portion of the study area.

Mule Fat Scrub

Mule fat scrub is a depauperate (stunted), shrubby, riparian scrub community dominated by mule fat and interspersed with small willows. This vegetation community occurs along intermittent stream channels with a fairly coarse substrate and moderate depth to the water table. This early seral (intermediate) community is maintained by frequent flooding, the absence of which could lead to a riparian woodland or forest (Holland 1986). In some environments, limited hydrology

may favor the persistence of mule fat. Mule fat scrub in the study area occurs as a very small patch along Escondido Creek; where approximately 0.01 acre is mapped in the off-site portion of the study area.

Coast Live Oak Woodland

Coast live oak woodland is an evergreen woodland community, dominated by coast live oak (*Quercus agrifolia*) trees that may reach a height of 35 to 80 feet. The shrub layer may consist of plant species such as toyon, Mexican elderberry (*Sambucus mexicana*), fuchsia-flowered gooseberry (*Ribes speciosum*), or laurel sumac. Other species may also be present such as poison oak (*Toxicodendron diversilobum*), monkeyflower (*Mimulus aurantiacus*), Pacific pea (*Lathyrus vestitus*), and chickweed (*Stellaria media*). This community typically occurs on north-facing slopes and in shaded ravines (Holland 1986). Approximately 0.9 acre of coast live oak woodland occurs in gullied uplands along an ephemeral drainage in the southwestern portion of the Project site.

Eucalyptus Woodland

Eucalyptus woodland is dominated by eucalyptus (*Eucalyptus* sp.), an introduced genus that produces a large amount of leaf and bark litter. The chemical and physical characteristics of this litter, combined with the shading effects of the trees, limit the ability of other species to grow in the understory, and floristic diversity decreases. If sufficient moisture is available, eucalyptus becomes naturalized and is able to reproduce and expand its cover. Eucalyptus woodland occurs around an off-site residence in the southwestern portion of the study area. Approximately 0.3 acre of this habitat type is mapped on site.

Sensitive Vegetation Communities/Habitat Types

Sensitive vegetation communities/habitat types are defined as land that supports unique vegetation communities or the habitats of rare or endangered species or subspecies of animals or plants as defined by Section 15380 of the State CEQA Guidelines. Table 5 of the County guidelines (County 2010) provides a list of habitat mitigation ratios for each vegetation community type.

Sensitive vegetation communities/habitat types mapped in the study area include Diegan coastal sage scrub (including –disturbed), coastal sage-chaparral transition, southern mixed chaparral, non-native grassland, southern [willow] riparian forest, mule fat scrub, and coast live oak woodland. Non-native vegetation, disturbed habitat, urban/developed, and eucalyptus woodland do not meet the definition of sensitive.

Jurisdictional Wetlands/Waters

The Proposed Project site contains jurisdictional drainages subject to regulation by the USACE, RWQCB, CDFW and County. The site does not contain any vernal pools. The USACE regulates wetland and non-wetland Waters of the U.S. (WUS) protected under Section 404 of the CWA; the RWQCB regulates wetland and non-wetland Waters of the State protected under Section 401 of the CWA and State Porter-Cologne Water Quality Control Act (Porter-Cologne); the CDFW regulates streambed and riparian habitat protected under the Fish and Game Code (FGC); and the

County regulates wetlands through its RPO. On-site drainages and the crossing of Escondido Creek by Country Club Drive were evaluated for potential jurisdictional status.

Impacts to jurisdictional wetlands/waters would require consultation and approvals from federal and State agencies, including a Section 404 Permit from USACE, 401 Certification from the San Diego RWQCB and a 1602 Streambed Alteration Agreement (SAA) from CDFW.

USACE Jurisdiction

Through implementation of the CWA, the USACE claims jurisdiction over waterways that are, or drain to, "WUS" or "waters." The definition of "waters" includes (but is not limited to) inland waters; lakes, rivers, and streams that are navigable; tributaries to these waters; and wetlands adjacent to these waters or their tributaries. The jurisdictional limit of non-wetland waters (i.e., creeks and drainages) is the ordinary high water mark. The jurisdictional limit of wetlands is the upper limit of the wetland. Delineations of wetland limits were conducted for the Proposed Project according to the procedures found in the Wetlands Delineation Manual (USACE 1987).

USACE wetlands must satisfy criteria to three parameters: vegetation, soils, and hydrology. If any single parameter does not contain a positive wetland indicator, the site is not a USACE jurisdictional wetland. Where USACE wetlands are present, projects may be permitted on an individual basis or may be covered under one of several approved nationwide permits. Individual permits are required when more than 300 linear feet of drainages, more than 0.5 acre of wetlands, or any vernal pools would be impacted.

All areas with depressions or drainage channels were evaluated for the presence of WUS, including jurisdictional wetlands. If an area was suspected of being a wetland, vegetation and hydrology indicators were noted, and a soil pit was dug and described. The area was then determined to be a federal (USACE) wetland if it satisfied the three wetland criteria (vegetation, hydrology and soil). In most cases, two sample points were evaluated, one inside the suspected wetland, and one where the hydrology and/or vegetation criteria were not satisfied. Drainages lacking evidence of wetland hydrology (i.e., inundation for more than five percent of the growing season) were considered non-wetland WUS.

Potential WUS under the jurisdiction of the USACE in the study area include wetland WUS within Escondido Creek and non-wetland WUS within the unnamed ephemeral tributaries to Escondido Creek in the southern portion of the study area (Table 2.3-1, *Waters of the U.S./State* and Figure 2.3-2, *Waters of the U.S./State*).

RWQCB Jurisdiction

Potential RWQCB-jurisdictional waters of the State include the same areas delineated as potential USACE-jurisdictional waters of the U.S.; there are no geographically isolated waters subject to Porter-Cologne (Table 2.3-1 and Figure 2.3-2). Waters of the State were delineated on the site consistent with the methods used for WUS.

CDFW Jurisdiction

Under Section 1600 of the California FGC, a project applicant may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel or bank of any river, stream or lake, or deposit or dispose of debris, waste or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream or lake, unless CDFW receives written notification regarding the activity. After said notification is complete, the CDFW must determine whether the activity may substantially adversely affect an existing fish and wildlife resource. The Project Applicant would be required to apply for and receive approval of a Streambed Alteration Agreement (SAA) from CDFW.

A field determination of CDFW jurisdictional boundaries is based on the presence of a channel with a bed and bank(s) and potential riparian vegetation. Jurisdiction usually extends to the top of bank or the outer edge of riparian vegetation, whichever is wider.

Streambed and riparian habitat under the jurisdiction of the CDFW within the study area consist of mule fat scrub, southern willow riparian forest, coast live oak woodland, and unvegetated streambed as presented in Table 2.3-2, *Streambed and Riparian Habitat*, and shown on Figure 2.3-3, *CDFW Jurisdiction*.

San Diego County RPO Wetlands

The County's RPO is more inclusive than the USACE's criteria. Under the RPO, a wetland must only meet one of the following criteria in order to be classified as a wetland: (1) at least periodically the land supports predominantly hydrophytes (plants whose habitat is water or very wet places); (2) the substratum is predominantly undrained hydric soils, or (3) an ephemeral or perennial stream is present, whose substratum is predominantly non-soil and such lands contribute substantially to the biological functions or values of wetlands in the drainage system.

Areas meeting the criteria to be considered County RPO wetlands in the study area include mule fat scrub and southern willow riparian forest (Table 2.3-3, *RPO Wetlands* and Figure 2.3-4, *RPO Wetlands*). The unnamed ephemeral drainage features in the southern portions of the study area do not meet the criteria to be considered County RPO wetlands, as detailed below.

- These drainages represent erosion features cut within the steep topography and upland landscape that characterizes the southern portions of the study area. The drainage features occur within upland habitat types and do not support a predominance of hydrophytes. Where vegetation occurs, it is composed of upland trees, shrubs, and herbaceous grasses and forbs found in the chaparral and other upland habitat types that encompass the drainage features.

- The drainage features are ephemeral and convey short duration, low volume flows. As such, the underlying soils are not inundated or saturated for sustained periods of time. The soils are sandy loams and non-hydric, including the area characterized by oak woodland, as confirmed by the soil pit evaluated on January 13, 2016. The substratum is not predominantly undrained hydric soil.

- The features are ephemeral and not perennial. The substratum is composed of non-hydric, sandy loam soil. The substratum is not predominately non-soil. The features drain off site into rural residential properties before discharging into Escondido Creek further to the west. They do not contribute substantially to the biological functions or values of wetlands in the drainage system. As such, the drainages do not meet this criterion in the RPO wetlands definition.

Plant Species

HELIX identified a total of 127 plant species in the study area, of which 42 (33 percent) are non-native species (refer to Appendix A of the BTR [EIR Appendix E] for a complete list of identified plants species).

Special Status Plant Species

Special status plant species have been afforded special status and/or recognition by the USFWS, CDFW, and/or the County and may also be included in the CNPS' Inventory of Rare and Endangered Plants. Their status is often based on one or more of three distributional attributes: geographic range, habitat specificity, and/or population size. A species that exhibits a small or restricted geographic range (such as those endemic to the region) is geographically rare. A species may be more or less abundant but occur only in very specific habitats. Lastly, a species may be widespread but exist naturally in small populations.

Five special status plant species were observed in the study area, as listed below in alphabetical order by common name. Each is also described below, referenced in Appendix E to the BTR, and shown on Figure 2.3-1.

Ashy spike-moss (*Selaginella cinerascens*)
Status: CNPS Rare Plant Rank 4.1; County List D.
Distribution: Orange and San Diego counties; northwestern Baja California, Mexico.
Habitat(s): This perennial, rhizomatous herb can be found on flat mesas in coastal sage scrub and chaparral.
Presence in the Study Area: Four patches of ashy spike-moss, ranging in size from 1 to 14 s.f., were found in southern mixed chaparral in the southern-central portion of the study area.

San Diego sagewort (*Artemisia palmeri*)
Status: CNPS Rare Plant Rank 4.2; County List D.
Distribution: Coastal San Diego County; Baja California, Mexico.
Habitat(s): This perennial deciduous shrub that may bloom from February to September can be found along stream courses, often within coastal sage scrub or southern mixed chaparral.
Presence in the Study Area: San Diego sagewort was observed in two locations in coast live oak woodland, and three were observed in southern mixed chaparral. All locations were in the southwestern portion of the study area.

Southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*)
Status: CNPS Rare Plant Rank 4.2; County List D.
Distribution: Los Angeles, San Bernardino, San Luis Obispo, Ventura, and San Diego counties; Baja California, Mexico.
Habitat(s): Moist, saline, or alkaline soils in coastal salt marshes and riparian marshes are the preferred habitats of this perennial, rhizomatous herb that may bloom from March to June.
Presence in the Study Area: A single individual of southwestern spiny rush was observed in the study area near the Country Club Drive crossing of Escondido Creek.

Summer holly (*Comarostaphylis diversifolia* ssp. *diversifolia*)
Status: CNPS Rare Plant Rank 1B.2; County List A. This species is proposed as a Covered Species under the Draft MSCP North County Plan.
Distribution: Orange, Riverside, and San Diego counties south into Baja California, Mexico.
Habitat(s): This perennial evergreen shrub that may bloom from April to June occurs on mesic north-facing slopes in southern mixed chaparral. Rugged steep drainages seem to be a preferred location for isolated individuals.
Presence in the Study Area: A total of 27 summer holly individuals occur on site, most of them in the southern portions of the study area.

Wart-stemmed ceanothus (*Ceanothus verrucosus*)
Status: CNPS Rare Plant Rank 2B.2; County List B. This species is proposed as a Covered Species under the Draft MSCP North County Plan.
Distribution: Western San Diego County and adjacent Baja California, Mexico.
Habitat(s): This perennial evergreen shrub that may bloom from December to May occurs in chaparral.
Presence in the Study Area: The study area supports an estimated 23,113 wart-stemmed ceanothus. A major population of approximately 21,000 wart-stemmed ceanothus individuals occurs in the southern portions of the study area.

Special Status Plant Species with Potential to Occur

Special status plant species that may have potential to occur in the study area but were not observed are listed in Appendix C of the BTR (EIR Appendix E). Excluding the observed special status plant species noted above, there are no additional special status plant species with a high potential to occur on site.

Animal Species

A total of 97 animal species were observed or otherwise detected in the study area during the biological surveys, including 23 invertebrate, 2 reptile, 67 bird, and 5 mammal species (Appendix B of the BTR [EIR Appendix E]).

Special Status Animal Species

Special status animal species include those that have been afforded special status and/or recognition by the USFWS, CDFW, and/or the County. In general, the principal reason an individual taxon (species or subspecies) is given such recognition is the documented or perceived

decline or limitations of its population size or geographical extent and/or distribution, resulting in most cases from habitat loss.

Thirteen special status animal (bird) species have been observed or detected in the study area. Each species is listed below in alphabetical order by common name, is described, and is described in Appendix D of the BTR (EIR Appendix E), and shown on Figure 2.3-1.

American peregrine falcon (*Falco peregrinus anatum*)
Status: Federal Bird of Conservation Concern; State Fully Protected; County Group 1.
Distribution: Rare in San Diego County year-round but more abundant near the coast and in winter.
Habitat(s): Generally, areas with cliffs near water where prey (shorebirds and ducks) is concentrated. Preferred hunting areas are agricultural fields, meadows, marshes, and lakes. Nesting usually occurs on cliff ledges or in a "scrape" in debris (a clearing in ground cover made by the falcon) and occasionally in the old nests of other birds.
Presence in the Study Area: Two individual American peregrine falcons were observed flying over the eastern portion of the study area on a single occasion during the 2014 surveys.

Barn owl (*Tyto alba*)
Status: County Group 2.
Distribution: Occurs throughout much of San Diego County.
Habitat(s): Woodland habitats and open areas with trees or other structures that can offer shelter.
Presence in the Study Area: One barn owl was observed roosting in a Peruvian pepper tree (*Schinus molle*) on a single occasion during the 2014 surveys.

Coastal California Gnatcatcher (*Polioptila californica californica*)
Status: Federal Listed Threatened; State Species of Special Concern; County Group 1. This species is proposed as a Covered Species under the Draft NCMSCP [Subarea] Plan.
Distribution: In San Diego County, occurs throughout coastal lowlands.
Habitat(s): Coastal sage scrub, coastal bluff scrub, and coastal sage-chaparral scrub.
Presence in the Study Area: During the protocol survey, one pair of coastal California gnatcatcher was observed moving among patches of Diegan coastal sage scrub and building a nest in an area of Diegan coastal sage scrub and southern mixed chaparral. The nest was being constructed in chamise approximately 2.5 feet off the ground. In addition, on two occasions during site visits performed outside of the breeding season, a gnatcatcher was incidentally detected by call moving through the southern mixed chaparral in the southern/central portion of the site proposed as biological open space (BOS) for the project.

Great blue heron (*Ardea herodias*)
Status: County Group 2.
Distribution: Occurs throughout San Diego County.
Habitat(s): Wetland habitats, but can be observed foraging away from water.
Presence in the Study Area: One great blue heron was observed in Escondido Creek on a single occasion during the 2014 surveys.

Green heron (*Butorides virescens*)
Status: County Group 2.
Distribution: In San Diego County, most widespread in the northern part of coastal lowlands.
Habitat(s): Small ponds in the northern part of the County or major rivers and lakes in the southern part (Unitt 2004).
Presence in the Study Area: One green heron was observed in Escondido Creek on a single occasion during the 2014 surveys.

Least Bell's vireo (*Vireo bellii pusillus*)
Status: Federal Listed Endangered; State Listed Endangered; County Group 1. This species is proposed as a Covered Species under the Draft NCMSCP [Subarea] Plan.
Distribution: Observed throughout coastal southern California in the breeding season, south of Santa Barbara, but in smaller numbers in foothills and mountains.
Habitat(s): Riparian woodland, riparian forest, mule fat scrub, and southern willow scrub.
Presence in the Study Area: A single, unpaired, male least Bell's vireo was observed in Escondido Creek, primarily using habitat immediately east of Country Club Drive, during seven of the eight site visits (Figure 2.3-1). A male and female least Bell's vireo were observed on May 21, 2014 immediately west of Country Club Drive; however, those individuals were only observed on that one occasion and were not suspected to be breeding, although suitable breeding habitat occurs. A fourth least Bell's vireo was audible on two occasions at the far western portion of the survey area. It is believed that a temporary influx of least Bell's vireo into the survey area followed the mid-May 2014 "Cocos Fire" that likely displaced birds in the surrounding area.

Northern harrier (*Circus cyaneus*)
Status: State Species of Special Concern; County Group 1. This species is proposed as a Covered Species under the Draft NCMSCP [Subarea] Plan.
Distribution: In San Diego County, distribution primarily scattered throughout lowlands but can also be observed in foothills, mountains, and desert.
Habitat(s): Open grassland and marsh
Status on site: One northern harrier was observed flying low over chaparral in the central portion of the site on a single occasion during the 2016 field work.

Red-shouldered hawk (*Buteo lineatus*)
Status: County Group 1.
Distribution: In San Diego County, observed throughout coastal slope.
Habitat(s): Riparian woodland, oak woodland, orchards, eucalyptus groves, or other areas with tall trees.
Presence in the Study Area: A single red-shouldered hawk was observed in perch and calling near Escondido Creek on a single occasion during the 2014 surveys.

Turkey vulture (*Cathartes aura*)
Status: County Group 1.
Distribution: Observed throughout San Diego County with the exception of extreme coastal San Diego, where development is heaviest.
Habitat(s): Foraging habitat includes most open habitats, with breeding occurring in crevices among boulders.

Presence in the Study Area: Two turkey vultures were observed on separate occasions during the 2014 surveys, soaring over coastal sage scrub and chaparral in the central and southern portions of the study area.

Western bluebird (*Sialia mexicana*)
Status: County Group 2.
Distribution: Occurs throughout much of San Diego County, but concentrated in foothills and mountains.
Habitat(s): Open woodlands and areas where meadows or grasslands occur among groves of oak or pine.
Presence in the Study Area: Western bluebird was observed flying over non-native grassland adjacent to Country Club Drive on two occasions during the 2014 surveys.

White-tailed kite (*Elanus leucurus*)
Status: State Fully Protected; County Group 1.
Distribution: Found year-round, primarily within lowlands of California west of the Sierra Nevada range and southeastern deserts.
Habitat(s): Riparian woodlands and oak or sycamore groves adjacent to grassland.
Presence in the Study Area: One white-tailed kite was observed flying over the northwestern portion of the study area on a single occasion during the 2014 surveys.

Yellow-breasted chat (*Icteria virens*)
Status: State Species of Special Concern; County Group 1. This species is proposed as a Covered Species under the Draft NCMSCP [Subarea] Plan.
Distribution: Occurs throughout San Diego County's coastal lowlands in the breeding season.
Habitat(s): Mature riparian woodland.
Presence in the Study Area: Yellow breasted chat was observed in Escondido Creek during the 2014 surveys.

Yellow warbler (*Setophaga petechia*)
Status: Federal Bird of Conservation Concern, State Species of Special Concern; County Group 2.
Distribution: Observed throughout California during the breeding season with rare sightings in winter.
Habitat(s): Riparian woodland, riparian forest, mule fat scrub, and southern willow scrub.
Presence in the Study Area: Yellow warbler was observed in Escondido Creek during the 2014 surveys.

Special Status Animal Species with Potential to Occur

Special status animal species that were not observed but may have potential to occur in the study area are listed in Appendix D of the BTR (EIR Appendix E). The 20 additional special status animal species considered to have a high potential to occur in the study area but which were not observed are coast horned lizard (*Phrynosoma blainvillii*), coast patch-nosed snake (*Salvadora hexalepis virgultea*), coastal whiptail (*Aspidoscelis tigris stejnegeri*), Coronado skink (*Plestiodon skiltonianus interparietalis*), red diamond rattlesnake (*Crotalus ruber*), orange-throated whiptail (*Aspidoscelis hyperythra*), California horned lark (*Eremophila alpestris actis*), Cooper's hawk

(*Accipiter cooperi*), ferruginous hawk (*Buteo regalis*), grasshopper sparrow (*Ammodramus savannarum*), loggerhead shrike (*Lanius ludovicianus*), prairie falcon (*Falco mexicanus*), red-shouldered hawk (*Buteo lineatus*), sharp-shinned hawk (*Accipiter striatus*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), Dulzura California pocket mouse (*Chaetodipus californicus femoralis*), northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), San Diego desert woodrat (*Neotoma lepida intermedia*), and southern mule deer (*Odocoileus hemionus fuliginata*).

In addition, a protocol Hermes copper butterfly *(Lycaena hermes)* survey conducted in 2014 was negative. This species does not currently have any federal or State sensitivity status, but is considered a County Group 1 sensitive species. It occurs in San Diego County, south of Fallbrook to northern Baja California, Mexico, within southern mixed chaparral and coastal sage scrub with mature specimens of its larval host plant, spiny redberry (*Rhamnus crocea*). Although not occupied, the site supports a limited amount of potential Hermes copper habitat as defined in Attachment B of the County's Report Format and Content Requirements for Biological Resources; however, the potential for the species to colonize the site in the future is considered low. The nearest known Hermes copper butterfly location is 1.75 miles away to the southwest.

Raptor Foraging

Several raptors were observed during the 2014 biological surveys. On most occasions, these raptors were observed flying and soaring over the study area or perching on taller trees in stands of non-native vegetation and riparian forest. Raptors observed during surveys include turkey vulture, barn owl, red-shouldered hawk, red-tailed hawk, peregrine falcon, American kestrel, northern harrier and white-tailed kite.

The County (2010) defines raptor foraging habitat as, "Land that is a minimum of five acres (not limited to project boundaries) of fallow or open areas with any evidence of foraging potential (i.e., burrows, raptor nests, etc.)." The non-native grassland in the study area is considered raptor foraging habitat based on this definition since it occupies greater than 40 acres, and it was found to support burrows of common small mammals (e.g., ground squirrel). The use of the non-native grassland as foraging habitat for raptors observed during 2014 surveys is explained in greater detail below.

The turkey vulture is widespread through San Diego County and commonly observed soaring over rugged terrain and open areas, such as it was over the survey area during the 2014 surveys. The foraging value of the non-native grassland for turkey vulture is low considering this species is an opportunistic scavenger, feeding on carrion and other prey items that can be found over a wide variety of habitat types.

The barn owl is an uncommon resident in San Diego County. It requires open ground over which it can hunt and feeds primarily upon a variety of mice, rats, voles, pocket gophers, and ground squirrels (Zeiner, *et al*. 1990b). Botta's pocket gopher (*Thomomys bottae)* and California ground squirrel were observed and detected in the study area, and the barn owl may forage there. Barn owls are "abundant" and "very common," in California, however (Zeiner, *et al*. 1990a), and the species has likely benefited from the clearing of scrub and the erection of structures that

accompany low-intensity development (Unitt 2004), as is evident in the local area. Clearing of scrub may benefit the pocket gopher and ground squirrel, and indeed, both of these species can be found in association with low-intensity or other development with associated open space. Ample prey and foraging opportunities for the barn owl occur within the study area.

The red-tailed hawk is the most widespread bird of prey in San Diego County and in the U.S. The red-shouldered hawk is an uncommon resident of rural and urbanized areas of San Diego County and occurs in open woodlands, often in association with urbanized areas, such as that which exists in the immediate vicinity of the study area. Both species use any open area for foraging, despite disturbance, and will take advantage of small patches of undeveloped land, although they favor grasslands with scattered trees. Both species are known to tolerate considerable urbanization. Therefore, the non-native grassland in the study area could be utilized as foraging habitat for these two relatively common and widespread species.

The peregrine falcon is an uncommon resident of San Diego County that hunts on the wing, in flight, primarily for birds. According to the *San Diego County Bird Atlas*, the peregrine falcon typically stays near the coast during the breeding season, but extends inland during the winter (Unitt 2004). This species forages over a wide variety of habitat types for birds. Because the species hunts on the wing over a wide variety of habitat types and primarily for birds, non-native grassland is not a habitat type that is characteristic of prime foraging habitat for this falcon. The non-native grassland in the study area, including the 36 acres on the adjacent HGV Equestrian Ranch (County 2007m), is suitable and evidently used by the peregrine falcon. American kestrel is a common and widespread falcon, well distributed across San Diego County. It eats mostly insects and other invertebrates, as well as small rodents and birds. The non-native grassland in the study area is used by the American kestrel, because of the wide range of habitats and locations it can utilize.

The northern harrier is an uncommon resident of San Diego County that hunts on the wing, flying low over the ground. Prey include mostly small mammals and birds; also large insects, snakes, lizards, toads, and frogs. Northern harrier was observed on a single occasion during surveys conducted on the site. The harrier was observed in an area of chaparral. The non-native grassland in the study area could be utilized as foraging habitat for the northern harrier.

According to Unitt (2004), the white-tailed kite roosts communally, has a history of steep rises and falls in its population, and is concentrated on a single species of prey, the California vole (*Microtus californicus*). While the white-tailed kite is found in the County year-round, its numbers vary with those of the California vole and the shifting of those communal roosts (Unitt 2004). The California vole is a widespread and common herbivore often found in grassland and meadow habitats with friable soil (Zeiner, *et al*. 1990a), and while the California vole was not specifically observed or otherwise detected in the study area, it is very possible that it is present. No white-tailed kite roosts or nests were observed in the study area, and none have been observed during HELIX's biological monitoring of Escondido Creek upstream and downstream of the study area since 2012 (trees in Escondido Creek have the highest potential to support white-tailed kite roosting and nesting in the study area and vicinity). Habitats favoring California vole (e.g., ungrazed or lightly grazed grasslands, agriculture, and grass-dominated wetlands) support more white-tailed kites, and it may be that adequate foraging habitat adjacent to nest sites is important (Moore 2000). Based on checklists submitted to eBird.org, there are more

white-tailed kite occurrences recorded at Lake Hodges than at the DDHP adjacent to the site. The white-tailed kite was observed in one third of the 132 checklists submitted for the Lake Hodges-Del Dios hot spot, versus one quarter of the four checklists submitted for the DDHP hot spot. White-tailed kite has potential to occur in the local area and use the site for foraging.

Habitat Connectivity and Wildlife Corridors

Wildlife corridors connect pieces of habitat and allow movement or dispersal of plants and animals. Local wildlife corridors allow access to resources such as food, water, and shelter within the framework of their daily routine. Regional corridors provide these functions over a larger scale and link two or more large habitat areas, allowing the dispersal of organisms and the consequent mixing of genes between populations. A corridor is a specific route that is used for the movement and migration of species, and may be different from a linkage in that it represents a smaller or narrower avenue for movement. A linkage is an area of land that supports or contributes to the long-term movement of animals and genetic exchange by providing live-in habitat that connects to other habitat areas. Many linkages occur as "stepping-stones" that are comprised of a fragmented archipelago arrangement of habitat over a linear distance.

Important corridors and linkages have been identified on a local and regional scale throughout the Multiple Habitat Conservation Program (MHCP) in northwestern San Diego County (covering the cities of Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, Solana Beach, and Vista; AMEC Earth & Environmental, *et al*. 2003) and the Draft MSCP North County Plan (County 2008). The planning objectives of most corridors and linkages in western San Diego County include establishing a connection between the northern and southern regional populations of the coastal California gnatcatcher, in addition to facilitating movement and connectivity of habitat for large mammals and riparian bird species.

As noted above, the study area is located within areas identified as PAMA under the Draft MSCP North County Plan. It also occurs in the general vicinity of lands identified as Core Area, but outside of a Linkage Area, in the draft Plan. PAMA in the region is based on the core and linkage concept of landscape-level conservation. The configuration of preserve lands includes large, contiguous areas of habitat supporting important species populations or habitat areas and important functional linkages and movement corridors between them. Appendix G of Appendix E of this EIR identifies the Draft MSCP North County Plan conservation goals for the Harmony Grove Core Area and summarizes how the Project is consistent with those goals (County 2009). With respect to wildlife movement in the region, conservation targets generally include conserving a contiguous riparian corridor in Escondido Creek, and conserving a large core area of upland habitat around DDHP and EFRR. Related to these are conserving access from core upland areas to the Escondido Creek corridor and conserving regional east-west gnatcatcher movement. These conservation targets are discussed in further detail below.

Escondido Creek

In the vicinity of the study area, Escondido Creek functions to facilitate amphibian, bird, and large mammal movement in the local area. The creek provides shelter and resources for breeding and rearing young, a year-round water source and prey items for foraging, and a linear corridor of habitat for dispersal and migration. As evidenced by 2014 surveys, sensitive species such as

least Bell's vireo, yellow warbler, green heron, and others use the creek for various life cycle needs. Birds move unobstructed through the local area. Although no evidence of use was observed on the site during surveys, southern mule deer and coyote (*Canis latrans*) likely move through the local area to and from surrounding undeveloped lands, using Escondido Creek as a corridor and foraging resource.

Mule deer are generally crepuscular (active during twilight hours, before dawn and after dusk), but in the immediate vicinity of the Project site, are likely to be more active at night due to human activity in the area. Because of their needs for forage and cover, mule deer have been reported to prefer edges over open or closed habitats; edge habitat is generally considered important to deer because of high habitat diversity within ecotones and easy access to more than one habitat type (Kremsater and Bunnell 1992). Mature chaparral stands provide essential cover and forage for mule deer during parts of the year (Wallmo *et al*. 1981). Mule deer summer foraging sites in California chaparral include riparian areas, seeps, springs, streams, and ponds. In fall, foraging sites include stream bottoms, ridge tops, and northern slopes. In winter, mule deer forage on south slopes and sheltered ridges (Ashcraft 1979). Therefore, with respect to the project site and immediate vicinity, mule deer would be most likely to travel, forage and seek cover at the chaparral-grassland edge, along existing trails, within the chaparral, and within the riparian habitat of Escondido Creek.

Coyote are active day and night, but are generally crepuscular, with peaks in activity at sunrise or sunset. In California, it has been reported that coyotes used habitat edges or ecotones, fuel breaks, existing roads and trails, and open chaparral more than dense, unbroken cover. In southern California where chaparral is adjacent to dense blocks of habitat, coyotes forage at night along edges and return during the day to chaparral cover. The steep slopes and heavy cover of most chaparral communities impede coyote movements (Quinn 1990). Therefore, with respect to the Project site and immediate vicinity, coyote would be most likely to travel, forage and seek cover at the chaparral-grassland edge, along existing trails, and within more-open stages of chaparral.

Within the Project study area, Escondido Creek is disturbed as a result of previous land uses and the existing low-water crossing for Country Club Drive. The Creek has also experienced direct and indirect disturbances from previous agricultural uses when the old dairy farm on HGV was in operation, and it is currently impacted by active construction activities for the HGV development. Country Club Drive currently crosses the Creek perpendicularly as a two-lane road built on rip rap, culverts, and concrete over the low-flow channel. The crossing is depended upon by the residents that live to the east and west of the study area. The existing crossing represents a break in the riparian canopy and physical impediment to wildlife movement through the area.

Wildlife movement functions downstream of the study area are high as the habitat improves in overall quality and the topography steepens, although several residential properties occur that might present barriers and disturbances to wildlife movement. Upstream of the study area, approaching the City of Escondido, the Creek diminishes in quality and function. A few thousand feet upstream of the study area, the Creek becomes heavily infested with non-native vegetation (e.g., Eucalyptus trees), and beyond that farther upstream, the soft-bottomed channel terminates where Enterprise Street crosses the Creek. East of the Enterprise Street crossing,

Escondido Creek flows in a concrete-lined channel through urban/developed portions of the City of Escondido from just east of Valley Center Road.

In summary, wildlife movement functions in Escondido Creek are probably highest beginning immediately upstream (east) of the study area and extending downstream (west) to Elfin Forest, with a significant barrier to movement existing within the study area itself at the existing low-water crossing for Country Club Drive.

Del Dios Highlands Preserve – Elfin Forest Recreational Reserve

Abutting the southern boundary of the study area lies the County's DDHP. The Preserve connects to the EFRR and the San Dieguito River Park Joint Powers Authority's Coast-to-Crest Trail, which stretches from Del Mar to Julian. These areas support habitat connections and functional wildlife corridors between the MHCP areas to the north and the Lake Hodges Segment of the South County MSCP Subarea (County 1997) to the south. Most importantly, these areas serve to facilitate regional gnatcatcher and large mammal movement to and from core habitat around Lake Hodges to the east of the study area, and Elfin Forest-San Elijo Hills-Rancho La Costa areas to the south and west.

Intact stands of scrub and chaparral habitat in the southern portions of the study area directly connect with off-site habitat in the DDHP to the south. In essence, the on-site habitat serves as a northern extension of the larger core habitat associated with the DDHP and EFRR. This northern extension abruptly terminates on site, in the southern-central portion of the study area, where the scrub and chaparral transition into non-native grassland. The non-native grassland represents the northern boundary and terminus of the core habitat. The grassland on site does not contribute substantially to movement functions for large mammals in the area, including mule deer and coyote, because these species are primarily crepuscular and prefer habitat edges, existing trails, and other habitat types for movement. The grassland on the site provides no cover and relatively few resources. The core habitat extends into the southern portion of the site and bends around the site to the east to connect with Escondido Creek, as explained below.

A constrained, north-south connection of core habitat between DDHP and Escondido Creek exists around the site to the east and along the eastern boundary. One of the Escondido Creek Open Space properties, owned by the Escondido Creek Conservancy, abuts the study area to the north, northeast, and east. Additional undeveloped lands, rural/estate properties, and lands constrained by steep slopes and rugged terrain occur to the immediate east and southeast of the study area. These lands surround the West Ridge and Rincon MWD water tank area, north to Escondido Creek and the Old Castle Pre-cast property, south to DDHP, east to Del Dios Highway, and west to eastern boundary of the study area. The Escondido Creek Conservancy and Conservation Biology Institute identify the general area as "important for conservation" (ECC and CBI undated) to connect undeveloped lands in the region. Scrub and chaparral in these areas provide a constrained connection of habitat between DDHP and Escondido Creek. The connection is more constrained within the study area and along the eastern boundary due to patchiness of scrub and chaparral habitat, and presence of non-native grassland. Rural residential uses abut the eastern boundary of the study area that present an existing constraint to the connection, although developments are limited to several narrow roadways and residential homes amongst the scrub and chaparral.

Core habitat for gnatcatcher does not exist on or in the vicinity of the study area. Known breeding locations for gnatcatcher are limited and include the one breeding pair found along the eastern boundary of the site in 2014, in addition to two gnatcatcher occurrences (presumed to be breeding) north of the study area, on the north side of Escondido Creek and Harmony Grove Road, within the HGV open space. Additional, scattered occurrences are reported to the southeast and east of the site toward Lake Hodges and Escondido. The scattered gnatcatcher occurrences in the local area would indicate that the area does not support a critical, self-sustaining population of gnatcatchers, and that gnatcatcher movement through the area is limited because there is not an abundance of habitat to support multiple breeding territories. Previous agricultural uses eliminated much of the coastal sage scrub in the local area and the upland habitat that remains is mostly chaparral and grassland. The Draft MSCP North County Plan *California Gnatcatcher Habitat Evaluation Model* ranks the habitat within the study area itself and further to the east as having no value to the gnatcatcher for nesting (County 2008b). This is consistent with the patchiness of scrub habitat inventoried during 2014 surveys, despite one gnatcatcher pair confirmed along the eastern boundary. The scrub also supports a prevalence of chaparral and grassland constituents due to its adjacency with these habitats, which have been established in the area for some time. The prevalence of chaparral and grassland constituents in the scrub reduces the quality of the habitat for breeding gnatcatchers, although it still provides habitat for dispersal and migration.

While the Project site itself does not function as a corridor, the eastern edge of the site likely contributes to north-south wildlife movement that occurs through the general area referred to as West Ridge, which would connect known coastal California gnatcatcher occurrences north of Escondido Creek to other known occurrences south and southeast of the site within the DDHP. There is an area of high value gnatcatcher habitat approximately 0.5 mile northeast of the site (County 2008b). The high value habitat area is an isolated island preserve designated as draft PAMA within HGV and Rincon MWD open space. The Project site is separated from this area by HGV development and local roadways, although a constrained and fragmented connection of scrub and chaparral habitat exists along a linear path to the general northeast, east, and southwest of the site.

A general assessment of off-site lands situated along the constrained linkage was conducted based on surveys and review of aerial imagery. The HGV and Rincon MWD island preserve represents the northern limit of the constrained linkage section that was assessed. The West Ridge area to the east of the site represents the approximate center of the linkage. Lands to the south within DDHP and further to the southeast toward Lake Hodges represent the southern limit of the linkage section.

The northern limit at the HGV and Rincon MWD island preserve (north of Harmony Grove Village Parkway) supports coastal sage scrub and coastal sage-chaparral on moderate to steep slopes, with evidence of previous disturbance. This is the area identified as “High Value” to gnatcatcher in the County Habitat Evaluation Model, although portions of the habitat appear to be disturbed and no gnatcatcher records are reported at this location. The southern tip of this area is characterized by severe slopes from previous mining activities as well as current Harmony Grove Village Parkway. Moving south from Harmony Grove Village Parkway, the connection of habitat is broken by HGV development. Low- and poor-flying birds, such as gnatcatcher, likely have two avenues of movement at this break point as they continue south toward Escondido

Creek and the Escondido Creek Conservancy open space. They could continue directly south, along lands on the north and west side of Harmony Grove Road, or they could continue directly southeast, along lands on the south and east side of Harmony Grove Road.

Birds can move directly south of the HGV and Rincon MWD island preserve to this southern island preserve within HGV open space, but the path is interrupted by existing graded pads, road developments, and residential developments that range 400 feet to 1,000 feet in width along the movement path. Once at the second HGV island preserve, the habitat is composed of coastal sage scrub and coastal sage-chaparral on moderate to steep slopes. This area is not identified as High Value gnatcatcher habitat in the Habitat Evaluation Model, although gnatcatcher records are reported at this location. Moving due south toward the Escondido Creek Conservancy open space, gnatcatchers must cross Harmony Grove Road, which averages approximately 30 feet in width, before entering the Escondido Creek riparian corridor and undeveloped scrub and chaparral within the Escondido Creek Conservancy open space. These areas are not identified as High Value habitat and no gnatcatcher records are reported at these locations. Alternatively, moving east and then south, this path is interrupted by existing roadway and abandoned industrial developments approximately 30 feet to 400 feet wide. Once across these developments, gnatcatchers can continue south and east within Escondido Creek riparian habitat or the adjacent scrub and chaparral within the Escondido Creek Conservancy open space.

Once at the Escondido Creek Conservancy open space, birds could continue south and southeast toward the West Ridge. This north-south trending movement avenue is characterized by scrub and chaparral on moderate slopes, with portions constrained by several narrow driveways and rural residences. The undeveloped areas are characterized by broken and intact stands of coastal sage scrub, coastal sage-chaparral, and mixed chaparral on moderate slopes. None of the areas are identified as high value gnatcatcher habitat and no gnatcatcher records are reported. The total width of the travel route, including the existing undeveloped habitat, driveways, and rural residences, ranges from approximately 1,500 feet to 2,500 feet across the general area east of the site. The scrub and chaparral along the eastern boundary of the site is situated along the westernmost edge of this travel route. As discussed above, the on-site coastal sage scrub in this area is considered to be of "Intermediate Value" due to it being less fragmented than other on-site scrub and due to the presence of a confirmed gnatcatcher breeding territory. Additional coastal sage scrub, coastal sage-chaparral, and mixed chaparral occur off site to the east toward the West Ridge and along the north-south constrained linkage. Properties along this travel route are either conserved within the Escondido Creek Conservancy open space, built-out to zoning designations with existing rural residences, or characterized by rugged terrain and steeper slopes, which present a significant constraint to future developments.

Once in the vicinity of the project site and areas east near the West Ridge, birds could continue to the general south, southeast, and southwest within a large and contiguous habitat block that includes the DDHP and EFRR. This represents the southern terminus of the constrained linkage. Most of the habitat is mixed chaparral with smaller pockets of coastal sage scrub and coastal sage-chaparral. None of the areas are identified as high value gnatcatcher habitat, although scattered gnatcatcher records are reported further south and southeast of the Project site.

In summary, gnatcatcher presence in the local area is limited to a few scattered known occurrences, including the breeding pair confirmed along the eastern boundary of the site in 2014

and two occurrences in the Harmony Grove open space. Overall habitat quality for gnatcatcher is low, as previous human activity eliminated much of the coastal sage scrub, and the upland habitat that remains is mostly chaparral and grassland. A direct, north-south connection of core habitat between DDHP and Escondido Creek does not exist through the Project site due to the large area of non-native grassland, which serves as an exposed break in the scrub and chaparral. Areas along the eastern boundary of the site could facilitate north-south movement to and from Escondido Creek, although the habitat is patchy and constrained by existing residential uses. Areas along further to the east of the site are less constrained, where a direct connection of scrub and chaparral habitat occurs along West Ridge.

2.3.1.2 *Regulatory Setting*

Biological resources in the study area are subject to regulatory review by federal, State, and local agencies. Under CEQA, impacts associated with a proposed project or program are assessed with regard to significance criteria determined by the CEQA Lead Agency (in this case, the County) pursuant to CEQA Guidelines. Biological resources-related laws and regulations that apply include federal Endangered Species Act (FESA), Migratory Bird Treaty Act (MBTA), CWA, CEQA, California Endangered Species Act (CESA), CFG Code, NCCP for coastal sage scrub, and County RPO (County 2011).

With respect to the proposed project, the USFWS is responsible for reviewing issues related to the coastal California gnatcatcher and least Bell's vireo pursuant to the FESA, migratory birds pursuant to the MBTA, Habitat Loss Permit (HLP), and regional conservation planning in light of the Draft MSCP North County Plan. The USACE is responsible for reviewing issues related to waters of the U.S. The RWQCB is responsible for reviewing issues related to waters of the State pursuant to the CWA. (The State Porter-Cologne Water Quality Control Act would not apply as there are no isolated waters of the State in the study area.) The CDFW is responsible for reviewing issues related to vegetated and unvegetated streambeds pursuant CFG Code, nesting birds and raptors pursuant to CFG Code, HLP, and regional conservation planning in light of the Draft MSCP North County Plan.

The County is the lead agency for the CEQA environmental review process in accordance with State law and local ordinances, and is responsible for reviewing project issues per the Guidelines for Determining Significance for Biological Resources (County 2010) and the County RPO (County 2011). The County is also responsible for reviewing the proposed Project with respect to the HLP, conservation planning in light of the Draft MSCP North County Plan, and consistency with biological goals and policies of the Elfin Forest – Harmony Grove Community Plan.

<u>Federal</u>

Federal Endangered Species Act

Administered by the USFWS, the FESA provides the legal framework for the listing and protection of species (and their habitats) that are identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species and the habitats upon which they rely are considered a 'take' under the ESA. Section 9(a) of the ESA defines take as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage

in any such conduct." 'Harm' and 'harass' are further defined in federal regulations and case law to include actions that adversely impair or disrupt a listed species' behavioral patterns.

The USFWS designates critical habitat for endangered and threatened species. Critical habitat is defined as areas of land that are considered necessary for endangered or threatened species to recover. The ultimate goal is to restore healthy populations of listed species within their native habitats so they can be removed from the list of threatened or endangered species. Once an area is designated as critical habitat pursuant to the FESA, all federal agencies must consult with the USFWS to ensure that any action they authorize, fund, or carry out is not likely to result in destruction or adverse modification of the critical habitat. There is no designated critical habitat in the study area. The nearest critical habitat is for the coastal California gnatcatcher, approximately 1.3 miles to the southwest near Elfin Forest.

Sections 7 and 10(a) of the FESA regulate actions that could jeopardize endangered or threatened species. Section 7 describes a process of federal interagency consultation for use when federal actions may adversely affect listed species. In this case, take can be authorized via a letter of biological opinion issued by the USFWS for non-marine-related listed species issues. A Section 7 consultation (formal or informal) is required when there is a nexus between endangered species' use of a site and impacts to USACE jurisdictional areas. Section 10(a) allows issuance of permits for incidental take of endangered or threatened species with preparation of a Habitat Conservation Plan (HCP). The term "incidental" applies if the taking of a listed species is incidental to, rather than the purpose of, an otherwise lawful activity. An HCP demonstrating how the taking would be minimized and how steps taken would ensure the species' survival must be submitted for issuance of Section 10(a) permits.

Migratory Bird Treaty Act

All migratory bird species that are native to the U.S. or its territories are protected under the federal MBTA, as amended under the Migratory Bird Treaty Reform Act of 2004 (FR Doc. 05-5127). The MBTA is generally protective of migratory birds but does not actually stipulate the type of protection required. In common practice, the MBTA is now used to place restrictions on disturbance of active bird nests during the nesting season (generally February 15 to August 31). In addition, the USFWS commonly places restrictions on disturbances allowed near active raptor nests.

Clean Water Act and Rivers and Harbors Act

Federal wetland regulation (non-marine issues) is guided by the Rivers and Harbors Act of 1899 and the CWA. The Rivers and Harbors Act deals primarily with discharges into navigable waters, while the purpose of the CWA is to restore and maintain the chemical, physical, and biological integrity of all waters of the U.S. Permitting for projects filling WUS is overseen by the USACE under Section 404 of the CWA. Most development projects are permitted using Individual Permit or Nationwide Permit instruments. CWA Section 404 permits require Water Quality Certification by the RWQCB pursuant to CWA Section 401.

State

California Environmental Quality Act

Primary environmental legislation in California is found in CEQA and its implementing guidelines (State CEQA Guidelines), which require that projects with potential adverse effects (or impacts) on the environment undergo environmental review. Adverse environmental impacts are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations.

California Endangered Species Act

The CESA established that it is State policy to conserve, protect, restore, and enhance State endangered species and their habitats. Under State law, plant and animal species may be formally designated rare, threatened, or endangered by official listing by the California Fish and Game Commission. The CESA authorizes that private entities may "take" plant or wildlife species listed as endangered or threatened under the FESA and CESA, pursuant to a federal Incidental Take Permit if the CDFW certifies that the incidental take is consistent with CESA (CFG Code Section 2080.1[a]). Section 2081 of CFG Code authorizes the CDFW to issue an Incidental Take Permit for (only) State-listed threatened and endangered species if specific criteria are met.

Native Plant Protection Act

Sections 1900–1913 of the CFG Code (Native Plant Protection Act; NPPA) direct the CDFW to carry out the State Legislature's intent to "…preserve, protect and enhance endangered or rare native plants of this state." The NPPA gives the California Fish and Game Commission the power to designate native plants as "endangered" or "rare" and protect endangered and rare plants from take.

California Fish and Game Code

The CFG Code provides specific protection and listing for several types of biological resources. Section 1600 requires an SAA for any activity that would alter the flow, change or use any material from the bed, channel, or bank of any perennial, intermittent, or ephemeral river, stream, and/or lake. Typical activities that require an SAA include excavation or fill placed within a channel, vegetation clearing, structures for diversion of water, installation of culverts and bridge supports, cofferdams for construction dewatering, and bank reinforcement. Notification is required prior to any such activities, and CDFW will issue an SAA with any necessary mitigation to ensure protection of the State's fish and wildlife resources.

Pursuant to CFG Code Section 3503, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Raptors and owls and their active nests are protected by CFG Code Section 3503.5, which states that it is unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird unless authorized by the CDFW. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA. These regulations could require that construction activities (particularly vegetation removal or construction near nests) be reduced or eliminated during

critical phases of the nesting cycle unless surveys by a qualified biologist demonstrate that nests, eggs, or nesting birds would not be disturbed, subject to approval by CDFW and/or USFWS.

Natural Communities Conservation Planning Act

The Natural Communities Conservation Planning (NCCP) program is a cooperative effort to protect habitats and species. It began under the State's NCCP Act of 1991, legislation broader in its orientation and objectives than the CESA or FESA. These laws are designed to identify and protect individual species that have already declined significantly in number. The NCCP Act of 1991 and the associated Southern California Coastal Sage Scrub NCCP Process Guidelines (1993), Southern California Coastal Sage Scrub NCCP Conservation Guidelines (1993), and NCCP General Process Guidelines (1998) have been superseded by the NCCP Act of 2003.

The primary objective of the NCCP program is to conserve natural communities at the ecosystem level while accommodating compatible land use. The program seeks to anticipate and prevent the controversies and gridlock caused by species' listings by focusing on the long-term stability of wildlife and plant communities and including key interests in the process.

This voluntary program allows the State to enter into planning agreements with landowners, local governments, and other stakeholders to prepare plans that identify the most important areas for a threatened or endangered species, and the areas that may be less important. These NCCP plans may become the basis for a State permit to take threatened and endangered species in exchange for conserving their habitat. The CDFW and USFWS worked to combine the NCCP program with the federal HCP process to provide take permits for State and federal listed species. Under the NCCP, local governments, such as the County, can take the lead in developing these NCCP plans and become the recipients of State and federal take permits. The County does not yet have an NCCP plan adopted for North County; the MSCP North County Plan in still in draft form and has been since 2009 (County 2009).

Local

Habitat Loss Permit Ordinance

The HLP Ordinance was adopted in March of 1994 (County 1994) in response to both the listing of the coastal California gnatcatcher as a federal threatened species and the adoption of the NCCP Act by the State. Pursuant to the Special 4(d) Rule under the FESA, the County is authorized to issue “take permits” for the coastal California gnatcatcher (in the form of HLPs) in lieu of Section 7 or 10(a) permits typically required from the USFWS. Although issued by the County, the USFWS and CDFW must concur with the issuance of an HLP for it to become valid as take authorization under the FESA. The HLP Ordinance states that projects must obtain an HLP prior to the issuance of a grading permit, clearing permit, or improvement plan if a project will directly or indirectly impact any of several coastal sage scrub habitat types, regardless of whether it is currently occupied by the coastal California gnatcatcher. An HLP is not required for projects within the boundaries of the MSCP that have an adopted subarea plan since take authorization is conveyed to those projects through compliance with the MSCP. HLPs are also not required for projects that have separately obtained Section 7 or 10(a) permits for take of the coastal California gnatcatcher.

Approval of an HLP is based on findings made pursuant to the HLP Ordinance. Findings need to demonstrate that a project's loss of coastal sage scrub would not exceed the County's 5 percent interim allowable loss limit. They also have to demonstrate that the habitat loss would not preclude connectivity between areas of high habitat values or preclude or prevent the preparation of a subregional NCCP plan. Additionally, the findings must show that the habitat loss has been minimized and mitigated to the maximum extent practicable in accordance with Section 4.3 of the Southern California Coastal Sage Scrub NCCP Process Guidelines, and that the habitat loss would not appreciably reduce the likelihood of survival and recovery of listed species in the wild. Finally, the habitat loss must be incidental to otherwise lawful activities. An HLP application must be filed with the County if the Draft MSCP North County Plan has not been adopted at the time of environmental review of the proposed Project since impacts to coastal sage scrub and the coastal California gnatcatcher would occur. An HLP requires concurrence from USFWS and CDFW.

Resource Protection Ordinance

The County regulates natural resources (among other resources) as sensitive biological resources via the RPO (County 2011), the regulations of which cover wetlands, wetland buffers, sensitive plant and animal species, sensitive vegetation communities/habitat types, and habitats containing sensitive animals or plants.

The attributes of RPO wetlands are defined in Section 2.3.1.1 of this subchapter, under Jurisdictional Wetlands/Waters, above. According to the RPO, the following are not considered RPO wetlands:

- Lands which have attribute(s) which appear to meet the ordinance, but are solely due to man-made structures (e.g., culverts, ditches, road crossings, or agricultural ponds), provided that the Director of PDS determines that they:
    - Have negligible biological function or value as wetlands;
    - Are small and geographically isolated from other wetland systems;
    - Are not vernal pools; and
    - Do not have substantial or locally important populations of wetland dependent sensitive species.

- Lands that have been degraded by past legal land disturbance activities to the point that they meet the following criteria as determined by the Director of PDS:
    - Have negligible biological function or value as wetlands even if restored to the extent feasible; and,
    - Do not have substantial or locally important populations of wetland dependent sensitive species.

The study area contains 1.13 acres of RPO wetlands, all of which are off site in Escondido Creek and associated with the bridge footprint study area (Table 2.3-3 and Figure 2.3-4). The off-site RPO wetlands consist of mule fat scrub, southern willow riparian forest, and coast live oak woodland that support wetland conditions.

Sensitive Habitat Lands are defined by the RPO as:

- Land which supports unique vegetation communities, or the habitats of rare or endangered species or sub-species of animals or plants as defined by Section 15380 of the State CEQA Guidelines (14 Cal. Admin. Code Section 15000 *et seq*.), including the area which is necessary to support a viable population of any of the above species in perpetuity, or which is critical to the proper functioning of a balanced natural ecosystem or which serves as a functioning wildlife corridor.

  "Unique vegetation community" refers to associations of plant species which are rare or substantially depleted. These may contain rare or endangered species, but other species may be included because they are unusual or limited due to a number of factors, for example: (a) they are only found in the San Diego region; (b) they are a local representative of a species or association of species not generally found in San Diego County; or (c) they are outstanding examples of the community type as identified by the CDFW listing of community associations.

Sensitive Habitat Lands in the study area include lands supporting the core on-site population of wart-stemmed ceanothus in the southern portion of the study area where the southern mixed chaparral community supports an estimated 20,000 wart-stemmed ceanothus individuals. Also present in this area are summer holly (20 to 30 individuals), San Diego sagewort (4 individuals), and ashy spike-moss (4 concentrations). These areas are "unique" in that they support rare plant species and they are considered sensitive by CDFW (2010). CDFW's rarity ranking follows the NatureServe's Heritage Methodology (NatureServe 2009) in which communities are given a G (global) and S (State) rank based on their degree of imperilment (as measured by rarity, trends, and threats). Communities with a Rarity Ranking of S1 (critically imperiled), S2 (imperiled), or S3 (vulnerable) are considered sensitive by the CDFW. Southern mixed chaparral is ranked as G3 and S3. G3 is vulnerable and at moderate risk of extinction or elimination due to a restricted range, recent and widespread declines, or other factors. S3 is vulnerable due to a restricted range, recent and widespread declines, or other factors making it vulnerable to extirpation.

The remaining portions do not represent areas which are necessary to support a viable population of rare and endangered species in perpetuity, or which are critical to the proper functioning of a balanced natural ecosystem or which serve as a functioning wildlife corridor. The remaining portions of the study area are not unique and are not ranked by the CDFW (2010) as being sensitive or, for coast live oak woodland, are ranked G5 (secure) and S4 (apparently secure), and are therefore not Sensitive Habitat Lands.

2.3.2 Analysis of Project Effects and Determination as to Significance

2.3.2.1 *Special Status Species*

Guidelines for the Determination of Significance

A significant impact to special status species would occur if the Proposed Project would:

1. Impact one or more individuals of a species listed as federally or state endangered or threatened.

2. Impact the survival of a local population of any County Group A or B plant species, a County Group 1 animal species, or a species listed as a state Species of Special Concern.

3. Impact the regional long-term survival of a County Group C or D plant species or a County Group 2 animal species.

4. Impact arroyo toad aestivation, foraging or breeding habitat.

5. Impact golden eagle habitat, foraging or nesting habitat.

6. Result in a loss of functional foraging habitat for raptors.

7. Impact the viability of a core wildlife area, defined as a large block of habitat (typically 500 acres or more not limited to project boundaries, though smaller areas with particularly valuable resources may also be considered a core wildlife area) that supports a viable population of a sensitive wildlife species or supports multiple wildlife species.

8. Cause indirect impacts, particularly at the edge of proposed development adjacent to proposed or existing open space or other natural habitat areas, to levels that would likely harm sensitive species over the long term.

9. Impact occupied burrowing owl habitat.

10. Impact occupied cactus wren habitat, or formerly occupied coastal cactus wren habitat that has been burned by wildfire.

11. Impact occupied Hermes copper butterfly habitat.

12. Impact nesting success of the following sensitive bird species through grading, clearing, fire fuel modification and/or other noise generating activities such as construction:

    - Coastal cactus wren
    - Coastal California gnatcatcher
    - Least Bell's vireo
    - Southwestern willow flycatcher
    - Tree-nesting raptors
    - Ground-nesting raptors
    - Golden eagle
    - Light-footed clapper rail

Guidelines Source

These guidelines are based on the County Guidelines for Determining Significance – Biological Resources (2010).

Analysis

The Project would result in significant impacts under the above guidelines for the following reasons:

Federally or State Endangered or Threatened Species (Guideline 1)

Coastal California Gnatcatcher

The Project would impact a portion of the Diegan coastal sage scrub on the Project site (see Table 2.3-4, *Impacts to Vegetation Communities/Habitat Types* and Figure 2.3-5, *Proposed Project Vegetation and Sensitive Resources/Impacts*). The impacted coastal sage scrub includes both Low and Intermediate Value habitat according to the NCCP Conservation Guidelines and Logic Flow Chart (CDFW 1993a, 1993b). A stand of Intermediate Value habitat to be impacted in the eastern portion of the site was determined to support a coastal California gnatcatcher breeding pair in 2014. Additional Intermediate Value stands of sage scrub in the northern, central, and eastern portions of the site also function to facilitate gnatcatcher dispersal and north-south movement through the local area. No gnatcatchers were observed using the smaller, fragmented and Low Value stands in the southern-central and western portions of the site. The potential for gnatcatchers to breed at these locations is considered low based on small patch size of suitable habitat, lack of constituent vegetative elements, and the fact no additional breeding pairs were observed during 2014 protocol surveys. Gnatcatchers could breed at off-site locations within 300 feet of the Project site. In addition, gnatcatchers would be expected to use other scrub- and chaparral-vegetated portions of the site for foraging, dispersal, and migration activities. Nonetheless, although located within a highly disturbed area, the loss of this known nesting site and the potential for displacement related to loss of foraging area and dispersal habitat, result in potentially significant impacts.

Of the 10.4 acres of coastal sage scrub that would be impacted, approximately 4.1 acres (39 percent) is considered Low Value habitat, made of up of the smaller, fragmented patches in the southern and western portions of the Project impact area where gnatcatchers were not detected during surveys, but which could be used for foraging, migration and dispersal. The remaining 6.3 acres of Intermediate Value coastal sage scrub in the eastern portion of the site was confirmed to be used for breeding by a single pair of gnatcatcher and facilitates dispersal and movement functions for the species. The largest, intact, stand of impacted Intermediate Value habitat occurs immediately adjacent to one of the rural residences to the east of the site. Considering the 6.3-acre size and overall quality of the Intermediate Value scrub, the potential for it to support additional gnatcatcher breeding territories beyond the single territory confirmed is considered low. Altogether, the impacted sage scrub on site has a limited carrying capacity and ceiling for breeding gnatcatchers. Impacts to Low and Intermediate Value stands on site would not reduce the likelihood of survival and recovery of the species.

As mentioned above, the coastal sage scrub on site is expected to contribute to dispersal and migration for the species, but it is not the only habitat in the local area expected to provide those functions. Additional scrub and chaparral occur in the local area for gnatcatchers and other wildlife to disperse and migrate through. As described in Section 2.3.1.1, off-site coastal sage scrub in the local area is composed of fragmented stands and islands of habitat. These off-site

stands and islands are situated amongst developed land and undeveloped land characterized by chaparral and riparian habitat. Based on survey results and known records for the off-site areas, the fragmented stands and islands of off-site coastal sage scrub do not support high numbers of gnatcatchers or a significant population relative to other core habitat in the Harmony Grove and Elfin Forest area. There are no large blocks of high value coastal sage scrub in the local area for which the on-site coastal sage scrub is vital to provide a connection. Also as described above, movement functions along the eastern edge of the site would be conserved within thinned native vegetation fuel modification zones, thereby conserving some functionality of the habitat and minimizing the impact. Therefore, Project impacts to coastal sage scrub used for dispersal and migration would also not reduce the likelihood of survival and recovery of the species.

Mitigation for impacts to coastal sage scrub, including both the 4.1 acres of Low Value and 6.3 acres of Intermediate Value scrub, would be provided at a 2:1 ratio and with habitat that provides equivalent or superior function and long-term conservation value compared to that which would be impacted. As a regulatory requirement, the Project will obtain an HLP from the County, which requires concurrence from the USFWS and CDFW prior to issuance. The HLP will incorporate avoidance, minimization, and compensatory mitigation measures addressing the loss of coastal sage scrub and effects on gnatcatcher, and will include detailed information about the specific type(s) and location(s) for the mitigation. Avoidance and minimization measures are proposed to ensure that Project construction does not result in adverse direct or indirect impacts on any gnatcatcher individuals. Compensatory mitigation measures are also proposed to offset the loss of the gnatcatcher pair and coastal sage scrub habitat within areas identified as PAMA under the Draft MSCP North County Plan. Approximately 1.8 acres would be restored or created within temporary impact areas along the southern boundary. These 1.8 acres would be preserved, along with an additional 0.5 acre, for a total of 2.3 acres of preserved coastal sage scrub within BOS for the Project (Appendix E Figure 17 and EIR Figure 2.3-5). In addition to the on-site restoration, creation, and preservation of 2.3 acres, the Project proposes off-site preservation of a minimum of 18.5 acres of Intermediate or High Value coastal sage scrub, or other like-functioning habitat as approved by the County and Wildlife Agencies, through one or a combination of the following: (1) the recordation of a BOS easement, preparation of an RMP approved by the County and Wildlife Agencies, and long-term management by a qualified entity approved by the County and Wildlife Agencies; and/or (2) purchase of occupied coastal sage scrub credits from a conservation bank as approved by the County and Wildlife Agencies. To the extent available, off-site preservation would occur locally and within land designated as PAMA in the Draft North County Plan and located in the Elfin Forest-Harmony Grove Planning Area, northern coastal foothills ecoregion. Regardless of ultimate site selection, the mitigation must be deemed acceptable by the County and Wildlife Agencies.

The Project as a whole would therefore result in a net increase of 18.5 acres or 70 percent of coastal sage scrub preservation compared to the 10.9 acres that currently exist on site, portions of which are fragmented and of Low Value. Nonetheless, impacts to coastal California gnatcatcher and its habitat would occur. **Impacts to Diegan coastal sage scrub, a sensitive habitat type, would be considered significant (Impact BI-1a). Impacts to gnatcatcher individuals; occupied habitat; and foraging, migration and dispersal habitat are also identified as significant. (Impact BI-1b)**

Least Bell's Vireo

In addition, least Bell's vireo was observed in Escondido Creek, primarily using habitat immediately east of Country Club Drive. The habitat is moderately developed in the understory and marginal for breeding in its current state. No vireo breeding sign or activity was observed in the survey area during any of the 2014 surveys, and none was suspected. This is also consistent with HELIX's observations within Escondido Creek during construction and restoration monitoring for HGV. The site would not be expected to support a significant population of vireos. Vireos are known to occur within other reaches of Escondido Creek, including habitat located further upstream and downstream of the site. Better quality habitat occurs and vireos could breed at off-site locations within 500 feet of the Project direct impact areas. Nonetheless, **because a potential exists for use of the area by a nesting pair and for foraging impacts to breeding vireo and suitable habitat are identified as potentially significant. (Impact BI-1c)**

State Species of Concern, County Group A and B Plant Species, and County Group 1 Animal Species (Guideline 2)

Project impacts to County Group 1 species are addressed above within County Guideline 1. The Project would impact seven individuals of summer holly, a County List A plant, and 1,963 wart-stemmed ceanothus, a County List B plant, not including the potential removal of wart-stemmed ceanothus within the 20-foot wide trail easement. The final design of the trail improvements will avoid removing wart-stemmed ceanothus to the maximum extent practicable, in consultation with the County. **Impacts to summer holly and wart-stemmed ceanothus are identified as potentially significant**. **(Impact BI-2a)**

In addition, a single red-shouldered hawk was observed perching in a tree near Escondido Creek. This species could nest at off-site locations within 500 feet of Project impact areas. It also may forage over the non-native grassland on site, but the site does not provide the only foraging habitat in the local area for the species. Because this species could nest within 500 feet of the Project (considered to be within a distance where construction activities could adversely affect the species) and the Project would result in the loss of potential foraging habitat for this and other raptor species, **impacts to nesting red-shouldered hawks and non-native grassland foraging habitat are identified as potentially significant. (Impact BI-2b)**

Last, the Project would result in the loss of potential nesting and foraging habitat for yellow-breasted chat, which is designated as State species of special concern and County Group 1 species. Based on the number of observations and suitability of the habitat, this species is considered to nest in the reach of Escondido Creek and adjacent riparian woodland that could be impacted by the Project. **Impacts to nesting yellow-breasted chat are, therefore, identified as potentially significant. (Impact BI-2c)**

County Group C and D Plant Species and County Group 2 Animal Species (Guideline 3)

The Project could impact barn owl, which is a County Group 2 species that has the potential to use the Project site and areas within 500 feet for roosting and/or nesting. Barn owl could use the site for foraging, but it does not provide the only available foraging habitat in the local area for

the species. **Impacts to nesting barn owl are identified as potentially significant. (Impact BI-3a)**

Southwestern spiny rush and ashy spike-moss are both County List D plant species. Given the low number of individuals to be impacted (one spiny rush and four small concentrations of spike-moss), and that these two species are relatively common in the region, Project impacts would not impact their local long-term survival. **Impacts to Southwestern spiny rush and ashy spike moss are identified as less than significant**.

Green heron and great blue heron are both County Group 2 animals that have the potential to temporarily forage within Escondido Creek. These species were observed only once during the 2014 surveys, which suggest that the site is not an essential foraging area. The site would not be expected to support a rookery site or significant population of these two herons. Additional habitat occurs throughout Escondido Creek and other aquatic habitats in the region. Impacts at Escondido Creek for replacement of the existing low-water crossing and construction of a bridge would be largely temporary, with foraging habitat continuing to exist under post-Project conditions. Therefore, **the Project would not affect the long-term survival of these two herons and impacts are considered less than significant.**

In addition, the Project would result in the loss of potential nesting and foraging habitat for yellow warbler, which is designated a State species of special concern and County Group 2 species. Based on the number of times observed and suitability of the habitat, this species is considered to nest in the reach of Escondido Creek and adjacent riparian woodland that could be impacted by the Project. **Impacts to nesting yellow warbler are therefore identified as potentially significant. (Impact BI-3b)**

Arroyo Toad (Guideline 4)

The Project reach of Escondido Creek and the unnamed ephemeral tributaries on site do not provide suitable habitat for arroyo toad. The species is believed to have been extirpated from the local area. **Impacts to the arroyo toad would be less than significant.**

Golden Eagle (Guideline 5)

The nearest known historic golden eagle nest is approximately 1.5 miles to the south of the Project site. There have been no recent sightings of territorial eagles at this nest location. The Project site does not contain nesting habitat and it is not within any known golden eagle territory. While there is potential eagle foraging habitat (open non-native grassland) on site, the surrounding habitat fragmentation and the distance from known eagle territories would indicate that the site has low value for golden eagle. The surrounding area is primarily urbanized and new nesting in the vicinity is unlikely. As of July 2014, no activity at a previous nest in the Del Dios area was noted. Therefore, **no impacts would occur to golden eagle or its habitat.**

Raptor Foraging Habitat (Guideline 6)

The Project site supports foraging habitat for raptors known to the local area, including common species such as red-tailed hawk, and sensitive species such as barn owl and white-tailed kite. The

Project would result in the loss of sparse scrub and grassland habitat that provides foraging habitat for these raptors. **Impacts to raptor foraging habitat are significant. (Impact BI-3c)**

Core Wildlife Areas (Guideline 7)

The Project site is contiguous with the DDHP and additional open space to the general south and east. This general area is identified as a core area in North County. As such, the site is part of a core wildlife area of 500 acres or more of wildlife habitat; however, only certain habitat types on the site contribute to the target functions and viability of the core area. The chaparral and scrub on and in the immediate vicinity of the site provide functioning habitat associated with the core area. This is because it supports sensitive plant species and provides habitat for breeding, foraging, dispersal and migration for birds and large mammals. The non-native grassland provides limited cover and does not support high functioning breeding habitat, but is used for foraging by wildlife species in the local area. The grassland-chaparral interface and chaparral edge areas further function to facilitate dispersal and migration for large mammals.

The Project would impact a total of 82.5 acres, including temporary and permanent impacts, more than half of which is non-native grassland. The Project would contribute 34.8 acres of preserved contiguous habitat to this core area through the establishment of proposed permanent on-site BOS. Impacts would occur to chaparral and scrub habitat, but the Project's BOS would conserve and restore these habitat types. The existing grassland-chaparral interface and chaparral edge areas would be impacted, but the Project would include interface and edge areas within thinned native vegetation fuel modification zones and along the boundaries of BOS. The BOS supports the following resources and functions: stands of coast live oak woodland, coastal sage-chaparral, Diegan coastal sage scrub, southern mixed chaparral; a major population of 21,150 wart-stemmed ceanothus; other rare plants, including San Diego sagewort, summer holly, and ashy spike-moss; and functioning foraging, dispersal and migration habitat for several special status animals. It provides adequate space and resources, and functions to facilitate bird and mammal movement through the core area, including target species for conservation in the region, such as gnatcatcher and mule deer. Therefore, **the Project would not impact the viability of a core wildlife area and the species that use it**.

Indirect Impacts/Edge Effects (Guideline 8)

The Project site abuts existing preserve areas and large blocks of core habitat to the general south and east, including DDHP to the immediate south. The Project proposes to place on-site habitat into BOS (i.e., coastal sage scrub, chaparral, and oak woodland) that connects with off-site core habitat of the same or similar function and type. Even where there is not direct removal of habitat, however, indirect impacts can result. These are secondary effects of the direct impacts, which may cause of degradation of a biological resource over time. These are called "edge effects;" some are temporary during construction and others are part of the operation of the project during the life of the residential development. Edge effects can result from increased noise, unauthorized trampling of habitat, introduction of pets and pest plants to open space areas, and effects of irrigation and lighting. Project implementation would potentially cause indirect impacts from construction noise, human access, domestic animals, exotic plant species, and lighting.

Increases in human activity in the area could result in degradation of open space habitat and associated indirect impacts on sensitive species through the creation of unauthorized trails and removal of vegetation. In addition, illegal dumping of lawn and garden clippings, trash, and other refuse could occur. Resulting habitat degradation and effects on sensitive species in open space areas could result in a significant impact. The Project BOS would include dedication of a permanent BOS easement, which would be buffered from Project developments by a minimum 100-foot Limited Building Zone easement. Permanent fencing would be installed at the development edge and Project BOS, and signs precluding access would be posted. Further, the Proposed Project would result in implementation of an RMP, which includes active management of the BOS in perpetuity.

The Proposed Project is residential in nature, so domestic predators (e.g., dogs and cats) may be introduced to the surrounding habitat. Although such introductions have potential to harm native wildlife species, the site is adjacent to existing rural residential development and is already subject to some level of disturbance and predation by domestic animals. In addition, the aforementioned permanent fencing that would be installed around Project BOS would preclude access by domestic predators.

Non-native plants can colonize areas disturbed by construction/development and could potentially spread into adjacent native habitat. This could result in displacement of native vegetation (reducing native species diversity), potentially increasing flammability and fire frequency, change ground and surface water levels, and potentially adversely affect native wildlife dependent on native plant species. To avoid potentially significant impacts from plants installed as part of the Project, only non-invasive plant species would be included in the landscape plan for the site closest to the BOS and pepper trees would be restricted to sections of Country Club Drive more than 50 feet from native habitat and to the Center House landscaping. Other than the restricted use of California pepper, species listed on the California Invasive Plant Inventory prepared by the California Invasive Plant Council [Cal-IPC 2007]) would not be used.

Night lighting that extends from a developed area onto adjacent wildlife habitat can discourage nocturnal wildlife in habitat and can provide nocturnal predators with an unnatural advantage over their prey. All Project lighting would be required to adhere to Division 9 of the LPC. Lighting within the proposed Project footprint adjacent to undeveloped habitat would be of the lowest illumination allowed for human safety, selectively placed, shielded and directed away from these areas.

Given the above considerations, **long-term impacts to sensitive species resulting from indirect edge effects would be less than significant**. Required installation of fencing and signage around the BOS, dedication of a BOS easement, protection of the BOS by a limited building zone easement, and implementation of the RMP for the Proposed Project, would further minimize potential edge effects over the long-term. Potential indirect impacts from construction noise are discussed under Guideline 12.

Occupied Burrowing Owl Habitat (Guideline 9)

The Project site does not support occupied burrowing owl habitat, as demonstrated by the 2014 protocol-level survey negative findings. **The Project would have no impact on burrowing owl.**

Occupied Coastal Cactus Wren Habitat (Guideline 10)

This species was not observed or otherwise detected during 2014 biological surveys. Suitable nesting habitat is absent from the site. **The Project would have no impact on cactus wren.**

Occupied Hermes Copper Butterfly Habitat (Guideline 11)

Although the Project site supports a limited amount of potential Hermes copper butterfly habitat (spiny redberry within 15 feet of buckwheat), the Project site does not support Hermes copper butterfly, as demonstrated by the 2014 protocol-level survey negative findings. Unoccupied habitat would be impacted by the Project; however, the habitat is not likely to become occupied in the future due to the site's isolation from nearby occurrences. **The Project would have no impact on occupied Hermes copper habitat.**

Nesting Success (Guideline 12)

Project construction could impact the nesting success of coastal California gnatcatcher, least Bell's vireo, and tree-nesting raptors, all of which have the potential to nest on and/or in the immediate vicinity of construction impact areas. Noise from such sources as clearing and grading could result in an impact to wildlife. Noise-related impacts would be considered significant if sensitive species (such as coastal California gnatcatcher, least Bell's vireo, and raptors) were displaced from their nests and failed to breed. Raptors or other sensitive bird species nesting within any area impacted by noise exceeding 60 decibels (dB) or ambient could be significantly impacted. **If least Bell's vireo or tree-nesting raptors are nesting within 500 feet of the impact area, or coastal California gnatcatchers are nesting within 300 feet of the impact area, effects resulting from construction noise would be potentially significant. (Impact BI-4)**

2.3.2.2 *Riparian Habitat and Sensitive Natural Communities*

Guidelines for the Determination of Significance

A significant impact to riparian habitat or other sensitive natural communities would occur if:

13. Project-related grading, clearing, construction or other activities would temporarily or permanently remove sensitive native or naturalized habitat (as identified in Table 5 in the County Guidelines for Determining Significance – Biological Resources, excluding those without a mitigation ratio) on or off the Project site.

14. Any of the following would occur to or within jurisdictional wetlands and/or riparian habitats as defined by USACE, CDFW, and County: removal of vegetation; grading; obstruction, or diversion of water flow; adverse change in velocity, siltation, volume of flow, or runoff rate; placement of fill; placement of structures; construction of a road crossing; placement of culverts or other underground piping; any disturbance of the substratum; and/or any activity that may cause an adverse change in native species composition, diversity, and abundance.

15. The Project would draw down the groundwater table to the detriment of groundwater-dependent habitat, typically a drop of 3 feet or more from historical low groundwater levels.

16. The Project would cause indirect impacts, particularly at the edge of proposed development adjacent to proposed or existing open space or other natural habitat areas, to levels that would likely harm sensitive habitats over the long term.

17. The Project does not include a wetland buffer adequate to protect the functions and values of existing wetlands.

Guidelines Source

These guidelines are based on the County Guidelines for Determining Significance – Biological Resources (2010).

Analysis

Vegetation Communities/Habitats (Guideline 13)

Off-site impacts on sensitive wetland habitat types are anticipated to include less than 0.01 acre of mule fat scrub and 0.71 acre of southern willow riparian forest as a result of replacing the existing low-water crossing with a bridge over Escondido Creek. No other components of the Project would impact sensitive wetland habitat types.

The Project development has been designed to avoid and setback at distances greater than 200 feet from this habitat; however, improvements to the existing low-water crossing for Country Club Drive over Escondido Creek would result in these associated impacts. The proposed improvements would include construction of a new off-site bridge that would span the flood limits of the Creek. The impacts would be primarily temporary for equipment access, residential access, and staging during bridge construction. Permanent impacts are expected to be limited to bridge abutments, footings, bank stabilization and fuel modification requirements. These impacts would be necessary to remove the existing low-water crossing, construct the new span bridge, stabilize the channel embankment, and restore the riverine hydrology of the reach. Wildlife movement along Escondido Creek would be improved by the proposed clear span bridge, which would provide much more space for water, aquatic and terrestrial animals at the crossing than the current at-grade crossing and culverts. The bridge would also reduce the potential for wildlife using the crossing to be harmed by vehicles. Water quality would be improved since pollution would not wash directly into the creek. Replacement of the low-water crossing could be accomplished through replacement in-place with a wider low-water crossing or with a bridge. Replacement in-place with a wider crossing would result in additional permanent loss of habitat and would not improve water quality, hydrology, or wildlife movement at the crossing. The bridge span represents the least environmentally damaging alternative to crossing the Creek and impacts to wetland are necessary and unavoidable**. Impacts to off-site sensitive wetland habitat types, mule fat scrub and southern willow riparian forest, would be significant. (Impact BI-5a)**

Impacts on sensitive uplands that would require compensatory mitigation include temporary and permanent impacts to 10.4 acres of Diegan coastal sage scrub (4.1 acres of Low Value and 6.3 acres of Intermediate Value), 4.5 acres of coastal sage-chaparral transition, 15.6 acres of southern mixed chaparral, 44.2 acres of non-native grassland, and 0.2 acre of coast live oak woodland. An approximately 1.8-acre area within the Project impact area would be temporary in nature as it would be subject to Diegan coastal sage scrub restoration and creation. An effort has been made in the design to minimize impacts to sensitive upland habitat and direct development into the least sensitive areas. Project development has been sited in immediate proximity to the larger HGV development. It has also been consolidated to reduce footprint and minimize edge effects. Most importantly, the Project proposes 34.8 acres of BOS. This open space supports the following resources and functions, following restoration: stands of coast live oak woodland (0.8 acre), Diegan coastal sage scrub (2.3 acres, including the 1.8-acre restoration area), southern mixed chaparral (31.1 acres), and non-native grassland (0.2 acre); a major population of 21,150 wart-stemmed ceanothus; other rare plants, including San Diego sagewort, summer holly, and ashy spike-moss; and functioning foraging, dispersal and migration habitat for several special status animals. It provides adequate space and resources, and functions to facilitate bird and mammal movement through the core area, including target species for conservation in the region, such as gnatcatcher and mule deer. Though the on-site BOS would reduce the impact on sensitive upland habitat, **because the named habitats would be temporarily or permanently impacted, impacts would be significant. (Impacts BI-5b through 5f)**

Jurisdictional Wetlands/Waters (Guideline 14)

As addressed under County Guideline 13, Project-related construction could result in off-site impacts to less than 0.01 acre of mule fat scrub and 0.71 acre of southern willow riparian forest associated with Escondido Creek (see Table 2.3-5, *Impacts to Jurisdictional Waters and Wetlands*).

The Project also would result in on-site impacts to 0.02 acre of ephemeral streambed, in addition to 0.04 acre of coast live oak woodland associated with the ephemeral streambed. Altogether, the Project would result in the following: 0.31 acre impacts to wetland waters of the U.S./State and 0.03 acre impacts to non-wetland WUS/State subject to USACE and RWQCB jurisdiction; 0.77 acre of vegetated streambed and 0.04 acre of unvegetated streambed subject to CDFW jurisdiction; and, 0.72 acre of RPO wetland subject to County jurisdiction. **Impacts would be considered significant. (Impacts BI-6a through 6c)**

Groundwater table (Guideline 15)

No groundwater withdrawals or activities that could result in lowering of the groundwater table are proposed. **No significant impact to the groundwater table would occur.**

Indirect Impacts (Guideline 16)

The Project would not result in indirect impacts from the spread of non-native plant species during construction. Non-native species are already prevalent throughout the Project site. As a design feature to avoid potential significant impacts from Project landscaping, only non-invasive plant species have been included in the landscape plan for the site (species not listed on the

California Invasive Plant Inventory prepared by the California Invasive Plant Council [Cal-IPC; 2006]) for areas adjacent to BOS or within 50 feet of Escondido Creek. **Indirect impacts to sensitive habitat would be less than significant.**

Wetland Buffer (Guideline 17)

The Project provides minimum 100-foot buffers around wetlands and 100-foot limited building zones further protecting resources on and in the immediate vicinity of the BOS. Temporary encroachment into the buffer around Escondido Creek is required during construction for the anticipated removal of the existing low-water crossing, construction of the new span bridge, stabilization of the channel embankment, maintenance of residential access during construction, and restoration of riparian habitat and riverine hydrology within temporary impact areas. Construction activities within the buffer would be limited to the existing disturbed and developed areas in and around Country Club Drive. Temporary impacts within buffer areas would be restored to pre-project or superior conditions, subject to fuel modification requirements. **Impacts from wetland buffers would be less than significant.**

2.3.2.3 *Federal Wetlands*

Guideline for the Determination of Significance

A significant impact to federal wetlands would occur if the Proposed Project would:

18. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption or other means.

Guideline Source

This guideline is based on the County Guidelines for Determining Significance – Biological Resources (2010).

Analysis

As previously stated, the Project would result in unavoidable impacts to 0.31 acre of wetland WUS subject to USACE regulatory jurisdiction pursuant to Section 404 of the CWA. The impacts would be temporary for resident access/egress, equipment maneuvering, and staging during bridge construction. Permanent impacts would be limited to bridge abutments, footings, and bank stabilization. The impacts would be necessary to remove the existing low-water crossing, construct the new span bridge, stabilize the channel embankment, and restore the riverine hydrology of the reach, etc. The proposed improvements would include construction of a new bridge that would span the flood limits of the Creek and allow for safe passage on Country Club Drive. The bridge span represents the least environmentally damaging alternative to crossing the Creek. Also, the health of the creek and hydrological function would be anticipated to improve post-bridge construction. As the Project would still result in impacts to federally protected wetlands, **impacts to wetlands would be significant. (Impact BI-7)**

2.3.2.4 *Wildlife Movement and Nursery Sites*

Guidelines for the Determination of Significance

A significant impact to wildlife movement or nursery sites would occur if the Proposed Project would:

19. Impede wildlife access to foraging habitat, breeding habitat, water sources, or other areas necessary for their reproduction.

20. Substantially interfere with connectivity between blocks of habitat, or would potentially block or substantially interfere with a local or regional wildlife corridor or linkage.

21. Create artificial wildlife corridors that do not follow natural movement patterns.

22. Increase noise and/or nighttime lighting in a wildlife corridor or linkage to levels proven to affect the behavior of the animals identified in a site-specific analysis of wildlife movement.

23. Not maintain an adequate width for an existing wildlife corridor or linkage and/or would further constrain an already narrow corridor through activities such as (but not limited to) reduction of corridor width, removal of available vegetative cover, placement of incompatible uses adjacent to it, and placement of barriers in the movement path.

24. Not maintain adequate visual continuity (i.e., long lines-of-sight) within wildlife corridors or linkages.

Guidelines Source

These guidelines are based on the County Guidelines for Determining Significance – Biological Resources (2010).

Analysis

Wildlife Access (Guideline 19)

The Project could impede wildlife access to on- and off-site areas that may be used for foraging, breeding, or obtaining water; however, as evidenced by biological surveys and an assessment of potential wildlife movement functions in the local area, the areas do not support critical populations of animal species and the Project would not impede access to areas necessary for reproduction. Impacts would be less than significant.

The study area occurs within lands identified as PAMA and in the vicinity of core area, outside of any linkage area. With respect to wildlife movement in the region, conservation targets generally include conserving a contiguous riparian corridor in Escondido Creek, and conserving a large core area of upland habitat around DDHP and EFRR. Related to these are conserving regional movement within core area associated with DDHP and EFRR, and conserving access to the Escondido Creek corridor from the core area.

Access along the reach of Escondido Creek that occurs at the Country Club Drive crossing would be temporarily interrupted during construction; however, there would be adequate space to move around work areas to the north across Harmony Grove Road and into the HGV open space areas. Wildlife also would have unobstructed access around work areas by moving through rural/estate lots to the east of the Project site, through the open space to be conserved in the southern portions of the site, and finally to the downstream reach of Escondido Creek further to the west of the site. Replacement of the existing Country Club Drive low-water crossing with a new bridge would have a beneficial effect on wildlife access and movement within the reach of Escondido Creek. The bridge is anticipated to be approximately 250 feet long, supported on abutments at its northern and southern extents, with two intermediate pier supports. Design would accommodate a minimum openness ratio of 0.75 to allow species such as mule deer and coyote free and clear access. The piers would be spaced at least 100 feet apart to facilitate movement and access to key resources. The bridge would be tall enough to accommodate wildlife crossings within the riparian zone and would also accommodate 100-year flood flows. The design would further widen the corridor at the located where it is currently pinched and constrained from the low-water crossing. The post-Project bridge condition is anticipated to be superior for wildlife access compared to the low-water crossing barrier which currently exists.

There would be adequate space for birds to move around the site to access core habitat within DDHP and EFRR, and to and from Escondido Creek and HGV open space. Birds would be able to move unobstructed through the Project's open space (both BOS and other open space areas proposed by the Project) and the undeveloped lands around the site. Although a single pair of gnatcatchers was confirmed on site during 2014 surveys, the habitat is patchy and fragmented. Its preservation is not vital to support a viable population of gnatcatchers in perpetuity, especially considering the abundance of core habitat located further to the southeast around Lake Hodges, the south around Del Dios and Rancho Cielo, and the west and southwest in the Elfin Forest and Rancho La Costa area. It is noted that the County's *Habitat Evaluation* shows the Project site ranked as having no value to the species for nesting (County 2008b). The closest known gnatcatcher occurrences to the site are within the HGV open space, approximately 600 feet northeast of the site across Harmony Grove Road, where HELIX confirmed two gnatcatchers during construction monitoring efforts in 2014. With two gnatcatchers present and limited available habitat, the HGV open space does not support a critical population of gnatcatchers. Nonetheless, the Project would not impede the ability for gnatcatchers to disperse to and from the HGV open space. There is an abundance of core gnatcatcher habitat located further to the southeast around Lake Hodges, to the south around Del Dios and Rancho Cielo, and to the southwest in the Elfin Forest and Rancho La Costa area. The Project would maintain full connectivity of open space with adjacent habitat along the southern boundary, connecting with DDHP to the south; therefore, gnatcatcher movement functions through this area would be conserved. Rather than native habitat removal, the Project would include thinned native habitat in limited building zones adjacent to habitat along portions of the northern and eastern boundaries, connecting with Escondido Creek Conservancy-owned lands; therefore, gnatcatcher movement functions through this area would not be completely removed. Also, along portions of the eastern boundary, the Project's limited building zones would connect with large blocks of rural land further to the east that are largely undeveloped; therefore, these areas would be expected to continue to facilitate some level of gnatcatcher movement and provide access to Escondido Creek. Last, the Project would maintain open space connectivity with large blocks of

rural land along the southern portion of the western boundary, thereby conserving movement functions through that area.

The Project would not obstruct existing mammal access to the Project's BOS and undeveloped lands to the south, east and west. These undeveloped lands provide adequate travel routes to accommodate wildlife movement in the local area during construction and once the Project is built. Mammals would have unobstructed access around the site to DDHP and EFRR. Access to Escondido Creek is already partially constrained by several rural residential properties east of the site; however, the Project proposes no developments in those areas and would not further constrain undeveloped lands in those areas. Further, as described above, habitat within the properties to the east is not expected to be developed in the future based on zoning, density, and steep slope restrictions. Mammals would still be able to move through the fuel modification zone along the eastern boundary of the Project site and through the open space to be conserved in the southern portions of the site.

The Project has been designed to avoid and conserve core habitat in the local area where wildlife is most likely to travel to get to and from Escondido Creek; the site does not provide and is not located within the only path of movement for wildlife in the local area. As depicted on Figure 2.3-6, *Regional Preserve Lands/Wildlife Movement*, the Project is sited at the southern terminus of the larger HGV and the Project's BOS would be contiguous with DDHP to the south and southeast. Although not included in BOS, undeveloped areas included in the Project's fuel modification zones (irrigated zone 1, thinned native zone 2) would abut the Escondido Creek Open Space to the north, conserving contiguity and functionality of habitat in that area. The Project's development footprint is in immediate proximity to the HGV Equestrian Ranch and existing residential development along the Project's south-western boundary and a portion of the northeastern boundary, such that the overall development in the local area is consolidated and the edge effect is minimized. The construction of the HGV development limits wildlife connectivity to the north and west of the Project site. The Project's siting of development and open space design conserves the core area and linkage functions in the region by concentrating development in the lower quality, non-native grasslands on the site, and minimizing edge effect by hugging up against Country Club Drive and HGV and existing residential uses to the west. Project development has been consolidated to reduce edge effects and concentrated in the portions of the site with the lowest, relative biological value. The proposed pad locations have been sited as far away from sensitive resources as possible. They are separated from open space and undeveloped areas by manufactured slopes, portions of which would be restored with Diegan coastal sage scrub, in addition to fuel modification zones, portions of which propose native habitat thinning and/or irrigation. Manufactured slopes and fuel modification zones are expected to provide some biological functions and values under post-project conditions, especially in buffering open space from proposed developments, preventing vehicle and pedestrian encroachment, and providing habitat for animal species known to the local area. In addition, on-site Project development would sit below graded cut slopes and below avoided and thinned native habitat within fuel modification zones. As such, potential indirect impacts from lighting, noise, and other operation-related disturbances would be minimized due to shielding of lines of sight and attenuation provided by the topography of the land. Wildlife would be able to move through habitat that is situated higher and set back from the proposed developments, which is expected to have less of an impact on movement functions.

Although on-site scrub and chaparral that could be used for wildlife movement would be removed, the connection of scrub and chaparral habitat between DDHP and Escondido Creek would be conserved within rural/estate lots and along West Ridge to the east of the site. Similarly, the east-west connection of scrub and chaparral habitat through the southern portion of the site would be conserved, including the restoration of graded slopes outside of the required fuel modification zone with Diegan coastal sage scrub. On-site Project developments have been specifically designed to be setback a minimum of 200 feet; with a 100-foot RPO wetland buffer from riparian habitat within Escondido Creek and in excess of 100 feet from upland habitat within open space. Project-related lighting would be required to adhere to Division 9 of the County LPC. Project lighting adjacent to undeveloped habitat would be of the lowest illumination allowed for human safety, selectively placed, shielded, and directed away from such habitat.

In conclusion, **Project impacts on wildlife movement and access to resources within DDHP, EFRR, and Escondido Creek would be less than significant**.

Local and Regional Wildlife Corridors and Linkages (Guideline 20)

As addressed above, the Project would not substantially interfere with connectivity between DDHP, EFRR, and Escondido Creek. The Project would contribute 34.8 acres of BOS preserve to the existing DDHP and EFRR core habitat block, thereby enhancing habitat connectivity in those areas. The Project would introduce new development to the site, and therefore, new barriers; however, the impediments would not substantially interfere with access to Escondido Creek due to the fact they would occur primarily on non-native grassland and alternate access would be available to the east of the site. The Project minimizes edge effect by hugging up against an existing road and HGV and existing developed uses to the west. It further concentrates development in the lower quality, non-native grassland on the site, which does not provide optimal cover and resources for wildlife moving through the area. In conclusion, **impacts to wildlife corridors and linkages would be less than significant.**

Artificial Wildlife Corridors (Guideline 21)

The Project does not create an artificial corridor for birds, and movement functions would continue on the Project site and local area under post-Project conditions. Adequate scrub and chaparral habitat would remain to the south and east of the site, and in the southern portions of the site once the Project is built. Some functionality of the habitat within the fuel modification zones would be retained with respect to providing cover, food, shelter, and other requirements for dispersal and foraging functions. Thinning of native habitat in the outermost fuel modification zone would allow for native shrubs to be retained, which although counted toward the Project impacts in this document, would provide some habitat value for wildlife that occur in the local area. Similarly, the Project would not create an artificial corridor for mammals. As addressed above, the Project would introduce new barriers on the Project site itself, but the impediments would not substantially interfere with access due to alternate travel routes in the local area. Adequate space and connectivity of habitat would remain in the local area, as depicted on Figure 2.3-6. Local and regional movement functions would continue further to the east, as well as further to the south and in the southern portions of the site. Impacts to wildlife corridors along Escondido Creek would be short-term and temporary, during construction only, except for

ongoing fuel modification zone maintenance for fire safety. The improvements in this area would not create an artificial corridor, but instead, would widen the corridor and enhance the corridor functions. On-site Project development would be setback and buffered a minimum 200 feet with a 100-foot RPO wetland buffer from riparian and wetland habitat within Escondido Creek, and 100 feet from BOS and other undeveloped upland habitat on and adjacent to the site. Project-related lighting would be required to adhere to Division 9 of the San Diego County LPC and would not adversely affect wildlife movement. In conclusion, although site development would introduce a new impediment to local wildlife movement, the effects would not be substantially adverse and no artificial corridors would be created. **Impacts related to artificial wildlife corridors would be less than significant**.

Indirect Effects (Guideline 22)

A wildlife corridor is identified along Escondido Creek. Project noise is not anticipated to adversely impact sensitive species at this location during Project operations, as the closest facility would be the WTWRF (surrounded by a 6-foot wall) and intervening space. Additionally, development has been setback and buffered on-site BOS, and adjacent undeveloped lands. All Project-related lighting would be required to adhere to Division 9 of the County LPC. Project lighting adjacent to undeveloped habitat would be of the lowest illumination allowed for human safety, selectively placed, shielded, and directed away from such habitat. **Impacts to wildlife corridors or linkages resulting from lighting or noise would be less than significant**.

Adequate Corridor Width (Guideline 23)

The Project would maintain adequate widths and would not further constrain existing corridors and linkages in the local area. Impacts along the Escondido Creek corridor would be short-term and temporary, during construction only, except for ongoing fuel modification zone maintenance for fire safety. The improvements in this area would widen the corridor and enhance the corridor functions by removing existing impediments. On-site Project developments are setback and buffered a minimum 200 feet with a 100-foot RPO wetland buffer from Escondido Creek, and 100 feet from BOS and other undeveloped upland habitat on and adjacent to the site. The linkage of scrub and chaparral habitat between DDHP and Escondido Creek would be conserved along the eastern boundary of the site and further to the east. As depicted on Figure 2.3-6, a minimum width of 1,000 feet would be maintained within the linear arrangement of existing rural and undeveloped lands to the east of the site. These lands generally follow a ridgeline characterized by coastal sage scrub and chaparral that links the DDHP to Escondido Creek. Slope steepness in this area would be expected to preclude future development, but is not too steep to accommodate wildlife movement along the north-south linear path of habitat, particularly for gnatcatcher and large mammals. Although the Project would result in removal of some scrub and chaparral that is connected to habitat to the east, a continuous strip of fuel modification zone that includes thinned native habitat and predominately native plant species assemblage would be maintained along the entirety of the eastern boundary. Habitat that links the Project site to DDHP and EFRR further to the south would also be conserved. The Project would contribute 34.8 acres of BOS to the existing DDHP and EFRR core habitat block, thereby enhancing habitat connectivity, widening the linkage, and conserving wildlife movement functions in those areas. Therefore, although the Project would reduce corridor width by removing native vegetation on the east side of the

Project, **the Project maintains adequate widths of at least 1,000 feet and would not further constrain an already narrow corridor, and impacts would be less than significant**.

Adequate Visual Continuity (Guideline 24)

The Project would not impair visual continuity within corridors or linkages in the local area. Figure 2.3-6 depicts expected wildlife movement patterns in the local area. Considering topography and vegetative cover along travel routes, wildlife potentially moving through the local area would likely access the site from three key points of entry: (1) from Escondido Creek open space along the northeastern boundary of the site; (2) from the West Ridge area along the eastern and southeastern boundary; and (3) from the DDHP along the extreme southern boundary. Wildlife moving from the north (from Escondido Creek and Escondido Creek Conservancy lands) would still have lines-of-sight to scrub and chaparral around the northeastern corner and along the eastern boundary of the site. They would also have lines-of-sight to additional habitat located further to the northeast and east of the site. These areas would lead them to the existing rural and undeveloped lands to the east of the site. These lands follow a scrub- and chaparral-vegetated ridgeline with optimal high points that provide birds and mammals long lines-of-sight. Wildlife moving from the southeast (from West Ridge) would have visual continuity up to the saddle and existing rural residence immediately southeast of the site. Once at the saddle, lines-of-sight would be conserved to the north along the eastern boundary of the site and to the west into the BOS in the southern portions of the site. East-west lines-of-site would be maintained within the BOS in the southern portions of the site, then south into the DDHP. North-south lines-of-sight from the saddle would be maintained along the eastern boundary of the site within thinned native habitat, and further to the east along the ridgeline. Wildlife moving from the south (from DDHP) would continue to have an unobstructed view. The lines-of-sight from the southern portions of the site to Escondido Creek are already impeded by rolling topography. With the proposed BOS, wildlife would be able to follow existing topography, including gullied land and shallow slopes, in and out of the open space and to and from visual high spots. Lines-of-sight would be maintained around the northern perimeter of the BOS in the southern portions of the site to allow unobstructed east-west views. As such, **the Project would not impair visual continuity within corridors or linkages in the local area and impacts would be less than significant**.

2.3.2.5 *Local Policies, Ordinances, and Adopted Plans*

Guidelines for the Determination of Significance

A significant impact would occur if the Proposed Project would:

25. Impact coastal sage scrub vegetation within lands outside the MSCP in excess of the County's five-percent habitat loss threshold as defined by the Southern California Coastal Sage Scrub NCCP Guidelines.

26. Preclude or prevent the preparation of the subregional NCCP. (If, for example, the Project proposes development within areas that have been identified by the County or resource agencies as critical to future habitat preserves.)

27. Impact any amount of wetlands or sensitive habitat lands as outlined in the RPO.

28. Not minimize and/or mitigate coastal sage scrub habitat loss in accordance with Section 4.3 of the NCCP Guidelines.

29. Not conform to the goals and requirements as outlined in any applicable HCP, Resource Management Plan, Special Area Management Plan, Watershed Plan, or similar regional planning effort.

30. Not minimize impacts to BRCAs within lands in the MSCP, as defined in the Biological Mitigation Ordinance (BMO).

31. Preclude connectivity between areas of high habitat values, as defined by the Southern California Coastal Sage Scrub NCCP Guidelines.

32. Not maintain existing movement corridors and/or habitat linkages, as defined by the BMO.

33. Not avoid impacts to MSCP narrow endemic species and would impact core populations of narrow endemics.

34. Reduce the likelihood of survival and recovery of listed species in the wild.

35. Result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs (MBTA).

36. Result in the take of eagles, eagle eggs or any part of an eagle (Bald and Golden Eagle Protection Act).

Guidelines Source

These guidelines are based on the County Guidelines for Determining Significance – Biological Resources (2010).

Analysis

Impact Coastal Sage Scrub in Excess of Five Percent, Preclude/Prevent NCCP, or Not Meet NCCP Requirements (Guidelines 25, 26 and 28)

The Project would impact 10.4 acres of Diegan coastal sage scrub outside of adopted MSCP areas. The loss of 10.4 acres would not be in excess of the County's five percent habitat loss threshold.

Project implementation would not preclude or prevent finalizing and adoption of a subregional NCCP. Conserving habitat blocks within and maintaining unobstructed access between the DDHP, EFRR, and Escondido Creek corridor are key targets for the Draft MSCP North County Plan. The Project would contribute BOS immediately adjacent to the existing habitat block preserved in DDHP and EFRR and would not have a substantial adverse impact on Escondido Creek or access to the Creek corridor. The Project would result in preservation of 34.8 acres of

on-site open space and an additional 51.5 acres of off-site open space, for a total of 86.3 acres of open space preserve located in PAMA.

As depicted on Figure 2.3-6, the Project would abut HGV. The Project's conservation design is consistent with the targets for the region. The Project proposes set aside of 34.8 acres of high quality habitat, including 1.8 acres of temporary impacts restored to Diegan coastal sage scrub, adjacent to the DDHP and EFRR habitat block. This contribution would expand regional live-in habitat placed in preservation and conserve east-west movement functions across the southern portions of the Project site, from West Ridge over to Escondido Creek. Further, the design would not prevent north-south access to Escondido Creek, as alternative travel routes and a regional corridor exists further to the east of the site. Therefore, the Project would not conflict with the conservation goals and objectives of the Draft MSCP North County Plan for the local area.

An analysis was completed for Project impacts on coastal sage scrub, coastal sage-chaparral transition, and non-native grassland compared to those reported for the region in the Draft MSCP North County Plan area, including data related to proposed PAMA designations and conservation targets. The results of the analysis are detailed in Appendix E. The analysis demonstrates that Project impacts on Diegan coastal sage scrub, coastal sage-chaparral scrub, and non-native grassland would be extremely small compared to the amount of existing regional habitat reported within the Draft MSCP North County Plan area, including the total expected and targeted for conservation within PAMA.

As evidenced by the small percentages of impact contribution, the loss of these habitat types as a result of the Project would not preclude the implementation of the Draft MSCP North County Plan. For example, it is acknowledged that non-native grassland on site contributes to raptor foraging in the PAMA; however, there are 14,841 total acres of non-native grassland reported as occurring in PAMA within the Draft MSCP North County Plan area boundaries, of which, 10,817 acres are expected to be conserved based on conservation percentage targets. Project impacts represent less than 1.0 percent (0.30 percent) of the total non-native grassland within PAMA and less than 1.0 percent (0.41 percent) of the total expected to be conserved in the Plan area. For coastal sage scrub, the percentages are much less, as Project impacts represent less than 1.0 percent (0.04 percent) of the total coastal sage scrub within PAMA and less than 1.0 percent (0.06 percent) of the total expected to be conserved in the Plan area.

With respect to local preserve design configuration, the grassland located within PAMA on the site is not occupied by sensitive species, is not essential to facilitate wildlife movement in the local area, and although it does function as foraging habitat for raptors, it does not represent the only available foraging habitat in the local area. Wildlife would still have access to and from Escondido Creek and core habitat within the DDHP and EFRR. Target species, such as gnatcatcher and mule deer, would still be able to migrate and disperse through the local area. The Project site does not serve as the only area of movement to and from these areas and would not preclude wildlife from accessing key resources in the local area. The Project proposes on-site BOS preservation and off-site preservation of habitat with equivalent or superior functions and values compared to that which would be lost with Project implementation. With respect to local conservation targets, as summarized within Appendix E, the Project would be consistent with the conservation goals and objectives for the Harmony Grove Core Area, based on the draft circulated for public review in 2009.

The Project site is identified as PAMA in the Draft MSCP North County Plan, but these areas do not substantially contribute to the conservation targets for the local area. The majority of Project impacts are restricted to non-native grassland that had been previously disturbed and subject to incompatible lands uses for many years. It is acknowledged that the grassland provides open undeveloped land adjacent to the Escondido Creek corridor. It does not, however, support key habitat or target species for the Draft MSCP North County Plan. The grassland lacks an abundance of cover and landscape features (e.g., ridgelines, gullied land, linear stands of vegetation, drainage features, etc.) typically associated with wildlife travel routes and movement corridors, and does not support critical populations of species or provide an abundance of food, shelter, or other biological resources, as evidenced by the results of the biological surveys. At best, the grassland provides available space for animals commonly occurring in the region and foraging habitat for raptors. Impacts to grassland, which constitute the majority of PAMA on the Project site, would not preclude or prevent approval and adoption of the Draft MSCP North County Plan.

One of the key targets for the Draft MSCP North County Plan and preserve assemblage for PAMA is gnatcatcher. The Project site supports Diegan coastal sage scrub of both Low and Intermediate Value within PAMA; however, the site is not vital to support a viable population of gnatcatchers in perpetuity, considering only a single breeding pair was found on site in 2014 and lack of value for species nesting (County 2008b). The potential for gnatcatchers to breed at other locations on the site is considered low based on small patch size of suitable habitat, lack of constituent vegetative elements (i.e., dominated by buckwheat, black sage, and chaparral constituents), and the fact that no additional breeding pairs were observed during 2014 protocol surveys. Portions of the site may facilitate gnatcatcher movement in the local area, but those portions may not be critical and alternative dispersal habitat within PAMA is located to the east of the site. Impacts to coastal sage scrub on the Project site would not jeopardize the gnatcatcher or preclude or prevent approval and adoption of the Draft MSCP North County Plan.

The Project would impact 10.4 acres out of 10.9 on-site acres of coastal sage scrub habitat. As described below, the overall impacts on coastal sage scrub would be minimized through a combination of design features, on-site restoration, and preservation. The impacts would be further mitigated through additional off-site preservation of higher quality habitat with equivalent or superior function and greater long-term conservation value compared to that which would be impacted.

Section 4.3 of the NCCP Guidelines (CDFW 1993a) states, in part: "Project design must be consistent with the Conservation Guidelines and with any guidelines adopted by the subregion and concurred with by the CDFG and USFWS and must, to the maximum extent practicable, minimize habitat loss." The Project design does not minimize habitat loss to the maximum extent practicable. However, impacts are allowable according to the Southern California Coastal Sage Scrub NCCP Conservation Guidelines (CDFW 1993b), which establish the criteria for determining a site's potential value for conservation. According to the NCCP Logic Flow Chart, the quality of habitat supported on the Project site is defined as being "Low Value" and "Intermediate Value." The County's Habitat Evaluation shows the Project site ranked as having No Value to the coastal California gnatcatcher for nesting (County 2008b). According to the Conservation Guidelines, sites of Low and Intermediate Value can be impacted on a case by case basis with appropriate mitigation.

Of the 10.4 acres of coastal sage scrub that would be impacted, approximately 4.1 acres (39 percent) is made of up smaller, Low Value fragmented patches in the southern and western portions of the Project impact area where gnatcatchers were not detected during surveys, but which could be used for foraging, migration and dispersal. These 4.1 acres would be considered to have Low Value using the criteria for the NCCP Logic Flow Chart because of their fragmented nature and small patch size, and their low function and value for sensitive species. The remaining 6.3 acres of coastal sage scrub in the eastern portion of the site would be considered to have Intermediate Value, given the habitat was confirmed to be used for breeding by gnatcatcher and is characterized by larger, intact stands. As mentioned above, according to the Conservation Guidelines, the habitat can be impacted on a case by case basis with appropriate mitigation.

Impacts to on-site coastal sage scrub would be minimized through a combination of design features, on-site restoration, and preservation. The impacts would be further mitigated through additional off-site preservation. As stated above, some of the impacted habitat would occur within thinned native vegetation fuel modification zones, thereby conserving some functionality of the habitat and minimizing the impact. The Project would further utilize native coastal sage scrub species in the landscape palette to the extent allowed to meet fire and landscape requirements, thereby replacing some additional functionality on site and minimizing the impact. Additional areas within the Project temporary impact footprint would be restored to coastal sage scrub and placed within BOS, thereby replacing some of the habitat loss and minimizing the overall impact to the habitat on site. Last, the Project would preserve additional off-site habitat that will be occupied by gnatcatcher, much larger in size, and of equivalent or superior quality, function, and value compared to that being impacted by the Project.

The loss would be mitigated in accordance with Section 4.3 of the NCCP Guidelines and offset by preserving on-site habitat and additional off-site habitat in the region (as further described herein). Compensatory mitigation is proposed at a 2:1 ratio, which is consistent with ratios established by the County and Resource Agencies. The Project is preserving 2.3 acres of on-site coastal sage scrub, including 1.8 acres of Diegan coastal sage scrub restoration. As a regulatory requirement, the Project will obtain an HLP from the County, which requires concurrence from the Wildlife Agencies prior to issuance. The HLP will incorporate the avoidance, minimization, and compensatory mitigation measures, and will include detailed information about the specific type(s) and location(s) for the mitigation. Compensatory mitigation measures are proposed to offset the loss of the coastal sage scrub habitat. Approximately 1.8 acres would be restored or created within temporary impact areas along the southern boundary. These 1.8 acres would be preserved, along with an additional 0.5 acre, for a total of 2.3 acres of preserved coastal sage scrub within BOS for the Project. In addition to the on-site restoration, creation, and preservation of 2.3 acres, the Project proposes one or a combination of the following for an additional 18.5 acres of coastal sage scrub preservation in the region (as described herein): (1) the recordation of a BOS easement, RMP implementation, and long-term management of land containing occupied coastal sage scrub as approved by the County and Wildlife Agencies; and/or (2) purchase of occupied coastal sage scrub credits from a conservation bank as approved by the County and Wildlife Agencies. To the extent possible, mitigation will occur within High Value or Intermediate Value lands using the NCCP Conservation Guidelines, or lands supporting like-functioning habitat located in PAMA and in the Elfin Forest-Harmony Grove Planning Area, or northern coastal foothills ecoregion. The location shall be deemed acceptable by the County and

Wildlife Agencies. The Project as a whole would therefore result in a net increase of 18.5 acres or 70 percent of coastal sage scrub preservation compared to the 10.9 acres that currently exist on site, portions of which are fragmented and of Low Value.

Project impacts on coastal sage scrub would not preclude the implementation of the Draft MSCP North County Plan. As such, although impacts would be significant, the Project would appropriately mitigate for the loss of coastal sage scrub habitat.

The Proposed Project is outside the adopted MSCP area, but within the boundary of the Draft MSCP North County Plan. Based on the discussion of on-site habitat value and mitigation ratios discussed above, **NCCP-related impacts would be less than significant.**

County RPO Wetlands (Guideline 27)

Off-site impacts would occur to 0.72 acre RPO wetlands at the Country Club Drive low-water crossing over Escondido Creek. The anticipated improvements would include construction of a new bridge that would span the flood limits of the Creek and allow for safe passage for the existing residents and future residents of the Project that rely on Country Club Drive. The bridge span represents the least environmentally damaging alternative to crossing the Creek and impacts to wetland would be unavoidable. The bridge span would provide a superior condition to that which currently exists. The improvements would be restricted to only those necessary to provide a safe crossing and enhance the biological and hydrological functions and services of the reach. The impacts would be primarily temporary for equipment access and staging during bridge construction. Permanent impacts would be limited to bridge abutments, footings, bank stabilization, and Fuel Modification Zone 2 thinning requirements. The impacts would be necessary to remove the existing low-water crossing, construct the new span bridge, stabilize the channel embankment, and restore the riverine hydrology of the reach. **These impacts to County RPO wetlands are identified as significant. (Impact BI-8)**

Coastal Sage Scrub Habitat Loss (Guideline 28)

The Project would impact 10.4 acres of coastal sage scrub habitat. The loss would be mitigated in accordance with Section 4.3 of the NCCP Guidelines. Compensatory mitigation is proposed at a 2:1 ratio, which is consistent with ratios established by the County and Resource Agencies. The overall impacts on coastal sage scrub would be minimized through a combination of design features, on-site restoration, and preservation. The impacts would be further mitigated through additional off-site preservation of higher quality habitat with equivalent or superior function and greater long-term conservation value compared to that which would be impacted. The Project is preserving 2.3 acres of on-site coastal sage scrub, including 1.8 acres of Diegan coastal sage scrub restoration.

As stated above, the Project is required to obtain an HLP from the County, which requires concurrence from the Wildlife Agencies prior to issuance. The HLP will incorporate the avoidance, minimization, and compensatory mitigation measures and will include detailed information about the specific type(s) and location(s) for the mitigation as addressed herein. Compensatory mitigation measures are proposed herein to offset the loss of the coastal sage scrub habitat. Approximately 1.8 acres would be restored or created within temporary impact

areas along the southern boundary. These 1.8 acres will be preserved, along with an additional 0.5 acre, for a total of 2.3 acres of preserved coastal sage scrub within BOS for the Project. In addition to the on-site restoration, creation, and preservation of 2.3 acres, the Project proposes an additional 18.5 acres of coastal sage scrub preservation in the region, as stated above. As a whole, the Project would therefore result in a net increase of 18.5 acres or 70 percent of coastal sage scrub preservation compared to the 10.9 acres that currently exist on site, portions of which are fragmented and of Low Value.

Project impacts on coastal sage scrub would not preclude the implementation of the Draft North County MSCP Subarea Plan. As such, the Project would appropriately minimize and mitigate for the loss of coastal sage scrub habitat. As such, **the Project would not conflict with Section 4.3 of the NCCP Guidelines and no significant impact would occur.**

Regional Planning Goals and Conformance/Minimization of Impacts to (Guidelines 29 and 30)

No adopted HCP, RMP, Special Area Management Plan, Watershed Plan, or other regional planning efforts are applicable to the Project. The Project site is not within an adopted MSCP planning area and the BMO does not apply. As such, **the Project would not conflict with adopted plans and no significant impact would occur.**

Connectivity between Areas of High Habitat Values (Guideline 31)

The Project would not preclude connectivity between high habitat value areas. The Project abuts existing residential uses to the east and west, as well as equestrian park elements of HGV once constructed. The southern portions of the site facilitate east-west wildlife movement and the eastern boundary of the site facilitates north-south movement. Wildlife also move east-west within the Escondido Creek corridor just to the north of the site. The existing residential uses and construction of HGV development limits wildlife connectivity to the north, east, and west. The Project would conserve 34.8 acres of land in the southern portion of the site in a BOS easement, thus continuing to allow for wildlife to access the Project site from the south, east, and west. The Project further includes landscaped slopes and thinned-native habitat within the fuel modification zones along the eastern boundary of the site, thereby conserving some north-south movement functions.

High value areas are identified by the County's Habitat Evaluation Model (County 2008a) to the north, east, and west of the site, in addition to portions of the site itself. A contiguous swath of high value designation generally extends east-west across the central portion of the site. This swath connects directly to lands designated as high value within the HGV Equestrian Ranch west of the Project site. The Project would disrupt connectivity along this high value swath; however, the land within the HGV to the west should not be afforded high value designations given the development plans and zoning restrictions on the land that are attached to the HGV Specific Plan. As noted, the area is slated for an equestrian center and there are no plans for placing the land within a BOS easement. In addition, the land is characterized by non-native grassland that burned during the Cocos Fire. The current biological functions and values in these off-site lands are expected to be limited and do not justify high value habitat designation.

While the Project site itself does not function as a corridor, the eastern edge of the site likely supports north-south wildlife movement that occurs along the West Ridge, which would connect the gnatcatcher pairs north of Escondido Creek to DDHP. There is an area of high value gnatcatcher habitat approximately 0.5 mile northeast of the site (County 2008b). There is no direct connection to this habitat from the Project site. The site is separated from this area by residential uses, although a constrained and fragmented connection of habitat exists. Movement function along the eastern edge of the site would be conserved within thinned native vegetation fuel modification zones, thereby conserving some functionality of the habitat and minimizing the impact. Gnatcatchers and other wildlife will still be able to move unobstructed further to the east of the site near the West Ridge area.

Impacts to on-site coastal sage scrub would be minimized through a combination of design features, on-site restoration and preservation, and off-site preservation. As stated above, some of the impacted habitat would occur within thinned native vegetation fuel modification zones, thereby conserving some functionality of the habitat and minimizing the impact. The Project would further utilize native coastal sage scrub species in the landscape palette to the extent allowed to meet fire and landscape requirements, thereby replacing some additional functionality on site and minimizing the impact. Additional areas within the Project temporary impact footprint would be restored to coastal sage scrub and placed within BOS, thereby replacing some of the habitat loss and minimizing the overall impact to the habitat on site. Last, the Project would preserve additional off-site habitat that would be much larger in size and of equivalent or superior quality, function, and value to the region.

The Project does not preclude movement of gnatcatchers or other wildlife between high value areas, including DDHP and Escondido Creek, as discussed in detail in Section 2.3.2.4. As such, **the Project would not preclude connectivity between high habitat value areas in the region and impacts would be less than significant.**

Maintenance of BMO-identified Corridors (Guideline 32)

The Project does not occur within an adopted MSCP planning area and the BMO does not apply. **No impact would occur to BMO-identified corridors.**

Avoidance of MSCP Narrow Endemic Species (Guideline 33)

The Project does not occur within an adopted MSCP planning area and protection of MSCP narrow endemics does not apply. **No impact would occur to MSCP narrow endemic species.**

Survival and Recovery of Listed Species in the Wild (Guideline 34)

As discussed under Guideline 1 the Project could impact one pair of (nested) coastal California gnatcatchers. There is also a potential for impacts to least Bell's vireo if they should move into the area for nesting. The number of birds potentially impacted is very low and does not constitute a critical population based Project field work completed by HELIX, as well as the small amount of available habitat of appropriate quality. As a result, **the Project would not reduce the likelihood of survival or recovery for either species and impacts would be less than significant**.

Migratory Bird Treaty Act (Guideline 35)

Implementation of the project could potentially result in the killing of migratory birds or destruction of active migratory bird nests and/or eggs (MBTA), as breeding birds may temporarily or permanently leave their territories to avoid construction activities, which could lead to reduced reproductive success and increased mortality. **Impacts to the MBTA would be potentially significant. (Impact BI-9)**

Bald and Golden Eagle Treaty Act (Guideline 36)

Please refer to discussion under Guideline 5. Bald eagles are not in the study area. Because impacts to golden eagles nesting habitat are not anticipated, no take of eagles, eagle eggs, etc. is anticipated. The nearest known historic golden eagle nest is approximately 1.5 miles to the south of the Project site. There have been no recent sightings of territorial eagles at this nest location. The Project site does not contain nesting habitat and it is not within any known golden eagle territory. While there is adequate eagle foraging habitat (open non-native grassland) on site, the surrounding habitat fragmentation and the distance from known eagle territories would indicate that the site has low value for golden eagle. The surrounding area is primarily urbanized and new nesting in the vicinity is unlikely. Therefore, **no impacts are anticipated to golden eagle or its habitat, and no significant impact would occur.**

2.3.3 Cumulative Impact Analysis

Guidelines for the Determination of Significance

A significant cumulative impact would occur if the Proposed Project would:

37. The potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal species.

38. Have impacts that are individually limited, but cumulatively considerable.

Guidelines Source

These guidelines are based on the County Guidelines for Determining Significance – Biological Resources (2010).

Analysis

Impacts that may not be considered significant on a project-specific level can become significant when viewed in the context of other losses in the vicinity of the Project site. When evaluating cumulative impacts, CEQA states that "lead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used" (Section 15130[b][3]). The area of consideration for cumulative biological projects impacts was based on an approximate 3.0 miles from the Project site, including the foothills to the north and northeast of the Project site and extending south to the northern edge of

Olivenhain Reservoir. The cumulative study area also extends slightly beyond I-15 to the east and north of SR 78. The cumulative study area was chosen because it includes areas with similar biological resources as the Project site, as well as capturing the watershed for the Project site, including urbanized areas draining to Escondido Creek upstream and downstream of the site. It also includes the nearest Draft MSCP North County Plan PAMA areas and the Mt. Whitney/Double Peak area south to Escondido Creek. The area of consideration includes lands within a reasonable distance from the Project site that may have a biologically based connection to the site in terms of habitat connectivity and development in the region.

A total of 21 projects (including the proposed Project) were reviewed for this cumulative analysis (Table 2.3-6, *Cumulative Impacts on Biological Resources*, and Figure 2.3-7, *Biological Cumulative Study Area*). Of these 21 cumulative projects, 8 would result in significant or potentially significant cumulative impacts to sensitive biological resources. The remaining 13 projects either would not result in impacts to sensitive biological resources or information on impacts is not available.

Cumulative Impacts to Special Status Species

The Project has the potential to contribute to the cumulative impact on coastal California gnatcatcher, least Bell's vireo, and raptors (i.e., loss of raptor foraging habitat).

The cumulative projects with available data would impact 106.4 acres of coastal sage scrub habitat. The loss of coastal sage scrub habitat would represent a potential cumulative impact on the coastal California gnatcatcher. This impact would be potentially significant. The proposed Project would result in impacts to 10.4 acres of coastal sage scrub, a portion of which was determined to support a breeding gnatcatcher pair. Therefore, the proposed Project would contribute to the significant cumulative impact on coastal California gnatcatcher. Projects are required to implement avoidance measures so that direct, inadvertent take of gnatcatcher individuals is prevented. In addition, projects are required to compensate impacts on coastal sage scrub at a minimum 1:1 ratio, which ensures that the loss of occupied and suitable habitat for the gnatcatcher is fully compensated. The proposed Project would implement required gnatcatcher avoidance measures and compensate the loss of coastal sage scrub habitat at a minimum 2:1 ratio through a combination of on- and off-site preservation. Because habitat loss would be compensated at this higher ratio, **the Proposed Project's contribution to the cumulative impact would be less than considerable and reduced to a less than significant level.**

The cumulative projects would impact 7.79 acres of riparian/wetland habitat, which is the preferred habitat of the least Bell's vireo. The cumulative loss of riparian/wetland habitat would represent a significant cumulative impact on least Bell's vireo. The proposed Project would result in impacts to 0.72 acre of riparian/wetland habitat (some of which would be temporary in nature), a portion of which was determined to support least Bell's vireo, although no breeding vireo were observed. Nevertheless, vireo is a federally and State-listed endangered species and the Project's contribution to the cumulative impact would be significant. As with the coastal California gnatcatcher, projects are required to implement avoidance measures so that direct, inadvertent take of vireo is prevented. In addition, projects are required to compensate impacts on riparian/wetland habitat at a minimum 1:1 ratio, which ensures that the loss of occupied and suitable habitat for vireo is fully compensated. The proposed Project would implement required

vireo avoidance measures and compensate the loss of riparian/wetland habitat at a minimum 1:1 ratio through a combination of on- and/or off-site preservation and restoration. **With the implementation of these measures, the Proposed Project's contribution to the cumulative impact would be less than considerable and reduced to a less than significant level.**

The cumulative projects would impact 263.0 acres of non-native grassland that potentially serves as raptor foraging habitat. Cumulative impacts to raptors would be significant since the cumulative projects would further reduce the amount of foraging habitat available for these species. The proposed Project would result in 44.2 acres of temporary and permanent impacts to non-native grassland. As discussed under Guidelines 1, 3, 6 and 31, however, raptors seen during HELIX field work in the area over the past couple years generally were noted as occasional flyovers. The grassland, therefore, does not constitute essential foraging habitat. **The Project's contribution to significant cumulative impacts to raptors based on loss of non-native grassland would be less than considerable, and therefore less than significant.**

Relative to cumulative impacts on sensitive habitat used by other sensitive species, the only habitat for which cumulative issues are identified as significant is coastal sage scrub, discussed above in this section. Impacts would be mitigated through the implementation of avoidance measures and habitat based compensatory mitigation, including on-site preservation and purchase of off-site habitat. **Implementation of these measures would reduce the Project's contribution on the cumulative impact to less than significant levels.**

Cumulative Impacts to Riparian and Sensitive Habitats

The Project would contribute to the cumulative impact on sensitive wetland and upland communities. The Project would mitigate project-level impacts in accordance with County, Wildlife Agency, and Regulatory Agency requirements. Impacts to wetland/riparian habitat and sensitive upland communities would be fully mitigated in-kind at County-approved ratios through one or a combination of the following: on- and/or off-site establishment, re-establishment, rehabilitation, enhancement and/or preservation; and/or off-site purchase of mitigation credits at an approved mitigation bank, such as the future Brook Forest Conservation Bank, San Luis Rey Mitigation Bank, or other location deemed acceptable by the County, Wildlife Agencies, and Regulatory Agencies; thus providing long-term conservation value. The County approved mitigation ratios are standardized and not dependent upon the quality of habitat. Rather, the mitigation ratios recognize the regional importance of the habitat, the overall rarity of the habitat, and the number and variety of species it supports. Mitigation for habitat loss is required to compensate for direct impacts as well as cumulative loss of habitat. Since current regulations require mitigation for wetland impacts to include establishment (i.e., creation) or re-establishment of the same habitat at a minimum 1:1 ratio, coupled with rehabilitation (i.e., restoration), enhancement, and/or preservation of habitat, there ultimately would be no contribution to cumulative loss of the resource. As the Project would be in conformance with County guidelines and mitigation ratios, **the Project's contribution to cumulative impacts to sensitive vegetation communities would not be considerable and would be less than significant.**

Cumulative Impacts to Jurisdictional Areas

The Project's impacts to 0.31 acre of federally protected wetlands, while significant at the project level, would be fully mitigated through on- and/or off-site establishment, re-establishment, rehabilitation, enhancement and/or preservation. **With a required 1:1 creation ratio, the Project would result in no net loss of the resource in the region, thus no cumulatively significant impact would occur.**

Cumulative Impacts to Wildlife Movement and Nursery Sites

The cumulative projects are located in existing urbanized areas of San Marcos, Escondido, and unincorporated County, or on the fringes of urbanization. A cumulative impact on wildlife movement has already occurred in the local area. Primary wildlife use areas are located in the Mt. Whitney area, along Escondido Creek, and within the DDHP and EFRR. The Project's siting of development and open space design conserves the core area and linkage functions in the region by concentrating development in the lower quality, non-native grasslands on the site, and minimizing edge effect by hugging up against HGV and existing developed uses to the west. Project development has been consolidated to reduce edge effects and concentrated in the portions of the site with the lowest, relative biological value. The proposed pad locations have been sited as far away from sensitive resources as possible. They are separated from open space and undeveloped areas by manufactured slopes, portions of which would be restored with native habitat, in addition to fuel modification zones, portions of which propose native habitat thinning and/or irrigation. Manufactured slopes and fuel modification zones in open space are expected to provide some biological functions and values under post-Project conditions, especially in buffering open space from proposed developments, preventing vehicle and pedestrian encroachment, and providing habitat for animal species known to the local area. Further, the Project would contribute 34.8 acres of BOS preserve immediately adjacent to the existing core habitat block established by DDHP and EFRR, thereby enhancing habitat connectivity, widening the linkage, and conserving wildlife movement functions in those areas. The Project's BOS would be contiguous with DDHP to the south; and undeveloped lands, rural/estate properties, and lands constrained by steep slopes and rugged terrain to the east and west. Although not included in BOS, undeveloped areas included in the Project's fuel modification zone (thinned native vegetated) would abut the Escondido Creek Open Space to the north, conserving contiguity and functionality of habitat in that area. **With the Project's proposed BOS, restoration, incorporation of design features, and implementation of mitigation measures at the specified ratios, the contribution of the Project to the cumulative impact on wildlife movement would not be considerable and would be less than significant**.

Cumulative Impacts to Local Policies, Ordinances, and Adopted Plans

The cumulative projects would be required to conform to County Guidelines 25 through 36 and provide mitigation as appropriate. Mitigation is proposed to reduce the project-level impacts on migratory birds. **Conformance or mitigation, as appropriate, would be required for the Project and for the other cumulative projects in order to obtain a recommendation for approval, thus no cumulative impacts would occur.**

2.3.4 Significance of Impacts Prior to Mitigation

The following significant impacts related to biological resources would occur with Project implementation:

Impact BI-1a The Project will result in impacts to 10.4 acres of Diegan coastal sage scrub, a sensitive natural community type.

Impact BI-1b A single, breeding pair of coastal California gnatcatchers was determined to occupy portions of the on-site Diegan coastal sage scrub that would be impacted by the Project. Impacts to gnatcatcher individuals; occupied habitat; and foraging, migration and dispersal habitat would result in a potentially significant impact to listed species.

Impact BI-1c Least Bell's vireo has been observed using Project-adjacent riparian habitat for foraging and other non-breeding activities. Because there is a potential for use of the area by a breeding pair and for foraging, the Project could result in a potentially significant impact to listed species.

Impact BI-2a The Project would impact seven individuals of summer holly, a County List A plant, and 1,963 wart-stemmed ceanothus, a County List B plant.

Impact BI-2b A single red-shouldered hawk was observed perching in a tree near Escondido Creek. This species could nest at off-site locations within 500 feet of Project impact areas and may forage over the site. The Project would impact non-native grassland that serves as raptor foraging habitat. A potentially significant impact was assessed to loss of this habitat, which could impact the survival of a local population of Species of Special Concern.

Impact BI-2c The Project would result in the significant loss of potential nesting and foraging habitat for yellow-breasted chat, which is designated as State Species of Special Concern and County Group 1 species. A potentially significant impact was assessed to loss of mule fat scrub and willow riparian forest, impacting the survival of a local population of Species of Special Concern.

Impact BI-3a The Project would result in loss of 44.2 acres of non-native grassland that serves as potential foraging habitat for the barn owl and white-tailed kite. This loss of habitat could significantly affect long-term survival of County Group 2 Animal Species.

Impact BI-3b The Project would result in the significant loss of potential nesting and foraging habitat for yellow warbler, which is designated as State Species of Special Concern and County Group 2 species. A potentially significant impact was assessed to loss of mule fat scrub and willow riparian forest, impacting the survival of a local population of Species of Special Concern.

Impact BI-3c The Project would result in a significant loss of 44.2 acres of non-native grassland that serves as raptor foraging habitat.

Impact BI-4 Construction-related noise (including the use of heavy equipment, potential blasting, potential use of a rock crusher, and potential use of cast-in-drilled holes or a pile driver) may significantly impact sensitive bird species such as coastal California gnatcatcher and least Bell's vireo, as well as raptors, which may be nesting within an area where construction noise at the nest exceeds 60 dBA.

Impact BI-5a The Project would result in significant direct impacts to less than 0.01 acre of mule fat scrub and 0.71 acre of southern willow riparian forest.

Impact BI-5b The Project would result in significant direct impacts to 10.4 acres of Diegan coastal sage scrub (including disturbed).

Impact BI-5c The Project would result in significant direct impacts to 4.5 acres of coastal sage-chaparral transition.

Impact BI-5d The Project would result in significant direct impacts to 15.6 acres of southern mixed chaparral.

Impact BI-5e The Project would result in significant direct impacts to 44.2 acres of non-native grassland.

Impact BI-5f The Project would result in significant direct impacts to 0.2 acre of upland coast live oak woodland and root zone.

Impact BI-6a The Project would result in significant direct impacts to 0.31 acre of wetland waters of the U.S./State (southern riparian forest) and 0.03 acre of non-wetland waters of the U.S./State regulated by the USACE and RWQCB.

Impact BI-6b The Project would result in significant direct impacts to 0.77 acre of CDFW-jurisdictional, vegetated-streambed comprised of 0.71 acre of southern riparian forest, less than 0.01 acre of mule fat scrub, and 0.05 acre of coast live oak woodland. The Project would also impact 0.04 acre of CDFW-jurisdictional, unvegetated streambed.

Impact BI-6c The Project would result in significant direct impacts to 0.72 acre of County RPO wetlands comprised of 0.71 acre of southern riparian forest, less than 0.01 acre of mule fat scrub, and 0.01 acre of coast live oak woodland associated with Escondido Creek.

Impact BI-7 The Project would result in significant impacts to federally protected wetlands.

Impact BI-8 The Project would result in significant impacts to County RPO-protected wetlands.

Impact BI-9 If clearing or grubbing takes place in occupied nesting habitat during the avian breeding season, it could result in a significant killing of migratory birds or destruction of their nests.

2.3.5 Mitigation

M-BI-1a Prior to issuance of a grading permit, the Project Applicant shall preserve 34.8 acres of on-site BOS determined to support sensitive species and habitat functions and values contiguous with the DDHP to the south through the establishment of a conservation easement and the preparation of a Resource Management Plan (RMP) approved by the County and Wildlife Agencies (USFWS and CDFW) to address long-term monitoring, maintenance, management, and reporting directives, in perpetuity, by a qualified entity approved by the County and Wildlife Agencies.

The 34.8-acre BOS is depicted on Figure 1-9 and Figure 2.3-5. The habitat types within the BOS are summarized within Table 11 of Appendix E. The RMP shall address the location of the mitigation sites that meet the specific mitigation requirement for the type of habitat (e.g., in-kind habitat preservation, no net loss, presence of special status species, etc.) within the Project site. The open space easement shall be owned by a conservancy, the County, or other similar, experienced entity subject to approval by the County. Funding shall be provided through a non-wasting endowment, Community Facility District or other finance mechanism approved by the County. Should a regional entity to manage biological open space be formed, the natural habitat areas within the Project site could be dedicated to that entity and managed as part of an overall preserve system for northern San Diego County.

M-BI-1b Prior to issuance of a grading permit, mitigation for 10.4 acres of impacts to Diegan coastal sage scrub occupied by coastal California gnatcatcher shall occur at a 2:1 ratio for a total of 20.8 acres of occupied habitat through a combination of on-site preservation of 0.5 acre, on-site restoration and preservation of 1.8 acres, and off-site preservation of 18.5 acres through land acquisition and/or purchase of conservation bank credits, as specified below and approved by the County and Wildlife Agencies as part of the required HLP process.

On-site restoration shall include 1.8 acres of Diegan coastal sage scrub. The restoration shall include preparation and implementation of a restoration plan approved by the County and Wildlife Agencies, to include directives for native container planting and seeding using locally sourced material, temporary irrigation, and monitoring and maintenance for a minimum five-year period until performance standards and success criteria approved by the County and Wildlife Agencies have been met. The 1.8 acres of restored coastal sage scrub shall be placed within a BOS easement, along with the 0.5 acre of avoided coastal sage scrub, and managed in perpetuity in accordance with M-BI-1a.

An additional 18.5 acres of occupied, Intermediate Value or High Value coastal sage scrub, and/or other like-functioning habitat as approved by the County and Wildlife Agencies, shall be provided through one or a combination of the following:

- Off-site preservation of mitigation land, through the recordation of a BOS easement, and preparation of an RMP to address long-term monitoring, maintenance, management, and reporting directives, in perpetuity, approved by the County and Wildlife Agencies. To the extent the land is available for preservation, off-site mitigation shall occur within land designated as PAMA in the Draft MSCP North County Plan and located in the Elfin Forest-Harmony Grove Planning Area, northern coastal foothills ecoregion. The location shall be deemed acceptable by the County and Wildlife Agencies. Long-term management shall be funded through a non-wasting endowment in an amount determined through preparation of a Property Assessment Record (PAR) or similar method for determining funding amount. The open space easement shall be owned by a conservancy, the County or other similar, experienced entity subject to approval by the County. Should a regional entity to manage biological open space be formed, the natural habitat areas within the Project site could be dedicated to that entity and managed as part of an overall preserve system for northern San Diego County.

- If demonstrated to the satisfaction of the County and Wildlife Agencies that off-site preservation of mitigation land is not feasible to fulfill all or a portion of mitigation obligations, then the Project shall include purchase of occupied coastal sage scrub credits at an approved conservation bank, such as the Red Mountain Conservation Bank, Buena Creek Conservation Bank, or other bank deemed acceptable by the County and Wildlife Agencies.

To further prevent inadvertent direct impacts to coastal California gnatcatcher individuals during construction, no grading or clearing shall occur of occupied Diegan coastal sage scrub during the species' breeding season (February 15 to August 31). All grading permits, improvement plans, and the final map shall state the same. If clearing or grading would occur during the breeding season for the gnatcatcher, a pre-construction survey shall be conducted to determine whether gnatcatchers occur within the impact area(s). To avoid take under the federal ESA, impacts to occupied habitat shall be avoided. If there are no gnatcatchers nesting (includes nest building or other breeding/nesting behavior) within that area, grading and clearing shall be allowed to proceed. If, however, any gnatcatchers are observed nesting or displaying breeding/nesting behavior within the area, construction in that area shall be postponed until all nesting (or breeding/nesting behavior) has ceased or until after August 31. (See also M-BI-4 for mitigation for indirect noise effects.)

M-BI-1c Prior to issuance of a grading permit, mitigation for impacts to less than 0.01 acre of mule fat scrub and 0.71 acre of southern riparian forest suitable for least Bell's vireo shall occur at a 3:1 ratio through one or a combination of the following: on- and/or off-site establishment, re-establishment, rehabilitation, enhancement and preservation of riparian habitat and/or other like-functioning habitat; and/or off-site purchase of riparian habitat mitigation and/or other like-functioning

habitat at an approved mitigation bank in the local area, such as the Brook Forest Mitigation Bank, San Luis Rey Mitigation Bank, or other location deemed acceptable by the County and Regulatory Agencies (USACE, RWQCB, and CDFW), as applicable. The establishment/creation or re-establishment component must be at least 1:1, while the remaining 2:1 can be restoration and enhancement.

To further prevent inadvertent direct impacts to least Bell's vireo individuals during construction, no grading or clearing shall occur within riparian habitat during the breeding season of the least Bell's vireo (March 15 to September 15). All grading permits, improvement plans, and the final map shall state the same. If clearing or grading would occur during the breeding season for the least Bell's vireo, a pre-construction survey shall be conducted to determine whether vireos occur within the impact area(s). To avoid take under the federal and California ESAs, impacts to occupied habitat shall be avoided. If there are no vireos nesting (includes nest building or other breeding/nesting behavior) within that area, grading and clearing shall be allowed to proceed. If, however, any vireos are observed nesting or displaying breeding/nesting behavior within that area, construction shall be postponed until all nesting (or breeding/nesting behavior) has ceased or until after September 15. (See also M-BI-4 for mitigation for indirect noise effects.)

M-BI-2a Prior to issuance of a grading permit, mitigation for impacts to seven summer holly and 1,963 wart-stemmed ceanothus individuals shall occur at a minimum ratio of 3:1 for summer holly and 1:1 for wart-stemmed ceanothus through the preservation of at least 21 summer holly and 1,963 wart-stemmed ceanothus within the BOS easement (which includes preparation of an RMP and monitoring, maintenance, management, and reporting directives) described above in M-BI-1a.

M-BI-2b Prior to issuance of a grading permit, mitigation for impacts to 44.2 acres of non-native grassland that provides suitable nesting and foraging habitat for several bird species, including raptors, shall occur at a 0.5:1 ratio through the preservation of 0.2 acre on site within the BOS easement (which includes preparation of an RMP and monitoring, maintenance, management, and reporting directives) as required by M-BI-1a, in addition to one or a combination of the following: off-site preservation of 21.9 acres of grassland habitat and/or other like-functioning habitat through the recordation of a BOS easement, and the preparation of an RMP to address long-term monitoring, maintenance, management, and reporting directives, in perpetuity, approved by the County and Wildlife Agencies. To the extent the land is available for preservation, off-site mitigation shall occur within land designated as PAMA in the Draft MSCP North County Plan and located in the Elfin Forest-Harmony Grove Planning Area, or northern coastal foothills ecoregion. The location shall be deemed acceptable by the County and Wildlife Agencies. The proposed open space easement shall be owned by a conservancy, the County or other similar, experienced entity subject to approval by the County. Should a regional entity to manage biological open space be formed, the natural habitat areas within the Project site could be dedicated to that entity and managed as part of an overall preserve system for northern San Diego County. If

demonstrated to the satisfaction of the County and Wildlife Agencies that off-site preservation of mitigation land is not feasible to fulfill all or a portion of mitigation obligations, then the Project shall include purchase of 21.9 acres of grassland credits or like-functioning habitat at an approved conservation bank such as the Brook Forest Conservation Bank or other location deemed acceptable by the County. (See also M-BI-9 addressing breeding season avoidance.)

M-BI-2c Prior to issuance of a grading permit, mitigation for impacts to yellow-breasted chat nesting and foraging habitat, including less than 0.01 acre of mule fat scrub and 0.71 acre of southern riparian forest, shall be provided at a 3:1 ratio through implementation of mitigation M-BI-1c. (See also M-BI-9 addressing breeding season avoidance.)

M-BI-3a Prior to issuance of a grading permit, mitigation for loss of foraging area that could impact long-term survival of County Group 2 animals shall be provided through implementation of mitigation for impacts to 44.2 acres of non-native grassland at a 0.5:1 ratio, as described in M-BI-2b.

M-BI-3b Prior to issuance of a grading permit, mitigation for impacts to yellow warbler nesting and foraging habitat, including less than 0.01 acre of mule fat scrub and 0.71 acre of southern riparian forest at a 3:1 ratio, shall be provided through implementation of mitigation M-BI-1c. (See also M-BI-9 addressing breeding season avoidance.)

M-BI-3c Prior to issuance of a grading permit, mitigation for loss of raptor foraging habitat shall be provided through implementation of mitigation for impacts to 44.2 acres of non-native grassland at a 0.5:1 ratio, as described in M-BI-2b.

M-BI-4 If operation of construction dozers, excavators, rock crushers, pile drivers or cast-in-drilled-hole equipment occurs during the breeding seasons for the coastal California gnatcatcher (February 15 to August 31), nesting raptors (January 15 to July 15), or least Bell's vireo (March 15 to September 15), pre-construction survey(s) shall be conducted by a qualified biologist as appropriate prior to issuance of a grading permit, to determine whether these species occur within the areas potentially impacted by noise. If it is determined at the completion of pre-construction surveys that active nests belonging to these sensitive species are absent from the potential impact area, construction shall be allowed to proceed. If pre-construction surveys determine the presence of active nests belonging to these sensitive species, then operation of the following equipment shall not occur within the specified distances from an active nest during the respective breeding seasons: a dozer within 400 feet; an excavator within 350 feet; rock crusher equipment within 1,350 feet; a breaker within 500 feet; a pile driver within 2,600 feet; and cast-in-drilled holes equipment within 350 feet. All grading permits, improvement plans, and the final map shall state the same. Operation of construction dozers, excavators, rock crushers, pile drivers, cast-in-drilled-hole equipment and other noise-generating activities shall: (1) be postponed until a qualified biologist determines the nest(s) is no longer active or until after the respective breeding

season; or (2) not occur until a temporary noise barrier or berm is constructed at the edge of the development footprint and/or around the piece of equipment to ensure that noise levels are reduced to below 60 dBA or ambient. Decibel output will be confirmed by a County-approved noise specialist and intermittent monitoring by a qualified biologist to ensure that conditions have not changed will be required. If pre-construction surveys identify coastal California gnatcatcher, nesting raptors, or least Bell's vireo, blasting will be restricted to the non-breeding season for the identified birds (September 1 to February 14 for coastal California gnatcatcher; July 16 to January 14 for nesting raptors; and September 16 to March 14 for least Bell's vireo) or be completed using wholly chemical means.

M-BI-5a Prior to issuance of a grading permit, mitigation for impacts to less than 0.01 acre of mule fat scrub and 0.71 acre of southern riparian forest shall occur at a 3:1 ratio as specified in M-BI-1c, above.

M-BI-5b Prior to issuance of a grading permit, mitigation for 10.4 acres of impacts to occupied Diegan coastal sage scrub shall occur at a 2:1 ratio as specified in M-BI-1a and M-BI-1b, above.

M-BI-5c Prior to issuance of a grading permit, mitigation for 4.5 acres of impacts to coastal sage-chaparral transition shall occur at a 2:1 ratio through one or a combination of the following: off-site preservation of 9.0 acres of coastal sage-chaparral scrub and/or other like-functioning habitat, through the recordation of BOS easement, and the preparation of an RMP to address long-term monitoring, maintenance, management, and reporting directives, in perpetuity, approved by the County and Wildlife Agencies. To the extent the land is available for preservation, off-site mitigation shall occur within land designated as PAMA in the Draft MSCP North County Plan and located in the Elfin Forest-Harmony Grove Planning Area, or northern coastal foothills ecoregion. The location shall be deemed acceptable by the County and Wildlife Agencies. The open space easement shall be owned by a conservancy, the County or other similar, experienced entity subject to approval by the County. Should a regional entity to manage biological open space be formed, the natural habitat areas within the Project site could be dedicated to that entity and managed as part of an overall preserve system for northern San Diego County. If demonstrated to the satisfaction of the County and Wildlife Agencies that off-site preservation of mitigation land is not feasible to fulfill all or a portion of mitigation obligations, then the Project shall include purchase of 9.0 acres of coastal sage-chaparral scrub credits or like-functioning habitat at an approved mitigation bank such as the Red Mountain Conservation Bank, Buena Creek Conservation Bank, Brook Forest Conservation Bank, or other location deemed acceptable by the County and Wildlife Agencies.

M-BI-5d Prior to issuance of a grading permit, mitigation for 15.6 acres of impacts to southern mixed chaparral shall occur at a 0.5:1 ratio through the preservation of a minimum 7.8 acres on site within BOS easement (which shall include preparation

and implementation of an RMP and monitoring, maintenance, management, and reporting directives), as required by M-BI-1a.

M-BI-5e Prior to issuance of a grading permit, mitigation for 44.2 acres of impacts to non-native grassland shall occur through implementation of M-BI-2b, above.

M-BI-5f Prior to issuance of a grading permit, mitigation for 0.2 acre of impacts to upland coast live oak woodland shall occur at a 3:1 ratio through the preservation of 0.6 acre on site within BOS easement (which shall include preparation and implementation of an RMP and monitoring, maintenance, management, and reporting directives) as required by M-BI-1a.

M-BI-6a Prior to issuance of a grading permit, demonstration that regulatory permits from the USACE and RWQCB have been issued or that no such permits are required shall be provided to the County. Impacts to 0.31 acre of USACE/RWQCB-jurisdictional wetland waters of the U.S./State shall be mitigated at a 3:1 ratio as described in M-BI-1c, above, unless otherwise required by the USACE and RWQCB. Impacts to 0.03 acre of USACE/RWQCB-jurisdictional non-wetland waters of the U.S./State shall be mitigated at a 1:1 ratio through the preservation of a minimum 0.03 acre on site within BOS easement (which shall include preparation implementation of an RMP and monitoring, maintenance, management, and reporting directives) as described in M-BI-1a, unless otherwise required by the USACE and RWQCB. If required by the USACE and/or RWQCB during regulatory permitting for the Project, alternative mitigation shall be provided through purchase of mitigation credits at the Brook Forest Mitigation Bank, San Luis Rey Mitigation Bank, or other location deemed acceptable by the USACE and RWQCB.

M-BI-6b Prior to issuance of a grading permit, demonstration that regulatory permits from CDFW have been issued or that no such permits are required shall be provided to the County. Impacts to 0.80 acre of CDFW-jurisdictional areas will be mitigated as follows. Impacts to less than 0.01 acre mule fat scrub and 0.71 acre southern riparian forest shall be mitigated at a 3:1 ratio, as described in M-BI-1c, unless otherwise required by CDFW. Impacts to 0.05 acre of CDFW-jurisdictional coast live oak woodland and 0.04 acre of CDFW-jurisdictional streambed shall be mitigated at a 1:1 ratio through the preservation of a minimum 0.05 acre of CDFW-jurisdictional coast live oak woodland and 0.04 acre of CDFW-jurisdictional streambed on site within BOS easement (which shall include preparation of an RMP and monitoring, maintenance, management, and reporting directives) as described in M-BI-1a, unless otherwise required by CDFW. If required by CDFW during regulatory permitting for the Project, alternative mitigation shall be provided through purchase of mitigation credits at the Brook Forest Mitigation Bank, San Luis Rey Mitigation Bank, or other location deemed acceptable by CDFW.

M-BI-6c Prior to issuance of a grading permit, impacts to 0.72 acre of RPO wetland (less than 0.01 acre mule fat scrub, 0.71 acre southern riparian forest, and 0.01 acre

RPO-jurisdictional coast live oak woodland) shall be mitigated at a 3:1 ratio with at least 1:1 creation. Impacts to mule fat scrub and southern riparian forest shall be mitigated as described in M-BI-1c, above. Impacts to 0.01 acre RPO coast live oak woodland shall be provided through purchase of establishment or re-establishment mitigation credits at the Brook Forest Mitigation Bank, San Luis Rey Mitigation Bank, or other location deemed acceptable by the County.

M-BI-7 Prior to issuance of a grading permit, impacts to 0.31 acre of federal wetlands shall be mitigated at a 3:1 ratio as described in M-BI-1c, M-BI-5a and M-BI-6a, above, unless otherwise required by USACE.

M-BI-8 Prior to issuance of a grading permit, impacts to 0.72 acre of RPO wetland shall be mitigated at a 3:1 ratio as described in M-BI-1c, M-BI-5a and M-BI-6c, above.

M-BI-9 No grubbing, clearing, or grading shall occur during the general avian breeding season (February 15 to August 31). All grading permits, improvement plans, and the final map shall state the same. If grubbing, clearing, or grading would occur during the general avian breeding season, a pre-construction survey shall be conducted by a qualified biologist to determine if active bird nests are present in the affected areas. If there are no nesting birds (includes nest building or other breeding/nesting behavior) within this area, clearing, grubbing, and grading shall be allowed to proceed. If active nests or nesting birds are observed within the area, the biologist shall flag the active nests and construction activities shall avoid active nests until nesting behavior has ceased, nests have failed, or young have fledged.

2.3.6 Conclusion

The implementation of the mitigation measures listed above would reduce all impacts to biological resources to less than significant levels. Construction of the Proposed Project would directly impact habitat for three County Group 1 animal species (coastal California gnatcatcher, least Bell's vireo, and yellow-breasted chat; Impacts BI-1a through 1c, and BI-2c) and a State Species of Special Concern/County Group 2 species (yellow warbler; Impact BI-3b). For impacts to the coastal California gnatcatcher, impacts would be mitigated below a level of significance (M-BI-1a and 1b) by: (1) on- and off-site preservation of Diegan coastal sage scrub, and (2) restriction of habitat impacts during the breeding season. The specified habitat mitigation ratios take into consideration the importance of preserving areas necessary to ensure the continued survival of sensitive species. The habitat preservation ratio is effective because through retention of sustainable habitat, sensitive species can continue to thrive. The mitigation would preserve species habitat and foraging grounds, and thus, help ensure survival of these species within the Project site (open space) and within the County. The mitigation ratios utilized for impacts to these species' habitats were developed based upon NCCP Guidelines (CDFW and California Resources Agency 1997) intended to accomplish preservation of sensitive species, and the wildlife agencies have reviewed and approved these mitigation ratios. The restriction regarding breeding season activities would ensure that no nest would be directly taken during construction.

For impacts to least Bell's vireo, yellow warbler and yellow-breasted chat, mitigation would occur (M-BI-1c, 2c, and 3b) through creation, preservation and enhancement of mule fat scrub and southern willow riparian forest and/or purchase of credits for the same at an approved mitigation bank. Additionally, these standard ratios have been applied to projects within the County since PDS developed its most current version of the Guidelines for Determining Significance and Report Format and Content Requirements for Biological Resources (County 2010). The ratio is identified as effective because these reviewing agencies have reached consensus that retention at these ratios will result in sustainable levels of these habitats.

Impacts were also identified to Group 2 species, Species of Special Concern, and common species (Impacts BI-2b, 3a through 3c) that use non-native grassland for foraging. Mitigation would be provided (M-BI-2b and M-BI-3a through 3c) through off-site preservation of non-native grassland or like-functioning habitat. The specified habitat mitigation ratios take into consideration the importance of preserving areas necessary to ensure the continued survival of sensitive species. The habitat preservation ratio is effective because through retention of sustainable habitat, sensitive species can continue to thrive. The mitigation would preserve species habitat and foraging grounds, and thus, help ensure survival of these species within the Project site (open space) and within the County. The mitigation ratio utilized for impacts to these species' foraging habitat (the non-native grassland) in accordance with County guidelines.

The Proposed Project could result in construction-related noise that may significantly impact nesting coastal California gnatcatcher, least Bell's vireo or raptors if construction noise at the nest exceeds 60 dBA L_{EQ} (Impact BI-4). This impact would be mitigated below a level of significance through consideration of the noise source, the affected species, and by restricting grubbing, clearing, grading, blasting, rock crushing, pile driving, etc. within appropriate distances, or requiring noise attenuation through such methods as baffling or sound barriers, and as confirmed by a County-approved noise specialist and qualified biologist as specified in M-BI-4. These restrictions would protect the noted species from disturbance associated with movement and noise from construction activities during the breeding season. Because the daily activities of this species would not be disrupted, breeding and nesting activities would continue within proposed on-site open space, thus helping to ensure the survival of this species.

The Proposed Project would result in impacts to mule fat scrub, Diegan coastal sage scrub (including disturbed), Diegan coastal sage scrub/chaparral transition, southern mixed chaparral, non-native grassland and coast live-oak woodland, as described in Impacts BI-5a through 5f. Mitigation would occur at specified ratios and locations as described in M-BI-5a through 5f. Implementation of these mitigation measures would avoid or substantially reduce the significant effects because the mitigation ratios for impacts to these habitats were variously developed based on NCCP Guidelines (CDFW and California Resources Agency 1997), and/or the wildlife agencies have reviewed and approved these mitigation ratios, and/or are consistent with County guidelines.

The Proposed Project would result in impacts to USACE, RWQCB, CDFW and County RPO wetlands/waters (Impacts BI-6a through BI-6c and Impacts BI-7 and BI-8). Federal, State, and County policies require that projects have no net loss of wetlands. Impacts would be mitigated below a level of significance through off-site establishment, rehabilitation and preservation (M-BI-6a through M-BI-6c, M-BI-7 and M-BI-8). Implementation of these mitigation measures

would fully mitigate impacts to these jurisdictional areas. The typical mitigation ratio for impacts to wetlands is 3:1 (with a minimum 1:1 creation ratio thereby replacing the values of the impacted wetland). Rehabilitation and creation of wetland habitat would mitigate impacts to impacted wetlands because they would benefit both native plant species and animal species that utilize the drainage, and would not alter of the function of the wetlands. Because the Proposed Project would mitigate its impacts to wetlands at a 3:1 ratio, including a minimum 1:1 creation ratio and 2:1 rehabilitation/preservation ratio, no net loss of wetland habitat would occur. The mitigation ratio for Waters of the U.S./ streambed is 1:1, which is a ratio the resource agencies reviewed and approved. The preservation of 0.03 acre of Waters of the U.S./streambed within the on-site BOS would adequately conserve conveyance functions as it pertains to the receiving water of Escondido Creek.

Grading and clearing of vegetation associated with construction of the Proposed Project could kill breeding migratory birds or impact their nests, and/or cause them to temporarily or permanently leave their territories, which could lead to reduced reproductive success and increased mortality (Impact BI-9). Impacts would be mitigated below a level of significance by not allowing grading or clearing of vegetation during the breeding season of most avian species (February 15 through August 31) without pre-construction surveys showing absence. Nesting migratory bird species would be protected from disturbance associated with movement and noise from construction activities during the breeding season due to cessation of grading or construction activities. Because the daily activities of these species would not be disrupted, breeding and nesting activities would continue within proposed on-site open space, thus helping to ensure the survival of these species.

Table 2.3-1
WATERS OF THE U.S./STATE – EXISTING CONDITIONS

USACE/RWQCB Jurisdiction	Project Site		Off-site Impact Area	
	Area (acres)	Length (feet)	Area (acres)	Length (feet)
Wetland Waters of the U.S./State	--	--	0.33	237
Non-Wetland Waters of the U.S./State	0.15	4,814	0.02	50
Total	**0.15**	**4,814**	**0.35**	**287**

Table 2.3-2
STREAMBED AND RIPARIAN HABITAT – EXISTING CONDITIONS

CDFW Jurisdiction	Project Site		Off-site Impact Areas	
	Area (acres)	Length (feet)	Area (acres)	Length (feet)
Vegetated Streambed				
Mule fat scrub	--	--	0.01	0
Southern [willow] riparian forest	--	--	0.71	237
Coast live oak woodland	0.89	515	0.01	0
Unvegetated Streambed				
Streambed	0.19	4,250	0.02	50
Total	**1.08**	**4,765**	**0.75**	**287**

Table 2.3-3
RPO WETLANDS – EXISTING CONDITIONS

County Jurisdiction	Project Site	Off-site Impact Areas
	Area (acres)	Area (acres)
RPO Wetland		
Mule fat scrub	--	<0.01
Southern [willow] riparian forest	--	0.71
Coast live oak woodland	--	0.01
Total	**--**	**0.72**

Table 2.3-4
IMPACTS TO VEGETATION COMMUNITIES/HABITAT TYPES

Vegetation Community/ Habitat Type	Existing Acres On-site	Impact Acres[1]			
		Project Site	Off-site	Total Impacts	Impact Neutral
Non-native vegetation (11000)	0.8	0.8	0.1	0.9	--
Disturbed habitat (11300)	3.6	3.5	0.3	3.9	--
Urban/developed (12000)	0.9	0.9	1.2	2.1	0.1
Diegan coastal sage scrub (32500)	10.9	10.3	0.1	10.4	0.1
Diegan coastal sage scrub – disturbed (32500)	-	--	<0.1	<0.1	--
Coastal sage-chaparral transition (37G00)	4.5	4.4	0.1	4.5	0.1
Southern mixed chaparral (37121)	46.8	15.6	--	15.6	<0.1
Non-native grassland (42200)	42.4	42.2	2.0	44.2	--
Southern [willow] riparian forest (61300)	-	--	0.71	0.71	--
Mule fat scrub (63310)	-	--	<0.01	<0.01	--
Coast live oak woodland (71160) [2]	0.9	0.1	0.1	0.2	0.1
Eucalyptus woodland (79100)	0.3	--	--	--	--
Total	**111.1**	**77.9**	**4.6**	**82.5**	**0.1**

[1] Upland communities/habitat types are rounded to the nearest 0.1 acre, while wetland communities are rounded to the nearest 0.01; totals do not reflect rounding. Impact acreages include both permanent and temporary impacts. Temporary impact areas within proposed biological open space (1.8 acres) would be restored to Diegan coastal sage scrub with the proposed Project.

[2] Includes impacts from ground disturbance within oak root zone.

Table 2.3-5
IMPACTS TO JURISDICTIONAL WETLANDS AND WATERWAYS

Jurisdictional Resources	IMPACTS					
	Project Site		Off-site Improvement Areas		Total	
	Acres[1]	Linear Feet	Acres[1]	Linear Feet	Acres[1]	Linear Feet
USACE/RWQCB						
Wetland Waters of the U.S./State	--	--	0.31	222	0.31	222
Non-Wetland Waters of the U.S./State	0.01	436	0.02	50	0.03	486
Total	**0.01**	**436**	**0.33**	**272**	**0.34**	**708**
CDFW						
Southern [willow] riparian forest	--	--	0.71	222	0.71	222
Mule fat scrub	--	--	<0.01	0	<0.01	0
Coast live oak woodland	0.04	0	0.01	0	0.05	0
Streambed	0.02	436	0.02	50	0.04	486
Total	**0.06**	**436**	**0.74**	**272**	**0.80**	**708**
County RPO						
Southern [willow] riparian forest	--	--	0.71	222	0.71	222
Mule fat scrub	--	--	<0.01	0	<0.01	0
Coast live oak woodland	--	--	0.01	0	0.01	0
Total	**--**	**--**	**0.72**	**222**	**0.72**	**222**

[1] Acreages are rounded to the nearest 0.01; therefore, totals reflect rounding.

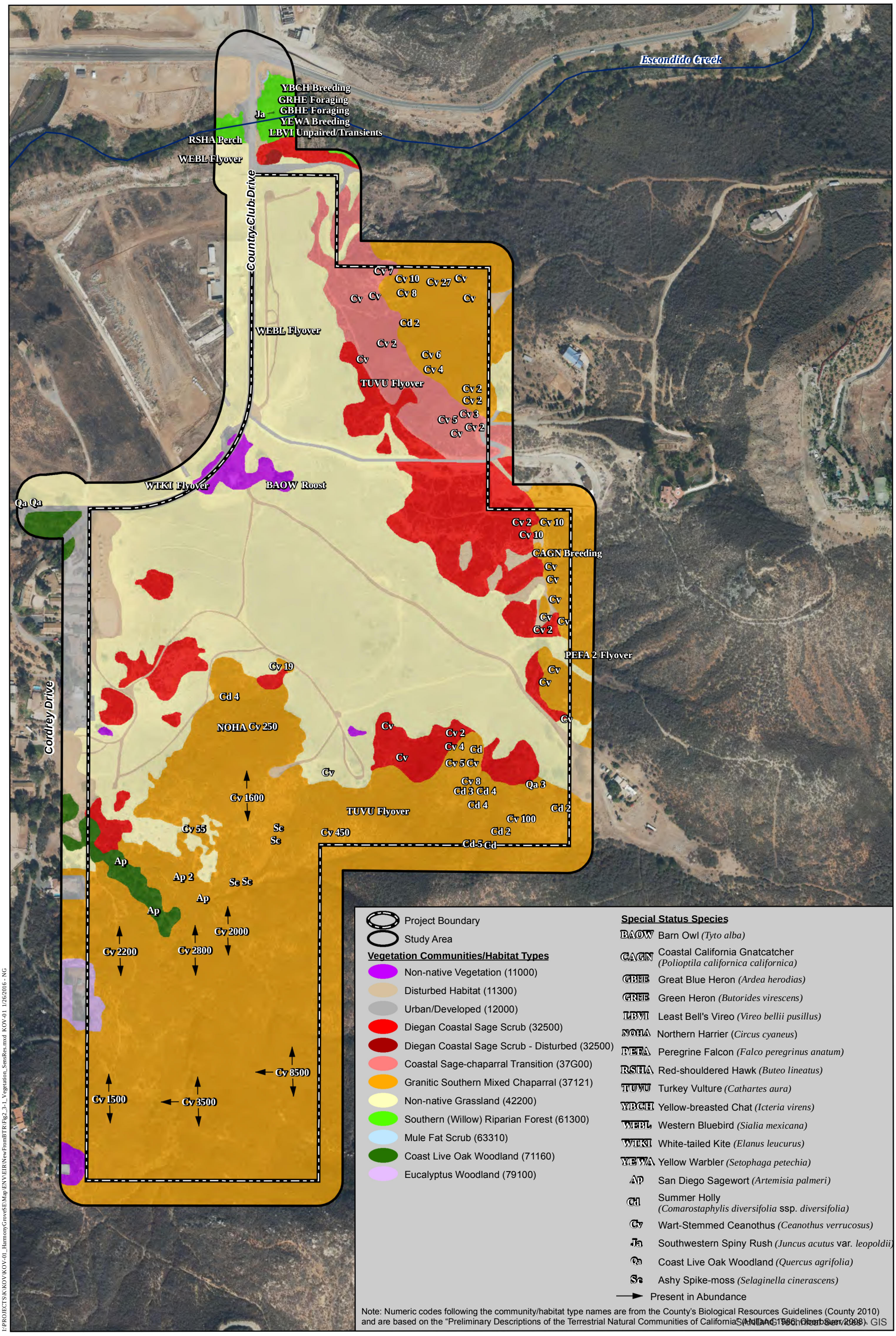
Table 2.3-6
CUMULATIVE IMPACTS ON BIOLOGICAL RESOURCES

Project Number†	Project Name	Resource									
		Riparian/ Wetland		Coastal Live Oak Woodland		Coastal Sage Scrub		Southern Mixed Chaparral		Non-native Grassland	
		Impacts (I)	Mitigation (M)	I	M	I	M	I	M	I	M
GPA 04-007 REZ 04-014 TM 5382	Montiel Heights/ Montiel Road Townhomes	0	0	0	0	0	0	0	0	0	0
SP 04-003 GPA 04-004 REZ 04-010 VTM 5365 MUP 04-012 MUP 04-013 MUP 04-014	Harmony Grove Village	3.96	6.80	5.8	17.4	37.6	68.6	3.7	1.9	37.7	18.9
--	Marketplace @ Twin Oaks	--	--	--	--	--	--	--	--	--	--
ND 12-822	Citywide Channel Maintenance Programmatic Permit	0.71	1.28	0	0	0	0	0	0	0	0
MF 1785 TSM 479 MFSCDP 10-51 R 10-146 GV 10-85 CUP 10-835 ND 10-806	Candera	--	--	--	--	--	--	--	--	--	--
MF 1392 EIR 03-39	University District Specific Plan	--	--	--	--	--	--	--	--	--	--
SCH 92011057	Kaiser Medical Office Building	--	--	--	--	--	--	--	--	--	--
--	Leigh Hanson Site	--	--	--	--	--	--	--	--	--	--
--	Campus Pointe II	--	--	--	--	--	--	--	--	--	--
MND 12-820 CUP 12-894	Rancho Coronado Phase I School Site	0.35	0.70	0	0	0.25	--	0.47	--	0	0
SUB 09-0002	Kenny Ray Harmony Grove	--	--	--	--	--	--	--	--	--	--
ER 2000-34	Harmony Grove Industrial Park	--	--	--	--	--	--	--	--	--	--
PHG 11-0038	Hale Avenue Resource Recovery Facility (HARRF) Administration Building	0	0	0	0	0	0	0	0	0	0
ER-2006-10	Citracado Parkway Extension	0.71	2.13	0.94	1.7	0.6	0.6	0	0	6.4	4.2

Table 2.3-6 (cont.)
CUMULATIVE IMPACTS ON BIOLOGICAL RESOURCES

Project Number†	Project Name	Resource									
		Riparian/ Wetland		Coastal Live Oak Woodland		Coastal Sage Scrub		Southern Mixed Chaparral		Non-native Grassland	
		Impacts (I)	Mitigation (M)	I	M	I	M	I	M	I	M
File No. 0800-40 PHG 10-0014	Escondido Asphalt Plant Expansion	0	0	0	0	0	0	0	0	0	0
2007-25-PD 2005-20-PD	The Point	0	0	0	0	0	0	0	0	0	0
2007-18-PD ER 86-43	Springhill Suites by Marriott	0	0	0	0	0	0	0	0	0	0
ADM 10-0001 SCH No. 2009081074	Citracado High School/ Del Lago Academy	0	0	0	0	8.1	8.1	0	0	18.1	--
2001-01-SPA 2005-81-SPA/DA PHG 11-0034 SCH No. 200112106	Escondido Research & Technology Center (ERTC)	1.02	3.06	1.2	3.6	48.4	96.8	0	0	102.8	62.4
SP-13-001 GPA 13-001 STP 13-003 TM 5575 REZ 13-001	Valiano	0.32	0.96	6.7	20.5	1.0	3.6	3.1	1.6	53.8	53.1
Subtotal		**7.07**	**14.93**	**14.64**	**43.2**	**96.0**	**177.7**	**7.3**	**3.5**	**218.80**	**138.6**
--	Harmony Grove Village South Project	0.72	2.13	0.2	0.6	10.4	20.8	15.46	7.8	44.2	22.1
TOTAL		7.79	17.06	14.84	43.8	106.4	198.5	22.9	11.3	263.0	160.7

†TM = Tentative Map; TPM = Tentative Parcel Map; MUP = Major Use Permit; ND = Negative Declaration; EIR = Environmental Impact Report; MND = Mitigated Negative Declaration; SPA = Specific Plan Amendment; SCH = State Clearinghouse
-- = Information Not Available or Not Applicable.



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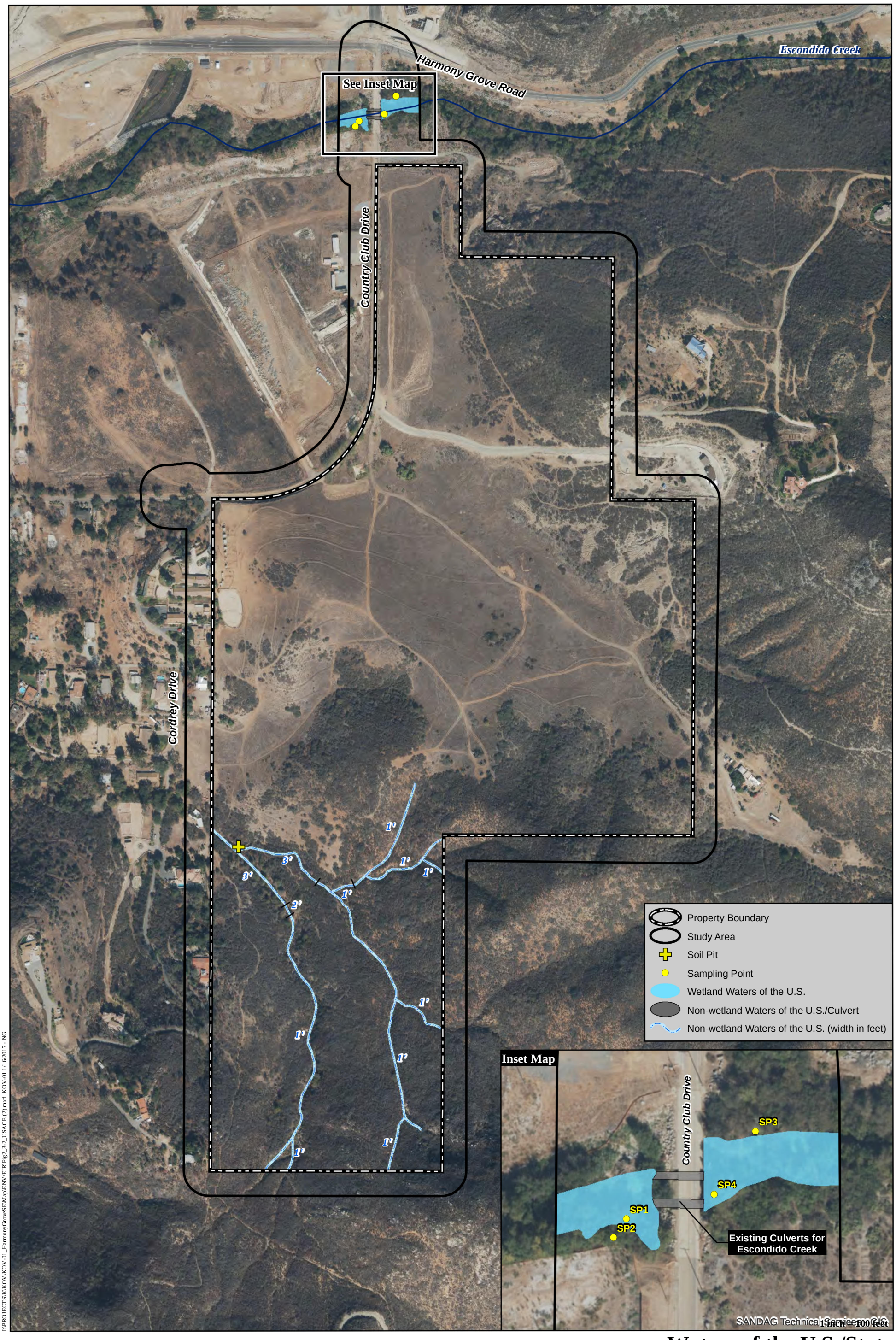
Vegetation and Sensitive Resources

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

N 0 350 Feet

Figure 2.3-1



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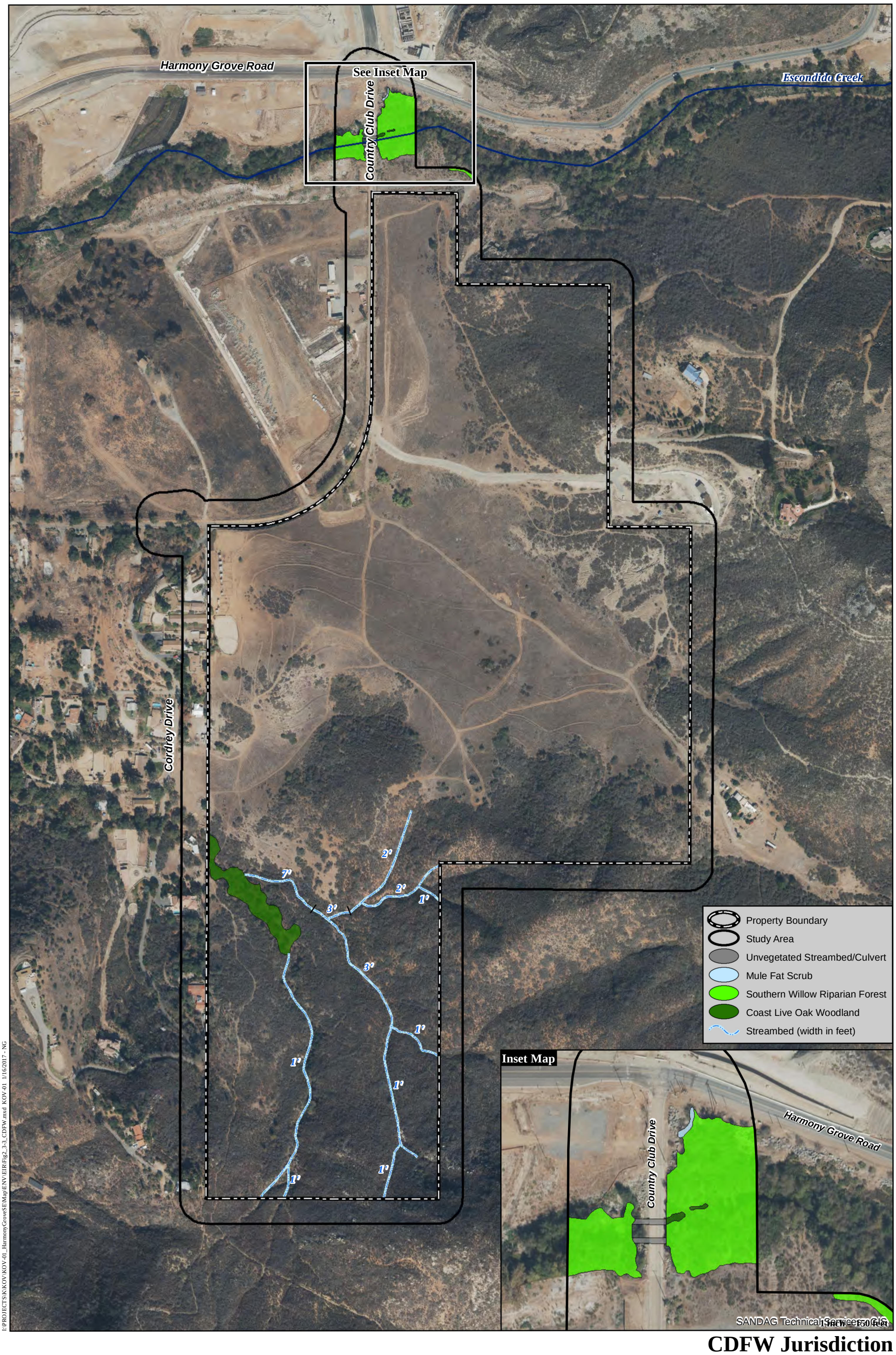
Waters of the U.S./State

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

N 0 350 Feet

Figure 2.3-2



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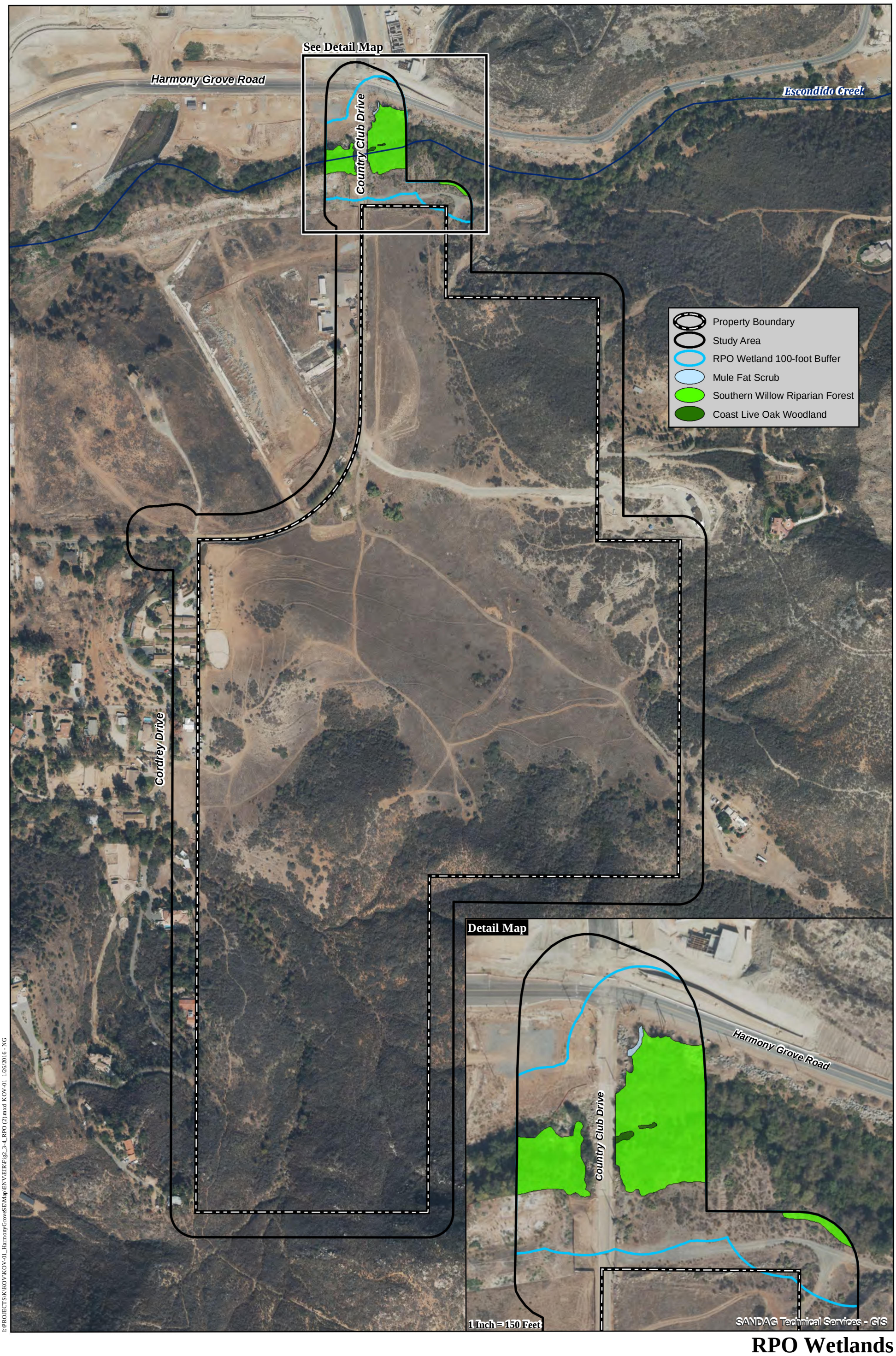
CDFW Jurisdiction

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

N 0 350 Feet

Figure 2.3-3



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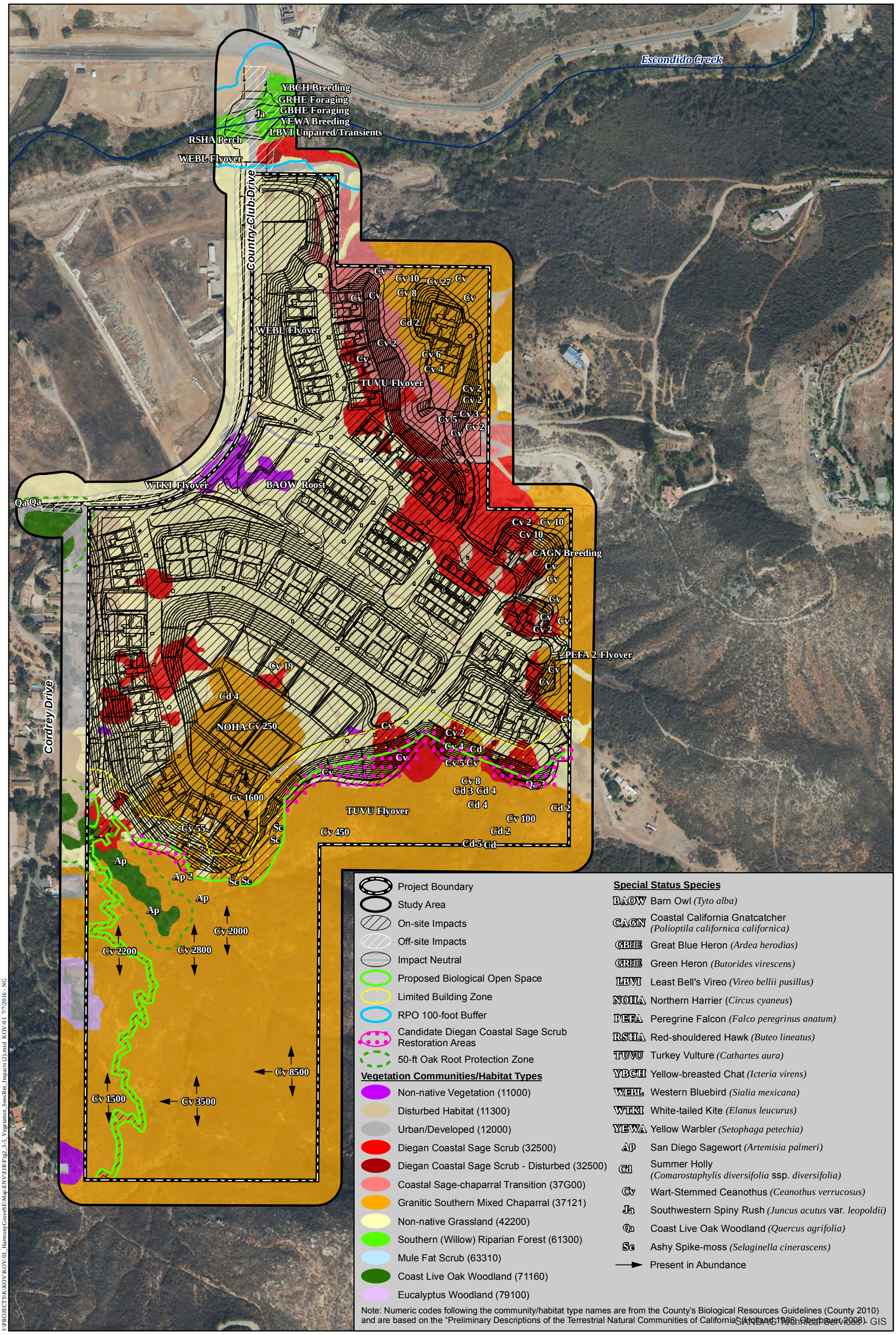
RPO Wetlands

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

N 0 350 Feet

Figure 2.3-4



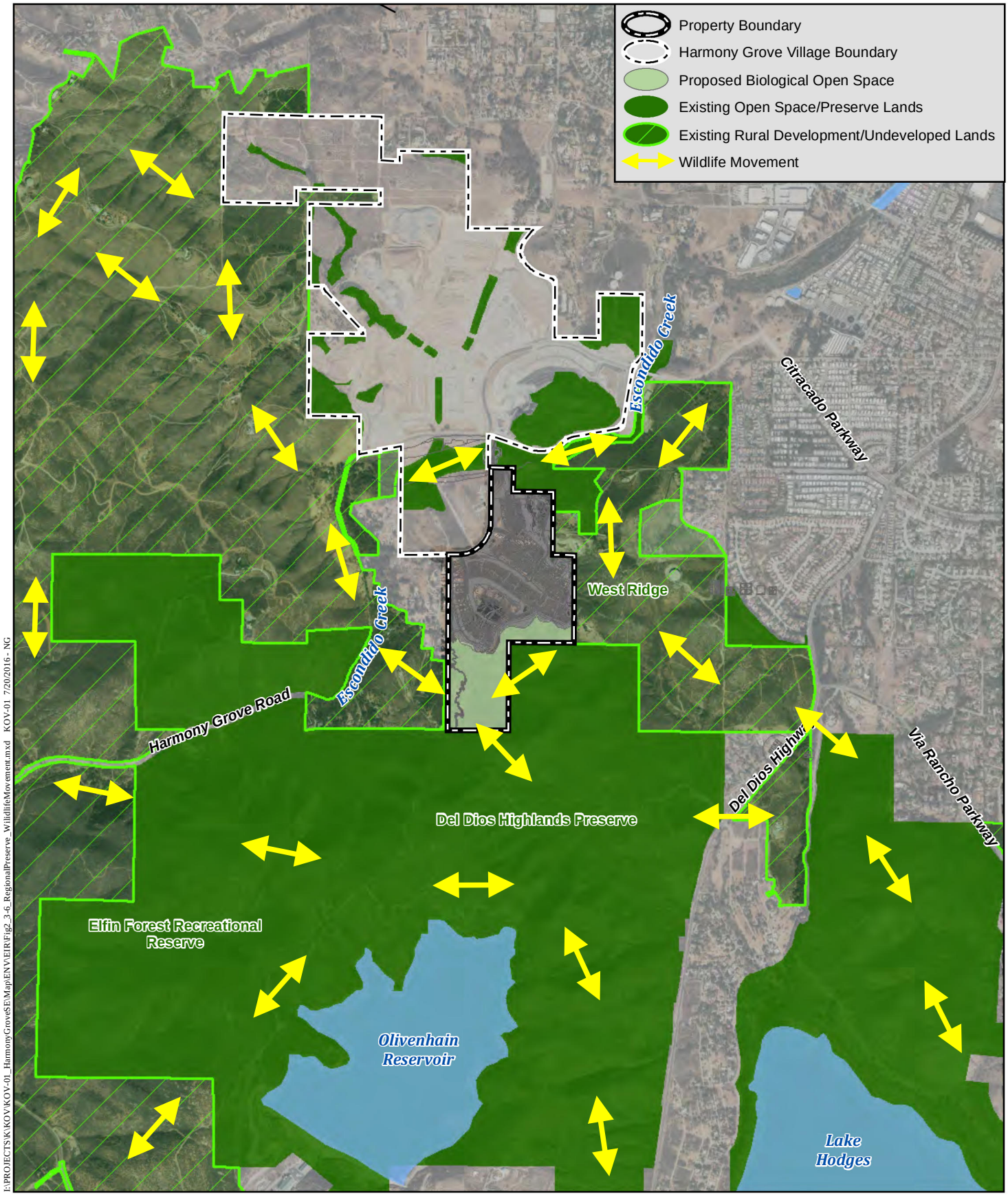
Proposed Project Vegetation and Sensitive Resources/Impacts

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

N 0 350 Feet

Figure 2.3-5



Regional Preserve Lands/Wildlife Movement

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

N 0 2,000 Feet

Figure 2.3-6

Property Boundary

3.5-mile Buffer

County of San Diego

1. Montiel Heights/Montiel Road Townhouses
2. Harmony Grove Village
3. Valiano

City of San Marcos

4. Marketplace @ Twin Oaks
5. Citywide Channel Maintenance Programmatic Permit
6. Candera
7. University District Specific Plan
8. Kaiser Medical Office Building
9. Leigh Hanson Site
10. Campus Pointe II
11. Rancho Coronado Phase I School Site

City of Escondido

12. Kenny Ray Harmony Grove
13. Harmony Grove Industrial Park
14. Hale Avenue Resource Recovery Facility (HARRF) Administration Building
15. Citracado Parkway Extension
16. Escondido Asphalt Plant Expansion
17. The Point
18. Springhill Suites by Marriott

Escondido Union High School District

19. Citracado High School/Del Lago Academy

Palomar Pomerado Healthcare District

20. Escondido Research & Technology Center (ERTC)

COUNTY OF SAN DIEGO
CITY OF SAN MARCOS
CITY OF ESCONDIDO
CITY OF SAN DIEGO
COUNTY OF SAN DIEGO
COUNTY OF SAN DIEGO
CITY OF SAN DIEGO

North Twin Oaks Valley Road
West Mission Road
West San Marcos Boulevard
Barham Drive
San Elijo Road
Elfin Forest Road
Country Club Drive
Nordahl Road
Citracado Parkway
West Valley Parkway
Via Rancho Parkway
North Broadway
East Lincoln Avenue
North Centre City Parkway
Del Dios Highway

Olivenhain Reservoir
Lake Hodges

5 6 4 7 8 9 10 11 3 2 1 12 13 14 15 16 17 18 19 20

78 15

SANDAG Technical Services - GIS

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Biological Cumulative Study Area

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

N 0 4,100 Feet

Figure 2.3-7

SUBCHAPTER 2.4

CULTURAL RESOURCES AND TRIBAL CULTURAL RESOURCES

2.4 Cultural Resources and Tribal Cultural Resources

An archaeological and historical resources study was prepared for the Proposed Project to determine the potential for significant impacts to archaeological sites, historic structures, and Native American cultural resources as a result of Project development. The cultural resources technical study (ASM Affiliates, Inc. [ASM] 2017) was prepared by ASM in conformance with the County Guidelines for Determining Significance and Report Format and Content Requirements, Cultural Resources: Archaeological and Historical Resources (2007c). Previous work on these same parcels by RECON (2006) is also incorporated into the ASM study. The results of the cultural resources studies are presented below and included as Appendix F to this EIR on file with the County of San Diego PDS, with confidential records and maps on file at the County and deposited with the South Coastal Information Center (SCIC).

2.4.1 Existing Conditions

Coastal sage scrub, chaparral, and riparian habitats occur on site and in the surrounding area. These vegetation communities, as well as others, historically supported a number of animal species and provided resources to Native populations for a broad range of uses, including food, shelter, tools, ceremonial purposes, etc. Acorns are reported to be the most important single food source used by prehistoric populations, and villages were usually located near water, necessary for leaching acorn meal.

The Project area lies immediately south of Escondido Creek, within the sloping valley containing this drainage. As stated above, the archaeological information known about the site complexes (see Appendix F) in the general area suggests that concentrations of Native American occupation focused near major drainage confluences. Surrounding special use sites were located near natural resources and occupied for short periods during food collecting and processing. The area was also attractive to later Mexican and American ranchers and farmers, following the Hispanic intrusion into the region and continuing into the historic period. Large ranches later developed out of the old Rancho Rincon del Diablo and Pierre Renand (later John Wolfskill) lands and operated through the mid-twentieth century. Most recently, notable ranching activities in the immediate vicinity were associated with the Harmony Grove chicken and egg ranches, located just north of Harmony Grove Road, in the area now under development as part of HGV.

The presence and significance of existing cultural resources within the boundaries of the Proposed Project were determined based on a review of institutional records, previous on-site surveys, and field survey. One previously recorded site is located within the Project property. Site SDI-18320 was recorded in 2006 by Price, Collett, and Sowles of RECON as two house foundations, a barn foundation, a cistern, a stock pond, and several shallow canals possibly used for irrigation.

2.4.1.1 *Methodology*

The presence and significance of existing cultural resources associated with the Harmony Grove Village South project was determined using the methodologies outlined below.

This section presents the methods used in the execution of the archaeological site reconnaissance and Native American participation. Site constraints and appropriate survey adaptations to field

conditions are described below. The presence and significance of existing cultural resources associated with the Proposed Project were determined using the following methodologies; including a review of institutional records and reports for the project area and immediate vicinity including historic maps of the Project area from 1928 and 1953, a 2014 field survey, surface mapping, photographic documentation, historic structural remnant assessment, and consultation with the Native American community. Updated site record forms were prepared for one site (CA-SDI-18320) and were submitted to the SCIC.

The evaluation of cultural resources is in conformance with the County of San Diego Resource Protection Ordinance, Section 21083.2 of the PRC, and CEQA. Statutory requirements of CEQA (Section 15064.5) were followed in evaluating the significance of cultural resources.

Records Search Results

The South Coast Information Center records search identified a total of 61 previous reports completed within a 1-mile radius of the Project area, seven of which address all or a portion of the Project. A total of 62 previously recorded cultural resources are within a 1-mile radius of the Project (Appendix F). These sites include prehistoric or protohistoric habitation debris, bedrock milling stations, lithic scatters, ceramic scatters, petroglyphs, pictographs, and isolated lithic artifacts; historic dams, reservoir, well, cistern, foundations, and trash. Of those resources, just one site, SDI-18320, is located within the Project area (relocated, rerecorded and updated as part of the current field effort, see below). As noted above, Site SDI-18320 was recorded in 2006 as containing two house foundations, a barn foundation, a cistern, a stock pond, and several shallow canals possibly used for irrigation.

The identified cultural resources include 50 sites that have been assigned trinomials, 3 historic or protohistoric resources with Primary numbers, and 8 isolates. One of the archaeological sites is just a map location with no additional information beyond confirmation that the site no longer exists. Of the other 49 sites, 31 (63 percent) include bedrock milling features. No artifacts were noted on the site record for over half of the sites with milling features (22); 11 of these sites do include artifacts, ranging from a sparse scatter of lithics or ceramics to more extensive habitation debris. Pictographs were also present at three of these sites. Historic components are also present at two prehistoric sites with habitation debris and pictographs. Over one-third of the sites (18) were noted as lithic scatters, and one is a lithic quarry site. The historic resources (including CA-SDI-18320 and the remaining historic sites, both those with trinomials and those with Primary numbers) include sites with a total of four foundations, four wells/cisterns, two reservoirs, one dam, one area of machinery remnants, and one trash area.

Field Survey

On March 12, 2014, ASM archaeologist Tony Quach and Native American monitor, Michael Peralta from Native Grounds Monitoring and Research visually inspected the Project property for cultural resources. This study included a 15-meter transect pedestrian survey of all relatively flat terrain, a visual inspection of steep slopes, and an investigation of canyons, benches, ridges, and saddles in rugged terrain. During the survey, ground surface visibility was noted to be low, as almost all of the surfaces on the property were obscured by low-lying grasses. Additionally, traversing terrain in the southern portion of the Project area was limited due to thickly matted

chaparral vegetation. In areas that were thickly vegetated, the survey transect was redirected through areas that did not contain as much brush. Steep slopes with grades over 20 percent were not surveyed with systematic transects, but were checked when accessible for possible quarry sites. Bedrock outcrops were examined for signs of milling. Digital photographs were taken to document the character of the Project and survey conditions.

Results of this survey were consistent with the 2006 survey of the property by RECON. No prehistoric archaeological sites were located, and the historic features that were located associated previously recorded resource (SDI-18320) were not in pristine condition. The site was reexamined, with no significant changes observed since its original recording, with the site generally in the same condition as previously recorded by RECON in 2005. All of the features recorded by the RECON team were re-located during the current survey. Some additional graffiti was noted on the chimney and cistern. A scatter of historic artifacts was noted on the southeast side of the back porch. The scatter is approximately 14 by 10 meters in size and consists of historic ceramic sherds, various glass bottles and glass bottle shards, nails, and other historic trash and debris.

The locations and extent of each structural foundation and the historic trash scatter were recorded using a Trimble GPS unit. Several of the possible irrigation ditches and the stock pond dam were also recorded using the GPS unit.

A California Department of Parks and Recreation (DPR) 523 cultural resource update was prepared for the single previously recorded resource, and submitted to the SCIC to update their documentation.

Traditional Cultural Properties

No information has been obtained through Native American consultation or communication with the Native American monitor during fieldwork that the evaluated sites are culturally or spiritually significant. No Traditional Cultural Properties that currently serve religious or other community practices are known to exist within the Project site. During the current archaeological evaluation, no artifacts or remains were identified or recovered that could be reasonably associated with such practices.

Native American Consultation

On March 5, 2014, ASM Archaeologist Tony Quach requested a sacred lands search from the Native American Heritage Commission (NAHC) for information on any recorded Native American cultural sites located within the vicinity of the Project area of potential effect (APE). On March 12, 2014, Dave Singleton of the NAHC responded that no tribally significant Native American cultural resources have been documented within the Project boundary, but that the area is known to be culturally sensitive. Recommendations were made by the NAHC as to the appropriate tribal authorities to contact for a follow-up contact.

As part of the coordination outreach, the County initiated government-to-government consultation pursuant to Government Code §65352.3 (SB 18) and PRC §21080.3 et seq. (Assembly Bill [AB] 52). Letters regarding the Proposed Project were sent to individuals and groups identified by the NAHC on June 17, 2015 (Sacred Lands/SB 18) and on October 1, 2015

(AB 52). County consultation meetings were held with the San Luis Rey Band of Mission Indians, the Rincon Band of Luiseño Indians and the Pechanga Band of Luiseño Indians. Additional outreach was also conducted by ASM with both groups in November and early December of 2016 to request additional information. Consultation with potentially affected Tribes will continue throughout the discretionary processing of this Project.

Also as noted above, during the Project archaeological field survey, a Native American monitor accompanied the ASM archaeologist. Native Grounds Monitoring and Research was contacted, and Michael Peralta was assigned to accompany the ASM archaeologist, to observe the survey and to report the findings to the tribal authority/organization.

2.4.1.2 *Regulatory Setting*

Federal

National Historic Preservation Act (NHPA)

The NHPA was passed in 1966 and set the foundation for much of the more specific legislation that guides cultural resource protection and management in local jurisdictions such as the County of San Diego. The Act established an Advisory Council on Historic Preservation to help implement and monitor it.

Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties (both prehistoric and historic resources) and allow the Advisory Council a reasonable opportunity to comment on such undertakings. The goal of the Section 106 process is to identify historic properties potentially affected by the undertaking, assess its effects, and seek ways to avoid, minimize or mitigate any adverse effects on historic properties.

National Register of Historic Places (NRHP)

Developed in 1981, the NRHP is an authoritative guide to be used by Federal, State, and local governments, private groups and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment. Listing in the NRHP provides formal recognition of a property's historical, architectural, or archaeological significance based on national standards. Cultural resources may be considered eligible for listing if they possess integrity of location, design, setting, materials, workmanship, feeling, and association. The criteria for determining eligibility are essentially the same in content and order as those outlined in CEQA. National Register listing places no obligation on private property owners. There are no restrictions on the use, treatment, transfer, or disposition of private property.

State

Section 15064.5 of the CEQA Guidelines, as amended, and the County guidelines, state that a cultural resource would be considered significant if it is:

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the California Register (PRC §5024.1; Title 14 California Code of Regulations [CCR], Section 4850 et seq.).

2. A resource included in the local register of historical resources, as defined in Section 5020.1(k) of the PRC or identified as significant in an historical resource survey meeting the requirements of Section 5024.1(g) of the PRC, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

3. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (PRC Section 5024.1, Title 14 CCR, Section 4852), including the following:

    A. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

    B. Is associated with the lives of persons important in our past;

    C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

    D. Has yielded, or may be likely to yield, information important in prehistory or history.

4. The fact that a resource is not listed in the California Register, determined not to be eligible for listing in the California Register, not included in a local register of historical resources (pursuant to Section 5020.1[k] of the PRC), and not identified in an historical resources survey (meeting the criteria in Section 5024.1[g] of the PRC) does not preclude a lead agency from determining that the resource may be an historical resource as defined in PRC Sections 5020.1(i) or 5024.1.

In accordance with CEQA, cultural resources must be assessed for project-related actions that could directly or indirectly impact them. Under this scenario, impacts to cultural resources not deemed important according to the above criteria would be considered less than significant. A

summary of on-site and off-site cultural resources is provided in Section 2.4.2, along with a determination as to the significance of the impact pursuant to Section 15064.5 of the CEQA Guidelines.

California Register of Historical Resources (CRHR)

The CRHR is an authoritative guide for use by State and local agencies, private groups, and citizens to identify the State's historical resources. An historical resource can include any object, building, structure, site, area, or place that is determined to be historically or archaeologically significant. The CRHR also identifies historical resources for State and local planning purposes, determines eligibility for State historic preservation grant funding, and provides a certain measure of protection under CEQA, including Traditional Cultural Properties.

California Senate Bill 18

CA SB 18 requires that prior to the adoption or any amendment of a city or county's general plan, that agency shall conduct consultations with California Native American tribes that are on the contact list maintained by the NAHC for the purpose of preserving or mitigating impacts to places, features, and objects described in Sections 5097.9 and 5097.995 of the PRC that are located within the city or county's jurisdiction.

California Assembly Bill 52

California AB 52 states that current California law provides a limited measure of protection for sites, features, places, objects, and landscapes with cultural value to California Native American tribes; including sacred places, including, but not limited to, places of worship, religious or ceremonial sites, and sacred shrines. In recognition of their governmental status, AB 52 requires a meaningful consultation process between California Native American tribal governments and lead agencies, respecting the interests and roles of all California Native American tribes and project proponents, and the level of required confidentiality concerning tribal cultural resources, at the earliest possible point in the CEQA environmental review process, so that tribal cultural resources can be identified, and culturally appropriate mitigation and mitigation monitoring programs can be considered by the decision-making body of the lead agency.

Local

San Diego County General Plan

The General Plan (2011a) contains a series of policies in the Conservation and Open Space Element relevant to archaeological and historical resources as well as human remains. The reader is referred to Section 3.1.5 of this EIR.

Grading, Clearing, and Watercourses Ordinance

Section 87.429 of the County's Grading and Clearing Ordinance requires that grading operations cease if human remains or Native American artifacts are found; and Section 87.216(a)(7) requires changes to grading plans/operations if it is determined that previously unknown historical resources or unique archaeological resources may be located on the site, and a

modification is necessary to prohibit grading in the area of the resources so as to preserve the resources, or to redirect proposed grading so as to avoid the location of such resources until they can be retrieved, or potential impacts to them have been appropriately mitigated.

Resource Protection Ordinance

The County of San Diego's RPO protects significant cultural resources. The RPO defines "Significant Prehistoric or Historic Sites" as follows:

Sites that provide information regarding important scientific research questions about prehistoric or historic activities that have scientific, religious, or other ethnic value of local, regional, State, or Federal importance. Such locations shall include, but not be limited to:

1) Any prehistoric or historic district, site, interrelated collection of features or artifacts, building, structure, or object either:

    a) Formally determined eligible or listed in the NRHP by the Keeper of the National Register; or

    b) To which the Historic Resource ("H" Designator) Special Area Regulations have been applied; or

2) One-of-a-kind, locally unique, or regionally unique cultural resources which contain a significant volume and range of data and materials; and

3) Any location of past or current sacred religious or ceremonial observances, which is either:

    a) Protected under Public Law 95-341, the American Indian Religious Freedom Act or Public Resources Code Section 5097.9, such as burial(s), pictographs, petroglyphs, solstice observatory sites, sacred shrines, religious ground figures, or

    b) Other formally designated and recognized sites, which are of ritual, ceremonial, or sacred value to any prehistoric or historic ethnic group.

The RPO does not allow non-exempt activities or uses damaging to significant prehistoric or historic lands on properties under County of San Diego jurisdiction. The only exempt activity is scientific investigation authorized by the County. All discretionary projects are required to be in conformance with applicable County of San Diego standards related to cultural resources, including the noted RPO criteria for prehistoric and historic sites. Non-compliance would result in a project that is inconsistent with the County's standards.

San Diego County Local Register of Historical Resources

The purpose of the San Diego County Local Register of Historical Places is to develop and maintain "an authoritative guide to be used by State agencies, private groups, and citizens to identify the County's historical resources and to indicate which properties are to be protected, to the extent prudent and feasible, from substantial adverse change." Sites, places, or objects that

are eligible to the NRHP or the CRHR are automatically included in the San Diego County Local Register of Historical Places. If a resource meets any one of the following criteria as outlined in the Local Register, it will be considered an important resource:

1) Is associated with events that have made a significant contribution to the broad patterns of San Diego County's history and cultural heritage;

2) Is associated with the lives of persons important to the history of San Diego or its communities;

3) Embodies the distinctive characteristics of a type, period, San Diego County region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

4) Has yielded, or may be likely to yield, information important in prehistory or history.

2.4.2 Analysis of Project Effects and Determination as to Significance

The following discussion evaluates potential impacts to prehistoric and historic sites resulting from the Proposed Project. Section 15064.5(c) of CEQA addresses effects on archaeological sites. It notes that if archaeological resources are not unique, project effects on those resources shall not be considered a significant effect on the environment. The resource and potential effects must be addressed in the EIR, but the site need not be further considered during the CEQA process. As described above, no standing structures are present on site, nor would any structures be affected by implementation of off-site utilities into existing roadways. The remainder of this discussion addresses the potential for archaeological resources. The potential disturbance of human remains with regard to the Proposed Project also is discussed below.

2.4.2.1 *Archaeological Sites*

Guideline for the Determination of Significance

For the purposes of this EIR, a significant impact to cultural resources would occur if the Proposed Project would:

1. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5 of the State CEQA Guidelines. This shall include the destruction or disturbance of an important archaeological site that contains or has the potential to contain information important to history or prehistory.

Guideline Source

This guideline is derived directly from CEQA. Sections 21083.2 of the PRC and 15064.5 of the CEQA Guidelines recommend evaluating archaeological resources to determine whether or not a proposed action would have a significant effect on unique archaeological resources. Any project that would have an adverse impact (direct, indirect, and cumulative) on significant archaeological resources as defined by these guidelines would be considered a significant impact.

Analysis

On-site Resources

No prehistoric archaeological resources were identified during the 2006 or 2014 site surveys. Therefore, **no impact would occur to known prehistoric archaeological sites.**

The remnants of one abandoned farm complex was documented and evaluated for significance according to CEQA (Section 15064.5): CA-SDI 18,320. This was evaluated both by RECON in 2006 and ASM in 2014 and determined not to be a significant resource under CEQA.

No information was found to associate the site uses with a significant event in California's history or cultural heritage. Information was found about two of the owners of the land, Jerry and Rosie Ferrera, who ran a winery on at least part of the property from 1925 to 1934. The Ferreras were known in the Escondido area, but nothing could be found to link them to significant events in Harmony Grove, Escondido, San Diego County, or California's past. Additionally, because none of the structural remains associated with the site is intact and there are no distinctive characteristics associated with those remnants, no valuable information could be discerned regarding the history of the region. The structural remnants were therefore determined to not be significant because they do not contain historic, architectural, or informational value. **Impacts to on-site historic archaeological resources would be less than significant.**

There is, however, a potential for archaeological deposits to lie buried below the site alluvium, and/or that the discovery of sites has been hampered by dense vegetation. There is the potential that grading activities associated with construction of the Proposed Project could result in the discovery of previously unrecorded, potentially significant archaeological resources.

Off-site Resources

Off-site ground disturbance would occur within existing paved roads, and to a depth that generally would be considered already disturbed based on the existence of the roadway, and existing utilities within it. For instance, water lines to be located in Country Club Drive are expected to not exceed 5 feet in depth. Other utilities (such as reclaimed water lines) would be placed in sections of Harmony Grove Road and Country Club Drive that have recently been excavated to support water and sewer lines/force mains for HGV. It is expected that the Proposed Project lines would be located between similar utilities at similar depths. Because existing levels of disturbance are not known with certainty, there is a low potential for discovery of previously unrecorded, and potentially significant, subsurface archaeological resources during off-site Project-related grading activities.

Impacts to unknown on- or off-site cultural resources are identified as potentially significant. (Impact CR-1)

2.4.2.2 *Human Remains*

Guideline for the Determination of Significance

For the purposes of this EIR, a significant impact to human remains would occur if the Proposed Project would:

2. Disturb any human remains, including those interred outside of formal cemeteries.

Guideline Source

This guideline is derived directly from CEQA and is included because human remains must be treated with dignity and respect and CEQA requires consultation with the Most Likely Descendant (MLD) as identified by the NAHC for any project in which human remains have been identified. Any project that would have an adverse impact (direct, indirect, cumulative) on human remains as defined by this guideline would be considered a significant impact. Any identification of human remains is considered significant under the County RPO.

Analysis

On- and Off-site Resources

During the current archaeological evaluation, no evidence of human remains, including those interred outside of formal cemeteries, was identified during the records search, literature review, field survey, or site testing and evaluation program. There is no archaeological indication that the project site was used by Native Americans for religious, ritual, or other special activities (please also refer to Section 2.4.2.4, below). An archaeological monitoring program would be included in the mitigation monitoring and reporting program which includes California State law requirements should human remains be identified during ground disturbing activities. For all of these reasons, discovery of human remains is considered unlikely. **If, however, human remains were to be unexpectedly unearthed during grading activities, impacts could be significant**. **(Impact CR-2)**

2.4.2.3 *RPO Significant Cultural Resources*

Guideline for the Determination of Significance

For the purposes of this EIR, a significant impact to cultural resources would occur if the Proposed Project would:

3. Propose activities or uses damaging to significant cultural resources as defined by the County RPO and the project fails to preserve those resources.

Guideline Source

This guideline is derived from the County's RPO, which does not allow non-exempt activities or uses damaging to significant prehistoric lands on properties under County jurisdiction. The only exempt activity is scientific investigation. The project is required to be in conformance with

applicable County standards related to cultural resources, including the noted RPO criteria for prehistoric sites. Non-compliance would result in a project that is inconsistent with County standards. Any project that would have an adverse impact (direct, indirect, cumulative) on significant prehistoric resources as defined by this guideline would be considered a significant impact.

Analysis

On-site Resources

No intact superstructure of the on-site structures remains, and as noted above, no individuals particularly significant to this locale were associated with the property. It is not expected that valuable information is available in the concrete and stone foundations, fireplace or cistern areas, as they do not exhibit unusual or unique construction styles or materials. Rather, these were common, practically constructed structures, which are common to many periods and regions in the early 1900s. Although some buried resources may exist on site, given the lack of surficial resources, it is unlikely that information important to local or State history would be found in these deposits. Some information might be available relative to the residents' consumer patterns but this would not be considered important historic information.

The one historic-period archaeological site located within the Project footprint has been determined not important under the County RPO. Therefore, **no impact would occur to on-site RPO significant cultural resources.**

Off-site Resources

Impacts to RPO-protected resources are considered highly unlikely given the lack of surface indications, results of Project surveys, and the disturbed nature of potential alignments. The potential for impacts to RPO-significant resources within these highly disturbed areas are considered minimal. **No impact is identified to off-site RPO significant cultural resources.**

2.4.2.4 *Tribal Cultural Resources*

Guideline for the Determination of Significance

For the purposes of this EIR, a significant impact to tribal cultural resources would occur if the Proposed Project would:

4. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as a site, feature, place, [or] cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

    a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in PRC Section 5020.1(k), or

    b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c)

> of PRC Section 5024.1. In applying the criteria set forth in subdivision (c) of PRC Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Guideline Source

This guideline is derived directly from the State CEQA Guidelines Appendix G. Any project that would have a substantial adverse impact (direct, indirect, cumulative) on the significance of tribal cultural resources as defined by this guideline would be considered to result in a significant impact.

Analysis

On- and Off-site Resources

During a County consultation meeting with the San Luis Rey Band of Mission Indians, the tribe raised the issue that a traditional viewshed would be impacted by the Project. Additionally, during County consultation with the Pechanga Band of Luiseño Indians, the Band indicated that traditional cultural resources were located on the property (the village of Chaymay within the geographic location of Uulama). ASM conducted tribal outreach with both groups in November and early December of 2016 to request additional information. No information has been provided to date (see Appendix C of Appendix F to this EIR).

At this time, and as summarized below, there is insufficient information to geographically define either of these resources in terms of size and scope, or to ensure eligibility for listing in accordance with either criteria a or b as defined above.

Specifically, with regard to the potential for a village to be located on site, as noted above, a Native American monitor accompanied the ASM archaeologist during site review to observe the survey and to report on his findings to the Tribe. The findings were consistent with prior review of the site; no prehistoric archaeological resources were located in this highly disturbed setting. While the general Escondido/Harmony Grove area is understood to contain cultural resources, the presence of these resources (and subsequent *substantial adverse change* to their significance from existing conditions) as a result of Project implementation are considered highly unlikely given the disturbed nature of the site and off-site utility/street alignments, as well as the lack of known archaeological resources.

Regarding the traditional viewshed, absent additional input from the Band, it is assumed that the traditional viewshed may be based on the dominant peaks that are the subject of substantial discussion in Subchapter 2.1 of this EIR. As noted there, the dominant peaks around the southern edge of the valley would not be built on by the Project (these peaks are predominantly off site, and Project development is held to lower elevations within the site proper).

No tribal cultural resources meeting the criteria to qualify as significant are known. Based on the absence of information provided during consultation to support more specific analysis, as well as the data provided herein, **no *substantial adverse change* has been identified to the significance of traditional cultural resources that qualify for the CRHR/a local register or protection under PRC 5024.1**.

2.4.3 Cumulative Impact Analysis

According to CEQA, the importance of cultural resources stems from their research value and the information that they contain. Therefore, the issue that must be explored in a cumulative analysis is the cumulative loss of that information. For sites considered less than significant, the information is preserved through recordation, test excavations and preservation of artifactual data. Culturally significant sites that are placed in protected open space easements avoid direct impacts, as well as preserve potential research data. Significant sites that are not placed within open space easements and are directly impacted by a project, preserve information through recordation, test excavations, and data recovery programs that would be presented in reports and filed with the County and SCIC. Because cultural resources are non-renewable in nature, it is critical that information obtained through survey and excavation is appropriately recorded and retained.

No on-site significant cultural resources were located. There is, however, an identified potential for on-site impacts to subsurface deposits or features that are currently not recorded. In addition, impacts could occur to off-site archaeological resources from the construction of utility or access facilities that would also serve the proposed project. Based on this potential, Project implementation could result in a cumulatively considerable impact.

Prehistoric and historic settlement patterns can be very broad; therefore, it is prudent to consider a large study area when evaluating cumulative impacts. The cultural resources cumulative study area was identified based on potential future research questions that could be developed within the context of subsistence and settlement models for the Project area.

Major east-west drainages were the travel corridors utilized by prehistoric occupants in their seasonal rounds. The confluences of drainages are often major habitation site locations, with associated temporary camps and resource procurement stations established on surrounding tributaries and adjacent uplands. The cumulative study area therefore includes the area along Escondido Creek for approximately 5 miles upstream and downstream. Two small drainages that trend through the Proposed Project are tributaries to the major east-west drainage corridor of Escondido Creek (as is any on-site sheet flow). CA-SDI-8280, CA-SDI-12209, and a number of smaller sites are found in proximity to one another a short distance upstream from Harmony Grove and from the current Project area. The numerous small sites in the vicinity and along Escondido Creek are likely associated with this habitation complex.

The cumulative projects in the vicinity of the Proposed Project are listed on Table 1-3 of this EIR, and are shown on Figure 1-23. Four projects within the cumulative study area contain CEQA significant cultural resources; CA-SDI-34, CA-SDI-8280, CA-SDI-12209, and CA-SDI-12684. At least portions of three of these sites (CA-SDI-34, CA-SDI-8280, and CA-SDI-12209) are both CEQA and RPO significant cultural resources because of their potential to provide important information about scientific research questions, as well as the presence of culturally significant elements, such as pictographs, petroglyphs, or human remains. Impacts to these sites would contribute to a regionally significant cumulative loss of non-renewable cultural resources.

Impacts to the significant sites on the cumulative projects list, however, have been, or will be, mitigated through avoidance/preservation in open space, data recovery, and curation of cultural

material collected. As noted above, no significant impacts are currently anticipated to result from implementation of the Proposed Project. If significant sites were to be located during Project construction, direct impacts to cultural resources would be reduced to less than significant through mitigation measures that include avoidance, if feasible, and data recovery. As outlined above, the cultural resources located within the cumulative projects would be mitigated through avoidance/preservation, data recovery, and curation.

Because the proposed project and those projects identified within the cumulative impact study area are primarily mitigated by the collection and archiving of information and the preservation of the most important resources, adequate mitigation has occurred for in situ appreciation of and access to archived research materials for future generations. For the Project, no on- or off-site significant resources are known, and the potential for a new location of a significant site has been addressed through implementation of avoidance, if feasible, recordation, and/or data recovery, as appropriate. Any retrieved information would be archived so that it would be available for future researchers. **This results in the Project contribution to the significant cumulative impact being less than considerable, and therefore less than significant**.

Relative to tribal cultural resources, no sites or resources meeting the criteria to qualify as significant are known. As a result, any Project contribution to loss of these properties is considered **less than considerable and therefore less than significant.**

2.4.4 Significance of Impacts Prior to Mitigation

The following potentially significant impact could occur with Project implementation:

Impact CR-1 There is a potential for significant direct impacts related to undiscovered buried archaeological resources on or off the Project site during Project-related grading. Impacts to these resources would represent significant environmental effects.

Impact CR-2 There is an unlikely but possible potential for significant direct impacts related to discovery of unknown burials on or off the Project site during Project-related grading. Impacts to these resources would represent significant environmental effects.

2.4.5 Mitigation

M-CR-1 and 2 An archaeological monitoring and data recovery program would be implemented to mitigate potential impacts to undiscovered buried archaeological resources on the Project site to the satisfaction of the Director of PDS. This program shall include, but shall not be limited to, the following actions:

- Pre-Construction
    - Provide evidence that a County approved archaeologist has been contracted to implement the Archaeological Monitoring program.

- The Project Archaeologist shall contract with a Luiseño Native American monitor.

- The pre-construction meeting shall be attended by the Project Archaeologist and Luiseño Native American monitor to explain the monitoring requirements.

- Construction

  - Monitoring. Both the Project Archaeologist and Luiseño Native American monitor are to be on site during earth disturbing activities. The frequency and location of monitoring of native soils will be determined by the Project Archaeologist in consultation with the Luiseño Native American monitor. Monitoring of previously disturbed soils will be determined by the Project Archaeologist in consultation with the Luiseño Native American monitor.

  - If cultural resources are identified:

    - Both the Project Archaeologist and Luiseño Native American monitor have the authority to divert or temporarily halt ground disturbance operations in the area of the discovery.

    - The Project Archaeologist shall contact the County Archaeologist.

    - The Project Archaeologist in consultation with the County Archaeologist and Luiseño Native American shall determine the significance of discovered resources.

    - Construction activities will be allowed to resume after the County Archaeologist has concurred with the significance evaluation.

    - Isolates and non-significant deposits shall be minimally documented in the field. Should the isolates and non-significant deposits not be collected by the Project Archaeologist, the Luiseño Native American monitor may collect the cultural material for transfer to a Tribal curation facility or repatriation program.

    - If cultural resources are determined to be significant, a Research Design and Data Recovery Program shall be prepared by the Project Archaeologist in consultation with the Luiseño Native American monitor and approved by the County Archaeologist. The program shall include reasonable efforts to preserve (avoid) unique cultural resources of Sacred Sites; the capping of identified Sacred Sites or unique cultural resources and placement of development over the cap if avoidance is infeasible; and data recovery for non-unique cultural resources. The preferred option is preservation (avoidance).

- Human Remains
  - The Property Owner or their representative shall contact the County Coroner and the PDS Staff Archaeologist.
  - Upon identification of human remains, no further disturbance shall occur in the area of the find until the County Coroner has made the necessary findings as to origin.
  - If the remains are determined to be of Native American origin, the Most Likely Descendant (MLD), as identified by the Native American Heritage Commission (NAHC), shall be contacted by the Property Owner or their representative in order to determine proper treatment and disposition of the remains.
  - The immediate vicinity where the Native American human remains are located is not to be damaged or disturbed by further development activity until consultation with the MLD regarding their recommendations as required by Public Resources Code Section 5097.98 has been conducted.
  - Public Resources Code §5097.98, CEQA §15064.5 and Health & Safety Code §7050.5 shall be followed in the event that human remains are discovered.

- Rough Grading
  - Upon completion of Rough Grading, a monitoring report shall be prepared identifying whether resources were encountered.

- Final Grading
  - A final report shall be prepared substantiating that earth-disturbing activities are completed and whether cultural resources were encountered.
  - Disposition of Cultural Material
    - The final report shall include evidence that all prehistoric materials have been curated at a San Diego curation facility or culturally affiliated Tribal curation facility that meets federal standards per 36 CFR Part 79, or alternatively has been repatriated to a culturally affiliated Tribe.
    - The final report shall include evidence that all historic materials have been curated at a San Diego curation facility that meets federal standards per 36 CFR Part 79.

2.4.6 Conclusion

The Proposed Project would not impact any known significant on- or off-site cultural resources. The Proposed Project may have significant impacts if unknown artifact deposits or human remains are uncovered or unearthed during on- or off-site construction (Impacts CR-1 through CR-2). The mitigation would reduce impacts to potential buried cultural resources to below a level of significance because the site would be avoided, if feasible, or data recovery is required that would allow important information to be obtained prior to removal. The proposed mitigation would ensure that all information contained in the archaeological record, which is important to the understanding of the historical or prehistoric periods, is preserved. The mitigation would also ensure that the archaeological monitor or Luiseño Native American monitor has the authority to halt or divert grading activities in the area of any discoveries.

If human remains are unearthed during grading activities, the County Coroner and the NAHC would be contacted as required to ensure that the proper steps are taken. Based on consultation with the MLD, a determination as to the disposition of the human remains would be made. The proposed mitigation would ensure that any discovered human remains would be preserved for the County Coroner and the MLD.

Implementation of M-CR-1 and 2 would ensure that no impacts to significant prehistoric or historic resources would occur as a result of Project development, thereby also ensuring compliance with CEQA, the County's RPO, and the County of San Diego Report Format and Content Guidelines – Cultural Resources (December 5, 2007c). The ability to halt or divert grading activities followed by evaluation and treatment of the resource as specified in the mitigation measures would reduce potentially significant impacts to less than significant levels because they would ensure that: (1) relevant information contained in the archaeological record, which is important in understanding prehistory and history, is preserved; and (2) that previously unknown cultural resources would not be lost due to unrestricted and unmonitored grading activities.

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SUBCHAPTER 2.5

NOISE

2.5 Noise

This subchapter of the EIR summarizes the Project's Acoustical Analysis Report (HELIX 2017a), contained in Appendix G, which was prepared in conformance with the County Report Format and Content Requirements - Noise (County 2009b).

2.5.1 Existing Conditions

2.5.1.1 *Noise Descriptors*

Noise has been defined as "unwanted sound." Sound becomes "unwanted" when it interferes with normal activities, causes actual physical harm, or has adverse effects on health.

Sound-level values discussed in this subchapter are expressed in terms of decibels (dB). Sound levels are not measured directly, but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA), which are adjusted to approximate the hearing sensitivity of humans. Time-averaged noise levels are referred to as "equivalent sound level" (L_{EQ}), which represents the average sound level over a given sample period. Unless a different time period is specified, L_{EQ} refers to a period of one hour.

The Community Noise Equivalent Level (CNEL) is the average of the intensity of a sound, with corrections made for time of day, and then averaged over 24 hours. The corrections are additions made to actual sound levels to account for increased human sensitivity to sound during the evening and night hours, when there is a decrease in the overall amount and loudness of noise generated, as compared to daytime hours. During these hours, sounds seem louder, and are weighted accordingly. The time of day corrections require the addition of 5 dBA to sound levels in the evening from 7:00 p.m. to 10:00 p.m. and the addition of 10 dBA to sound levels at night from 10:00 p.m. to 7:00 a.m.

2.5.1.2 *Existing Noise Sources*

The dominant permanent noise source in the vicinity of the Project site is the moderate traffic noise on Country Club Drive. Construction noise from the Harmony Grove Village site can also be currently heard on the site.

2.5.1.3 *Existing Ambient Noise Levels*

To determine the existing noise environment, two short-term daytime noise measurements were conducted on Tuesday, August 12, 2014 at two locations: the intersection of Country Club Drive and the proposed south Project entrance, and on site approximately 170 feet southeast of the first measurement. The measured noise level was 54.4 dBA L_{EQ} at the entrance, and 42.8 dBA L_{EQ} onsite. See Table 2-1 in the Acoustical Analysis Report in Appendix G for additional details regarding the two ambient noise measurements.

2.5.1.4 *Existing Noise-sensitive Land Uses*

Noise-sensitive land uses (NSLUs) include uses associated with indoor and/or outdoor activities that may be subject to stress and/or substantial interference from noise. NSLUs include any

residence, hospital, school, hotel, resort, library, or other facilities where lower noise levels are an important attribute of the environment. Located to the west of the site, off Country Club Drive, Cordrey Drive, and Cordrey Lane, is a collection of single-family homes. Within some of these properties are equestrian facilities. Adjacent to the east are three currently occupied single-family homes (that access Country Club Drive through the Proposed Project site). To the north of the site is Escondido Creek and then Harmony Grove Road; to the south is the open space DDHP.

Additional surrounding land uses include the approved HGV project. HGV is currently under construction and will contain over 740 homes at buildout. Consistent with the Project TIA (Appendix D of this EIR), the Project's Acoustical Analysis Report (Appendix G of this EIR) conservatively assumed that the HGV project is occupied. All existing residential sites and all proposed on-site housing units associated with the Project would be considered sensitive noise receptors.

2.5.1.5 *Regulatory Setting*

The County addresses mobile, stationary and construction noise sources. In the context of the noise analysis, transportation (mobile) noise levels associated with the Proposed Project are regulated by goals and policies in the Noise Element in the County General Plan (outlined below). Both federal and County regulations address blasting. County Noise Ordinance Sections 36.404 and 36.409 govern operational (stationary) and construction noise levels, respectively.

Off-site impacts generally focus on transportation noise associated with increases in Project-related vehicular activity. Noise level increases and impacts attributable to development of a project are estimated by comparing the existing plus Project (i.e., "with project") traffic to the existing (i.e., "without project") traffic (refer to Subchapter 2.2 of this EIR for detailed traffic information).

Code of Federal Regulations (30 CFR 816.61-816.68)

Various aspects of blasting, including flyrock and airblast, are regulated by the Code of Federal Regulations (30 CFR 816.61-816.68). Section 816.67(b) specifies maximum levels for airblast; Section 816.67(c) specifies allowable distances for flyrock.

County of San Diego Noise Element

The County has adopted interior and exterior noise standards as part of the Noise Element in the General Plan for assessing the compatibility of land uses with transportation-related noise impacts. For assessing noise impacts to sensitive residential land uses, the County standard is an exterior noise level (for usable outdoor space) of 60 CNEL or less for single-family homes, 65 CNEL or less for multi-family residential and passive park uses, and an interior noise standard of 45 CNEL for both housing types. Applicable goals from the Noise Element are provided relative to land use compatibility, protection of noise-sensitive uses, and both transportation-related and non-transportation-related noise sources. Project consistency with these policies is addressed in Subchapter 3.1.5, *Land Use and Planning*, of this EIR.

Although the proposed HGV South Project could be subject to the County Noise Element Land Use Category B for multiple single-family residences within a single lot within Table 1-1, the analysis assumes Category A noise requirements for these proposed single-family residential units as a more restrictive noise assessment. The 60 CNEL is a higher standard than Category B and is applied to this Project and referenced throughout this Noise subchapter of the EIR.

County of San Diego Noise Ordinance

The purposes of the Noise Ordinance include controlling disturbing, offensive, and excessive noise, providing an environment in which noise is not detrimental to life, health, and enjoyment of property and "securing and promoting the public health, comfort, convenience, safety, welfare, prosperity, peace and quiet of the County of San Diego and its inhabitants" (County Code Sections 36.401[b], [d], and [e]). Compliance with Noise Ordinance limits would ensure that noise generated on the Project site would fall within the dB levels specified in the ordinance.

Section 36.404 of the County Noise Ordinance provides performance standards and noise control guidelines for determining and mitigating non-transportation (stationary) noise source impacts to residential properties. According to County stationary source exterior noise standards, no person shall operate any source of sound at any location within the County or allow the creation of any noise on a property that causes the noise levels to exceed the exterior noise standards at the property boundary. The Noise Ordinance sets an exterior noise limit for residential land uses adjacent to the property of 50 dBA L_{EQ} for daytime hours of 7:00 a.m. to 10:00 p.m. and 45 dBA L_{EQ} during the noise-sensitive nighttime hours of 10:00 p.m. to 7:00 a.m.

Section 36.409 of the Noise Ordinance controls construction equipment noise and establishes a 75 dBA L_{EQ} standard averaged over a period of eight hours between 7:00 a.m. and 7:00 p.m. at the boundary line of the property where the noise source is being generated or any occupied property where noise is received during construction.

In addition to the general limitations on sound levels in Section 36.404, and excluding emergency work, Section 36.410 of the County Noise Ordinance sets sound level limitations on "impulsive" or "single event" noise of 82 dBA L_{MAX} at residential uses, and 85 dBA L_{MAX} for agricultural, commercial or industrial uses. For public road projects, this is 85 dBA L_{MAX} and 90 dBA L_{MAX}, respectively.

County Consolidated Fire Code (SEC 96.1.5601.2)

Blasting activities are regulated by the County Consolidated Fire Code (County 2014a). Blasting is specifically addressed under SEC 96.1.5601.2. Regulations include a permit requirement before a person can conduct blasting, being approved by the Sheriff to conduct blasting operations, and specific hours that blasting may be performed.

Elfin Forest and Harmony Grove Community Plan

The Elfin Forest and Harmony Grove Community Plan includes provisions that address construction noise that may affect equestrian uses in the community (County 2011b). The rugged terrain in the San Dieguito Community can absorb or redirect the sound of the warning sirens used during construction blasting. The sudden blast noise and concussion can frighten horses

causing riders to fall and make riding horseback especially hazardous for area residents. In response, the Community Plan has established construction-related mitigation measures regarding sending out notices for blasting to avoid impacts to the horseback riders in the area.

County of San Diego Standards for Sensitive Birds

Some studies, such as that completed by the Bioacoustics Research Team (1997), have concluded that 60 dBA is a single, simple criterion to use as a starting point for passerine impacts until more specific research is done, as noted in Significance Guideline 4.1.H in the County's Guidelines for the Determination of Significance for Biological Resources (County 2010a). Associated guidelines produced by the USFWS require that noise be limited to a level not to exceed an hourly limit of 60 dBA L_{EQ} or the average ambient noise level, whichever is greater, at the edge of habitat during the breeding season. Subchapter 2.3 addresses potential noise impacts to sensitive birds.

2.5.2 Analysis of Project Effects and Determination as to Significance

The noise analysis presented below evaluates Project effects to on-site and off-site NSLUs associated with both on- and off-site roadway improvements and traffic.

2.5.2.1 *Transportation Noise Levels*

Guidelines for the Determination of Significance

A significant direct noise impact would occur if Project implementation would:

1. Expose exterior on- or off-site, existing or reasonably foreseeable future NSLUs to noise (including road noise) in excess of 60 CNEL for single-family residential uses, 65 CNEL for multi-family residential and passive recreational park uses, or an increase of 10 CNEL or more over existing noise levels (if that noise level is less than 50 CNEL). For off-site uses, if existing conditions approach or exceed County standards, a direct impact would occur if the project more than doubles (increases by more than 3 CNEL) the existing noise level.

2. Expose interior on- or off-site, existing or reasonably foreseeable future, NSLUs to noise in excess of 45 CNEL. As above, for off-site uses, if existing conditions approach or exceed County standards, a direct impact would occur if the project more than doubles (increases by more than 3 CNEL) the existing noise level.

Guidelines Source

The above guidelines are based on the County's Guidelines for Determining Significance – Noise (2009b), as amended by the 2011 General Plan with regard to exterior standards for multi-family residential uses.

Analysis

The Traffic Noise Model (TNM) version 2.5 and Computer Aided Noise Abatement (CadnaA) version 4.2 modeling software were used to estimate the expected roadway noise impacts. CadnaA assists in the calculation, presentation, assessment and mitigation of noise exposure. It allows for the input of project-related information, such as noise source data, barriers, structures, and topography to create a detailed model, and uses the most up-to-date calculation standards to predict outdoor noise impacts. CadnaA traffic noise prediction is based on the data and methodology used in the TNM. The TNM calculates the daytime average hourly L_{EQ} from three-dimensional model inputs and traffic data. The TNM used in this analysis was developed from the Project's Computer Aided Design (CAD) files. Input variables included road alignment, elevation, lane configuration, area topography, existing and planned noise control features, projected traffic volumes, estimated truck composition percentages and vehicle speeds. The one-hour L_{EQ} noise level is used for the model's calculated noise output with the use of 10 percent of the ADT to represent peak-hour traffic. The one-hour L_{EQ} noise output is the equivalent to the CNEL (Caltrans 2009).

Exterior Traffic Noise Impacts

Exterior on-site noise levels were analyzed using the existing plus Project plus cumulative near-term) traffic volume forecasts from the TIA (LLG 2017).[1]

Near-term traffic scenarios provide the focus of analyses rather than long-term buildout scenarios (Year 2035) as traffic volumes are projected to be lower in the buildout scenarios due planned upgrades to the traffic network. These expected network changes would result in a greater dispersal of traffic than the near term. Therefore, the near-term conditions with higher traffic volumes (existing plus cumulative and existing plus Project plus cumulative) were modeled to provide a worst-case analysis.

On-site Receptors

Proposed Project modeling was conducted based on the information in Section 1.2 of this EIR.

The exterior noise levels were calculated for future on-site residences (receivers [R] R1 through R13) and three parks (R14, R15 and R16) nearest to Country Club Drive, as shown on Table 2.5-1, *Future Exterior On-site Noise Levels*. Although the parks are expected to be active recreational parks and therefore have a noise limit of 70 CNEL, they were conservatively assessed as passive recreational parks that would have a noise limit of 65 CNEL. Receiver locations can be seen in Figure 2.5-1, *Receiver and Required Sound Wall Locations*.

Modeling of the potentially affected outdoor use areas associated with the Proposed Project shows two single-family residential outdoor use areas (receivers R9 and R10) would be exposed to future exterior noise levels in excess of 60 CNEL with noise levels of 62 CNEL. This exceeds the County Noise Element most restrictive thresholds for single-family residences which was

[1] Traffic volumes assumed 450 residential units. Per the TIA, 453 homes would only increase peak hour traffic by a few ADT. This would have a nominal effect on the analysis and would not change significance conclusions.

applied to this Project for multiple single-family residences within a single lot. Therefore, **impacts to on-site exterior use areas are assessed as potentially significant**. (**Impact N-1)**

Off-site Receptors

Similar to on-site conditions, additional traffic on area roadways would have the potential to affect off-site residences. The change in traffic roadway noise at any location is directly proportional to the change in traffic volume if the roadway alignments are unchanged and traffic speeds are constant. This allows a determination of the change in noise associated with the Project at any area from the traffic information.

Segments of Country Club Drive, Harmony Grove Road, and Harmony Grove Village Parkway were modeled for existing, existing plus Project, existing plus cumulative, and existing plus Project plus cumulative conditions (based upon data from the TIA), without consideration of topographic, vegetative, or structural shielding along the roadways. As shown in Table 2.5-2, *Existing and Project Traffic Noise Level Impacts*, noise levels 100 feet from the roadway centerline are projected to be between 57 and 61 CNEL with existing plus Project conditions as compared to the existing noise conditions modeled to be between 49 and 60 CNEL. One segment would increase noise levels above 60 CNEL, Harmony Grove Road to Citracado Parkway on Harmony Grove Village Parkway, with an increase from 60 CNEL to 61 CNEL. As the Project would not increase the noise level by more than 3 CNEL, however, **direct impacts to off-site receptors would be less than significant.**

Interior Traffic Noise Impacts

The interior noise level is the difference between the predicted exterior noise level at the building façade and the noise reduction of the structure. The County requires that interior noise levels not exceed 45 dB CNEL. Typically, with the windows closed, building shells provide approximately 15 dB CNEL of noise reduction. Therefore, rooms exposed to an exterior CNEL greater than 60 dB could result in an interior noise level greater than 45 dB CNEL.

On-site Receptors

As discussed above, the building façade noise levels represented by receivers R9 and R10 may exceed 60 CNEL (see Table 2.5-1). Given that traditional architectural materials are normally able to reduce exterior to interior noise by up to 15 dBA, interiors of the noted residences may exceed 45 CNEL. While noise levels on the ground floor of residences may sometimes be reduced via the installation of sound walls, where residential units have a second story, the upper story may also be exposed to noise in excess of 60 CNEL. Therefore, **interior noise impacts to on-site receptors are assessed as potentially significant**. **(Impact N-2)**

Off-Site Receptors

As discussed above, traditional architectural materials are normally able to reduce exterior to interior noise by up to 15 dBA. If the noise level at the exterior of a residence is above 60 CNEL, it may cause the interior noise level to be above the County standards of 45 CNEL. One roadway segment, Harmony Grove Road to Citracado Parkway on Harmony Grove Village Parkway, is modeled to be above 60 CNEL with the addition of Project traffic. However, the Project would

not increase the noise level by more than 3 CNEL; therefore, **interior direct impacts to off-site receptors would be less than significant.**

2.5.2.2 *Operational Noise Levels*

Guideline for the Determination of Significance

A significant direct noise impact would occur if Project implementation would:

3. Generate non-construction noise that exceeds the standards listed in the San Diego County Code, Section 36.404, Sound Level Limits, at all property lines.

Guideline Source

The above guideline is based on the County's Guidelines for Determining Significance – Noise (2009b).

Analysis

Residential Air Conditioner Noise

Specific planning data for the Project's single-family and multi-family residential heating, ventilation, and air conditioning (HVAC) systems is not yet available; however, analysis using a typical larger-sized residential condenser mounted on ground level pads provides a worst-case modeling scenario to assess potential impacts. This unit typically generates a noise level of 56 dBA at a distance of 7 feet. Based on the site plan, the closest building to the property line would be the lot where receivers R9 and R10 are located, in the most westerly Project lots adjacent to Country Club Drive. At this lot, the pad is set back an approximate distance of 58 feet from the property line. Assuming that an HVAC system is 3 feet from the building, the minimum distance that the HVAC unit would be to the property line would be 55 feet. At this distance, the condenser would generate a noise level of 38 dBA, which does not exceed the County's nighttime allowable hourly limit of 45 dBA. Therefore, **noise impacts at on-site property lines from HVAC systems would be less than significant.**

Wastewater Treatment and Water Reclamation Facility

WTWRF equipment would have the potential to create noise in excess of allowable limits. The piece of WTWRF equipment that would generate the most noise would be the standby diesel generator. The generator would produce noise levels ranging from 90 to 105 dBA at 23 feet, and thus noise levels exceeding 45 dBA (the nighttime allowable limit) could be experienced at distances of up to 23,000 feet (without consideration for other factors that could reduce this noise level). Therefore, **noise impacts at on-site property lines from the WTWRF are conservatively assessed as potentially significant. (Impact N-3)**

Center House/Limited Commercial Uses

The greatest source of noise from the Project's potential limited retail/commercial uses (e.g., limited lodging facilities, coffee shop/cafe) would be the HVAC equipment, which would

be similar to the residential HVAC equipment described above. Modeling assumed that the Center House would be set back 10 feet from the property line and that the condenser would be similar to a typical larger-sized residential condenser. This unit typically generates a noise level of 56 dBA at a distance of 7 feet. Based on the site plan, the closest building footprint within the Community Center to the property line is approximately 90 feet. Assuming that an HVAC system is 3 feet from the building, the minimum distance that the HVAC unit would be to the property line would be 87 feet. At this distance, the condenser would generate a noise level of 34 dBA, which does not exceed the County's nighttime allowable hourly limit of 45 dBA. Therefore, **noise impacts at on-site property lines from the Project's commercial uses would be less than significant.**

Parks

The parks expected to be the greatest noise generators would be the basketball court and the dog park. The loudest noise from the basketball court would be the sound of the basketball striking the backboard. The closest future residence (the multi-family residences to the south of the court) to one of the two backboards would be 100 feet. At single event of a ball hitting the backboard (0.2 second duration), averaged over the duration of one hour, would be approximately 42.4 dBA L_{EQ} at 5 feet, 22.4 dBA L_{EQ} at 50 feet, and 16.4 dBA L_{EQ} at 100 feet. Given the distance to the nearest residences, this would allow up to a total of approximately 23 minutes per hour of backstop noise, or 7,000 backboard hits, prior to exceedance of the County's 55 dBA L_{EQ} limit for multi-family residences. A professional basketball game typically has 150 to 200 field goal shots per one hour of play (Teamrankings.com 2016). With a similar amount of shots, recreational use of the Project's basketball court would result in substantially fewer than 7,000 backboard hits, and **noise impacts from the basketball court would be less than significant.**

The loudest noise from the dog park would be from dogs barking. The center of the dog park would be approximately 50 feet from the nearest future residences (the single-family on-site residences to the east). A single event of a dog in barking (0.2 second duration), averaged over the duration of one hour, would be approximately 42.4 dBA L_{EQ} at 5 feet, 22.4 dBA L_{EQ} at 50 feet, and 16.4 dBA L_{EQ} at 100 feet. Given the distances to the nearest residences, this would allow up to a total of 110 seconds per hour of barking, or 550 barks, at the dog park to not exceed the County's 50 dBA L_{EQ} limit for single-family residences. A reasonable assumption for the dog park during a busy day would be 20 dogs in the park, each with 10 barking events per hour, for a total of 200 barking events per hour. Therefore, under these assumptions, **the number of barks per hour would not cause an exceedance of County thresholds and impacts would be less than significant.**

2.5.2.3 *Construction Noise Levels*

Guideline for the Determination of Significance

A significant direct noise impact would occur if Project implementation would:

4. Generate construction noise that exceeds the standards listed in the San Diego County Code, Section 36.409, Sound Level Limitations on Construction Equipment.

Guideline Source

The above guideline is based on the County's Guidelines for Determining Significance – Noise (2009b).

Analysis

Construction noise represents a short-term impact on the ambient noise levels, which may disrupt nearby noise sensitive receptors. The magnitude of the impact by construction would vary greatly depending upon factors such as the type of construction activity, type and specific model of the equipment, the condition of the equipment duration of each construction phase, distance between the noise source and receiver, and any intervening structures.

Construction would require heavy equipment during mass grading and off-site construction, such as utility installations, roadway widening, and bridge construction. For mass grading activities and roadway construction, the Project would require material excavation and/or fill, and portions of the site may experience difficult ripping. Potential equipment for these activities includes dozers, excavators, breakers, and a rock crusher. Blasting would likely be performed to assist with grading given the underlying geology of portions of the site. The necessity and extent of blasting would not be known until surface clearing is completed. Utility installations would require the digging of trenches using an excavator. For bridge construction, the Project may require pile driving or cast-in-drilled holes.

Project construction noise was analyzed using the Roadway Construction Noise Model (RCNM; U.S. Department of Transportation [DOT] 2008), which utilizes estimates of sound levels from standard construction equipment.

Construction noise could potentially affect biological resources such as sensitive habitat for nesting birds. Analysis and mitigation for these impacts are discussed in Subchapter 2.3 of this EIR.

On-site Effects

Mass grading and bridge construction, along with all of the loudest construction processes (specifically, the use of a dozer, excavator, rock crusher or blasting), would occur prior to the development of proposed on-site residences. The later phases of construction (building construction, parking lot paving, and architectural coatings) may occur simultaneously with a portion of the HGV South residences occupied in another area of the site. The final construction phase operations would occur at a minimum distance of 50 feet from future occupied HGV South residences. The loudest type of construction equipment used for building construction, paving, and architectural coatings would be a crane, paver, and air compressor, respectively. A crane, paver, and air compressor would generate noise levels of 72.6 dBA L_{EQ}, 73.7 dBA L_{EQ}, and 74.2 dBA L_{EQ} at 50 feet, respectively; these noise levels would be below the County's 75 dBA 8-hour average limit. Based on the types of construction activities that could occur once on-site residences are occupied, **impacts to on-site NSLUs would be less than significant.**

Off-site Effects

A dozer and an excavator may be working on site at the same time, but would not be working in close proximity to one another at a given time due to the nature of the respective operations. Therefore, a dozer and an excavator were analyzed for construction noise impacts in isolation.

It was assumed that a dozer and an excavator working on proposed grading areas would be in operation for 40 percent of a typical construction day at a distance of 100 feet from the nearest residences. The nearest residences to the proposed grading areas are adjacent to the western portion of the Project site. Over the course of a day, a dozer or excavator may be closer or farther than 100 feet from the nearest residence; however, a reasonable average is 100 feet.

Based on these assumptions, the highest impact level for a dozer and excavator at the adjacent property boundary is 71.7 dBA L_{EQ} and 70.7 dBA L_{EQ}, respectively. These levels do not exceed the County's 8-hour noise level limits of 75 dBA L_{EQ}. Therefore, **impacts from the operation of a dozer and excavator are considered less than significant.**

A hydraulically operated impact hammer attached to a tracked excavator is commonly called a breaker, and is used to reduce large boulders to a more manageable size. If blasting is to occur, leftover boulders may be large enough for a breaker to be used at the project site. Breakers create an impulsive noise that is regulated by the 75 dBA 8-hour average requirement, and the maximum impulsive noise level requirement of 82 dBA L_{MAX}. A breaker generates a one-hour L_{EQ} of 80 dBA at a distance of 50 feet. Assuming a noise attenuation rate of 6 dBA per doubling of distance, noise levels from the breaker would reduce to 75 dBA L_{EQ} at a distance of 90 feet. If a breaker is operated within 125 feet, the maximum noise level would be above the County's impulsive noise threshold of 82 dBA L_{MAX}. Therefore, **impulsive noise impacts from the operation of a breaker would be potentially significant. (Impact N-4)**

To minimize materials exportation and importation, a rock crusher, consisting of an impact crusher and a jaw crusher, may be utilized. This crushing would reduce the material to a size and type that would be appropriate for use in foundation and other land use development at the Project site. It was assumed that the impact crusher and jaw crusher, as well as a top load feeder to deposit the material into the crusher, would be in operation for 100 percent of the day when the crusher is needed. The combined noise levels from this equipment would be 89 dBA L_{EQ} at a distance of 50 feet, and the noise level would attenuate to 75 dBA at a distance of 250 feet. Therefore, if a rock crusher is used within 250 feet to the nearest residence, the noise level would exceed the County's 8-hour noise level limits of 75 dBA L_{EQ}, and **impacts from a rock crusher would be potentially significant. (Impact N-5)**

With regard to blasting, a full blasting analysis cannot be done until after the site is cleared of all surface material (including any rippable material) to expose the specific type of material to be blasted, the extent of the area of blasting, and until the required blasting charge type is known. Blasting is probable, however, in the northeastern and western portions of the site due to the underlying granitic rocks (Geocon Incorporated [Geocon] 2015a). There are residences adjacent to the Project site in both of these areas; a conservative estimate of their distances from potential blasting areas is 200 feet. This evaluation is based on a reasonable minimum blast size and its closest allowable off-site residential distance based on available standards. As the blast charge

size is increased, so is the allowable distance to prevent residential structural damage. As described under Section 1.2.2, the Project's blasting assumptions allow for up to three blasting operations per week and a blasting management plan that would be implemented to comply with all applicable local, State, and federal rules and regulations.

Blasting has three separate types of potential impacts: flyrock, vibration, and airblast. Flyrock consists of debris (smaller and potentially larger chunks of rock) ejected from the blast. Outside the immediate area of the blast itself, flyrock is potentially the most dangerous portion of blasting. In terms of vibration, both air and ground vibrations create waves that disturb the material in which they travel. When these waves encounter a structure, they cause it to shake and may cause structural damage. Ground vibrations enter the house through the foundation. An airblast is a pressure wave that creates a push (positive pressure) and pull (negative pressure) effect; it may be audible (noise) or inaudible (concussion). A blast occurring outside of a residence may be heard inside because of the audible noise; however, noise has little impact on the structure. The concussion wave causes the structure to shake and rattle, and can break windows at higher pressure levels.

Flyrock would not be allowed at the site, beyond the direct area of the blast, under any circumstances. Proper blast planning is required by both the Code of Federal Regulations (30 CFR 816.61-816.68) and County Consolidated Fire Code (SEC 96.1.5601.2). Proper blast planning would therefore be implemented, and no further analysis is provided with regard to flyrock. Similarly, an analysis of airblast is not provided in this report because airblast is regulated by the limits from the Code of Federal Regulations, which are provided in Appendix G to this EIR. The Project would be required to conform to these standards.

The minimum distance from any blast for this site should be 200 feet for the control of ground borne vibration impacts to the closest residences. The basic planning for blasting charge weight limits at distances greater than 200 feet from an off-site structure does not provide final project-specific analysis for allowable blasting charges, nor is it intended to limit the blasting company to this as a minimum distance or maximum or minimum charge weights. This planning analysis is provided as general guidance and is not intended to provide final blasting planning for any specific blast.

Because Project-specific details regarding blasting operations are not available at this time, **impacts to off-site residences and other land uses are conservatively assessed as significant. (Impact N-6)**

The Elfin Forest and Harmony Grove Community Plan requires community-specific procedures for blasting due to the frequent horseback riding in the area. The loud blast noise and pressure wave from blasting can frighten horses, causing riders to fall. Many residences in the vicinity have stables or similar facilities for horses. In addition, many visitors use the area for horseback riding, including the Del Dios Highlands trail that passes within 0.5 mile of the Project site. The construction best management practices for blasting described in Table 1-2 of this EIR would be implemented to minimize impacts to horses and horseback riders. As mentioned previously, the Project off-site improvements are conservatively assumed to include construction of a new bridge over Escondido Creek, implementation of a third lane within Country Club Drive from

Harmony Grove Road to the southern Project entrance, and installation of utilities within Country Club Drive and Harmony Grove Road.

Pile driving may be used to construct the bridge. The nearest currently occupied residence to where bridge construction would take place is approximately 1,200 feet to the southwest. The nearest potential residence (part of the HGV project) would be approximately 500 feet to the north of where the bridge construction will take place. The Harmony Grove Village project residences are currently under construction and may be in use by the start of bridge construction.

Noise from pile driving may be audible at the Harmony Grove Equestrian Park and Harmony Grove Community Park (currently being developed), although the County construction noise limits apply to occupied residential property only, and the Project includes construction best management practices to avoid potential adverse effects to park users as described in Table 1-2.

Assuming a standard assumption of operation for 20 percent of a typical construction day, a pile driver has a 74.3 dBA L_{EQ} at 500 feet and a 66.7 dBA L_{EQ} at 1,200 feet. The 75 dBA L_{EQ} noise contour would be at approximately 460 feet. Therefore, **impacts from pile driving to off-site residences would be less than significant.** The reader is referred to Section 2.3 of this EIR for information on potential noise impacts to sensitive birds.

An alternative to a pile driver to construct the bridge would be to use cast-in-drilled-holes. This would involve using a track-mounted drill to bore the hole and then a cement truck and pumper to plug the hole with concrete. Construction of the bridge using cast-in-drilled holes has a 56.7 dBA L_{EQ} at 500 feet and 49.1 dBA L_{EQ} at 1,200 feet, the nearest potentially occupied residences to the bridge as identified in the previous paragraph. Therefore, **impacts to nearby residences from cast-in-drilled holes would be less than significant.**

For roadway widening, it is likely that a dozer would first be used to break up the current roadway, and then subsequent work would be performed with material export and import through dump trucks, road graders, water trucks, and if drainage systems are to be installed, excavators. It is possible that a dump truck and loader or a dump truck and excavator would be in operation at the same time; otherwise, each piece of equipment is expected to be operated in isolation. As a conservative measure, a dozer, the loudest piece of equipment to be used, and a dump truck were modeled to be working simultaneously. At 80 feet, a dozer and a loader would create a noise level of 75 dBA L_{EQ}. The nearest residence is a minimum of 200 feet from where the widening would occur. Therefore, **noise levels from the dozer at the residence would be lower than the County limit and impacts would be less than significant.**

Utility installations could include normal trenching activities to install an 8-inch sewer line, 12- and 8-inch water lines, 8-inch recycled water lines, and/or a 5-foot sewer corridor at an assumed depth not to exceed 6 feet. This would involve the use of a small- to medium-sized excavator and medium-sized loader. The closest utility line to a NSLU would be the 8-inch recycled water line that would involve trenching within 50 feet of single-family homes alongside Country Club Drive to the west of the Project. Assuming normal excavation duration, the excavator or backhoe and loader would not be expected to be in front of any single home for more than two hours. At a worst-case potential distance of 25 feet from the nearest property line distance for two hours of an eight-hour day, the average noise level would be expected to be

73.6 dBA L_{EQ}. Thus, **noise levels from off-site utility installations would be lower than the County limit, and impacts would be less than significant.**

2.5.2.4 *Ground-borne Vibration/Noise*

Guidelines for the Determination of Significance

A significant direct noise impact would occur if Project implementation would:

5. Subject residences to:

    a. Ongoing ground-borne vibration levels of 0.0040 inches per second root mean square from frequent events, or 0.010 inches per second (in/sec) root mean square (rms) for occasional or infrequent events; and/or

    b. Ongoing ground-borne noise levels of 35 dB re micro Pascals for frequent events or 43 dB re micro Pascals for occasional or infrequent events.

6. Subject residences to vibration from isolated events (e.g., blasting) with peak particle velocity exceeding one inch per second.

Guidelines Source

The above guidelines are based on the County's Guidelines for Determining Significance – Noise (2009b).

Analysis

Construction vibration for the Proposed Project may be caused by pile driving, a vibratory roller, or blasting (discussed above). Pile driving could be required for the bridge footings as part of the Escondido Creek bridge construction; a vibratory roller may be used to achieve soil compaction as part of the foundation construction (and possibly for on-site driveways at a later time).

The County provides for the use of the Caltrans standards (2004) for construction vibration impacts of 0.4 in/sec peak particle velocity (PPV) (a "severe" impact) in the footnotes of Table 4 (Guideline for Determining the Significance of Ground-borne Vibration and Noise Impacts) of the County of San Diego Guidelines for the Determination of Significance, Noise.

A vibratory roller is expected to be used within 50 feet of the nearest occupied residence. It would create approximately 0.210 in/sec PPV at a distance of 25 feet. Using the Caltrans criterion of 0.4 in/sec PPV, the approximately 0.210 in/sec PPV vibration impact would be less than what is considered a "severe" impact. Therefore, although vibration may be perceptible by nearby residences, **temporary impacts associated with the vibratory roller would be less than significant.**

An off-site source of vibration may be pile driving from the off-site bridge construction. As discussed above, the nearest residence would be approximately 500 feet to the north from the bridge construction. At this distance, a pile driver would create approximately 0.0382 in/sec PPV

(see Appendix G for detailed calculations), which is below the Caltrans criterion of 0.4 in/sec PPV. Therefore, **vibration impacts to occupied residences from pile driving would be less than significant.**

2.5.3 Cumulative Impact Analysis

2.5.3.1 *Cumulative Off-site Traffic Noise Impacts*

Cumulative on-site traffic noise levels were already taken into account to assess on-site receptors as part of Section 2.5.2.1. Therefore, the following analysis focuses on potential cumulative off-site impacts.

Guideline for the Determination of Significance

A significant cumulative impact would occur if the Project would:

7. Considerably contribute to a cumulative scenario that would result in the exposure of any on- or off-site, existing or reasonably foreseeable future NSLU, to: (1) an increase of 10 dB (CNEL) over pre-existing noise levels of less than 50 dB CNEL resulting in a combined exterior noise level of 60 dB CNEL or greater; (2) an increase of 3 dB CNEL in existing plus project plus cumulative conditions if that total is above 60 dB CNEL; or (3) interior noise in excess of 45 dB CNEL. A "cumulatively considerable" project contribution to an identified significant cumulative noise impact would occur if the project would contribute more than a one dB increase.

Guideline Source

This guideline is based on the County's Report Format and Content Requirements – Noise (2009b).

Analysis

Exterior

The cumulative noise study area includes other projects affecting the same roads impacted by the Proposed Project. Cumulative traffic impacts to exterior off-site noise levels were analyzed based on existing, existing plus cumulative, and existing plus Project plus cumulative conditions. Note that, as described previously, Year 2035 traffic volumes are lower than near-term traffic volumes due to traffic network changes. For this reason, the near-term conditions were modeled to provide a worst-case analysis.

As shown on Table 2.5-3, *Cumulative Traffic Noise Level Impacts,* one segment is identified as having a significant cumulative exterior noise impact. Country Club Drive, from Auto Park Way to Hill Valley Drive, would result in an increase of three CNEL compared to existing conditions. The Project, however, would not contribute more than one dBA to the cumulative increase in traffic noise along this segment of Country Club Drive. Therefore, **the Project's contribution to cumulative traffic exterior noise impacts would not be cumulatively considerable and are identified as less than significant.**

Interior

A significant cumulative interior impact would occur if the Project's noise increase yields interior noise levels in excess of 45 CNEL while also causing an increase at least 3 CNEL over existing conditions. One segment is identified as having a significant cumulative interior impact according to this standard. Country Club Drive, from Auto Park Way to Hill Valley Drive, would result in an increase of three CNEL compared to existing conditions. The Project, however, would not contribute more than 1 dBA to the cumulative noise increase. Therefore, **the Project's contribution to cumulative traffic-related interior noise impacts would not be cumulatively considerable and are identified as less than significant.**

2.5.3.2 *Cumulative Stationary Noise Source Impacts*

Guideline for the Determination of Significance

A significant cumulative impact would occur if the Project would:

8. Generate non-construction noise that exceeds the standards listed in the San Diego County Code, Section 36.404, Sound Level Limits, at all property lines.

Guideline Source

This guideline is based on the County's Report Format and Content Requirements – Noise (2009b).

Analysis

No known planned future projects are within a sufficient distance to affect the future residences at the Proposed Project site. A residence is currently under construction that abuts the eastern portion of the Project site; however, it is likely this residence would be occupied before the first Project residences are occupied, and therefore its construction noise would not affect on-site NSLUs. Further, operational noise impacts are typically assessed on a case-by-case basis and all future development would be subject to the limits within the County noise ordinance. As a result, **cumulative impacts associated with stationary noise sources are identified as less than significant.**

2.5.3.3 *Cumulative Construction Noise and Vibration Impacts*

Guideline for the Determination of Significance

A significant cumulative impact would occur if the Project would:

9. Generate non-construction noise that exceeds the standards listed in the San Diego County Code, Section 36.404, Sound Level Limits, at all property lines.

Guideline Source

This guideline is based on the County's Report Format and Content Requirements – Noise (2009b).

Analysis

While there may be construction projects in the general vicinity of the Proposed Project (e.g., HGV), it is likely that construction on these projects would be completed before the Proposed Project is under construction, and no other potential projects in the immediate vicinity are known. Therefore, it is unlikely that other projects would contribute additional construction noise and vibration to potentially affected residential properties located adjacent to the Proposed Project.

2.5.4 Significance of Impacts Prior to Mitigation

The following potentially significant impacts related to noise could occur with Proposed Project implementation without mitigation:

Impact N-1 Noise levels could exceed the most restrictive 60 CNEL maximum allowable noise level for two single-family residences that are located in the westernmost portion of the Project site that face Country Club Drive.

Impact N-2 The second stories of the two residential units identified for Impact N-1 may be exposed to noise in excess of 60 CNEL; given a typical exterior to interior attenuation of 15 CNEL, the interior noise levels of these residents may be exposed to noise levels that exceed the 45 CNEL threshold.

Impact N-3 WTWRF equipment would have the potential to create noise in excess of allowable limits. The piece of WTWRF equipment that would generate the most noise would be the standby diesel generator. The generator would produce noise levels ranging from 90 to 105 dBA at 23 feet, and thus noise levels of 45 dBA (the night-time allowable limit) could be experienced at distances of up to 23,000 feet.

Impact N-4 If a breaker operates within 125 feet of the nearest NSLU, the noise level would exceed the County's impulsive noise limit of 82 dBA L_{MAX}.

Impact N-5 If a rock crusher operates within 250 feet of the nearest NSLU, the noise level would exceed the County's 8-hour noise level limits of 75 dBA L_{EQ}.

Impact N-6 Because Project-specific details regarding blasting operations are not available at this time, impacts to off-site residences are conservatively assessed as significant.

2.5.5 Mitigation

On-site Exterior Noise

M-N-1 On-Site Noise Barriers: Noise levels at exterior use areas for the proposed residences identified as R9 and R10 on Figure 2.5-1 shall be reduced to the most restrictive County Noise Element threshold of 60 CNEL or below. Noise reduction for on-site exterior traffic noise impacts, which could lead to interior noise impacts, could be accomplished through on-site noise barriers. One 5-foot-high sound wall along the northern perimeter of the affected lot would be installed, with approximately 20-foot long return walls along the western perimeter of the western residence (R9) and the eastern perimeter of the eastern residence (R10).

The sound attenuation fence or wall must be solid. It can be constructed of masonry, wood, plastic, fiberglass, steel, or a combination of those materials, as long as there are no cracks or gaps through or below the wall. Any seams or cracks must be filled or caulked. If wood is used, it can be tongue and groove and must be at least 1-inch total thickness or have a density of at least 3½ pounds per square foot. Where architectural or aesthetic factors allow, glass or clear plastic ⅜ of an inch thick or thicker may be used on the upper portion, if it is desirable to preserve a view. Sheet metal of 18 gauge (minimum) may be used, if it meets the other criteria and is properly supported and stiffened so that it does not rattle or create noise itself from vibration or wind. Any door(s) or gate(s) must be designed with overlapping closures on the bottom and sides and meet the minimum specifications of the wall materials described above. The gate(s) may be of 1-inch thick or better wood, solid-sheet metal of at least 18-gauge metal, or an exterior-grade solid-core steel door with prefabricated doorjambs.

On-site Interior Noise

M-N-2 Exterior-to-Interior Noise Analysis: In accordance with standard County requirements, additional exterior-to-interior noise analysis shall be conducted for the residential units identified as R9 and R10 (where exterior noise levels may exceed 60 CNEL within the second stories) to demonstrate that interior levels do not exceed 45 CNEL. The information in the analysis shall include wall heights and lengths, room volumes, window and door tables typical for a building plan, as well as information on any other openings in the building shell. With this specific building plan information, the analysis shall determine the predicted interior noise levels at the planned on-site buildings. If predicted noise levels are found to be in excess of 45 CNEL, the report shall identify architectural materials or techniques that could be included to reduce noise levels to 45 CNEL in habitable rooms. Standard measures such as glazing with Sound Transmission Class (STC) ratings from 22 to 60, as well as walls with appropriate STC ratings (34 to 60), should be considered.

Appropriate means of air circulation and provision of fresh air would be provided to allow windows to remain closed for extended intervals of time so that acceptable interior noise levels can be maintained. The mechanical ventilation system would

meet the criteria of the International Building Code (Chapter 12, Section 1203.3 of the 2001 California Building Code).

On-site Operational Noise

M-N-3 WTWRF Final Design Noise Shielding: The WTWRF shall be enclosed by a solid 6-foot high wall. Final design for the WTWRF and the noise wall shall demonstrate that exterior noise levels generated from all stationary WTWRF equipment combined shall not exceed the one-hour exterior noise level of 45 dBA L_{EQ} at the property line.

The Applicant shall be required to provide a final noise impact analysis as part of the facilities design submittal package for the WTWRF and noise wall prepared by a County-approved noise consultant. The final noise impact analysis shall demonstrate compliance with the County 45 dBA L_{EQ} property line nighttime limit completed to the satisfaction of the County PDS.

Construction Noise

M-N-4 Breaker Equipment Operation Limit: If a breaker is required as part of Project construction, then it shall not generate maximum noise levels that exceed 82 dBA L_{MAX} when measured at the property line for 25 percent of a one-hour period, or be used within 125 feet of the property line for any occupied residence. Material that would require a breaker shall be moved a minimum distance of 125 feet from the nearest residence.

M-N-5 Rock Crusher Operation Limit: If a rock crusher is required as part of Project construction, then it shall not be used within 250 feet of the property line for any occupied residence until a temporary noise barrier or berm is constructed at the edge of the development footprint or around the piece of equipment to reduce noise levels below 75 dBA L_{EQ} at the property line for the occupied residences. If a barrier or berm is used, decibel output will be confirmed by a County-approved noise specialist. Otherwise, a rock crusher shall be moved a minimum distance of 250 feet from the nearest residence before use.

M-N-6 Blasting Measures: The following measures would be implemented to reduce impacts from blasting:

- The number of blasts would be limited to three blasting events per week.
- The Project would also include a blasting management plan due to the blasting that is likely to occur on site. All blast planning must be done by a San Diego County Sheriff approved blaster, with the appropriate San Diego County Sheriff blasting permits, in compliance with the County Consolidated Fire Code Section 96.1.5601.2 (County 2014a), and all other applicable local, state, and federal permits, licenses, and bonding. The blasting contractor or owner must conduct all notifications, inspections, monitoring, and major or minor blasting requirements planning with seismograph reports, as necessary.

- If boulders must be reduced in size with blasting within 200 feet of the closest residence, the use of chemical expansion via a chemical cracking agent shall be performed instead.

2.5.6 Conclusion

The Proposed Project would have limited on-site noise impacts from traffic that are potentially significant. Specifically, noise levels for two single-family residences (receivers R9 and R10; see Figure 2.5-1) may exceed 60 CNEL (Impact N-1), and would require exterior use area noise control. Implementation of M-N-1 would include a 5-foot-high sound wall that would reduce noise levels at the units to below 60 CNEL and therefore to below a level of significance. This mitigation would reduce impacts to less than significant levels because the noise modeling results indicate the noise attenuation provided by the walls would be adequate to comply with exterior noise standards of the Noise Element. As shown on Table 2.5-4, the 62 CNEL noise levels identified for these receptors would drop to 55 and 56 CNEL, respectively, well within the 60 CNEL threshold.

Since the two on-site residences noted above would experience exterior noise in excess of 60 CNEL, it is possible that interior noise would exceed the 45 CNEL threshold (Impact N-2). Implementation of M-N-2 includes an exterior-to-interior analysis that shall be conducted for the two residential units noted above (including wall heights and lengths, room volumes, window and door tables typical for a building plan, as well as information on any other openings in the building shell). With this specific building plan information, the analysis shall determine the predicted interior noise levels at the planned on-site buildings. If predicted noise levels are found to be in excess of 45 CNEL, the report shall identify architectural materials or techniques to reduce noise levels to 45 CNEL in habitable rooms, and be implemented through the final building plans. With implementation of this mitigation measure, interior noise levels would be assured to be no greater than 45 CNEL and impacts to on-site interior noise would be less than significant. This mitigation measure would reduce impacts to less than significant because architectural measures have been demonstrated to be effective and feasible through modeling and the noise levels would be reduced to below the Noise Element standard of 45 CNEL.

The preliminary plans for the WTWRF include an equipment building and noise wall that would likely reduce noise levels to allowable limits; however, the design has not yet been finalized to demonstrate compliance with the County noise ordinance (Impact N-3). M-N-3 would ensure a final design for the WTWRF that would achieve sufficient noise attenuation to below County limits; therefore, impacts would be less than significant. In order to ensure compliance of the WTWRF with applicable noise regulations, a final noise impact analysis is required as part of the facilities design submittal package for the WTWRF. The final noise impact analysis prepared by a County-approved noise consultant shall demonstrate compliance with the County 45 dBA L_{EQ} property line nighttime limit. The report shall be completed to the satisfaction of the County PDS. This mitigation would reduce impacts to less than significant because the conditions of approval of the MUP would ensure that the standard would be attained through appropriate equipment/structural noise barriers and proper installation as provided in final design as reflected in the report.

Noise levels associated with a breaker and a rock crusher (Impacts N-4 and N-5) could potentially result in significant impacts to off-site residences. With implementation of M-N-4, breaker noise levels would not exceed the County's impulsive noise level limit as the breaker would not be operated within 125 feet of the nearest Slowed implementation of M-N-5, rock crusher noise levels would not exceed the County's 8-hour noise level limit as the breaker would not be operated within 250 feet of the nearest NSLU. Through these mitigation measures, impacts from construction noise levels would be less than significant. On site monitors will ensure compliance.

Blasting may occur during Project construction (Impact N-6). Implementation of M-N-6 would provide proper measures, such as implementation of a blasting management plan and limiting the number of blasting events, so that impacts from blasting would be less than significant.

For all of the above measures, implementation of the proposed mitigation measures would ensure compliance with the County Noise Element standards and Noise Ordinance property line limits and reduce noise to less than significant levels.

Table 2.5-1
FUTURE EXTERIOR ON-SITE NOISE LEVELS

Receiver Name	Land Use	Noise Levels with No Wall (CNEL)
R1	Single-family residential	60
R2	Single-family residential	60
R3	Single-family residential	60
R4	Single-family residential	59
R5	Single-family residential	57
R6	Single-family residential	56
R7	Single-family residential	55
R8	Single-family residential	55
R9	**Single-family residential**	**62**
R10	**Single-family residential**	**62**
R11	Single-family residential	60
R12	Multi-family residential	59
R13	Multi-family residential	58
R14	Passive park	64
R15	Passive park	61
R16	Passive park	60

Note: Noise levels in table are for the existing plus Project plus cumulative (near term) condition; receivers that exceed applicable noise limits (60 CNEL for single-family residential, 65 CNEL for multi-family residential, or 65 CNEL for passive recreational parks) are bolded; all numbers have been rounded down to the nearest whole number per County standard practice.

Table 2.5-2
EXISTING AND PROJECT TRAFFIC NOISE LEVEL IMPACTS

Roadway Segment	CNEL @ 100 feet			
	Existing	Existing + Project	Change from Existing	Direct Impact[1]
Country Club Drive				
Auto Park Way to Hill Valley Drive	59	60	1	No
Hill Valley Drive to Kauana Loa Drive	59	60	1	No
Kauana Loa Drive to Harmony Grove Village Parkway	56	58	2	No
Harmony Grove Village Parkway to Harmony Grove Road	55	57	2	No
Harmony Grove Road to Cordrey Drive	49	58	9	No
Harmony Grove Road				
Wilgen Drive to Country Club Drive	59	59	0	No
Country Club Drive to Harmony Grove Village Parkway	59	60	1	No
Harmony Grove Village Parkway to Kauana Loa Drive	58	59	1	No
Kauana Loa Drive to Enterprise Street	59	59	0	No
Harmony Grove Village Parkway				
Harmony Grove Road to Citracado Parkway	60	61	1	No

[1] If existing conditions approach or exceed County standards, a direct impact to off-site uses would occur if the project more than doubles (increases by more than 3 CNEL) the existing noise level.

Table 2.5-3
CUMULATIVE TRAFFIC NOISE LEVEL IMPACTS

Roadway Segment	E	E + C	E + P + C				
	CNEL @ 100 ft.	CNEL @ 100 ft.	CNEL @ 100 ft.	Change from Existing[1]	Cumulative Impact[2]	Change from E + C[1]	Cumulatively Considerable Contribution[3]
Country Club Drive							
Auto Park Way to Hill Valley Drive	59	61	62	3	**Yes**	1	No
Hill Valley Drive to Kauana Loa Drive	59	60	61	2	No	1	No
Kauana Load Drive to Harmony Grove Village Pkwy	56	59	60	4	No	1	No
Harmony Grove Village Pkwy to Harmony Grove Road	55	57	58	3	No	1	No
Harmony Grove Road to Cordrey Drive	49	49	58	9	No	9	No
Harmony Grove Road							
Wilgen Drive to Country Club Drive	59	61	61	2	No	0	No
Country Club Drive to Harmony Grove Village Pkwy	59	60	61	2	No	1	No
Harmony Grove Village Pkwy to Kauana Loa Drive	58	60	60	2	No	0	No
Kauana Loa Drive to Enterprise Street	59	61	61	2	No	0	No
Harmony Grove Village Parkway							
Harmony Grove Road to Citracado Pkwy	60	62	62	2	No	0	No

Note: Surrounding street segments that do not have residences/NSLUs adjacent to them were not included in this analysis, as impacts to NSLUs would not occur;
E = Existing; E + C = Existing + Cumulative (near term); E + P + C = Existing + Project + Cumulative (near term)

[1] Results have been rounded down to nearest whole number per County standard practice.

[2] A cumulative impact would occur if the Project would cause: an increase of 10 CNEL over existing noise levels, resulting in a combined exterior noise level of 60 CNEL or greater; an increase of 3 CNEL over existing conditions if that total is above 60 CNEL; or if the Project would cause interior noise levels in excess of 45 CNEL while also causing an increase at least 3 CNEL over existing conditions.

[3] A cumulatively considerable contribution to the cumulative impact would occur if the Project adds *more than* 1 dBA to the cumulative noise increase.

Table 2.5-4
FUTURE EXTERIOR ON-SITE
NOISE LEVELS WITH SOUND BARRIER

Receiver Name	Noise Levels with No Wall (CNEL)	Noise Levels with Wall (CNEL)
R9	**62**	**55**
R10	**62**	**56**

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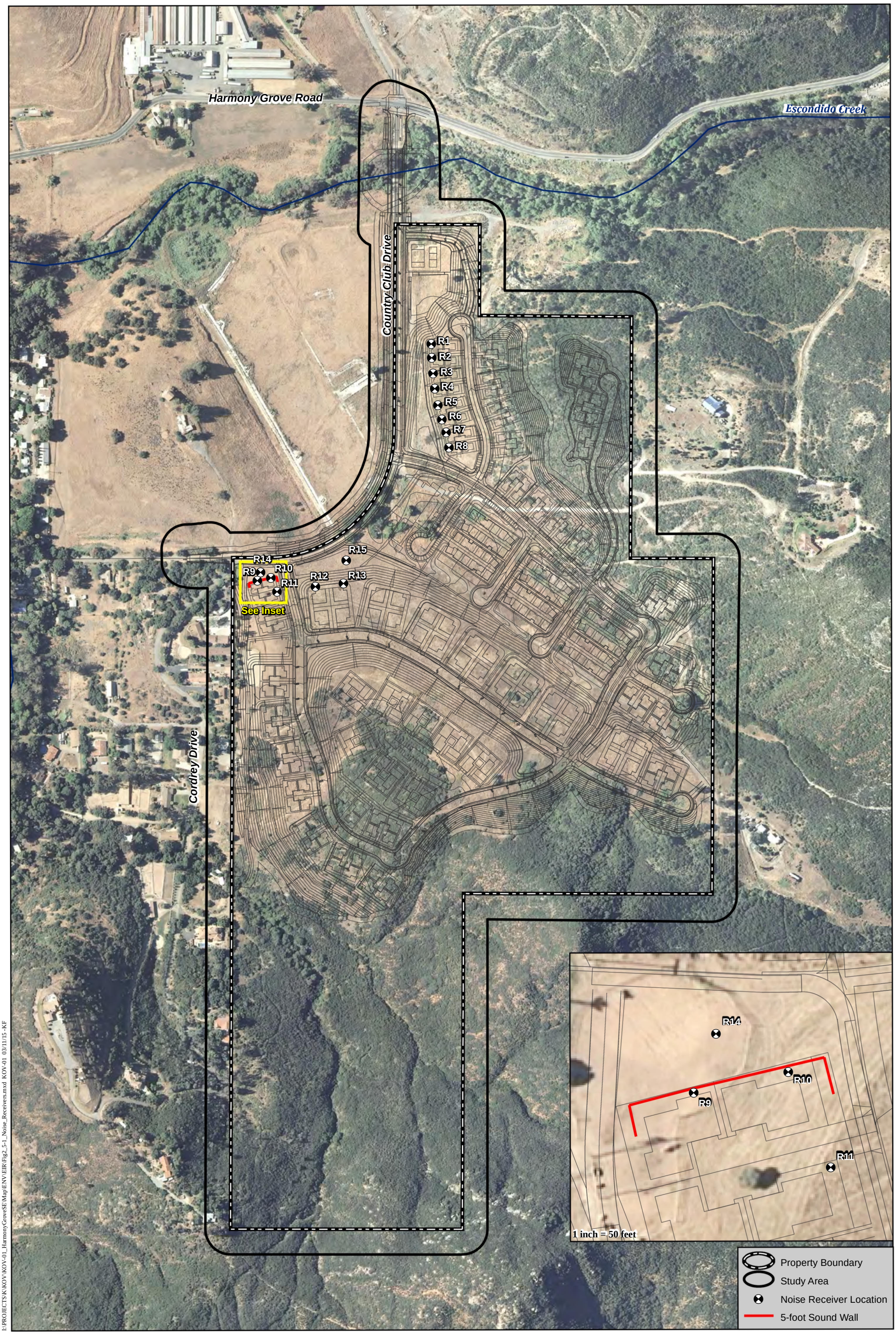

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Receiver and Required Sound Wall Locations

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

N 0 350 Feet

Figure 2.5-1

SUBCHAPTER 2.6

AIR QUALITY

2.6 Air Quality

This subchapter of the EIR summarizes the Project's Air Quality Analysis Report (AQAR; HELIX 2017b), contained in Appendix H, which was prepared in conformance with the County Report Format and Content Requirements - Air Quality (County 2007a).

2.6.1 Existing Conditions

2.6.1.1 *Regional Meteorology/Climate/Temperature Inversions*

The Project site is located in the San Diego Air Basin (SDAB). The climate of San Diego County is characterized by hot, dry summers and mild, wet winters and is dominated by a semi-permanent, high-pressure cell located over the Pacific Ocean. Wind monitoring data recorded at the Escondido San Pasqual Valley monitoring station (the closest meteorological monitoring station to the Project site) indicates that the predominant wind direction in the vicinity of the Project site is from the west. Wind speeds over the Project region average 4 miles per hour (mph). The monthly average temperature in the Project area is approximately 55 degrees Fahrenheit (ºF) during the winter and approximately 76ºF during the summer. Total precipitation in the Project area averages approximately 16.2 inches annually. Precipitation occurs mostly during the winter and relatively infrequently during the summer (Western Regional Climate Center 2012).

The atmospheric conditions of the SDAB contribute to the region's air quality problems. Due to its climate, the SDAB experiences frequent temperature inversions. Typically, temperature decreases with height. Under inversion conditions, however, temperature increases as altitude increases. Temperature inversions prevent air close to the ground from mixing with the air above it. As a result, air pollutants are trapped near the ground. During the summer, air quality problems are created due to the interaction between the ocean surface and the lower layer of the atmosphere, creating a moist marine layer. An upper layer of warm air mass forms over the cool marine layer, preventing air pollutants from dispersing upward. Additionally, hydrocarbons and nitrogen dioxide (NO_2) react under strong sunlight, creating smog. Light, daytime winds, predominately from the west, further aggravate the condition by driving the air pollutants inland, toward the foothills. During the fall and winter, air quality problems are created due to carbon monoxide (CO) and NO_2 emissions. High NO_2 levels usually occur during autumn or winter, on days with summer-like conditions.

High air pollution levels in coastal communities of San Diego often occur when polluted air from the South Coast Air Basin, particularly Los Angeles, travels southwest over the ocean at night, and is brought onshore into San Diego by the sea breeze during the day. Smog transported from the Los Angeles area is a key factor on more than 50 percent of the days San Diego exceeds clean air standards. Ozone and precursor emissions also are transported to San Diego from the South Coast Air Basin during relatively mild Santa Ana weather conditions, although during strong Santa Ana weather conditions, pollutants are pushed far out to sea and miss San Diego. When the transported smog is blown in to the SDAB at ground level, the highest ozone concentrations are measured at coastal and near-coastal monitoring stations. When the transported smog is elevated, coastal sites may be passed over, and the transported ozone is measured further inland and on the mountain slopes.

2.6.1.2 *Air Pollutants of Concern*

Federal and State laws regulate air pollutants emitted into the ambient air by stationary and mobile sources. These regulated air pollutants are known as "criteria air pollutants" and are categorized as primary and secondary pollutants. Primary air pollutants are those that are emitted directly from sources. Secondary pollutants form in the air when primary pollutants react or interact. Criteria pollutants are defined by State and federal law as a risk to the health and welfare of the general public. Specific descriptions of health effects for each of the following air pollutants are in Appendix H.

- **Ozone**. Ozone is formed when volatile organic compounds (VOCs) and oxides of nitrogen (NO_X), both by-products of fuel combustion, react in the presence of ultraviolet light.

- **Carbon Monoxide**. CO is a product of fuel combustion; the main source of CO in the SDAB is from motor vehicle exhaust.

- **Nitrogen Dioxide**. NO_2 is also a by-product of fuel combustion and is formed both directly as a product of combustion and in the atmosphere through the reaction of nitric oxide (NO) with oxygen.

- **Respirable Particulate Matter and Fine Particulate Matter**. Respirable particulate matter, or PM_{10}, refers to particulate matter with an aerodynamic diameter of 10 microns or less. Fine particulate matter, or $PM_{2.5}$, refers to particulate matter with an aerodynamic diameter of 2.5 microns or less. PM_{10} and $PM_{2.5}$ arise from a variety of sources, including road dust, diesel exhaust, fuel combustion, tire and brake wear, construction operations and windblown dust.

- **Sulfur Dioxide**. Sulfur dioxide (SO_2) is a colorless, reactive gas that is produced from the burning of sulfur-containing fuels such as coal and oil, and by other industrial processes.

- **Lead**. Lead (Pb) in the atmosphere occurs as particulate matter. Lead has historically been emitted from vehicles combusting leaded gasoline, as well as from industrial sources. With the phase-out of leaded gasoline, large manufacturing facilities are the sources of the largest amounts of lead emissions.

- **Sulfates**. In California, emissions of sulfur compounds occur primarily from the combustion of petroleum-derived fuels (e.g., gasoline and diesel fuel) that contain sulfur.

- **Hydrogen Sulfide**. Hydrogen sulfide (H_2S) is a colorless gas formed during bacterial decomposition of sulfur-containing organic substances.

- **Vinyl Chloride**. Vinyl chloride, a chlorinated hydrocarbon, is a colorless gas used to make polyvinyl chloride (PVC) plastic and vinyl products. Vinyl chloride has been detected near landfills, sewage plants and hazardous waste sites, due to microbial breakdown of chlorinated solvents.

- **Visibility-Reducing Particles**. Visibility reducing particles consist of suspended particulate matter, which is a complex mixture of tiny particles that consists of dry solid fragments, solid cores with liquid coatings, and small droplets of liquid. These particles vary greatly in shape, size and chemical composition, and can be made up of many different materials such as metals, soot, soil, dust, and salt. These particles in the atmosphere would obstruct the range of visibility. This standard is intended to limit the frequency and severity of visibility impairment due to regional haze.

The public's exposure to toxic air contaminants (TACs) is another environmental health issue in California. In 1983, the California Legislature enacted a program to identify the health effects of TACs and to reduce exposure to these contaminants to protect the public health. The Health and Safety Code (§39655, subd. [a].) defines a TAC as "an air pollutant which may cause or contribute to an increase in mortality or in serious illness, or which may pose a present or potential hazard to human health." A substance that is listed as a hazardous air pollutant pursuant to subsection (b) of Section 112 of the Federal Act (42 United States Code [USC] Section 7412[b]) is a TAC; these substances are controlled under a different regulatory process than criteria pollutants. Under State law, the California Environmental Protection Agency (CalEPA), acting through the California Air Resources Board (CARB), is authorized to identify a substance as a TAC if it determines the substance meets the Health and Safety Code definition above.

2.6.1.3 *Background Air Quality*

Table 2.6-1*, Ambient Air Quality Standards*, presents a summary of the adopted ambient federal and State air quality standards that are used to determine attainment or non-attainment.

The SDAPCD operates a County-wide network of air monitoring stations to measure ambient concentrations of pollutants and determine whether the ambient air quality meets the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS). The nearest ambient monitoring station to the Project site is the Escondido East Valley Parkway station.

Because the Escondido East Valley Parkway monitoring station is located in an area where there is substantial traffic congestion, it is likely that pollutant concentrations measured at this monitoring station are higher than concentrations that would be observed or measured in the Project area, and would thus provide a conservative estimate of background ambient air quality. In particular, concentrations of CO at the Escondido monitoring station tend to be among the highest in the SDAB due to the fact that the monitor is located along East Valley Parkway in a congested area in downtown Escondido. The station sees higher concentrations of CO than have historically been measured elsewhere in San Diego County, and the background data are not likely to be representative of background ambient CO concentrations at the Project site due to the site's location in a less developed area.

Ambient concentrations of pollutants over the last three years are presented in Table 2.6-2, *Ambient Background Concentrations – San Diego Monitoring Stations*. A violation of the State one-hour standard for ozone occurred in 2014. Violations of the State eight-hour standards for ozone have occurred multiple times in 2013, 2014, and 2015, but only occurred for the federal

standards in 2014. No State or federal violations of the daily PM_{10} standard occurred during 2014 and 2015; however, the State maximum daily standard was exceeded once in 2013. The federal daily $PM_{2.5}$ was exceeded once in both 2013 and 2014. The only annual average exceedances were the State PM_{10} standard in 2013 and 2014. The data from the monitoring stations indicate that air quality is in attainment of all other federal and State NO_2 and CO standards.

2.6.1.4 *Regulatory Setting*

Federal and State

At the federal level, the U.S. Environmental Protection Agency (USEPA) is responsible for enforcing the Federal Clean Air Act (CAA) of 1970 and its 1977 and 1990 Amendments. The CAA required the USEPA to establish the NAAQS, which identify concentrations of airborne pollutants below which no adverse effects on the public health and welfare are anticipated. In response, the USEPA established both primary and secondary standards for criteria pollutants (specifically, ozone, PM, CO, NO_2, SO_2, and Pb), and TACS (see Air Pollutants of Concern discussion, above). Primary standards are designed to protect human health with an adequate margin of safety. Secondary standards are designed to protect property and the public welfare from air pollutants in the atmosphere.

The CAA allows states to adopt ambient air quality standards and other regulations provided they are at least as stringent as federal standards. The State agency responsible for coordination of State and local air pollution control programs is CARB, which established the more stringent CAAQS for the six criteria pollutants through the California Clean Air Act of 1988 (CCAA), and also has established CAAQS for additional pollutants, including sulfates, H_2S, vinyl chloride and visibility-reducing particles. Adopted NAAQS and CAAQS are shown in Table 2.6-1.

CARB also is responsible for the development, adoption, and enforcement of the State's motor vehicle emissions program and the SIP with input from local agencies. SIPs are comprehensive plans that describe how an area will be consistent with the NAAQS. The SDAPCD has developed its input to the SIP, which includes the SDAPCD's plans and control measures for attaining the ozone NAAQS. SDAPCD submitted an air quality plan to USEPA in 2007; the plan demonstrated how the eight-hour ozone standard would be attained by 2009. Despite best efforts, SDAB did not meet the ozone NAAQS in 2008 and 2009, and the SDAPCD is currently revising their air quality plan. These plans accommodate emissions from all sources, including natural sources, through implementation of control measures, where feasible, on stationary sources to attain the standards. Mobile sources are regulated by the USEPA and CARB, and the emissions and reduction strategies related to mobile sources are considered in the Regional Air Quality Strategy (RAQS) and SIP.

Areas that do not meet the NAAQS or CAAQS for a particular pollutant are considered to be "non-attainment areas" for that pollutant. CARB reviews operations and programs of the local air districts, and requires each air district with jurisdiction over a non-attainment area to develop its own strategy for achieving the NAAQS and CAAQS.

Local

The local air district has the primary responsibility for the development and implementation of rules and regulations designed to attain the NAAQS and CAAQS, as well as the permitting of new or modified sources, development of air quality management plans, and adoption and enforcement of air pollution regulations. The SDAPCD is the local agency responsible for the administration and enforcement of air quality regulations for San Diego County.

The SDAPCD and SANDAG are responsible for developing and implementing the clean air plan for attainment and maintenance of the ambient air quality standards in the SDAB. The San Diego County RAQS was initially adopted in 1991, and was previously updated in 1995, 1998, 2001, 2004 and 2009. The most recent SDAPCD revisions to the RAQS were adopted by the SDAPCD Board in December 2016.

The RAQS outlines SDAPCD's plans and control measures designed to attain the CAAQS for ozone. The local RAQS, in combination with those from all other California non-attainment areas with serious (or worse) air quality problems, is submitted to CARB, which develops the SIP. The CARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed by the County as part of the development of the County's General Plan, and by cities within the County. As such, projects that propose development that is consistent with, or less dense than, the growth anticipated by the general plans would be consistent with the RAQS. If a project proposes development greater than that anticipated in a general plan and SANDAG's growth projections, the project may be in conflict with the RAQS and SIP and may have a potentially significant impact on air quality.

In addition, SDAPCD Rule 51 (Public Nuisance) also prohibits emission of any material causing nuisance to a considerable number of persons or endangers the comfort, health or safety of any person. Rule 55 prohibits construction activity that would discharge fugitive dust emissions into the atmosphere beyond the property line. Finally, Rule 67 prohibits the use of architectural coatings (i.e., paints) that would exceed VOC content limits specified for each coating category in the rule.

Air Basin Attainment Status

Federal

On April 30, 2012, the SDAB was classified as a marginal non-attainment area for the eight-hour NAAQS for ozone. The SDAB is an attainment area for the NAAQS for all other criteria pollutants. Although in attainment for CO, the SDAB is currently under a national "maintenance plan" for CO, following a 1998 redesignation as a CO attainment area (SDAPCD 2012).

On December 14, 2012, the federal annual standard for $PM_{2.5}$ was decreased from 15 micrograms per cubic meter ($\mu g/m^3$) to 12 $\mu g/m^3$. The USEPA made no changes to the primary 24-hour $PM_{2.5}$ standard or to the secondary $PM_{2.5}$ standards. At least three years of monitoring data (beginning March 14, 2013) are necessary before the USEPA redesignates San Diego County for the annual $PM_{2.5}$ standard.

State

The SDAB is currently classified as a non-attainment area under the CAAQS for ozone (serious non-attainment), PM_{10}, and $PM_{2.5}$ (CARB 2014a).

Each non-attainment area must submit a clean air plan outlining the combination of local, State, and federal actions and emission control regulations necessary to bring the area into attainment as expeditiously as practicable. Then, even after the non-attainment area attains the air quality standard, it will remain designated a non-attainment area unless and until the State submits a formal request for redesignation to attainment to the USEPA. The request must include a "maintenance" plan demonstrating that the area will maintain compliance with that NAAQS for at least 10 years after USEPA redesignates the area to attainment.

On December 5, 2012, the SDAPCD adopted its *Ozone Redesignation Request and Maintenance Plan*, which calls for the SDAB to attain the 1997 federal eight-hour ozone NAAQS, with a request for redesignation to attainment/maintenance area. On December 6, 2012, CARB approved the *Redesignation Request and Maintenance Plan for the 1997 National Ozone Standard for San Diego County* for submittal to USEPA as a SIP revision. On December 20, 2012, the USEPA initiated its adequacy review of the plan and posted the document for a 30-day public review period that closed January 22, 2013. On March 25, 2013, the USEPA approved the redesignation to the 1997 8-hour ozone attainment/maintenance plan. Redesignation to attainment of the 1997 standard does not affect the region's marginal non-attainment status for the 2008 standard (SDAPCD 2012).

A more detailed discussion of the redesignation request and maintenance plan is provided in Appendix H. Table 2.6-3, *Federal and State Air Quality Designations*, summarizes the region's attainment status for all applicable criteria pollutants.

2.6.2 Analysis of Project Effects and Determination as to Significance

2.6.2.1 *Conformance to the RAQS*

Guideline for the Determination of Significance

The Proposed Project would have a potentially significant environmental impact if it would:

1. Conflict with or obstruct the implementation of the San Diego RAQS and/or applicable portions of the SIP.

Guideline Source

Guideline No. 1 is taken from the County Guidelines for Determining Significance – Air Quality (2007a).

Analysis

The RAQS outlines SDAPCD's plans and control measures designed to attain the State air quality standards for ozone. The RAQS relies on SANDAG growth projections based on

population, vehicle trends, and land use plans developed by the cities and by the County as part of the development of their general plans and specific plans.

Projects that propose development that is consistent with (or less dense than) the growth anticipated by the general plans would be consistent with the RAQS. If a project proposes development that is greater than that anticipated in the County General Plan and SANDAG's growth projections upon with the RAQS is based, the project would be in conflict with the RAQS and SIP, and may have a potentially significant impact on air quality. This situation would warrant further analysis to determine if that project and the surrounding projects exceed the growth projections used in the RAQS for the specific subregional area.

The 2016 RAQS (SDAPCD 2016) include projections for residential, commercial, industrial and recreational land uses contained in the current County General Plan, adopted in 2011. The current Project involves a GPA and is proposing to increase the total number of residential units from 220 dwelling units, as potentially allowed under the current 2011 General Plan Land Use Designation, to 453 dwelling units. Because the Project is proposing a more dense development than was planned in 2011, it is correspondingly also proposing an increase of units over that proposed in the RAQS.

Although the Project is not in compliance with the 2016 RAQS because the Project is amending the General Plan, the Project is in compliance with the air quality standards as described below, and would not result in a significant air quality impact with regards to construction- and operational-related emissions of ozone precursors or criteria air pollutants. Therefore, it is unlikely that the additional units from the Project would interfere with the SDAPCD's goals for improving air quality in the SDAB. **Impacts associated with conformance to regional air quality plans would be potentially significant**. **(Impact AQ-1a)**

2.6.2.2 *Conformance to Federal and State Ambient Air Quality Standards*

Guidelines for the Determination of Significance

The Proposed Project would have a potentially significant environmental impact if it would:

2. Result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation, as follows:

    a. Ozone Precursors: The Project would result in emissions that exceed 250 pounds per day (lbs/day) of NO_X or 75 lbs/day of VOCs.

    b. CO: The Project would result in emissions of CO of 550 lbs/day, and when totaled with the ambient concentrations exceed a one-hour concentration of 20 parts per million (ppm) or an eight-hour average of 9 ppm.

    c. $PM_{2.5}$: The Project would result in emissions of $PM_{2.5}$ that exceed 55 lbs/day.

d. PM_{10}: The Project would result in emissions of PM_{10} that exceed 100 lbs/day and increase the ambient PM_{10} concentration by 5 $\mu g/m^3$ or greater at any sensitive receptor locations (or maximum exposed individual [MEI], a term commonly used by CARB for sensitive receptors).

Guideline Source

Guideline No. 2 is taken from the County Guidelines for Determining Significance – Air Quality (2007a).

Analysis

The County recognizes the SDAPCD's established screening level thresholds for air quality emissions (Rules 20.1 et seq.) as screening-level thresholds for land development projects. As part of its air quality permitting process, the SDAPCD has established thresholds in Rule 20.2 for the preparation of Air Quality Impact Assessments (AQIAs). The County has also adopted the South Coast Air Quality Management District's (SCAQMD's) screening threshold of 55 pounds per day or 10 tons per year as a screening level threshold for $PM_{2.5}$. The screening thresholds used in the following analysis are included in Table 2.6-4, *Screening-level Thresholds for Air Quality Impact Analysis.*

Construction

The construction activities associated with the Proposed Project would create diesel emissions, as well as dust. In general, emissions from diesel-powered equipment contain more NO_X, oxides of sulfur (SO_X), and particulate matter than gasoline-powered engines. Diesel-powered engines, however, generally produce less CO and less reactive organic gases than do gasoline-powered engines. Emissions associated with construction of the Proposed Project were calculated assuming that the construction duration period would begin in July 2018 and end in 2021.

The California Emission Estimator Model (CalEEMod) and the Road Construction Emissions Model (Roadway Model) were used in combination to calculate construction emissions. The analysis assessed maximum daily emissions from eight construction activities: site preparation and blasting, backbone infrastructure, road construction, grading, bridge construction, building construction, paving and architectural coating. Some construction activities would occur sequentially (site preparation, backbone infrastructure, grading, building construction) and some simultaneously (backbone infrastructure and road construction; grading and bridge construction; bridge construction and building construction; paving, vertical construction and architectural coating). Table 2.6-5, *Construction Equipment Assumptions*, presents a summary of the assumed equipment that would be involved in each stage of construction. Modeling took into account standard construction best management practices such as the application of water twice daily, a 15-mph speed limit on unpaved surfaces, and the use of low-VOC architectural coatings. See Appendix H of this EIR for additional details regarding modeling assumptions.

Blasting may be required at the site during initial site preparation, which would be conducted through the use of drilling and explosives to fracture rocks. As discussed under Section 1.2.2.8, it is assumed that approximately two to three blasting events may occur each week.

Emissions related to the construction of the Project would be temporary. Table 2.6-6, *Estimated Construction Emissions,* provides a summary of the daily construction emission estimates by construction activity. As noted above, it was assumed that dust control measures (watering a minimum of two times daily) would be employed to reduce emissions of fugitive dust during site grading. Where construction activities were assumed to occur simultaneously, the resultant emissions from each activity were summed and compared to the daily emission thresholds to determine significance.

As shown in Table 2.6-6, with implementation of construction BMPs and PDFs, emissions of all criteria pollutants, including PM_{10} and $PM_{2.5}$, would be below the daily thresholds during construction. Construction of the Proposed Project would, therefore, not conflict with the NAAQS or CAAQS, and **construction emissions associated with air quality would be less than significant**.

Operation

Project-generated traffic was addressed in the Project Traffic Impact Analysis (TIA; Appendix D of this EIR). Based on the TIA, at full buildout the Proposed Project would generate approximately 4,500 ADT. To estimate emissions associated with Project-generated traffic, the CalEEMod model was used. Motor vehicle emission rates are, therefore, based on CARB's EMFAC Statewide emission factors for the San Diego County region. Emission factors representing the vehicle mix for emission analysis year 2021 were used to estimate emissions. Default vehicle speeds, trip purpose, and trip type percentages for single family homes were used. Average mobile trip lengths of 7.88 miles per trip were obtained from the Average Trip Length memorandum (LLG 2016).

Wastewater treatment and water reclamation facility (WTWRF) generator emissions were estimated using CalEEMod. Emissions were calculated based on the annual testing frequency and duration and the power output of the engines.

Area source emissions, including emissions from energy use, natural gas fireplaces, landscaping, and maintenance use of architectural coatings were calculated using the CalEEMod model. Operational emission calculations and model outputs are provided in Appendix H of this EIR. Table 2.6-7, *Operational Emissions*, presents the summary of operational emissions for the Project. Project emissions of all criteria pollutants during operation would be below the daily thresholds. Therefore**, operation of the Project would not be considered a significant impact on air quality and impacts would be less than significant.**

Concurrent Construction and Operations

Due to the anticipated phasing, it is possible that occupation of up to half of the dwelling units may occur concurrently with the later construction phases of the remaining units. Table 2.6-8, *Concurrent Operational and Construction Emissions*, shows the worst-case daily emissions from this potential overlap.

The combined construction and operational emissions would be below the significance threshold for all criteria pollutants. The CalEEMod model outputs are presented in Appendix A of the AQAR (HELIX 2017b). As shown in Tables 2.6-7 and 2.6-8, emissions of criteria pollutants

during operation of the Project whether or not there is an overlap with construction would not exceed the daily thresholds for any of the criteria pollutants. Therefore, **concurrent construction and operation of the Project would result in less than significant air quality impacts**.

Wastewater Treatment and Water Reclamation Facility

As described previously, the Project design includes an on-site WTWRF which would result in emissions, and was therefore included in the analysis.

Criteria pollutant and TAC emissions would be generated during treatment of the influent at the WTWRF. Most air pollutant emissions would be produced during degradation or reaction while in the treatment system. Organic compounds would volatilize from the liquid surface of the reactors during the biological treatment of influent. Emissions of TACs from treatment were estimated for full buildout influent throughput of 0.18 mgd.

A screening-level health risk assessment was performed using the USEPA SCREEN3 model. SCREEN3 uses worst-case meteorological conditions to conservatively estimate ground-level pollutant concentrations downwind of the source. The modeled cancer, chronic non-cancer, and acute non-cancer risks were modeled for each individual compound and the results added to produce a conservative estimate of risk from all compounds. The parameters used in the SCREEN3 modeling are summarized in Table 10 of EIR Appendix H.

Total TAC emissions are summarized in Table 2.6-9, *Estimated TAC Emissions from WTWRF*. As shown in the table, total uncontrolled TAC emissions from operation of the WTWRF are below the SDAPCD thresholds of significance; therefore, **impacts would be less than significant.**

In addition, although exact specifications are currently unknown, it is likely that common control technologies would be implemented to substantially reduce emissions. The types of control technology generally used in reducing TAC emissions from wastewater include steam or air stripping, carbon adsorption, chemical oxidation, membrane separation, liquid-liquid extraction, and biotreatment (aerobic or anaerobic) (USEPA 1998). In addition, tightly covered, well-maintained collection systems can suppress emissions by 95 to 99 percent (USEPA 1998).

Aqueous hypochlorite (liquid bleach) would be stored on site and used for the chlorination process. The use and storage of this substance is subject to the requirements of the California Accidental Release Prevention Program, which is intended to minimize the possibility of an accidental release by encouraging engineering and administrative controls (USEPA 2014a). The program also requires owners or operators of facilities to develop and implement an accident prevention program to address accidental release (see additional discussion in Section 3.1.3, *Hazards and Hazardous Materials*, of this EIR). Any accidental release of this substance would be contained on site with no off-site runoff, and handlers would be trained in spill reaction. As such, there would be **no impact from the storage of aqueous hypochlorite at the facility.**

Traffic-related CO Concentrations (CO Hot Spot Analysis)

Vehicle exhaust is the primary source of CO. In an urban setting, the highest CO concentrations are generally found within close proximity to congested intersections. A CO hot spot is a localized concentration of CO that is above the State or national one-hour or eight-hour CO ambient air standards.

The County guidelines require a detailed CO hot spot analysis if the Project causes an intersection to operate at LOS E or F, with peak-hour trips exceeding 3,000 vehicles. According to the Project TIA (LLG 2017), three intersections under the Existing Plus Project Plus Cumulative Projects would operate at LOS E or F and experience an increase in delay from the Project:

1. Valley Parkway / I-15 Northbound Ramps
2. Country Club Drive / Harmony Grove Road
3. Harmony Grove Road / Kauana Loa Drive

CO hotspot modeling was conducted using the California Line Source Dispersion Model (CALINE4). The existing maximum one-hour and eight-hour background concentrations of CO of 4.4 and 3.70 ppm, as presented earlier in Table 2-2, were used to represent future maximum background one-hour and eight-hour CO concentrations. This is a conservative assumption as CO concentrations in the future may be lower as more stringent emission controls are placed on vehicles. Additional Protocol and CALINE4 variables are discussed in Appendix H.

Table 2.6-10, *CO Hot Spots Modeling Results,* presents a summary of the predicted CO concentrations for the intersections identified as operating at LOS E or F. The predicted CO concentrations would be substantially below the one-hour and eight-hour NAAQS and CAAQS for CO. Therefore, the Project would not cause or contribute to a violation of the air quality standard and **impacts would be less than significant**. Full CALINE4 model outputs are provided in Appendix H of this EIR.

2.6.2.3 *Impacts to Sensitive Receptors*

Guidelines for the Determination of Significance

The Proposed Project would have a potentially significant environmental impact if it would:

3. Expose sensitive receptors to substantial pollutant concentrations as follows:

    a. The project places sensitive receptors near CO “hot spots” or creates CO “hot spots” near sensitive receptors.

    b. Project implementation would result in exposure to TACs resulting in a maximum incremental cancer risk greater than one in one million without application of Toxics-Best Available Control Technology (T-BACT) or a health hazard index greater than one.

Guideline Source

Guideline No. 4 is taken from the County Guidelines for Determining Significance – Air Quality (2007a). (The County's significance thresholds are consistent with the SDAPCD's Rule 1210 requirements for stationary sources.)

Analysis

CO Concentrations (CO Hot Spot Analysis)

The results of the CO hot spot analysis were previously discussed in the Conformance to Federal and State Ambient Air Quality Standards section. As presented in Table 2.6-10, the Project would not result in any violations of State or federal CO standards. Therefore**, the Project would not result in a significant impact for CO.**

Construction-related Health Risk

Diesel particulate matter (DPM) emissions would be released from Project on-site construction equipment and haul trucks. CARB has declared that DPM from diesel engine exhaust is a TAC. Additionally, the Office of Environmental Health Hazard Assessment (OEHHA) has determined that chronic exposure to DPM can cause carcinogenic and non-carcinogenic health effects.

The USEPA SCREEN3 model was used to estimate concentrations of DPM from the construction of the Project. The on-site DPM construction equipment emissions were estimated to reach a maximum of 6.61 pounds per day of DPM (as PM_{10} exhaust) when the backbone infrastructure and road construction activities overlap. The emissions were represented in the model as an area source equal to the size of the Project's construction area. An emission release height of 10 feet (3 meters) was also assumed. Receptor locations where construction impacts were calculated focused on the residential receptors located west of the Project site because they would be closest to Project-generated emissions.

Exposures to TACs such as DPM can also cause chronic (long-term) and acute (short-term) related non-cancer illnesses such as reproductive effects, respiratory effects, eye sensitivity, immune effects, kidney effects, blood effects, central nervous system effects, birth defects, or other adverse environmental effects. Risk characterization for non-cancer health risks is expressed as a hazard index (HI). The HI is a ratio of the predicted concentration of a project's emissions to a concentration considered acceptable to public health professionals, termed the reference exposure level (REL).

Table 2.6-11, *Construction Health Risk Assessment Results*, provides the results of the construction health risk assessment for Proposed Project construction along with the County's thresholds. As shown in the table, construction emissions would not exceed thresholds for cancer risk and chronic non-cancer hazard.

Diesel exhaust particulate matter is known in California to contain carcinogenic compounds. The risks associated with carcinogenic effects are typically evaluated based on a lifetime of chronic exposure (i.e., 24 hours per day, seven days per week, 365 days per year for 70 years). Because the Project-related construction emissions of diesel exhaust would occur for less than four years,

the Proposed Project would not result in long-term chronic lifetime exposure to diesel exhaust from heavy duty diesel equipment. Therefore, **air quality impacts related to exposure of sensitive receptors to substantial pollutant concentrations from construction would be less than significant.**

Operation-related Health Risk

Residential development projects do not typically generate any TAC emissions. Therefore**, the operational impacts of the land use in relation to generation of TACs would be less than significant.**

WTWRF treatment of influent would produce emissions of TACs during reaction or degradation. The annual emissions of TACs from the WTWRF are summarized in Table 2.6-12, *WTWRF Health Risk Assessment Results*. A screening health risk assessment was prepared to analyze cancer, chronic non-cancer, and acute non-cancer health risks from the facility. The cancer risk is calculated by multiplying the annual average concentrations calculated using the SCREEN3 model and the inhalation cancer unit risk and cancer potency factors for the six identified TAC compounds (i.e., benzene, chloroform, ethyl benzene, methylene chlorine, 1,4-dichlorobenzene, and TCE) through OEHHA's Technical Support Document (OEHHA 2011). The non-cancer chronic and acute risks are calculated by dividing the REL values to the 24-hour average concentrations for each TAC compound. The screening health risk calculations for the WTWRF are provided in Appendix H of this EIR. The location of maximum impact was modeled at 728 feet from the property boundary of the WTWRF study area. At this location, the modeled cancer risk is 0.007 in 1 million and the chronic non-cancer and acute non-cancer inhalation hazard indexes are less than one. As these results are less than the SDAPCD standards, **the increased health risks from the proposed facility would be less than significant.**

2.6.2.4 *Odor Impacts*

Guidelines for the Determination of Significance

The Proposed Project would have a potentially significant environmental impact if it would:

4. Generate objectionable odors or place sensitive receptors next to existing objectionable odors that would affect a considerable number of persons or the public.

Guideline Source

Guideline No. 5 is taken from the County Guidelines for Determining Significance – Air Quality (2007a).

Analysis

Construction

Project construction could result in minor amounts of odor compounds associated with diesel heavy equipment exhaust. Diesel exhaust and VOCs would be emitted during construction of the Project, which are objectionable to some; however, emissions would disperse rapidly from the

Project site and therefore would not be at a level to affect a substantial number of people. In addition, construction equipment would be operated at various locations throughout the construction site and would occur temporarily in the vicinity of existing receptors. Therefore, **impacts associated with odors during construction are considered less than significant**.

Residential and Commercial Uses

The Project's commercial uses would be required to comply with the County's Zoning Ordinance, Section 6318, preventing the release of unpleasant odors that are perceptible by the average person. According to SCAQMD's *CEQA Air Quality Handbook* (1993), land uses associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting activities, refineries, landfills, dairies, and fiberglass molding operations; therefore, the residential uses would not be expected to be a source of odor impacts. **Impacts associated with odor sources from commercial and residential uses are considered less than significant**.

Wastewater Treatment and Water Reclamation Facility

Operation of the WTWRF has the potential to result in odor impacts because of the nature of the activities at the proposed facility. However, the frequency with which the facility would expose the public to objectionable odors would be minimal based on the control measures planned in the design. In addition, the WTWRF would comply with Section 6318 of the County Zoning Ordinance, which states that "All commercial and industrial uses shall be operated so as not to emit matter causing unpleasant odors which are perceptible by the average person at or beyond any lot line of the lot containing said uses" and that odors be required to be diluted by "a ratio of one volume of odorous air to eight or more volumes of clean air." Active odor control units would be located to manage gases from the wet and solids stream treatment processes. All processes and equipment would be housed (or otherwise contained) and ventilation controlled such that no objectionable odors would be discernible at the Project site boundaries.

Odors are typically associated with particular steps in the wastewater treatment process. Initially, raw wastewater is transferred to the primary clarifiers where most solids are separated from the liquid portion of wastewater in the treatment process. A ferrous chloride solution is added to the raw wastewater before it enters the primary clarifiers to reduce odors at that treatment stage.

Wastewater undergoing aerobic digestion (decomposition with free oxygen) in the aeration basins emits a characteristically musty odor due to the particular type of biogases released in the process. A misting system with odor neutralizing liquids breaks down the foul smelling chemical compounds in the biogases. Chlorine gas is used to disinfect the non-potable water, which is used daily to wash down all areas of the plant. Bio filters remove odor by capturing the odor causing compounds in a media bed where they are oxidized by naturally occurring micro-organisms.

Facilities that cause nuisance odors are subject to enforcement action by the SDAPCD. The SDAPCD responds to odor complaints by investigating the complaint determining whether the odor violated SDAPCD Rule 51. The inspector will take enforcement action if the source is not in compliance with SDAPCD rules and regulations and will inform the complainant of

investigation results. In the event of enforcement action, odor-causing impacts must be mitigated by appropriate means to reduce the impacts to sensitive receptors. Such means include shutdown of odor sources or requirements to control odors using add-on equipment.

The odor control design for the facility would be such that no objectionable odors would be detected by nearby residences or other sensitive receptors. Additionally, disposal of biosolids at landfill sites could also contribute to odors and increase air emissions at these end-use facilities. However, the County would only allow facilities that have addressed all site-specific impacts. Therefore, **impacts associated with odor sources from the WTWRF are considered less than significant.**

2.6.3 Cumulative Impact Analysis

With regard to past and present projects, the background ambient air quality, as measured at the monitoring stations maintained and operated by the SDAPCD, measures the concentrations of pollutants from existing sources. Past and present project impacts are, therefore, included in the background ambient air quality data. The cumulative projects used in the air quality analysis are the same 65 projects presented in Figure 1-23. For the purpose of non-attainment pollutants, the cumulative study area would be the entire air basin; however, contributions from individual projects on basin-wide non-attainment pollutants cannot be determined through modeling analyses. The screening distance for odors is 1 mile (SMAQMD 2009).

As discussed above under Impacts to Sensitive Receptors, the SDAB has been designated as a federal non-attainment area for ozone, and a State non-attainment area for ozone, PM_{10} and $PM_{2.5}$; therefore, a regional cumulative impact currently exists for ozone precursors (NO_X and VOCs) and PM_{10} and $PM_{2.5}$. In analyzing cumulative impacts for air quality, specific evaluation must occur regarding a project's contribution to the cumulative increase in non-attainment pollutants. A project that has a significant impact on air quality with regard to emissions of PM_{10}, $PM_{2.5}$, NO_X and/or VOCs, would have a significant cumulative effect. In the event direct impacts from the project are less than significant, a project still may have a cumulatively considerable impact on air quality if the emissions from the project, in combination with the emissions from other proposed, or reasonably foreseeable, future projects are in excess of the County's air pollutant screening levels. The text below addresses each of the thresholds relative to cumulative contribution during the Project's construction and operational phases.

2.6.3.1 *Construction*

Short-term emissions associated with construction generally result in near-field impacts. In particular, with respect to local impacts, the consideration of cumulative construction particulate (PM_{10} and $PM_{2.5}$) impacts is limited to cases when projects constructed simultaneously are within a few hundred yards of each other because of (1) the combination of the short range (distance) of particulate dispersion (especially when compared to gaseous pollutants); and (2) the SDAPCD's required dust-control measures, which further limit particulate dispersion from a project site. Based on the cumulative projects identified in Figure 1-23, there are no known projects within 1,500 feet of the proposed Project where major construction would occur concurrently with the project. As mentioned previously, the HGV project is currently under construction. It is anticipated that all major grading activities would be completed prior to the

commencement of HGV South construction. Therefore, there would be no cumulative construction particulate impacts. Further, any cumulative projects would also need to comply with SDAPCD Rules for dust control and construction equipment, which would further reduce emissions of particulates.

The discussion under Conformance to Federal and State Ambient Air Quality Standards concludes that the Project would not result in a direct impact to air quality during construction; and as discussed under Impacts to Sensitive Receptors, the Project would not have significant impacts to sensitive receptors. In consideration of these factors, **construction of the Project would not result in a cumulatively considerable contribution to a significant air quality impact pertaining to NO_X, VOCs, PM_{10}, and $PM_{2.5}$**.

2.6.3.2 *Operation*

Based on the County Guidelines, a project that does not conform to the RAQS and/or has a significant direct impact on air quality with regard to operational emissions of non-attainment pollutants would also have a cumulatively considerable net increase. Also, projects that cause road intersections to operate at or below a LOS E and create a CO hot spot create a cumulatively considerable net increase of CO.

Based on the analysis presented in Section 2.6.2, the Project would be inconsistent with the RAQS and SIP. As a result, **the cumulative impact is considered significant**. **(Impact AQ-1b)**

As described above, the Proposed Project would not exceed the County's screening-level thresholds. As discussed under Impacts to Sensitive Receptors, the Project would not create a CO hotspot that would result in a cumulatively considerable net increase of CO. Therefore, **the Project would not create a cumulatively considerable net increase in criteria pollutants associated with operation and impacts would be less than significant**.

The effects of objectionable odors would be localized to the immediate surrounding area and would not contribute to a cumulatively considerable odor. Odor control design for the WTWRF would be such that no objectionable odors would be detected by nearby residences or other sensitive receptors. Accordingly, **contributions to odor impacts would not be considerable and impacts would be less than significant**.

2.6.4 Significance of Impacts Prior to Mitigation

The following significant impacts related to air quality would occur under Proposed Project implementation:

Impact AQ-1a The Proposed Project is proposing an increase in housing units beyond what was included for the site in the RAQS; therefore, impacts associated with conformance to regional air quality plans would be potentially significant.

Impact AQ-1b Operation of the Proposed Project would not conform to the RAQS. As a result, the Project is considered to have a significant cumulative impact.

2.6.5 Mitigation

Measures to reduce construction dust emissions are required by the SDAPCD Rule 55 – Fugitive Dust Control and are included as PDFs for the Proposed Project, as listed in Table 1-2. With the implementation of the fugitive dust control design measures, Project construction impacts are less than significant.

The following mitigation measure is required for Impacts AQ-1a and AQ-1b.

M-AQ-1 The County shall provide a revised housing forecast to SANDAG to ensure that any revisions to the population and employment projections used by the SDAPCD in updating the RAQS and SIP will accurately reflect anticipated growth due to the Proposed Project.

2.6.6 Conclusion

The Project would be compliant with federal, state and local orders, ordinances, and regulations related to control of criteria pollutants emissions. Project design and regulatory compliance would result in both Project-direct and cumulatively considerable impacts being less than significant with regard to criteria pollutant emissions.

Implementation of the Proposed Project would be inconsistent with the current RAQS and SIP because the density proposed is greater than what was included in the RAQS (Impacts AQ-1a and AQ-1b). These represent significant planning document impacts. M-AQ-1 requires that the County provide a revised housing forecast to SANDAG to ensure that any revisions to the population and employment projects are considered. The provision of housing information would assist SANDAG in revising the housing forecast. Until the anticipated growth is included in the emission estimates of the RAQS and the SIP by the SDAPCD, however, the direct and cumulative impacts (Impacts AQ-1a and AQ-1b) would remain significant and unmitigable. The provision of housing information would assist SANDAG in revising the housing forecast. SANDAG provides those forecasts to the San Diego Air Pollution District, which prepares the RAQS and the 8-Hour Ozone Attainment Plan and provides those to the State California Air Resources Board. That agency completes the SIP, and provides the SIP (by air basin) to the federal Environmental Protection Agency. These are ongoing and routine programs that are beyond the purview of the County to manage or direct. Upon its inclusion and incorporation into regional modeling, this impact will be addressed.

Table 2.6-1
AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards[1]		Federal Standards[2]		
		Concentration[3]	Method[4]	Primary[3,5]	Secondary[3,6]	Method[7]
Ozone	1-Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	-	Same as Primary Standard	Ultraviolet Photometry
	8-Hour	0.070 ppm (137 µg/m^3)		0.075 ppm (147 µg/m^3)		
Respirable Particulate Matter (PM_{10})	24-Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		-		
Fine Particulate Matter ($PM_{2.5}$)[8]	24-Hour	-	-	35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12 µg/m^3		
Carbon Monoxide (CO)	1-Hour	20 ppm (23 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3	-	Non-Dispersive Infrared Photometry (NDIR)
	8-Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	-	
	8-Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		-	-	-
Nitrogen Dioxide (NO_2)[9]	1-Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemiluminescence	0.100 ppm (188 µg/m^3)	-	Gas Phase Chemilumi-nescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		0.053 ppm (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[10]	1-Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m$^{3)}$	-	Ultraviolet Fluorescence; Spectro-photometry (Pararo-saniline Method
	3-Hour	-		-	0.5 ppm (1300 µg/m^3)	
	24-Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (365 µg/m^3) (for certain areas)[9]	-	
	Annual Arithmetic Mean	-		0.030 ppm (80 µg/m^3) (for certain areas)[9]	-	
Lead[11,12]	30-Day Average	1.5 µg/m^3	Atomic Absorption	-	-	- High Volume Sampler and Atomic Absorption
	Calendar Quarter	-		1.5 µg/m^3	Same as Primary Standard	
	Rolling 3-Month Average	-		0.15 µg/m^3		
Visibility Reducing Particles[13]	8-Hour	See footnote 12	Beta Attenuation and Transmittance through Filter Tape	**No Federal Standards**		
Sulfates	24-Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1-Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[11]	24-Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			

Notes for Table 2.6-1:

[1] California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended particulate matter—PM_{10}, $PM_{2.5}$, and visibility reducing particles, are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[2] National standards (other than ozone, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration in a year, averaged over three years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m3 is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact USEPA for further clarification and current federal policies.

[3] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

[4] Any equivalent procedure which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

[5] National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

[6] National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

[7] Reference method as described by the USEPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the USEPA.

[8] On December 14, 2012, the national annual $PM_{2.5}$ primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM_{10} standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over three years.

[9] To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national standards are in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national standards to the California standards the units can be converted from ppb to ppm. In this case, the national standards of 53 ppb and 100 ppb are identical to 0.053 and 0.100 ppm, respectively.

[10] On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-hour average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated non-attainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards have are approved.

[11] The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[12] The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated non-attainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

[13] In 1989, the CARB converted both the general Statewide 10-mile visibility standards and the Lake Tahoe 20-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the Statewide and Lake Tahoe Air Basin standards, respectively.

Source: CARB 2013
ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter; mg/m^3 = milligrams per cubic meter

Table 2.6-2
AMBIENT BACKGROUND CONCENTRATIONS
SAN DIEGO MONITORING STATIONS

Air Pollutant	2013	2014	2015
Ozone			
Max 1-hour (ppm)	0.084	0.099	0.079
Days > CAAQS (0.09 ppm)	0	1	0
Max 8-hour (ppm)	0.075	0.080	0.071
Days > NAAQS (0.075 ppm)	0	5	0
Days > CAAQS (0.070 ppm)	4	8	3
Particulate Matter (PM_{10})			
Max Daily (µg/m3)	82.0	44.0	31.0
Days > NAAQS (150 µg/m3)	0	0	0
Days > CAAQS (50 µg/m3)	1	0	0
Annual Average (µg/m3)	23.2	21.6	17.5
Exceed CAAQS (20 µg/m3)	Yes	Yes	No
Particulate Matter ($PM_{2.5}$)			
Max Daily (µg/m3)	56.3	77.5	29.4
Days > NAAQS (35 µg/m3)	1	1	0
Annual Average (µg/m3)	10.5	9.6	No Data
Exceed NAAQS (15 µg/m3)	No	No	-
Exceed CAAQS (12 µg/m3)	No	No	-
Nitrogen Dioxide (NO_2)			
Max 1-hour (ppm)	0.061	0.063	0.048
Days > NAAQS (0.10 ppm)	0	0	0
Days > CAAQS (0.18 ppm)	0	0	0
Annual Average (ppm)	0.013	0.011	No Data
Exceed NAAQS (0.053 ppm)	No	No	-
Exceed CAAQS (0.030 ppm)	No	No	-
Carbon Monoxide (CO)			
Max 8-hour (ppm)	2.3	1.9	1.9
Days > NAAQS (9.0 ppm)	0	0	0
Days > CAAQS (9.0 ppm)	0	0	0
Max 1-hour (ppm)	3.2	3.5	3.1
Days > NAAQS (35 ppm)	0	0	0
Days > CAAQS (20 ppm)	0	0	0

Sources: CARB 2016 (www.arb.ca.gov [all pollutants except CO]; Escondido East Valley Parkway Monitoring Station
USEPA 2016 (http://www.epa.gov/airdata/ad_rep_con.html [used for CO])
> = exceeding; ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter;
Standard Mean = Annual Arithmetic Mean; No Data = Insufficient data available to determine the value.

Table 2.6-3
FEDERAL AND STATE AIR QUALITY DESIGNATIONS

Criteria Pollutant	Federal Designation	State Designation
O_3 (1-hour)	(No federal standard)	Non-attainment
O_3 (8-hour)	Non-attainment	Non-attainment
CO	Maintenance	Attainment
PM_{10}	Unclassifiable	Non-attainment
$PM_{2.5}$	Attainment	Non-attainment
NO_2	Attainment	Attainment
SO_2	Attainment	Attainment
Lead	Attainment	Attainment
Sulfates	(No federal standard)	Attainment
Hydrogen Sulfide	(No federal standard)	Unclassifiable
Visibility	(No federal standard)	Unclassifiable

Source: CARB 2014a and USEPA 2013

Table 2.6-4
SCREENING-LEVEL THRESHOLDS FOR AIR QUALITY IMPACT ANALYSIS

Construction Emissions			
Pollutant	**Pounds per Day**		
Respirable Particulate Matter (PM_{10})	100		
Fine Particulate Matter ($PM_{2.5}$)	55		
Oxides of Nitrogen (NO_X)	250		
Oxides of Sulfur (SO_X)	250		
Carbon Monoxide (CO)	550		
Volatile Organic Compounds (VOCs)	75		
Operational Emissions			
Pollutant	**Pounds Per Hour**	**Pounds per Day**	**Tons per Year**
Respirable Particulate Matter (PM_{10})	---	100	15
Fine Particulate Matter ($PM_{2.5}$)	---	55	10
Oxides of Nitrogen (NO_X)	25	250	40
Oxides of Sulfur (SO_X)	25	250	40
Carbon Monoxide (CO)	100	550	100
Lead and Lead Compounds	---	3.2	0.6
Volatile Organic Compounds (VOCs)	---	75	13.7
Toxic Air Contaminant Emissions			
Excess Cancer Risk	1 in 1 million 10 in 1 million with T-BACT		
Non-cancer Hazard	1.0		

Source: SDACPD Rule 20.2 and Rule 1210
T-BACT = Toxics Best Available Control Technology

Table 2.6-5
CONSTRUCTION EQUIPMENT ASSUMPTIONS

Construction Phase	Equipment	Number
Site Prep and Blasting	Rubber Tired Dozers	3
	Tractors/Loaders/Backhoes	4
	Crushing/Proc. Equipment	1
Backbone Infrastructure	Forklift	1
	Off-Highway Truck	2
	Other Material Handling Equipment	1
	Tractors/Loaders/Backhoes	1
	Trenchers	1
Road Construction	Crawler Tractor	1
	Excavators	3
	Grader	1
	Roller	2
	Rubber Tired Loaders	1
	Scrapers	2
	Signal Boards	4
	Tractors/Loaders/Backhoes	2
Grading	Excavators	2
	Graders	1
	Rubber Tired Dozers	1
	Scrapers	2
	Tractors/Loaders/Backhoes	2
Bridge Construction	Cranes	2
	Forklift	1
	Tractors/Loaders/Backhoes	3
	Pumps	1
	Generators	2
Building Construction	Cranes	1
	Forklifts	3
	Generator sets	1
	Tractors/Loaders/Backhoes	3
	Welders	1
Center House Parking Lot Paving	Pavers	2
	Paving Equipment	2
	Rollers	2
Architectural Coating	Air Compressors	1

Source: CalEEMod and Roadway Model (output data, including equipment horsepower, is provided in Appendix A of EIR Appendix H).
Note: All equipment was assumed to operate 8 hours a day, with the exception of cranes and tractors/ loaders/backhoes (7 hours per day) and air compressors (6 hours per day).

Table 2.6-6
ESTIMATED CONSTRUCTION EMISSIONS

Construction Activity	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
	lbs/day					
Site Preparation and Blasting	5	71	125	3	52	11
Backbone Infrastructure	3	29	19	<0.5	2	1
Road Construction	6	72	49	<0.5	13	5
Grading	5	54	41	<0.5	7	4
Bridge Construction	4	35	40	<0.5	5	2
Building Construction	4	26	35	<0.5	4	2
Center House Parking Lot Paving	1	13	15	<0.5	1	1
Architectural Coating	50	2	4	<0.5	1	<0.5
Maximum Daily Emissions	**54**	**100**	**125**	**3**	**52**	**11**
Screening-Level Thresholds	**75**	**250**	**550**	**250**	**100**	**55**
Exceedance?	**No**	**No**	**No**	**No**	**No**	**No**

Source: HELIX 2017b

Notes:

1. Fugitive dust measures (watering twice daily) were applied to control PM_{10} and $PM_{2.5}$ dust emissions.
2. Includes use of low-VOC coatings.
3. Maximum daily VOC emissions occur from May 2021 through September 2021 when Building Construction, Paving, and Architectural Coatings overlap.
4. Maximum daily NO_X emissions occur from October 2018 through March 2019 when Backbone Infrastructure and Road Construction overlap.
5. Maximum daily CO, SO_2, PM_{10}, and $PM_{2.5}$ emissions occur from July 2018 through September 2018 during Site Preparation and Blasting.

Table 2.6-7
OPERATIONAL EMISSIONS

Category	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
	lbs/day					
Area	18	<0.5	38	<0.5	1	1
Energy	<0.5	1	1	<0.5	<0.5	<0.5
Mobile	13	24	124	<0.5	24	7
WTWRF Generators	1	7	7	<0.5	<0.5	<0.5
TOTAL	**32**	**32**	**169**	**<0.5**	**25**	**8**
Screening-Level Thresholds	75	250	550	250	100	55
Exceedance?	No	No	No	No	No	No

Source: HELIX 2017b

Table 2.6-8
CONCURRENT OPERATIONAL AND CONSTRUCTION EMISSIONS

Category	VOC	NO_X	CO	SO_2	PM_{10}	$PM_{2.5}$
	lbs/day					
Construction[a]	54	36	51	<0.5	5	3
Operation[b]	16	16	85	<0.5	13	4
TOTAL[c]	**71**	**52**	**135**	**<0.5**	**18**	**6**
Screening-Level Thresholds	75	250	550	250	100	55
Exceedance?	No	No	No	No	No	No

Source: HELIX 2017b

[a] Maximum daily construction emissions that may overlap with operations occur from May through September 2021 when Building Construction, Paving, and Architectural Coating phases overlap.

[b] Total for Peak Daily Operational Emissions assumes half of the Project is built and is therefore half of the results reported in Table 2.6-7.

[c] Totals may not add due to rounding.

Table 2.6-9
ESTIMATED TAC EMISSIONS FROM WTWRF

Compound	Peak Daily Emissions (lbs/day)
Ammonia	4.498E-05
Benzene	8.712E-08
Chloroform	1.217E-06
Ethyl Benzene	3.379E-07
Hydrogen Sulfide	2.929E-06
1,1,1-TCA	3.980E-07
Methylene Chlorine	1.172E-06
1,4-Dichlorobenzene	6.984E-07
Phenol	1.472E-06
Styrene	7.510E-07
Toluene	7.360E-07
TCE	3.905E-07
Xylene	8.802E-07
TOTAL VOC EMISSION	**5.605E-05 (or 0.00005605)**
Screening-Level Thresholds	75
Exceedance?	No

Source: HELIX 2017b

Table 2.6-10
CO HOT SPOTS MODELING RESULTS

Intersection	Peak Period	Maximum 1-hour with Project Concentration	Maximum 8-hour with Project Concentration
Valley Parkway at I-15 Northbound Ramps	AM	5.9	4.75
	PM	5.9	4.75
Country Club Drive at Harmony Grove Road	AM	4.9	4.05
	PM	5.0	4.12
Harmony Grove Road at Kauana Loa Drive	AM	5.0	4.12
	PM	5.1	4.19
Ambient Air Quality Standard		*20*	*9.0*
Significant Impact?		*No*	*No*

Source: HELIX 2017b

1. CALINE4 dispersion model output sheets and EMFAC2011 emission factors are provided at the end of Appendix A in EIR Appendix H.
2. ppm = parts per million.
3. Peak hour traffic volumes are from the Project TIA (LLG 2017).
4. Highest 3 years SDAPCD (2011-2013) 1-hour ambient background concentration (4.4 ppm) + 2020 modeled CO 1-hour contribution.
5. Highest 3 years SDAPCD 8-hour ambient background concentration (3.70 ppm) multiply by 1-hour/8-hour conversion factor of 0.7 and then add the 2020 modeled CO 8-hour contribution.

Table 2.6-11
CONSTRUCTION HEALTH RISK ASSESSMENT RESULTS

Metric	Dispersion Model Estimate	District's Significance Threshold	Exceeds Threshold?
Cancer Risk[1]	0.03 in 1 million	1 in 1 million	No
Chronic Non-Cancer Hazard Index from DPM[2]	0.0005	1.0	No

Source: HELIX 2017b

1 Assumes an exposure frequency of 260 days, exposure duration of 4.0 years, and an age sensitivity factor of 1 (Bay Area Air Quality Management District 2012)

2 Assumes a chronic DPM reference exposure level of 5 $\mu g/m^3$ (Office of Environmental Health Hazard Assessment 2012)

Table 2.6-12
WTWRF HEALTH RISK ASSESSMENT RESULTS

Compound	Annual Average Emissions (lbs/year)	Annual Ambient Conc. (µg/m^3)	Cancer Risk	Chronic Non-Cancer Risk	24-hr (Acute) Non-Cancer Risk
Ammonia	6.57E-03	1.41E-08	-	7.06E-11	1.76E-11
Benzene	1.27E-05	2.73E-11	8.25E-10	9.11E-12	4.05E-12
Chloroform	1.78E-04	3.82E-10	2.19E-09	1.27E-12	1.02E-11
Ethyl Benzene	4.93E-05	1.06E-10	2.79E-10	5.30E-14	-
Hydrogen Sulfide	4.28E-04	9.19E-10	-	9.19E-11	8.75E-11
1,1,1-TCA	5.81E-05	1.25E-10	-	1.25E-13	7.35E-15
Methylene Chlorine	1.71E-04	3.68E-10	3.89E-10	9.19E-13	1.05E-13
1,4-Dichlorobenzene	1.02E-04	2.19E-10	2.65E-09	2.74E-13	-
Phenol	2.15E-04	4.62E-10	-	2.31E-12	3.19E-13
Styrene	1.10E-04	2.36E-10	-	2.62E-13	4.49E-14
Toluene	1.07E-04	2.31E-10	-	7.70E-13	2.50E-14
TCE	5.70E-05	1.23E-10	2.59E-10	2.04E-13	-
Xylene	1.29E-04	2.76E-10	-	3.95E-13	5.02E-14
TOTAL	**8.18E-03**	**-**	**6.59E-09**	**<1**	**<1**

Sources: SJVAPCD 1993, OEHHA 2011, OEHHA 2013
Notes:
Assumed hydrogen sulfide would be controlled to 90 percent efficiency with scrubbers or biofilters that are part of the odor control system.
Cancer risk less than 10 in a million (1.00E-05) is considered less than significant.
Chronic and acute non-cancer risks less than 1 are considered less than significant.

SUBCHAPTER 2.7

GREENHOUSE GAS EMISSIONS

2.7 Greenhouse Gas Emissions

On July 25, 2018, the County Board of Supervisors approved entitlements for the Harmony Grove Village South (HGV South) Project (Project) and certified its Final Environmental Impact Report (FEIR) in accordance with the California Environmental Quality Act (CEQA). The accompanying 2018 greenhouse gas (GHG) analysis for the Project included the Final Greenhouse Gas Analyses Report (Helix Environmental, 2017d, as updated in 2018 Appendix J), which was augmented by the Global Climate Change Supplemental Letter prepared by Ldn Consulting, Inc. (2018), and included verification of the Project's on-site photovoltaic (PV; solar) panels by an independent third-party reviewer (ConSol 2017). The original GHG analysis (Appendix J of the EIR) incorporated a number of Project design features (PDFs) and calculated that the Proposed Project would generate a total of 4,411 unamortized Metric Tons (MT) carbon dioxide equivalents (CO_2e) from construction and 5,222 MT CO_2e during Project operations. The FEIR also recommended mitigation measures for GHG impacts to be considered less than significant. (As explained below those mitigation measures have been revised.)

Following County approval and certification, the Project approvals were challenged in two actions.[1] Following litigation, the California Court of Appeal (Court) found that environmental analyses within the Project's FEIR were adequate and complied with CEQA in all respects except for one.[2] The sole issue found to be non-compliant with CEQA was the Project's GHG mitigation measures during construction (M-GHG-1) and operational (M-GHG-2) periods because the measures lacked enforceability and resulted in an improper deferral of mitigation.

Moreover, the 2018 FEIR GHG analysis was found to have "adequately considered the cumulative effect of GHG emissions." (Judgment dated July 21, 2020; Minute Order dated February 20, 2020, section 1.a.). Elements included in the 2018 GHG analysis that were assessed as adequate during CEQA litigation included:

- GHG analysis (including approach and traffic generation information [average daily trips, vehicle miles traveled (VMT), and associated roadway effects])
- A three-year construction period, with duration of specific construction efforts and specified associated construction equipment
- Sequestration effects during construction and subsequent landscaping
- CEQA thresholds of significance (Net Zero GHG emissions taking into consideration GHG reduction measures)

Although the prior analysis was found to be legally adequate and sufficient in all respects but mitigation language, Subchapter 2.7, which included new text, was recirculated for ease of reader

[1] 37-2018-00042927-CU-TT-CTL and 37-2018-00043084-CU-TT-CTL (limited to consideration of the adequacy of the GHG Mitigation Measures).

[2] Elfin Forest Harmony Grove Town Council et al. v. County of San Diego and RCS, 37-2018-00042927, Court of Appeal, Fourth Appellate District (Division One), filed October 14, 2021.) See also Sierra Club v. County of San Diego and Integral Communities, LLC, et al., 37-2018-00043084-CU-TT-CTL, Court of Appeal, Fourth Appellate District (Division One), filed December 21, 2021.

review. The new text focuses on this introduction and background information regarding the Project's location, updates to legislation/regulation and methodology data as appropriate, or added PDFs as now proposed, discussion of infill screening analysis related to VMT, updated modeling, and a revised mitigation measure. Each change is shown in strike-out / underline.

This revised section updates the 2018 FEIR GHG section using California Emissions Estimator Model (CalEEMod), Version 2020.4.2, to estimate Project emissions. The 2020 version is similar to that used for the 2018 circulation, but focuses on updated emission factors. The conclusion as to CEQA significance (significant and mitigable) remains the same. Therefore, EIR Subchapter 2.7 modifications do not change related CEQA conclusions in other sections of the 2018 FEIR because GHG emissions from all Project sources would remain at net zero. As described in the 2018 FEIR all cumulative impacts associated with Project emissions would have been mitigated to net zero through on-site reductions and implementation of the Project's previous mitigation measures. Because the Project is again proposing to mitigate to net zero, the cumulative GHG emission impacts would be the same.

2.7.1 Existing Conditions

2.7.1.1 *Background*

Climate change refers to any substantial change in measures of climate (such as temperature, precipitation, or wind) lasting for decades or longer. The Earth's climate has changed many times during the planet's history, including events ranging from ice ages to long periods of warmth. Historically, natural factors such as volcanic eruptions, changes in the Earth's orbit, and the amount of energy released from the sun have affected the Earth's climate. Beginning late in the 18th century, human activities associated with the Industrial Revolution have changed the composition of the atmosphere. The Industrial Revolution resulted in an increase in the combustion of carbon-based fuels such as wood, coal, oil, natural gas, and biomass; and created emissions of substances that are not found in nature. This in turn has led to a marked increase in the emissions of gases that have been shown to influence the world's climate. These GHGs influence the amount of heat that is trapped in the Earth's atmosphere. Because climate change is caused by the collective of human actions taking place throughout the world, it is inherently a global or cumulative issue.

GHGs are gases that trap heat in the atmosphere, analogous to the way a greenhouse retains heat. Global temperatures are moderated by naturally occurring atmospheric gases, including water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs, such as HFC-23), fluorocarbons or perfluorocarbons (PFCs, such as CF_4), and sulfur hexafluoride (SF_6). The accumulation of GHGs in the atmosphere regulates the Earth's temperature. The potential of a gas to trap heat and warm the atmosphere is measured by its global warming potential (GWP). GHGs either break down or are absorbed over time. Thus, the potential of a gas to contribute to global warming is limited by the time it is in the atmosphere, or its "atmospheric lifetime." To account for these effects, GWPs are calculated over a 100-year time horizon (U.S. Environmental Protection Agency [USEPA] 2014b). Because of its relative abundance in the atmosphere and its relatively long atmospheric lifetime, CO_2 has been designated the reference gas for comparing GWPs. Thus, the 100-year GWP of CO_2 is equal to one (see Table 2.7-1, *Global Warming Potentials and Atmospheric Lifetimes of Common GHGs*).

Specific to the site, the Project consists of 453 dwelling units; approximately 5,000 s.f. of commercial/civic uses; 2 miles of multi-use trails; 35 acres of biological open space; 36 acres of common area; and 4 acres of parks. The Project is more particularly located within walking distance from Harmony Grove Village, an existing village that has 742 built homes, an equestrian center, and other village-supporting commercial and recreational uses, a portion of which is directly across the street from HGV South. The Project is also within a 2–mile radius of a concentration of urban and mixed land uses that include Palomar Hospital, Stone Brewing, numerous "big box" retail stores with surrounding retail, apartment complexes, mobile home parks, and a large-scale automobile mall. An expansive light-industrial/commercial employment center (Escondido Research and Technology Center; ERTC) and a confluence of regional transportation connectors (Interstate 15 [I-15] and State Route 78 [SR-78]) are located within approximately 2.5 miles of the Project site (see Figure 2.7-1 at the end of this section). Beyond this are California State University San Marcos and Kaiser Permanente San Marcos, as well as other business uses.

The site's 111 acres are currently zoned A70 (Limited Agriculture) and RR (Rural Residential), which allows for agricultural, open space, and large lot rural residential uses. The site is identified as Semi-Rural Regional Category, with designations of Semi-Rural Residential (SR-0.5; 110.5 acres) and Rural Lands (RL-20; 0.5 acre).

2.7.1.2 *Types of GHGs*

California Health and Safety Code Section 38505(g) defines GHGs to include the following compounds: CO_2, CH_4, N_2O, chlorofluorocarbons (CFCs), HFCs, and SF_6. Descriptions of these compounds and their sources are provided below.

Carbon dioxide is an odorless, colorless GHG. Natural sources include decomposition of dead organic matter; respiration of bacteria, plants, animals, and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic (human-caused) sources of CO_2 include the burning of fuels such as coal, oil, natural gas and wood. As of December 2014, global concentrations of CO_2 exceeded 399 parts per million (ppm) (National Oceanic and Atmospheric Administration [NOAA] 2015). Some scientific estimates predict that concentrations may increase to 1,130 CO_2 equivalent (CO_2e) ppm by 2100 as a direct result of anthropogenic sources, and that this would result in an average global temperature rise of at least 7.2 degrees Fahrenheit (Intergovernmental Panel on Climate Change [IPCC] 2007).

Methane (CH_4) is a gas and is the main component of natural gas used in homes. It has a GWP of about 21, or 21 times the GWP of CO_2. A natural source of CH_4 is from the decay of organic matter. Geological deposits known as natural gas fields contain CH_4, which is extracted for fuel. Other sources are from decay of organic material in landfills, fermentation of manure, and cattle digestion.

Nitrous oxide (N_2O), also known as laughing gas, is a colorless gas and has a GWP of about 310. N_2O is produced by microbial processes in soil and water, including reactions that occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (e.g., nylon and nitric acid production) also emit N_2O. It is used in rocket engines, as an aerosol spray propellant, and in racecars. During combustion, NO_X (NO_X is a generic term for mono

nitrogen oxides such as NO and NO_2) is produced as a criteria pollutant and is not the same as N_2O. Very small quantities of N_2O may be formed during fuel combustion by nitrogen and oxygen.

Fluorocarbons are gases formed synthetically by replacing all hydrogen atoms in CH_4 or ethane with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble, and chemically nonreactive in the troposphere (the level of air at Earth's surface).

Chlorofluorocarbons were first synthesized in 1928 for use as refrigerants, aerosol propellants and cleaning solvents. They destroy stratospheric ozone; therefore, their production was stopped by requirements of the Montreal Protocol. Fluorocarbons have a GWP of between 140 and 11,700.

SF_6 is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It has the highest GWP of any gas (23,900). SF_6 is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.

Ozone is a GHG that is unlike the other GHGs as it is relatively short-lived in the troposphere and, therefore, is not global in nature. According to the California Air Resources Board (CARB), it is difficult to make an accurate determination of the contribution of ozone precursors (NO_X and VOCs) to global warming (CARB 2006).

A summary of the most common naturally occurring and artificial GHGs is provided in Table 2.7-1. Of the gases listed in Table 2.7-1, CO_2, CH_4 and N_2O, are produced by both natural and anthropogenic (human) sources. The remaining gases, HFCs, chlorofluorides (CFs), and SF_6, are the result of solely human processes.

2.7.1.3 *Regulatory Setting*

All levels of government have some responsibility for the protection of air quality, and each level (federal, state, and regional/local) has specific responsibilities relating to air quality regulation. GHG emissions and the regulation of GHGs is a relatively new component of air quality. In addition to regulations, several executive orders have been identified below. As executive orders lack legislative action, they are not fully enforceable as regulations and are included for informational purposes.

Federal

Federal Clean Air Act

The U.S. Supreme Court ruled in April 2007, in *Massachusetts v. U.S. Environmental Protection Agency*, that CO_2 is an air pollutant, as defined under the Clean Air Act (CAA), and that the USEPA has the authority to regulate emissions of GHGs. The USEPA announced that GHGs (including CO_2, CH_4, N_2O, HFC, PFC and SF_6) threaten the public health and welfare of the American people. This action was a prerequisite to finalizing the USEPA's proposed GHG emissions standards for light-duty vehicles, which were jointly proposed by the USEPA and the United States Department of Transportation's National Highway Traffic Safety Administration in September 2009.

Corporate Average Fuel Economy Standards

The federal Corporate Average Fuel Economy (CAFE) standard determines the fuel efficiency of certain vehicle classes in the U.S. In 2007, as part of the Energy and Security Act of 2007, CAFE standards were increased for new light-duty vehicles to 35 miles per gallon (mpg) by 2020. In May 2009, President Obama announced plans to increase CAFE standards to require light-duty vehicles to meet an average fuel economy of 35.5 mpg by 2016. Rulemaking to adopt these new standards was completed in 2010. California agreed to allow automakers who show compliance with the national program to also be deemed in compliance with state requirements. The federal government issued new standards in summer 2012 for model years 2017–2025, requiring a fleet average in 2025 of 54.5 mpg.

In May 2022, the National Highway Traffic Safety Administration (NHTSA) published rules finalizing revised fuel economy standards for passenger cars and light trucks for 2024/2025, and the standards increase at a rate of eight percent per year. Then in 2026 an increase in the efficiency standard by 10 percent would be required. NHTSA estimates that the industry fleetwide average will be 49 miles per gallon (MPG) in 2026 (NHTSA 2022).

In July 2023, NHTSA proposed new CAFE standards for passenger cars and light trucks built in model years 2027 through 2032, and new fuel efficiency standards for heavy-duty pickup trucks and vans built in model years 2030 through 2035. If finalized, the proposal would require an industry fleet-wide average of approximately 58 miles per gallon for passenger cars and light trucks in model year 2032, by increasing fuel economy by two percent year over year for passenger cars and by four percent year over year for light trucks (NHTSA 2023).

State

California Code of Regulations, Title 24, Part 6

California Code of Regulations, Title 24, Part 6, California's Energy Efficiency Standards for Residential and Nonresidential Buildings, was first established in 1978 in response to a legislative mandate to reduce California's energy consumption. Energy-efficient buildings require less electricity, natural gas, and other fuels. Electricity production from fossil fuels and on-site fuel combustion (typically for water heating) results in GHG emissions.

The Title 24 standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. Building Energy Efficiency Standards updates effective in 2017 focused on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings. The most significant efficiency improvements to the residential Standards include improvements for attics, walls, water heating, and lighting. The Standards are divided into three basic sets. First, there is a basic set of mandatory requirements that apply to all buildings. Second, there is a set of performance standards—the energy budgets—that vary by climate zone (of which there are 16 in California) and building type; thus, the Standards are tailored to local conditions. Finally, the third set constitutes an alternative to the performance standards, which is a set of prescriptive packages that are basically a recipe or a checklist compliance approach.

The current code requirement is based on the 2022 standards, which went into effect on January 1, 2023. These standards have mandatory requirements to reduce building envelope air leakage, improve roofing through Solar Reflectance and Thermal Emittance, improve on insulation, improve on space conditioning, water heating and plumbing, and improve on lighting efficiency requirements, to name a few. The Project will be required to implement Title 24 2022 or the code cycle relevant at the time of building permit issuance.

There are no federal, state, or local laws or policies that would require an existing commercial building to install solar panels as described in Section 2.7.5 M-GHG-1 below. Solar PV and energy storage systems will be required on certain newly constructed commercial buildings with the update to Title 24, Part 6: Building Energy Efficiency Standards (the Energy Code; effective January 1, 2023). Existing commercial buildings that fall within the requirements of Title 24 Part 6 may also be required to install solar panels (those that require building permits for qualified work such as modifications, reconstruction, or alteration work). Minor renovations are not subject to such rules, and there are a number of exceptions that can still apply to exempt existing buildings from such requirements. Similarly, proposed Energy Goal E-2.2 of the County's Draft Climate Action Plan (CAP) applies only to existing buildings with "qualifying improvements."

California Code of Regulations, Title 24, Part 11 (CALGreen)

The California Green Building Standards Code (CALGreen Code; 24 CCR, Part 11) is a code with mandatory requirements for new residential and nonresidential buildings (including buildings for retail, office, public schools, and hospitals) throughout California. The code is Part 11 of the California Building Code in Title 24 of the CCR (CBC 2016). The 2016 standards for new construction of, and additions and alterations to, residential and nonresidential buildings went into effect on January 1, 2017.

The development of the CALGreen Code is intended to: (1) cause a reduction in GHG emissions from buildings; (2) promote environmentally responsible, cost-effective, healthier places to live and work; (3) reduce energy and water consumption; and (4) respond to the directives by the Governor. In short, the code is established to reduce construction waste; make buildings more efficient in the use of materials and energy; and reduce environmental impact during and after construction.

The CALGreen Code contains requirements for storm water control during construction; construction waste reduction; indoor water use reduction; material selection; natural resource conservation; site irrigation conservation; and more. The code provides for design options allowing the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for the verification that all building systems, like heating and cooling equipment and lighting systems, are functioning at their maximum efficiency.

CALGreen Standards were updated most recently in 2022 and became effective on January 1, 2023. The updated Code includes modifications to current codes and is currently a requirement for this Project. Mandatory requirements include many updated Electric Vehicle Charging requirements for multi- and single-family developments (California Title 24, Part 11, 2022).

Executive Order S-3-05

Executive Order (EO) S-3-05, signed by Governor Schwarzenegger in June 2005, calls for a reduction in GHG emissions to year 1990 levels by the year 2020, and for an 80 percent reduction in GHG emissions by the year 2050. EO S-3-05 also calls for the California Environmental Protection Agency (CalEPA) to prepare biennial science reports on the potential impact of continued global warming on certain sectors of the California economy. The first of these reports, "*Scenarios of Climate Change in California: An Overview*" (California Climate Change Center 2006), concluded that, under the report's emissions scenarios, the impacts of global warming in California are anticipated to include, but not be limited to: public health, biology, rising sea levels, hydrology and water quality, and water supply. CARB's Second Update to the Scoping Plan (as adopted in December 2017) seeks to have 1.5 million ZEVs on California's roadways in 2025 and 5 million ZEVs by 2030 (Office of Governor Edmund G. Brown Jr., 2018), while accelerating the deployment of alternative fueling infrastructure. Please also see discussion of EO-B-55-18, below.

Assembly Bill 32

The California Global Warming Solutions Act of 2006, widely known as Assembly Bill (AB) 32, requires CARB to develop and enforce regulations for the reporting and verification of statewide GHG emissions. CARB is directed to set a GHG emission limit, based on 1990 levels, to be achieved by 2020. The bill requires CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG reductions.

Executive Order B-30-15

On April 29, 2015, EO B-30-15 established a California GHG interim reduction target of 40 percent below 1990 levels by 2030. The EO aligns California's GHG reduction targets with those of leading international governments, including the 28-nation European Union. California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the ultimate goal established by EO S-3-05 of reducing emissions 80 percent under 1990 levels by 2050. To facilitate achievement of this goal, EO B-30-15 calls for an update to CARB's Scoping Plan to express the 2030 target in terms of MMT CO_2e.

Senate Bill 32

In September 2016, the Governor signed SB 32 (Pavley; California Global Warming Solutions Act of 2006: emissions limit) into law. SB 32 would require that CARB ensure that statewide GHG emissions are reduced to 40 percent below the 1990 level by 2030, thereby codifying the attainment of the 2030 reduction goal identified in EOs B-30-15 and S-3-05. CARB was directed to update the Scoping Plan to reflect the 2030 target. However, currently there are no proposed or adopted significance thresholds for analyzing post-2020 emissions for development projects in California, there are no adopted statewide or local plans to reduce emissions 40 percent below 1990 levels by 2030, and the regulatory framework to achieve the 2030 target is still being developed.

Executive Order B-55-18

In 2018, the Governor expanded upon EO S-3-05 by issuing Executive Order B-55-18 and creating a statewide goal of carbon neutrality by 2045. EO B-55-18 identifies CARB as the lead agency to

develop a framework for implementation and progress tracking toward this goal. It should be noted that consistency with a statewide carbon neutrality target by 2045 represents the Governor's policy goal but is not required to make a significance determination. The state has already determined that 80 percent below 1990 levels by 2050 is a long-term target that represents California's share of emissions reductions to stabilize and limit global warming and "avoid dangerous climate change." EO B-30-15 sets forth the 2050 target endorsed by the Intergovernmental Panel on Climate Change's finding and notes that the state's 2050 target will "attain a level of emissions necessary to avoid dangerous climate change" because it may limit global warming to 2 degrees Celsius by 2050.

Assembly Bill 1279

In 2022, Governor Newsom approved AB 1279, which requires the state board to prepare and approve a scoping plan for achieving the maximum technologically feasible and cost-effective reductions in GHG emissions and to update the scoping plan at least once every five years. This bill, the California Climate Crisis Act, would declare the policy of the state both to achieve net zero GHG emissions as soon as possible (but no later than 2045), achieve and maintain net negative GHG emissions thereafter, and ensure that by 2045, statewide anthropogenic GHG emissions are reduced to at least 85 percent below the 1990 levels.

Assembly Bill 197

A condition of approval for SB 32 was the passage of AB 197. AB 197 requires that CARB consider the social costs of GHG emissions and prioritize direct reductions in GHG emissions at mobile sources and large stationary sources. AB 197 also gives the California legislature more oversight over CARB through the addition of two legislatively appointed members to the CARB Board and the establishment a legislative committee to make recommendations about CARB programs to the legislature.

Assembly Bill 1236

AB 1236 (2015), as enacted in California's Planning and Zoning Law, requires local land use jurisdictions to approve applications for the installation of electric vehicle (EV) charging stations, as defined, through the issuance of specified permits unless there is substantial evidence in the record that the proposed installation would have a specific, adverse impact upon the public health or safety, and there is no feasible method to satisfactorily mitigate or avoid the specific, adverse impact. The bill requires local land use jurisdictions with a population of 200,000 or more residents to adopt an ordinance, by September 30, 2016, that creates an expedited and streamlined permitting process for EV charging stations, as specified. In August 2016, the County Board of Supervisors adopted Ordinance No. 10437, adding a section to its County Code related to the expedited processing of EV charging station permits consistent with AB 1236.

Senate Bill 350

SB 350 (2015) further expanded the Renewables Portfolio Standard (RPS; see also Senate Bill 1078 below) by establishing that 50 percent of the total electricity sold to retail customers in California per year by December 31, 2030 be secured from qualifying renewable energy sources. In addition, SB 350 includes the goal to double the energy efficiency savings in electricity and

natural gas final end uses (such as heating, cooling, lighting, or class of energy uses on which an energy-efficiency program is focused) of retail customers through energy conservation and efficiency.

Executive Order B-16-12

EO B-16-12 (March 2012) directs state entities under the Governor's direction and control to support and facilitate development and distribution of ZEVs. This EO also sets a long-term target of reaching 1.5 million zero-emission vehicles (ZEVs) on California's roadways by 2025. On a statewide basis, EO B-16-12 also establishes a GHG emissions reduction target from the transportation sector equaling 80 percent less than 1990 levels by 2050. In furtherance of this EO, the Governor convened an Interagency Working Group on Zero-Emission Vehicles that has published multiple reports regarding the progress made on the penetration of ZEVs in the statewide vehicle fleet. As of January 2018, the Governor had called for as many as 1.5 million EV by 2025 and up to 5 million EV by 2030 (Office of Governor Edmund G. Brown Jr., 2018).

Executive Order N-79-20

Governor Gavin Newsom signed EO N-79-20 in 2020. It requires that 100 percent of new car sales in California be ZEVs by 2035. The plan targets 35 percent ZEV sales by 2026, 68 percent by 2030, and 100 percent by 2035 (CARB 2023).[3] The electrification of California's transportation sector is recognized by CARB and other state, regional, and local agencies as critical to meeting state 2030 and 2050 GHG emission reduction targets.

Assembly Bill 75

AB 75 was passed in 1999 and mandates state agencies to develop and implement an integrated waste management plan to reduce GHG emissions related to solid waste disposal and diversion (recycling). In addition, the bill mandates that community service districts providing solid waste services report the disposal and diversion information to the appropriate city, county, or regional jurisdiction. Since 2004, the bill requires diversion of at least 50 percent of the solid waste from landfills and transformation facilities, and submission to the California Integrated Waste Management Board of an annual report describing the diversion rates.

Assembly Bill 341

The state legislature enacted AB 341 (California Public Resource Code Section 42649.2), increasing the diversion target to 75 percent statewide. AB 341 requires all businesses and public entities that generate 4 cubic yards or more of waste per week to have a recycling program in place. In addition, multi-family apartments with five or more units are also required to implement a recycling program. The final regulation was approved by the Office of Administrative Law (OAL) on May 7, 2012, and went into effect on July 1, 2012.

[3] New ZEV sales in California met the 1.5 million goal in the first quarter of 2023, which exceeds the state's goals set for 2025 (CEC 2023).

Assembly Bill 1493

AB 1493 (Pavley) requires that CARB develop and adopt regulations that achieve "the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty truck and other vehicles determined by CARB to be vehicles whose primary use is noncommercial personal transportation in the State." On September 24, 2009, CARB adopted amendments to the Pavley regulations that intend to reduce GHG emissions in new passenger vehicles from 2009 through 2016. The amendments bound California's enforcement of AB 1493 (starting in 2009), while providing vehicle manufacturers with new compliance flexibility. The amendments also prepare California to merge its rules with the federal CAFE rules for passenger vehicles. In January 2012, CARB approved a new emissions-control program for model years 2017 through 2025. The program combines the control of smog, soot, and global warming gases and requirements for greater numbers of ZEVs into a single group of standards called Advanced Clean Cars (ACC).

The ZEV program acts as the focused technology of the ACC program by requiring manufacturers to produce increasing numbers of ZEVs and plug-in hybrid electric vehicles (PHEVs) in the 2018 to 2025 model years (CARB 2017).

This program was recently updated and is known as the ACC II Program. ACC II regulations will rapidly scale down emissions of light-duty passenger cars, pickup trucks and SUVs starting with the 2026 model year through 2035. The regulations are two-pronged. First, it amended the ZEV Regulation to require an increasing number of ZEVs, and relies on currently available advanced vehicle technologies, including battery-electric, hydrogen fuel cell electric and PHEVs, to meet air quality and climate change emissions standards. Second, the Low-emission Vehicle Regulations were amended to include increasingly stringent standards for gasoline cars and heavier passenger trucks to continue to reduce smog-forming emissions (CARB 2023).

Executive Orders B-48-18 and N-79-20

In January of 2018, EO B-48-18 was signed to "boost the supply of ZEVs and charging and refueling stations in California." The EO directs state government to meet a series of milestones toward targets of 1.5 million ZEVs on California's roadways by 2025 and 5 million by 2030 (Governor of California 2018); and should be significantly higher in 2035 and beyond due to EO N-79-20 and ACC II. Based on these estimates the total percentage of EVs expected in California would be 14.4 percent or 11 percent over what EMFAC estimates for the year 2030.

Senate Bill 97

SB 97 required the Office of Planning and Research (OPR) to prepare, develop, and transmit to the Resources Agency guidelines for the feasible mitigation of GHG emissions or the effects of GHG emissions, as required by CEQA; including but not limited to, effects associated with transportation or energy consumption. The Resources Agency certified and adopted the guidelines in December 2009. The CEQA Guidelines provide the lead agency with broad discretion in determining what methodology is used in assessing the impacts of GHG emissions in the context of a particular project. The OPR guidance also states that the lead agency can rely on qualitative or other performance-based standards for estimating the significance of GHG emissions, although the CEQA Guidelines did not establish a threshold of significance.

Senate Bill 375

SB 375 aligns regional transportation planning efforts, regional GHG reduction targets, and affordable housing allocations. Metropolitan Planning Organizations (MPOs) such as the San Diego Association of Governments (SANDAG) are required to adopt a Sustainable Communities Strategy, within the Regional Transportation Plan (RTP), the goal of which is to establish a development plan for the region, which, after considering transportation measures and policies, will achieve, if feasible, the GHG reduction targets.

Pursuant to Government Code Section 65080(b)(2)(K), a sustainable communities strategy does not: (i) regulate the use of land; (ii) supersede the land use authority of cities and counties; or (iii) require that a city's or county's land use policies and regulations, including those in a general plan, be consistent with it. Nonetheless, SB 375 makes regional and local planning agencies responsible for developing those strategies as part of the federally required metropolitan transportation planning process and the state-mandated housing element process.

Qualified projects consistent with an approved Sustainable Communities Strategy or Alternative Planning Strategy categorized as "transit priority projects" would receive incentives to streamline CEQA processing.

In 2018, CARB updated the SB 375 targets. For purposes of SANDAG, the updated targets include a 15 percent reduction in emissions per capita by 2020 and a 19 percent reduction by 2035.

Executive Order S-1-07

EO S-1-07, signed by Governor Schwarzenegger January 2007, directs that a statewide goal be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by the year 2020. It orders that a Low Carbon Fuel Standard (LCFS) for transportation fuels be established for California and directs CARB to determine whether a LCFS can be adopted as a discrete early action measure pursuant to AB 32. CARB approved the LCFS as a discrete early action item with a regulation adopted and implemented in April 2010. Although challenged in 2011, the Ninth Circuit reversed the District Court's opinion and rejected arguments that implementing LCFS violates the interstate commerce clause in September 2013. CARB is therefore continuing to implement the LCFS statewide.

The latest amendment to LCFS implementation regulations was in 2018 via CARB approved amendments which included strengthening and smoothing the carbon intensity benchmarks through 2030 in line with California's 2030 GHG emission reduction target enacted through SB 32 (CARB 2018). CARB is currently considering new amendments. These have gone through the public review process, although it is currently unknown when new standards will be adopted.

Senate Bill 1078

SB 1078 (2002) established the RPS program, which requires an annual increase in renewable generation by the utilities equivalent to at least 1 percent of sales, with an aggregate goal of 20 percent by 2017. This goal was subsequently accelerated by the 2003 Energy Action Plan I and required utilities to obtain 20 percent of their power from renewable sources by 2010.

Senate Bill X1 2

SB X1 2 (2011) expanded the RPS by establishing that 20 percent of the total electricity sold to retail customers in California per year by December 31, 2013, and 33 percent by December 31, 2020, and in subsequent years be secured from qualifying renewable energy sources. Under the bill, a renewable electrical generation facility is one that uses biomass, solar thermal, photovoltaic, wind, geothermal, fuel cells using renewable fuels, small hydroelectric generation of 30 megawatts or less, digester gas, municipal solid waste conversion, landfill gas, ocean wave, ocean thermal, or tidal current, and that meets other specified requirements with respect to its location. In addition to the retail sellers previously covered by the RPS, SB X1 2 added local, publicly owned electric utilities to the RPS.

SB 100

Established in 2002 by SB 1078, California's RPS requires electricity providers (i.e., utilities, cooperatives, and community choice aggregators) to provide a specified minimum portion of their electricity supply from eligible renewable resources by milestone target years. Since 2002, state legislative actions have modified and accelerated the RPS several times, resulting in one of the most ambitious renewable energy standards in the country. Per SB 100, the RPS requires retail sellers of electricity to serve 60 percent of their electric load with renewable energy by 2030, with new interim targets of 44 percent by 2024 and 52 percent by 2027, as well as requiring that all of the state's electricity come from carbon-free resources (not only RPS-eligible ones) by 2045.

California Air Resources Board: Scoping Plan

On December 11, 2008, CARB adopted the Scoping Plan (CARB 2008) as directed by AB 32. The Scoping Plan proposes a set of actions designed to reduce overall GHG emissions in California to the levels required by AB 32. Measures applicable to development projects include those related to energy-efficiency building and appliance standards, the use of renewable sources for electricity generation, regional transportation targets, and green building strategy. Relative to transportation, the Scoping Plan includes nine measures or recommended actions related to reducing vehicle miles traveled and vehicle GHGs through fuel and efficiency measures. These measures would be implemented statewide rather than on a project-by-project basis.

The CARB released the First Update to the Climate Change Scoping Plan in May 2014 to provide information on the development of measure-specific regulations and to adjust projections in consideration of the economic recession (CARB 2014a). To determine the amount of GHG emission reductions needed to achieve the goal of AB 32 (i.e., 1990 levels by 2020) CARB developed a forecast of the AB 32 Baseline 2020 emissions, which is an estimate of the emissions expected to occur in the year 2020 if none of the foreseeable measures included in the Scoping Plan were implemented. CARB estimated the AB 32 Baseline 2020 to be 509 MMT CO_2e. The Scoping Plan's current estimate of the necessary GHG emission reductions is 78 MMT CO_2e (CARB 2014b). This represents an approximately 15.32 percent reduction. CARB is forecasting that this would be achieved through the following reductions by sector: 25 MMT CO_2e for energy; 23 MMT CO_2e for transportation; 5 MMT CO_2e for high-GWP GHGs, and 2 MMT CO_2e for waste. The remaining 23 MMT CO_2e would be achieved through Cap-and-Trade Program reductions. This reduction is flexible; if CARB receives new information and changes the other

sectors' reductions to be less than expected, the agency can increase the Cap-and-Trade reduction (and vice versa).

In response to EO B-30-15 and SB 32, all state agencies with jurisdiction over sources of GHG emissions were directed to implement measures to achieve reductions of GHG emissions to meet the 2030 and 2050 targets. CARB was directed to update the Scoping Plan to reflect the 2030 target, and moved forward with the update process. The mid-term target is critical to help frame the suite of policy measures, regulations, planning efforts, and investments in clean technologies and infrastructure needed to continue driving down emissions. CARB completed a second update to the Scoping Plan to reflect the 2030 target set by EO B-30-15 and codified by SB 32. The 2017 Climate Change Scoping Plan Update, Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target, was released in draft form in January 2017, a draft proposed Final was released in November 2017 and the final version was adopted in December 2017.

In 2022 California released the latest Scoping Plan update which lays out the sector-by-sector roadmap for California to achieve carbon neutrality by 2045. This plan, addressing recent legislation and direction from Governor Newsom, extends and expands upon these earlier plans with a target of reducing anthropogenic emissions to 85 percent below 1990 levels by 2045 (CARB 2022). The plan suggests that bold steps are required by the state and calls for the need of vast research and development with respect to methods of capturing CO_2. The plan calls for unprecedented and aggressive reductions in the need for fossil fuels by moving to zero emission transportation, electrifying the cars, buses, trucks and trains. The plan relies on external controls and requires partnership and collaboration with the federal government, other U.S. states, and other jurisdictions around the world for California to succeed in achieving its climate targets.

The latest Scoping Plan calls on Lead Agencies to explore options including funding or implementing local, off-site direct GHG reduction strategies after first maximizing on-site feasible design features to reduce emissions. Examples include building retrofit programs that install solar panels on existing buildings and other measures to reduce residual GHG emissions. These off-site mitigation measures are viable under CEQA, provided they are not required by law or regulation and would not have occurred but for the mitigation requirement (Section 4.1.2. of Appendix "D" of the CARB 2022 Scoping Plan). These off-site mitigation measures should only be considered after feasible on-site options have been exhausted.

Local

San Diego Gas & Electric

California allows customers to install renewable electrical generation facilities primarily to offset the customers' electrical needs, and to interconnect these facilities with the electrical grid. The CPUC has created rules (or "tariffs") under which investor-owned utilities must allow customers who generate their own energy to both serve their on-site energy needs and also to receive credit for any surplus energy fed back to their utility. This concept is referred to as Net Energy Metering (NEM).

When solar panels are installed at homes or businesses, SDG&E has a NEM program consistent with CPUC guidelines. If an SDG&E customer has an electricity generation system that uses a

renewable energy source and produces more energy than the SDG&E customer uses, they can earn bill credits for excess power that flows from their system to SDG&E's electricity grid (SDG&E 2023).

In accordance with SB 100, SDG&E is required to achieve an RPS of 60 percent by 2030, which is expected to be the first full year of Project operations. Whenever renewable energy is added to the grid, carbon-based fuel usage intensities are avoided as carbon-based sources are not utilized. When a home or business adds solar panels, the generated solar electricity displaces the need for electricity from non-renewable sources. Solar energy cannot offset other renewable energy sources since both are already carbon neutral. Instead, it directly reduces the demand for fossil fuel-generated electricity, which has higher GHG emissions. A realistic and defensible non-renewable offset could assume offset of 970 lb/MWh in GHGs for solar.[4] Since 805.02 lb/MWh was utilized, however, this analysis is conservative.

San Diego County

General Plan

The San Diego County 2011 General Plan includes a plan to balance population growth and development with infrastructure needs and resource protection. The current General Plan is based on smart growth and land planning principles that will reduce vehicle miles traveled (VMT), and thus result in a reduction of GHGs. This will be accomplished by locating future development within and near existing infrastructure. The General Plan includes a number of policies in the Conservation Element that encourage the design of new buildings that incorporate principles of sustainability and reduce vehicle and utility usage.

Climate Action Plan

The 2011 County General Plan EIR outlined a specific mitigation measure (Mitigation Measure CC-1.2) that called for the preparation of a CAP. The County developed and adopted a CAP in 2012 to address the issue of climate change as it relates to growth in the County, and to protect the environment for visitors and residents alike (County 2012a). After the CAP was adopted by the County, a lawsuit was filed by the Sierra Club in April 2013 and the San Diego County Superior Court set aside the approval of that County CAP.

In February 2018, the County's Board of Supervisors adopted a CAP to serve as a long-term programmatic plan that identifies strategies and measures to meet the County's targets to reduce GHG emissions by 2020 and 2030, consistent with the state's legislative GHG reduction targets. In March 2018, several petitioners filed a lawsuit against the County. In December 2018, the San Diego County Superior Court issued a writ ordering the approval of the CAP and its Supplemental EIR (SEIR) to be set aside. In January 2019, the County appealed the San Diego County Superior

[4] Per the *Global Climate Change* Report, data from CalEEMod models starting in version 2016.3.2 estimate a 2009 GHG intensity of 720.49 lb/MWh which include an RPS of 10.5 percent (CPUC 2016). Taking the composite 720.49 lb/MWH reported in 2009 and removing renewable sources and relying only on carbon-based sources yields a calculated intensity of 805.02 lb/MWh (720.49 lb/MWh / 89.5 percent non-renewable sources). This means that whenever SDG&E requires carbon-based fuel energy generation, a GHG intensity of 805.02 lb/MWh would be expected. The 805.02 lb/MWh estimate would be a conservative estimate since according to the U.S. Energy Information Administration (EIA 2023), natural gas-powered electrical generation is 0.97 lb/kWh (970 lb/MWh).

Court's ruling, but the Fourth District Court of Appeal, Division One (Case No. D064243) upheld the trial Superior Court's ruling.

In September 2020, the County Board of Supervisors voted to rescind the CAP and related actions because the SEIR was found to be out of compliance with the CEQA. An updated CAP (CAP Update) was subsequently prepared to revise the 2018 CAP and correct the items identified by the Court within the SEIR that were not compliant. The Draft CAP Update was considered by the Planning Commission on June 14, 2024 for their recommendation for adoption by the Board of Supervisors by Fall 2024.

Accordingly, there is no approved CAP or applicable plan for reducing GHG emissions in the County. The current GHG analysis does not tier from the CAP; however, it is consistent with and does not conflict with relevant proposed GHG reducing measures of the Draft CAP Update. The Project would achieve no net increase in GHG emissions (i.e., carbon neutrality) over existing baseline conditions (which are assumed to be zero) with the implementation of the Project's recommended design features and mitigation measures.

Green Building Incentive Program

The County has a Green Building Incentive Program designed to promote the use of resource efficient construction materials, water conservation and energy efficiency in new and remodeled residential and commercial buildings. The program offers incentives of reduced plan check turnaround time and a 7.5-percent reduction in plan check and building permit fees for projects meeting minimum program requirements, which include options for natural resource conservation, water conservation, and energy conservation.

Construction and Demolition Recycling Ordinance

The County has a construction and demolition recycling ordinance that is designed to divert debris from construction and demolition projects away from landfill disposal in the unincorporated County of San Diego. The ordinance requires that 90 percent of inerts and 70 percent of all other materials from a project be recycled. In order to comply with the ordinance, applicants must submit a Construction and Demolition Debris Management Plan and a fully refundable Performance Guarantee prior to building permit issuance.

San Diego Association of Governments: San Diego Forward: The Regional Plan

The Regional Plan (SANDAG 2015) is the long-range planning document developed to address the region's housing, economic, transportation, environmental, and overall quality-of-life needs. The Regional Plan establishes a planning framework and implementation actions that increase the region's sustainability and encourage "smart growth while preserving natural resources and limiting urban sprawl." The Regional Plan encourages the regions and the County to increase residential and employment concentrations in areas with the best existing and future transit connections, and to preserve important open spaces. In December 2015, CARB, by resolution, accepted SANDAG's GHG emissions quantification analysis and determination that, if implemented, the SCS would achieve CARB's 2020 and 2035 GHG emissions reduction targets for the region.

The focus is on implementation of basic smart growth principles designed to strengthen the integration of land use and transportation.

At the core of the Regional Plan is a Sustainable Communities Strategy that charts a course towards lowering GHG emissions and includes the following five building blocks:

- A land use pattern that accommodates our region's future employment and housing needs, and protects sensitive habitats, cultural resources, and resource areas.

- A transportation network of public transit, Managed Lanes and highways, local streets, bikeways, and walkways built and maintained with reasonably expected funding.

- Managing demands on our transportation system (also known as Transportation Demand Management, or TDM) in ways that reduce or eliminate traffic congestion during peak periods of demand.

- Managing our transportation system (also known as Transportation System Management, or TSM) through measures that maximize the overall efficiency of the transportation network.

- Innovative pricing policies and other measures designed to reduce the number of miles people travel in their vehicles, as well as traffic congestion during peak periods of demand.

The Regional Plan includes the following set of principles that will guide the development of the region's future transportation network:

- The SANDAG investment plan will be built with financial resources that are reasonably expected to be available between now and 2050.

- A more efficient transportation network will be achieved through two key strategies: effectively managing the overall system (TSM) and effectively managing demands on the system (TDM) with innovative technologies be integrated into both. The result will be maximized efficiency in the transportation network, which ultimately can lower GHG emissions.

- Managing parts of the network, such as adding Managed Lanes and transit only lanes on freeways, which encourage people to carpool and use public transit to bypass bottlenecks.

- The road toward a more sustainable San Diego region should include vehicles that use cleaner, alternative sources of energy with SANDAG playing an important role in promoting this transition.

SANDAG approved the 2021 Regional Plan in December 2021 that continues to emphasize the key strategies in the first SCS that support a more sustainable future for the San Diego region. The Plan provides a big picture vision for how the San Diego region will grow through 2050 and beyond with an implementation program to help make the plan a reality. Within the Draft Plan, SANDAG introduced a transformative vision for transportation in San Diego County that

completely reimagines how people and goods could move throughout the region in the 21st century. The plan outlines the "5 Big Moves" which are: Complete Corridors, Transit Leap, Mobility Hubs, Flexible Fleets, and the Next Operating System. This plan is the region's long-term plan which will be implemented incrementally through the Regional Transportation Improvement Program (RTIP; SANDAG 2021).

2.7.1.4 *Existing Greenhouse Gas Emission Levels*

Worldwide and National GHG Inventory

The IPCC has concluded that a stabilization of GHGs at 400 to 450 ppm CO_2e concentration is required to keep global mean warming below 3.6ºF, which is assumed to be necessary to avoid dangerous climate change (Association of Environmental Professionals [AEP] 2007).

In the year 2012, total GHG emissions worldwide were estimated at 44,816 MMT of CO_2e emissions (World Resources Institute 2017). The United States contributed the second largest portion of GHG emissions (behind China), at 14 percent of global emissions. The total GHG emissions from the United States were 6,673 MMT CO_2e in 2013 (USEPA 2015). On a national level, approximately 27 percent of GHG emissions were associated with transportation and about 31 percent were associated with electricity generation.

State and Regional GHG Inventory

CARB performs statewide GHG inventories. The inventory is divided into six broad sectors; agriculture and forestry, commercial, electricity generation, industrial, residential, and transportation. Emissions are quantified in MMT CO_2e. Statewide GHG source emissions totaled 433 MMT CO_2e in 1990, 469 MMT CO_2e in 2000, 456 MMT CO_2e in 2010, and 459 MMT CO_2e in 2013. According to data from CARB, it appears that statewide GHG emissions peaked in 2004 (CARB 2014c). Transportation-related emissions consistently contribute the most GHG emissions, followed by electricity generation and industrial emissions.

According to the San Diego County GHG Inventory that was prepared by the School of Law Energy Policy Initiative Center (EPIC) at the University of San Diego in 2013, San Diego County emitted 33 MMT CO_2e in 2010. The largest contributor of GHG in San Diego County was the on road transportation category, which comprised 43 percent (14 MMT CO_2e) of the total amount. The second highest contributor was the electricity category, which contributed 8 MMT CO_2e, or 25 percent of the total. Together the on-road transportation and electricity categories comprised 68 percent of the total GHG emissions for the County. The remaining amount was contributed by natural gas consumption, civil aviation, industrial processes, off-road equipment, waste, agriculture, rail, water-borne navigation, and other fuels.

On-Site GHG Inventory

The Proposed Project site is currently vacant; in this state, the Project site is not a significant source of GHG emissions. Natural vegetation and soils temporarily store carbon as part of the terrestrial carbon cycle. Carbon is assimilated into plants as they grow, and then dispersed back into the environment when they die. Soil carbon accumulates from inputs of plants, roots, and other living components of the soil ecosystem (i.e., bacteria, worms, etc.). Soil carbon is lost through biological

respiration, erosion, and other forms of disturbance. Existing GHG emissions are considered negligible. For the purpose of establishing the existing environmental conditions on the Project site, GHG emissions on the Project site are conservatively assumed to be zero.

2.7.2 Analysis of Project Effects and Determination as to Significance

2.7.2.1 *Guidelines for the Determination of Significance and Guideline Source*

The assessment of climate change impacts is by its nature a cumulative impact, as no individual project has the ability to affect the climate on a global scale. Based on Appendix G.VII of the State CEQA Guidelines, a project would have a significant environmental impact if it would:

1. Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment or

2. Conflict with an applicable plan, policy, or regulation that was adopted for the purpose of reducing the emissions GHGs.

The County General Plan, adopted in 2011, required that a CAP be adopted by the County and thereafter GHG guidelines. However, as stated above, currently there is no approved CAP or applicable plan for reducing GHG emissions in the County. Nor, as of the time of preparation of this analysis, has the County adopted GHG guidelines for general use as part of its environmental review process.

The County General Plan does not contain policies prohibiting the County from adopting a non-CAP-based threshold prior to adoption of a court-approved CAP. Furthermore, CARB in its 2022 Scoping Plan for Achieving Carbon Neutrality, states that local governments can consider discretionary approvals and entitlements for individual projects through the CEQA process absent an adequate CAP by implementing all feasible measures to reduce GHG emissions (see page 270 of CARB's 2022 Scoping Plan).

This analysis is consistent with CEQA Guidelines 15064.4, and appropriately relies upon a threshold based on the exercise of careful judgement and believed to be appropriate in the context of this particular Project: net zero GHG emissions. CEQA provides that the determination of whether or not a project has a significant effect on the environment is based on the thresholds described in the environmental document. These thresholds of significance can be adopted by the local agency or can be based upon those standards set forth in Appendix G of the CEQA Guidelines (14 Cal Code Regs ["CEQA Guidelines"] Section 15064). Accordingly, the determination of significance is governed by CEQA Guidelines 15064.4, entitled "Determining the Significance of Impacts from Greenhouse Gas Emissions." CEQA Guidelines 15064.4(a) states:

> *[t]he 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 shall 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 …* [use a quantitative model or qualitative model] (emphasis added).

CEQA Guidelines 15064.4(b) clarifies that "[a]n iron clad definition of significant effect is not always possible because the significance of an activity may vary with the setting." Therefore, consistent with CEQA Guidelines 15064.4, the GHG analysis for the Project appropriately relies upon a threshold based on the exercise of careful judgement and believed to be appropriate in the context of this particular project: net zero GHG emissions.

CEQA Guidelines Section 15064(h)(1) states that "the lead agency shall consider whether the cumulative impact is significant and whether the effects of the project are cumulatively considerable." A cumulative impact may be significant when the project's incremental effect, though individually limited, is cumulatively considerable. "Cumulatively considerable" means that the incremental effects of an individual project are significant when viewed in connection with the effects of other past, current, and reasonably foreseeable probable future projects. As discussed above, climate change is the product of incremental contributions of GHG emissions on a global scale.

Section 15064(h)(3) states that:

> *[a] lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project will comply with the requirements in a previously approved plan or mitigation program…that provides specific requirements that will avoid or substantially lessen the cumulative problem within the geographic area in which the project is located.*

The discussion of project-level GHG emissions reduction actions and thresholds in Appendix D, Local Actions, of the 2022 Climate Change Scoping Plan states: "although achieving zero GHG emissions may be an appropriate overall objective, it should be noted this approach may not be feasible or appropriate for every project" (page 24).

When such a stringent threshold is selected, a project cannot have a cumulatively considerable impact because it would yield no net incremental increase in the level of existing GHG emissions in the existing environment.

2.7.2.2 *Analysis*

Greenhouse Gas Emissions Generation

Effects of Climate Change

The increase in the Earth's temperature is expected to have wide-ranging effects on the environment. Although global climate change is anticipated to affect all areas of the globe, there are numerous implications of direct importance to California. Statewide average temperatures are anticipated to increase by between 3 and 10.5°F by 2100. Some climate models indicate that this warming may be greater in the summer than in the winter. This could result in widespread adverse impacts to ecosystem health, agricultural production, water use and supply, and energy demand. Increased temperatures could reduce the Sierra Nevada snowpack and put additional strain on the state's water supply. In addition, increased temperatures would be conducive to the formation of air pollutants, resulting in poor air quality.

It is also important to note that even if GHG emissions were to be eliminated or dramatically reduced, it is projected that the effect of previous emissions would continue to affect global climate for centuries.

Future residents of the Proposed Project site could be exposed to increased risk of dehydration, heat stroke, heat exhaustion, heart attack, stroke, and respiratory disease. These risks, however, would be no different from those experienced by the San Diego region as a whole under the described scenario. Increased temperatures would result in more frequent use of air conditioning that would increase energy costs to residents and could put a strain on the area's energy supplies. Because the Proposed Project is located inland well above sea level, no impacts related to sea level rise are anticipated.

GHG Project Design Features[5]

The following Project PDFs are discussed in the Project's Specific Plan, listed on Table 1-2 and in Chapter 7.0 of this EIR, and required as conditions of approval from the County of San Diego.

Project construction PDFs include:

1. Construction equipment shall be operated in accordance with CARB's Airborne Toxic Control Measure (ATCM) that limits diesel-fueled commercial motor vehicle idling. In accordance with the subject ATCM (see Cal. Code Regs., tit. 13, §2485), the drivers of diesel-fueled commercial motor vehicles meeting certain specifications shall not idle the vehicle's primary diesel engine for longer than five minutes at any location. The ATCM requires the owners and motor carriers that own or dispatch such vehicles to ensure compliance with the ATCM requirements.

2. Tier III or higher construction equipment will be used, with the exception of concrete/ industrial saws, generator sets, welders, air compressors, or construction equipment where Tier III or higher is not available.

3. To the extent feasible, diesel equipment fleets that exceed existing emissions standards will be utilized when commercially available in the San Diego region.

4. To the extent feasible, electric and renewable fuel powered construction equipment will be utilized when commercially available in the San Diego region.

5. To the extent practicable and feasible, electricity will be used to power appropriate types and categories of construction equipment (e.g., hand tools).

6. As a PDF, the Applicant will develop and provide to all homeowners an informative brochure to educate homeowners regarding water conservation measures, recycling,

[5] For purposes of clarification, it is noted that the PDFs listed herein were located below the analyses of construction and operational impacts in the 2018 circulated EIR. They have been moved up to allow the reader to see all PDFs applied to Project modeling ~~in this recirculated Subchapter 2.7~~. Where substantively revised, 2018-circulated PDFs are highlighted with an "R" for "revised." PDFs that have been further clarified are also listed separately below. ~~Changes to the PDFs such as numbering, updates, or deletions are shown in track changes in the tracked changes version of this section.~~

location of the EV charging stations, location of outdoor electric outlets to promote using electrical lawn and garden equipment, and location of nearby resources such as dining and entertainment venues, small commercial centers, and civic uses to reduce vehicle miles traveled.

7. The Project will comply with County Municipal Code Section 68.508-68.518. A Construction and Demolition Debris Management Plan and a refundable performance guarantee will be developed by the Construction Contractor prior to building permit issuance, and implemented to divert debris from construction and demolition away from landfills. The plan will require that 90 percent of inerts and 70 percent of all other materials from the Project are recycled.

Project operational PDFs are as follows:

8R.[6] The Proposed Project will comply with the California Title 24 Energy Code in effect at the time of building permit application. The following energy efficient items will be included in all residential units: improved HVAC systems with sealed (tight) air ducts; enhanced ceiling, attic and wall insulation; install energy conserving appliances such as whole house fans; high-efficiency water heaters (tankless water heaters); energy-efficient three coat stucco exteriors; energy efficient appliances; programmable thermostat timers; and high-efficiency window glazing.

9. Roof anchors and pre-wiring to allow for the installation of PV systems where such systems are not installed as part of Project implementation will be provided on additional non-residential structures (e.g., if an on-site WTWRF is approved as part of the Project).

10R.[7] The Center House parking area will include eight 19.2 kW Level 2 EV charging stations (serving two parking spaces). The Project will also install a Level 2 EV charging station (220-volt chargers) within the garage of each residential unit (453 total).

11. The Project's outdoor landscaping plan will use turf only in sports field, dog park and park/recreation areas; maximize drought-tolerant, native, and regionally appropriate plants through planting in conformance with the Project Conceptual Landscape Plan and the County's Water Conservation and Landscape Design Manual; and incorporate weather-based irrigation controllers, multi-programmable irrigation clocks, and high efficiency drip irrigation systems. At the time of final inspection, a manual will be placed in each building that includes, among other things, information about water conservation. The Project shall submit a Landscape Document Package that complies with the referenced County Ordinance and demonstrates a 40 percent reduction in outdoor use. The Landscape Document Package shall be submitted to the County for review and approval prior to

[6] The previous PDF required the Project to comply with the 2016 Title 24. The 2018 PDF did not indicate that the Project will comply with the latest California Energy Code in effect at the time of building permit application. This revision indicates that the Project would utilize the latest Code when building permits are requested by the Project. Currently the latest Code applicable to this Project as of the date of this report is Title 24 (2022) which went into effect on January 1, 2023.

[7] The revision increases the number of EV charging stations from two to eight within the Center House parking area. The Project will also now install charging stations within each of the residential units instead of providing the plumbing for such units.

issuance of any building permits and compliance with this measure shall be made a condition of the Project's approval.

12. The Project will utilize reclaimed water from the proposed WTWRF (or the existing HGV WRF) for outdoor irrigation.

13R.[8] The Project will install rooftop solar PV panels (a photovoltaic solar system) on all residential units within the Project to produce a total of 4,165 kW of solar power.

14. Project potable water use will be reduced by 20 percent through installation of low-flow water fixtures, reduction of wastewater generation by 20 percent, installation of low-flow bathroom fixtures, and installation of weather-based smart irrigation control systems.

15R.[9] As a matter of regulatory compliance, the Project would comply with Section 5.106.5.2 of the latest California Green Building Standards Code (CALGreen Code) in effect at the time of building permit application, which requires the provision of designated parking for shared vehicles and clean air vehicles. This will occur at the Center House and Project parks.

16. As discussed in the Specific Plan, the Project will provide bicycle parking facilities and bicycle circulation improvements to encourage the use of bicycles (see also *Improvement Plans*).

17. Marked crosswalks connecting the east and west sides of Country Club Drive will be located from each of the Project entries to the future multi-use trail on the west side of the road to accommodate pedestrians/equestrians in crossing the road.

18. The Project's parking facilities will be required to comply with the County's Parking Design Manual that requires parking areas to minimize the heat island effect that results from asphalt and/or large building block surfaces such as parking lots.

19. The Project will provide electrical outlets in all residential backyards and within the common areas of multi-family development areas.

20. Areas for storage and collection of recyclables and yard waste will be provided.

[8] Per ConSol's 2023 report (Attachment B to EIR Appendix J1), the Project is capable of installing up to 4,165 kW of solar power on all residential rooftops within the HGV South development, which equates to 6,296,470 kWh of energy produced annually. Project modeling shows total Project energy consumption, including the approximately 5,000 s.f. Center House, would total 3,147,533 kWh. Therefore, the solar power generated on site from the residential PV, is sufficient to offset all energy consumption, including that of the Center House. The increased capacity assumes incorporation of 360-watt panels instead of the 2018 FEIR modeled 285-watt panels. Also, as noted in PDF 27, the Project will not install natural gas on site.

[9] The previous PDF requires the Project to comply with the 2016 California Green Building Standards Code (CALGreen Code). This revision simply indicates that the Project would utilize the latest CALGreen Code when building permits are requested by the Project. Currently the latest code applicable to this Project as of the date of this report is CALGreen Code (2022) which went into effect on January 1, 2023.

21. The Landscaping Plan for the Project will include the installation of a minimum of 2,045 trees within the Project site.

22. The HOA will provide two electrical vehicles that will be sited at the Center House for use by residents for service that further connects various Project components, land uses, parks/open spaces, and the retail/commercial uses of HGV and HGV South.[10] The vehicles will be provided to the HOA with the issuance of the first occupancy permit and the future provision and maintenance of such vehicles shall thereafter be the responsibility of the HOA in accordance with the CC&Rs. The vehicles will be available for use based upon a self-service check-in system utilizing HOA identification cards. This program will terminate when a transit linkage is proposed by the local transit district.

23. An area within the developable portion of the Center House will be reserved for dedication for a transit stop for bus service when a local transit line is extended to service the HGV/HGV South Village area. The Project's proposed circulation network of sidewalks, trails, and bicycle routes will provide connections to the transit stop to further provide a regional alternative transportation system.

24. The Project shall submit building plans illustrating that the Project would install one rain barrel per every 500 square feet of available roof area provided that state, regional or local incentives/rebates are available to fund the purchase of such rain barrels and roof area is available to feasibly install the barrels.

25. The HOA will provide informational materials on SANDAG's rideshare programs like iCommute. The Applicant will develop and provide to all homeowners an informative brochure, approved by the County, to educate homeowners regarding water conservation measures, recycling, location of the EV charging stations, location of outdoor electric outlets to promote using electrical lawn and garden equipment, and location of nearby resources such as dining and entertainment venues, commercial centers, and civic uses to reduce VMT.

New GHG PDFs have been included in the Project to further reduce GHG emissions beyond what was analyzed in the 2018 EIR or have been further clarified.

26. The Project will not install wood or natural gas burning hearth options in residential units.

27. Natural gas lines will not be installed on site (the Project will be 100 percent electric).

[10] Project Commercial uses may include overnight accommodations of up to four rooms that can only be used by HGV South and HGV guests. A public commercial component that may include food/beverage services (such as a café); administrative and professional services; convenience sales; or personal services (including hair or nail salon, day spa) are also possible types of uses, all or any of which would be located at the Project Center House. The total square footage of structures associated with the Center House is approximately 5,000 s.f. (with a minimum of 1,500 s.f. of commercial use).

28.[11] The Project will install rooftop solar PV panels (a photovoltaic solar system) on the Center House to the maximum extent feasible based on its final design.

TIMING: The design measures described above shall be incorporated into the site plan, building plans and landscape plan for the Project as applicable to ensure implementation.

MONITORING: Prior to issuance of each permit, consistency with the applicable plans and the PDFs will be confirmed by the County. The County of San Diego Planning & Development Services (PDS) will ensure that the sustainable design measures on all such plans for the Project are implemented. PDS will ensure that the Landscape Plans are in compliance with the measures.

All of the PDFs described above will be conditions of approval for the Project, as shown in Table 1-2 and Chapter 7.0 of this EIR.

Effects of Project GHG Emissions

Emission estimates were calculated for the three GHGs of primary concern (CO_2, CH_4, and N_2O) that would be emitted from Project construction and from the Project's sources of operational emissions including on-road vehicular traffic, electricity generation, water usage, area sources, and solid waste disposal. Emissions calculations conservatively assumed that the 111-acre Proposed Project would include the construction of 453 residential dwelling units, park and recreational uses, and an on-site wastewater treatment and water reclamation facility (WTWRF). The first construction phase focuses on overall site grading, the second phase includes infrastructure installation (utility pipelines and roadways), and the third phase addresses "vertical" development of the Project (residential building and WTWRF construction, asphalt paving, and architectural coating). Table 2.7-2, *Project Component Assumptions*, presents a summary of the land use designation, sizes and other metrics used for CalEEMod (SCAQMD 2020).

Project emissions discussed below are the result of Project-specific modeling. That modeling incorporates sustainability and efficiency PDFs that would reduce the Project's operational GHG emissions, and would be included as building permit conditions and verified prior to the issuance of final certificate of occupancy. These include area source reductions, energy efficiencies, and water conservation measures, as specified in this section and in Table 1-2 of this EIR. Project emissions take into account applicable standards and regulations that the Project would need to comply with for buildout ending in 2029.

Construction Greenhouse Gas Emissions

Construction activities emit GHGs primarily through the combustion of fuels in the engines of off-road construction equipment, on-road construction vehicles and in the commute vehicles of the construction workers. Smaller amounts of GHGs are also emitted through the energy use embodied in any water use (for fugitive dust control) and lighting for the construction activity. Every phase

[11] As stated in footnote 8, Project residential units would supply 100 percent of the electricity needs for both the residential units and the Center House. By installing PV panels on the Center House, an additional reduction in electricity needs will be provided, but no credit has been taken for this savings. (The exact rooftop capacity of the Center House is unknown until detailed plans for the Center House are provided.) Once the solar installation on the Center House is added at the time permits are issued, the total on-site energy production will exceed 6,296,470 kWh.

of the construction process emits GHGs (including grading, building, and paving) in volumes proportional to the quantity and type of construction equipment used. The heavier equipment typically emits more GHGs per hour of use than the lighter equipment because of their greater fuel consumption and engine design.

This analysis assesses maximum daily emissions from individual construction activities, including site preparation, grading, backbone infrastructure, road construction, bridge construction, building construction, parking lot paving, and architectural coating. Construction would require heavy equipment during mass grading, utility installations, building construction and parking lot paving. Construction equipment estimates are based on default values in the Roadway Model and CalEEMod, as well as typical equipment used for the backbone infrastructure phase. Table 2.7-3, *Expected Construction Equipment*, presents a summary of the assumed equipment and timeframe of use that would be involved in each stage of construction.

For the purpose of this analysis, Proposed Project construction is now assumed to start in 2025 and is anticipated to be fully built out and operational early in year 2029, with full year operations to commence in 2030. This is conservative because the earlier the date, the less stringent the regulatory standards and controls on emissions. The quantity, duration, and the intensity of construction activity have a direct effect on construction emissions. If construction is delayed or occurs over a longer period, emissions could be reduced as more modern and cleaner-burning construction equipment is utilized, and stricter regulations are adopted. In any event, the Project will have net zero emissions.

The first phase would be site preparation and blasting that would last approximately three months. Backbone infrastructure and road construction would proceed next and last approximately seven months. Grading, bridge construction, and building construction would follow, with building construction being the longest phase at approximately three years. Project construction would finish with parking lot paving and architectural coating, which would occur for approximately five months. In addition to the construction schedule and equipment mix shown on Table 2.7-3, equipment hours of operation and duration, worker trips, etc., are included in EIR Appendix J1, Attachment A (see Section 3.0 of the modeling output).

Construction emissions from the demolition, site grading and the construction of the residences and WTWRF were calculated using the modeling software CalEEMod version 2020.4.0, developed by BREEZE Software for the SCAQMD in 2021.[12] CalEEMod was utilized for all construction calculations and has been manually updated to reflect SDAPCD Rule 67 paint Volatile Organic Compound (VOC) standards. The emissions from the construction activities for the off-site roadway areas also were incorporated into CalEEMod 2020. No reductions were taken for any construction-period PDFs.

[12] Since this Project analysis was started, an updated version of CalEEMod has been released by SCAQMD. The updated version of the model Version 2022.1 is the latest update to CalEEMod and brings a new web-based platform, with many new features and components. In addition, the model includes updated emission factors which generally are lower when compared to the 2020 model. As a result, the 2022.1 version and future subsequent updates of CalEEMod would estimate lower Project GHG emissions once fully operational when compared to the model used in this analysis. Use of CalEEMod 2020 therefore results in a conservative (greater impact) analysis under CEQA.

Development under the Proposed Project would also result in changes in CO_2 sequestration from the atmosphere. By removing existing vegetation, the Project would result in a one-time carbon exchange. Emissions from this land use change have been estimated according to the IPCC protocol for vegetation. It should be noted that the loss of sequestered carbon estimate would be offset as the Proposed Project would also plant new landscape trees which would sequester additional carbon through each growth cycle, resulting in increasing amounts of sequestered carbon each year for the life of the tree.[13]

As shown in Table 2.7-4, *Estimated Construction CO_2e Emissions Summary*, the Project-related construction activities are estimated to generate approximately 3,701.36 MT of CO_2e, or an annualized increase over 30 years of 123.38 MT of CO_2e.[14]

Operational Greenhouse Gas Emissions

Operational sources of GHG emissions include the following sources: area sources, energy use, water use, solid waste, stationary sources (generator), and transportation (mobile). The Project was assumed to be fully operational in 2030. Table 2.7-5, *Estimated 2030 Annual GHG Emissions Summary (MT/Year) with Project Design Features and State and Federal Mandates*, presents the summary of the annual emissions for the Project (including emissions associated with the WTWRF). Operational GHG emissions for Area, Water, and Solid Waste sources were estimated using CalEEMod default inputs. As shown in Table 2.7-5, excluding amortized construction emissions, the Project's annual 2030 operational emissions would total 914.34 MT CO_2e.

Area Emissions. Emissions from landscaping equipment, architectural coatings, and household consumer products are considered area sources. As described under "GHG Project Design Features," the Project would not install any natural gas or wood burning hearths in residential uses. Estimated annual GHG emissions from area sources for the Project would be 5.63 MT CO_2e.

Energy Emissions. Projects that increase electricity consumption also result in an indirect increase in GHG emissions. The generation of electricity through the combustion of fossil fuels typically yields CO_2, and to a much smaller extent, methane and nitrous oxide.

The Proposed Project would comply with the California Title 24 Energy Code in effect at the time of building permit application. The following energy efficient items are planned for the housing development: improved HVAC systems; enhanced ceiling, attic, and wall insulation; whole house fan installation; high-efficiency water heaters; energy-efficient three-coat stucco exteriors; programmable thermostat timers; and high-efficiency window glazing. Roof anchors and pre-wiring to allow for the installation of PV systems would be provided on additional non-residential structures. Using electricity generated from renewable sources displaces electricity demand which would ordinarily be supplied by the local utility.

[13] Although sequestration numbers were generated for the 2018 EIR, benefits of new landscaping were not included in past analysis, rendering that modeling extremely conservative. Both impacts and benefits are now incorporated into current Project modeling. Benefits duplicate those identified in 2018 (see Attachment A to Appendix J).

[14] Construction emissions have been amortized over a 30-year period, consistent with South Coast Air Management District standards.

An EV charging station and use of renewable energy are both incorporated into the Project as well, as described in the discussion of PDFs above.

Regarding SDG&E's RPS, when CalEEMod 2020.4.0 was developed, it was updated to reflect SDG&E's latest emissions rates and to show that a 33 percent RPS was achieved in the default intensity emission rates within the model. This rate would be consistent to all operational years within the model, and requires manual updating to reflect expectations for the operational year. CalEEMod 2020.4.0 by default assumes that each MWh of energy delivered by SDG&E is made up of 33 percent zero emission renewable energy (such as wind or solar) and 67 percent carbon-based fueled energy (i.e., non-renewable sources). As SDG&E adds renewables, the RPS achieved increases and SDG&E can reduce reliance on carbon-based system generation sources.

Given this, if the Project did not install solar the Project operations would expect to receive at least 60 percent of the energy from renewable sources and 40 percent from non-renewable sources without usage of any on-site solar generation. From a modeling perspective, the Project baseline without added solar would be based on the average GHG intensity for the model year. Any solar added by the Project would be renewable and would therefore offset nonrenewable sources generated by SDG&E. Since the on-site power generation would be 100 percent renewable and the excess power (amount of electricity exceeding the Project use) would flow into SDG&E's electrical grid as accepted in the NEM program (SDG&E 2023) per the CPUC (2023), any power generated through on-site solar and in excess of Project need would add renewable energy resources to the electrical grid. This would decrease SDG&E production demand supported by non-renewable sources and provide access to renewable energy to off-site users within the surrounding community.

As a third-party check of Project analyses, ConSol, a building energy efficiency consultant, was retained to calculate the residential energy demand for the Project. ConSol modeled the energy demand of prototype residences with CEC's public-domain compliance software, known as California Building Energy Code Compliance – Residential. The objective of the ConSol report was to calculate the annual energy use with options that achieve: (1) compliance with the 2016 Title 24 Standards (California's Energy Code), and (2) Zero Net Energy (ZNE) standards as defined in the California Energy Commission's (CEC's) 2015 Integrated Energy Policy Report. A 2023 update to the report (see Attachment B of Appendix J1) updates buildings to be all electric, and to comply with 2019 Title 24 standards. Based on some stricter standards in the 2019 Title 24 regulations, as well as maximization of solar installation on residential Project roofs (to 60 percent of roof area) combined with increased efficiency of solar panels over the last few years (and readily available in today's market), the Project would equate to 4,165 kW of solar installed on site, and is capable of producing approximately 6,296,470 MWh per year. This would offset 100 percent of the electrical usage provided in the *Global Climate Change* study, but not all of the Project energy needs when vehicular emissions were considered. Those additional GHG emissions were assessed as mitigable through an additional 1,720 kW system.[15]

[15] That would require additional panels. Using ConSol's estimates of 83,000 s.f./1MW of solar, the requirement of 1,720 kW would require approximately 142,760 s.f. of roof area.

With the implementation of energy-reducing PDFs and regulations, the Project would result in the indirect emission of 461.83 MT CO_2e annually from electrical usage. Calculations are provided in Attachment D to Appendix J1.

Water Use Emissions. Water-related GHG emissions are from the conveyance of potable water and treatment of wastewater at the WTWRF. The Project includes several water conservation measures per the latest CALGreen mandates to reduce water consumption through such measures as the installation of the low flow water features, and the use of drought-tolerant landscape. Using California Energy Commission energy values for water conveyance in CalEEMod and the PDFs, the Project's annual GHG emissions related to water treatment and conveyance are estimated to be 84.19 MT CO_2e.

Solid Waste Emissions. Solid waste generated by the Project would also contribute to GHG emissions. Treatment and disposal of solid waste produces significant amounts of methane. Through compliance with AB 341 and the County's Strategic Plan to Reduce Waste, the Project would achieve an average 75 percent diversion of waste during operations. For conservative modeling purposes, however, the CalEEMod diversion rate of only 25 percent was assumed, which would result in solid waste-related emissions of 132.5 MT CO_2e per year.

Stationary Emissions. Project design includes an on-site WTWRF capable of treating up to 180,000 GPD. Two 84 horsepower diesel-powered emergency generators would be used at the WTWRF for backup power during electric power failures. These generators would be tested regularly with an assumed combined testing and emergency operations duration of 200 hours annually which was updated manually in CalEEMod. The WTWRF facility was assumed to generate GHG emissions typical to default settings within CalEEMod. Stationary annual GHG emissions were estimated to be 14.14 MT CO_2e.

Transportation Emissions. GHG emissions from vehicles come from the combustion of fossil fuels (primarily gasoline and diesel) in vehicle engines. The quantity/type of transportation fuel consumed, amount of vehicle trips, and trip distances that motorists travel are relevant in analyzing GHG emissions from vehicles. Mobile source emissions were based on the projected generated traffic volumes of 4,010 Average Daily Trips (ADT) as identified within Attachment H to 2018 EIR Appendix D.[16] The average trip length calculated for this Project was 7.88 miles per trip (LLG 2016; see the Average Trip Length Analysis in Appendix C to the 2018 EIR Appendix J). The Project's trip distance of 7.88 miles (as stated in 2018 Appendix J, Appendix C) was also updated manually within CalEEMod for this GHG analysis.

Excluding reductions from EVs, the Project would result in annual GHG emissions for vehicle related emission of 2,846.07 MT CO_2e. As explained in Appendix J1 discussion relative to

[16] It is noted that traffic volumes for the purposes of residential use traffic impacts were conservatively modeled assuming 4,500 ADT associated with an assumed 4,500 single-family residential (SFR) uses. Those conservative assumptions and associated impacts/mitigation remain as previously analyzed. However, for purposes of this GHG analysis, emissions are based on the 2018 memo noted above, which assumes the current Project description of a total of 453 residential units of which 193 units are identified as SFR and would generate 1,930 ADT and 263 units are identified as multi-family and would generate 2,080 ADT, for a total of 4,010 ADT.

reductions of emissions resulting from charging stations and subsequent EV rather than gasoline vehicle use, a GHG avoidance of ~~38.14~~ 295.66 MT CO_2e would be expected.

In summary, as shown in Table 2.7-5, assuming implementation of retained 2018 PDFs, the Project would result in total operational GHG emissions of 3,667.74 MT CO_2e per year.[17]

Taking all of the above into account, and as shown on Table 2.7-4, the total amount of Project-estimated construction emissions is anticipated to be 3,701.36 MT CO_2e (amortized over 30 years to 123.38 MT CO_2e)[18] over the existing physical environmental setting. Taking all of the above into account, and as shown on Table 2.7-5, the total amount of Project-estimated annual (operational) GHG emissions incorporating retained 2018 PDFs would be 3,544.36 MT CO_2e over the existing environmental setting. When the amortized construction emissions number of 123.38 is added in, and the updated and additional new PDFs are applied, total Project operational and amortized construction emissions in 2030 are estimated to generate 1,037.72 MT CO_2e. As such, the emissions associated with the Project would result in **significant GHG impacts. (Impact GHG-1)**

Conflict with Plans, Policies and Regulations Adopted for Purposes of Reducing GHG Emissions

Consistency with Applicable Plans (CEQA Guidelines Section 15064.4[b][3])

A qualitative analysis of the Project's compliance with applicable plans and policies for reduction of GHG emissions considers the Project's potential to conflict with an applicable plan—the County of San Diego's General Plan—as that planning document contains various goals, policies and objectives related to the reduction of GHG emissions and global climate change. The Project's potential to conflict with other applicable policies adopted for the purpose of reducing GHG emissions at the regional level is identified as a factor that the lead agency considered pursuant to CEQA Guidelines Section 15064.4(b).

The regulatory plans and policies discussed in Section 2.7.1.3 aim to reduce national, state, and local GHG emissions by primarily targeting the largest emitters of GHGs: the transportation and energy sectors. Plan goals and regulatory standards are thus largely focused on the automobile industry and public utilities. For the transportation sector, the reduction strategy is three-pronged: to reduce GHG emissions from vehicles by improving engine design; to reduce the carbon content of transportation fuels through research, funding, and incentives to fuel suppliers; and to reduce the miles these vehicles travel through land use change and infrastructure investments.

For the energy sector, the reduction strategies aim to reduce energy demand; impose emission caps on energy providers; establish minimum building energy and green building standards; transition to renewable non-fossil fuels; incentivize homeowners and builders to reduce energy; fully recover landfill gas for energy; expand research and development; and so forth.

[17] The reader should note that all of the 2018 PDFs previously listed here are now shown on pages 2.7-20 through 2.7-24.

[18] The "Project life" of 30 years is consistent with the methodology used by the South Coast Air Quality Management District's GHG guidance (SCAQMD 2008).

EO S-3-05 established GHG emission reduction targets for the state, and AB 32 launched the Climate Change Scoping Plan that outlined the reduction measures needed to reach these targets. SB 32 established a mid-term target critical to help frame updates to the Scoping Plan needed to continue driving down emissions and achieve the long-term target. This Project would be carbon neutral by design. Through the mandatory PDFs described in this section and on- and off-site mitigation within the County as described below in Section 2.7.5, the Project would attain a net zero MT CO_2e increase in GHG emissions, which is consistent with AB 1279, and on track for meeting the SB 32 and EO S-3-05 reduction targets, as well as consistent with the recently approved (2022) Scoping Plan update which lays out the sector-by-sector roadmap for California to achieve carbon neutrality by 2045.

As discussed above, the Proposed Project would achieve GHG reductions through PDFs that include improved energy efficiency. Verification and commissioning of these features would occur through independent third-party inspection and diagnostics. As a condition of building permit approval, the Proposed Project is required to comply with the Title 24 standards that are in effect at the time of construction. Verification of increased water and energy efficiencies will be demonstrated based on a performance approach, using a CEC approved water and energy compliance software program, in the Title 24 Compliance Reports provided by the Project Applicant to the County prior to issuance of the building permit.

The Project also would be consistent with specific COS policies 14.3, 15.1, 15.4, 17.2, 17.6, and 19.1, in that the Project: includes many design features to reduce energy and water use; would supply 100 percent of the Project's electricity needs through renewable sources; proposes sustainability and efficiency features consistent with the California Green Building Code; proposes implementing energy efficiency features that would achieve Title 24 requirements; would divert 90 percent of inert construction materials and 70 percent of all other construction materials from landfills through reuse and recycling; would provide areas for storage and collection of recyclables and yard waste; and proposes implementing water conservation strategies to reduce water usage by installing low flow water features. Plan conformance was additionally analyzed in Section 3.1.5, *Land Use and Planning*, of this EIR and remains unchanged.

Consistency with SB 375 and SANDAG's 2050 RTP/SCS

San Diego Forward envisions a regional pattern of growth and development that reflects smart growth principles, which include transit-oriented development, preserving natural resources and agricultural lands, and building communities that are resilient to the consequences of climate change and other environmental changes. Strategic decisions about how land is used are also called for to support surrounding communities where future housing and jobs are located (2021 Regional Plan; Chapter 2: Sustainable Communities Strategy–A Framework for the Future).

At the regional level, SANDAG's San Diego Forward was adopted for the purpose of reducing GHG emissions attributable to passenger vehicles in the San Diego region. While San Diego Forward does not regulate land use or supersede the exercise of land use authority by SANDAG's member jurisdictions (i.e., the County of San Diego and cities therein), the regional plan is a relevant regional reference document for purposes of evaluating the intersection of land use and transportation patterns, and the corresponding GHG emissions. The underlying purpose of San Diego Forward is to provide direction and guidance on future regional growth (i.e., the location of

new residential and non-residential land uses) and transportation patterns throughout San Diego County as stipulated under SB 375. Although the Proposed Project would increase the existing density of residential land uses on the Project site, it would also include a number of PDFs to reduce GHG emissions that support the goals of San Diego Forward. For example, the Project includes a PV solar system, EV charging stations, low-flow water fixtures, and drought tolerant landscaping.

The County's adopted General Plan also emphasizes sustainable community design principles within its Goals and Policies. By locating the Proposed Project near existing and planned infrastructure, services, and jobs in a compact pattern of development, while at the same time promoting sustainability among its residents, the Project has been designed around the guiding principles of the General Plan. Developing the Proposed Project in this manner meets a number of the objectives of San Diego Forward, AB 32, and SB 375.

While the Project site was not identified for development in SANDAG's San Diego Forward 2020 forecasted development pattern maps, the Project site location was identified for development consistent with the 2011 General Plan in the SANDAG 2035 forecast development pattern map, and is in-line with the SCS GHG benefits as the Project would support and/or provide a range of housing types, services and jobs in a compact pattern of development located within 0.5 mile (a 10-minute walk) of commercial and civic facilities, and is located near to transit stops and employment centers. This in turn, would reduce the size of required infrastructure improvements and the number and length of automobile trips. It is also noted that SANDAG has identified the average trip length as 7.9 miles. As noted above, the average distance of Project trips was calculated by LLG to be 7.88 miles, which is consistent with 7.9 (see Appendix C to 2018 EIR Appendix J).

As stated above and later affirmed by the Appellate Court,[19] the Project is consistent with San Diego Forward, the plan's vehicle mileage projections, and encourages local walking in keeping with the plan. The Project's location would contribute to the reduction of vehicle emissions through design, location, and minimization of off-site vehicle trips, which also complies with the County's efforts to reduce sprawl and associated emissions. In that regard, the Project is consistent with the County's effort to move future development closer to cities, shopping, and employment centers.

The Project is located approximately less than 0.5 mile (walking distance) from an existing mixed-use village (Harmony Grove Village), with residential, commercial, and recreational uses. The Project is also within a 2–mile radius of expansive employment centers and a concentration of urban and mixed land uses that include Palomar Hospital, Stone Brewing, numerous "big box" retail stores with surrounding retail, apartment complexes, mobile home parks, and a large-scale automobile mall. ERTC, and a confluence of regional transportation connectors (I-15 and SR-78), are located within approximately 2.5 miles of the Project site. Beyond this are located California State University San Marcos, and Kaiser Permanente San Marcos.

[19] Elfin Forest Harmony Grove Town Council et al. v. County of San Diego and RCS, 37-2018-00042927, Court of Appeal, Fourth Appellate District (Division One), filed October 14, 2021.

Further illustrating the Project's consistency with San Diego Forward and the County's General Plan, an October 2023 memorandum prepared by Intersecting Metrics,[20] concluded the Project Site is "infill" in nature and would be exempt from full VMT analysis under the County's adopted Transportation Study Guidelines (TSG).[21] Moreover, the Proposed Project site would be considered an infill development both with and without the Project land uses. As noted in Table 1 of the TSG, a project is considered infill if it is: (1) identified in the County's location-based maps, or (2) meets infill criteria outlined in the October 2021 "Infill Areas in Unincorporated San Diego County Memo," Fehr & Peers (included as Appendix D to the TSG). Section 3.3.1 of the TSG also outlines the criteria an area must meet to be considered infill.

Figure 2.7-1 depicts the developed nature of the Project area and proximity to nearby residential, commercial and industrial uses, as well as to state and interstate routes.

The following matrix summarizes relevant numerical data specific to the Project site.

Metric	Standard	Existing Conditions	Meets Standard?	With Project Conditions	Meets Standard?	Change
Household Density (Units Per Square Mile)	425	818	Yes	1,321	Yes	+503
Intersection Density (Intersections Per Square Mile)	128	136	Yes	139	Yes	+3
Jobs Accessibility (Accessibility Score)	12.73	44.49	Yes	44.49	Yes	-

The HGV Specific Plan area has a total of 736 existing dwelling units that have been built and are fully occupied. The Project site would add an additional 453 dwelling units, resulting in 1,189 total units between both sites—with an increased housing density of 1,321 units per square mile (1,189 units/0.9 square mile). This is well above the infill requirement of 425 housing units per square mile relevant to an exemption.

The HGV Specific Plan area has 123 existing intersections (note there are 6 existing intersections in the Harmony Grove South area), resulting in an intersection density of 136 intersections per square mile (the Proposed Project will add an additional 9 intersections). This is well above the infill requirement of 128 intersections per square mile relevant to an exemption.

A job accessibility analysis was conducted based on all of the total number of jobs within a 15-mile radius of the Project site, divided by the distance of the job from the Proposed Project site. The Project site has a Job Accessibility score of 44.49, which is well above the infill requirement.

[20] The full memorandum is provided in Appendix J2 to this FEIR.

[21] Although the VMT analysis circulated with the 2018 FEIR was determined to be adequate and sufficient by the Appeals Court, a subsequent analysis has been completed. Consistent with that analysis, and consistent with the County's guidelines relevant to VMT updated in September 2022 in compliance with SB 743, if a VMT analysis were to be initiated for a new EIR today, the Project would be exempted.

The Project would provide a variety of housing opportunities located near major employment centers consistent with the smart growth concept of locating housing closer to retail, services, and jobs on smaller lots to reduce required infrastructure and the length of automobile trips while increasing community livability and preserving open space by compact development. The Project's residential uses are within walking distance of, and are connected to, the commercial services and civic uses of its central commercial/civic core and the HGV Village Center. As analyzed in the Appendix J2 memorandum prepared by Intersecting Metrics, the Project is considered "infill" in nature and would, therefore, be both exempt from full VMT analysis and not in conflict with relevant plans or policies.

Significance of Plan, Policy and Regulatory Compliance

Summary

The Proposed Project would not conflict with applicable plans because design features would conform to the primary regulations and policies governing the control of GHG emissions stated above. Accordingly, **with implementation of the PDFs identified above, impacts associated with GHG emissions would be less than significant**.

2.7.3 Cumulative Impact Analysis

As described in Section 2.7.2.1 of this discussion, global climate change is a cumulative issue by definition, and its analysis constitutes cumulative review. As a result, additional discussion is not required.

2.7.4 Significance of Impacts Prior to Mitigation

Impact GHG-1 Project construction and operational emissions combined would not be fully offset by PDFs identified for the Project when taking vehicular emissions into account. This is identified as a significant impact.

2.7.5 Mitigation

After analyzing and requiring all reasonable and feasible on-site measures for avoiding or reducing GHG emissions, the Applicant has committed to reducing remaining Project emissions to "net zero" through the mitigation specified below.

CEQA Guidelines recognize that in appropriate situations, off-site actions may be used as attenuation for GHJG emissions. CEQA Guidelines Section 15126.4(c)(2) states that reductions in emissions may result "from a project through implementation of project features, project design, or other measures. CARB's *2022 Scoping Plan* Appendix "D" Local Actions also recognizes that:

> *local, off-site mitigation measures implemented in the communities in which a project's impacts occur have the added potential co-benefit of reducing emissions of toxic air contaminants and criteria air pollutants, which will improve health and social and economic resiliency to climate-related impacts. Verification of local mitigation can also be more straightforward than verification of mitigation that is outside of the jurisdictional boundaries of the lead agency.*

Among the many off-site local measures that are considered in Appendix D of the 2022 Scoping Plan is the retrofitting of existing building(s) with solar panels. These panels can be equipped with solar monitoring systems. Such systems provide a real-time snapshot of solar energy production data that can verify solar production and provide documentation to the appropriate party.

Although similar types of incentives (retrofitting existing buildings with solar panels) are under consideration as the County finalizes its 2023 Draft CAP, there is no federal, state, or local regulation that can require or mandate existing and operating buildings to install solar panels to convert their current electrical sources. Draft CAP Policy E-2 addresses energy efficiency and electrification in the unincorporated area. Energy Goal E-2.2 proposes amendment of County regulations "to require (Tier 2) CALGreen or similar energy efficiency requirements for existing development projects with qualifying improvements," and for "[d]eveloping a program by 2026 to incentivize building electrification and energy efficiency." Additionally, Policy E-3 of the Draft CAP focuses on increasing renewable energy use, generation, and storage. As stated in the regulatory discussion above, it is noted that this analysis does not rely on the County's Draft CAP, which is currently under consideration for adoption by the County. It does, however, demonstrate that the Project is consistent with the County's climate goals.

Specific to the Project, an on-site PV system will be installed on an existing building that is not otherwise mandated to do so, thereby supporting energy efficiency and savings for the off-site owner. The owner of the existing off-site building(s) is incentivized to accept the on-site PV system (thereby supporting energy efficiency and electrification), as the Project would provide installation at no cost to the off-site property owner, ensure that ongoing maintenance is provided for, and that such installation would result in energy savings for that off-site owner. This would occur without the off-site property owner proposing "qualifying improvements," on the existing structure, which could trigger the installation of such solar panels as outlined in the Draft CAP. This would result in capturing existing buildings that would not be captured otherwise. The Draft CAP also does not ensure the ongoing monitoring and maintenance of such improvements, as does the Project's mitigation measure.

The Project maximizes emission reductions based on today's feasible technologies as identified in the Project PDFs enumerated within this EIR. To mitigate the 1,037.72 MT CO_2e produced by the Project after all feasible PDFs are included, the Project would need to install an additional 1,720 kW of renewable energy (i.e., solar panel) system. which is calculated based on the 1,038.20 MT CO_2e produced by the GHG avoidance rate of a 1 MW system of 0.60345 MT CO_2e/kW. Using ConSol's estimates of 83,000 s.f./1MW of solar, the requirement of 1,720 kW would need approximately 142,760 s.f. of roof area.

Therefore, in addition to the building design PDFs identified above, in order for the Project to achieve carbon neutrality (i.e., no net GHG emissions through offset to zero); the Applicant shall complete the following:

M-GHG-1 Prior to the issuance of the first grading permit for the Project, compliance with M-GHG-1 shall be as follows:

a. Solar panel(s), capable of generating a total of 1,720 KW, shall be installed on an existing building(s) that does not currently utilize solar energy, located within the County of San Diego, that is not otherwise required by law or regulation through statute, regulation, existing local program, or requirement to install such solar panels. The building shall have an estimated life of at least 30 years as verified by a third-party building inspector. The solar system installation shall be completed by a licensed, bonded and insured installer; and equipped with a monitoring system to notify the property owner upon which the building is located (property owner), the installer, and the HGV South Homeowners Association (HOA) with monitoring data. The solar panels will be registered with an extended warranty for the maximum period of time feasible, not less than 30 years and the panels will be dated at the time of installation. Consistent with the North American Board of Certified Energy Practitioners (NABCEP) standards, the installation company shall have a minimum of three years' experience.

b. The identified building(s) shall be located within the County boundaries. A Covenant shall be recorded against the property, for the benefit of the Project site, stating that the Project-installed solar panel(s) must remain on the building(s) and operational for a period of 30 years. This Covenant runs with the land, not the owner, and will pass with the parcel in the event of a sale. The Covenant shall also require the property owner to allow the HOA or representative (including the County) to conduct annual baseline maintenance inspections, monitor, repair or replace the system as described in e), below, during that 30-year period. The Covenant shall also include the following provisions:

   i) the property owner shall allow the HOA or County to access the system if maintenance is indicated by the monitoring system or when issues are otherwise noted by the property owner;

   ii) the property owner shall notify the HOA and County if any repair or maintenance events become known to the property owner;

   iii) the property owner shall maintain a policy of insurance (or include the addition of such panels to the coverage limits of the building's current insurance policy) to cover against the repair or replacement of the solar system resulting from physical damage (e.g., caused by severe weather conditions, vandalism, fire and other events) and name the HOA and County as additional insureds;

iv) the property owner shall maintain and/or replace such panels with an equivalent or higher rated panel as necessary if the repair work is not completed by the HOA;

v) if the identified building is vacated or abandoned, or the building is demolished before the 30-year period, the property owner shall be required to install an equivalent unit (and provide insurance for the same) on one or more existing buildings that meet the same criteria identified in a); within the County, that would generate an equivalent amount of solar power for the remaining term of the 30-year period. The property owner shall be required to record a Covenant with the same provisions against the property upon which the new building with the replacement solar unit is located, for the remaining term of the 30-year period and notify the HOA and the County of the same, prior to the vacation, abandonment, or demolition of the existing building; and

vi) any new purchaser of the property shall notify the HOA and County that it has acquired the site and acknowledge its obligations under the Covenant, including allowing access for solar panels maintenance for the duration of the 30-year term.

c. The Applicant is required to fund and provide a report to the County that provides the following information:

i) the address of the specific building(s) upon which the installation of the solar panels required by 2024 M-GHG-1 have been installed;

ii) evidence that the building(s) is/are not required by law or regulation through statute, regulation, existing local program, or requirement to install such solar panels (i.e., additional);

iii) the amount of GHG emissions that will be reduced by the installation of such panels;

iv) a copy of the Covenant recorded against the property that includes the information required by M-GHG-1 b) above;

v) a copy of the third-party building inspector (verification) that the life of the building be at least 30 years; and

vi) a copy of the Project "Covenants, Conditions, and Restrictions" (CC&Rs or Declaration) of the HOA that include the provisions identified in paragraph e) below, including the HOA's budget that shows the reserve set aside for the purposes described in paragraph f) below, and

vii) a copy of the solar installation contract with a licensed and bonded installer, and warranty and insurance policy along with the approved solar permit. The report shall include calculations conducted by a technical GHG expert using County-approved models and/or methodologies.

d. The Applicant shall comply with County Code Section 6954, Solar Energy Systems, and obtain any required permits. The installation of such PV system shall be required to qualify for a CEQA exemption, such as PRC 21080.35 at the time of application for installation.

e. The CC&Rs for the Project shall be submitted to the County for its review prior to the approval of the first grading permit that includes the following provisions:

1. The HOA shall monitor the solar system using the module-level monitoring application described above for a 30-year period that commences from the Project's start of operations. The HOA shall keep records of solar power production during this period.

2. If any solar equipment is found to need repair or replacement, the HOA shall be responsible for such work being completed as needed in order to maintain the equivalent amount of solar power generated by such panels. The HOA shall work with the property owner, installation company and/or insurance entity to ensure that the repairs are completed in a timely manner. If the repair work is not covered by the warranty or paid for by the insurance carrier, the HOA shall be responsible for ensuring that the repair work is completed.

3. An annual maintenance and monitoring program shall be conducted by a licensed and bonded solar company (the Covenant requires the property owner to allow this annual inspection). A report shall be prepared by the solar company with the results of the inspection, including whether any repairs are needed and the amount of solar power generated by such panels. The report will be provided to the HOA, property owner, and County.

4. During maintenance, the HOA or representative shall replace (with an equivalent or higher rated panel) or repair any of the solar panels as needed in order to maintain the equivalent amount of solar power generated by such panels.

5. Any revisions to the above-described provisions of the CC&Rs shall be approved by the County, require the consent of 100 percent of the holders of first mortgages or the property owners within the HOA, and require the HOA to retain the same amount of funds set aside by this mitigation measure for the same purposes for the 30-year period.

6. The County shall be named as a party to said Declaration authorizing the County to enforce the terms and conditions of the Declaration in the same manner as the HOA or any owner within the subdivision.

7. The HOA shall maintain the budgeted reserve described in paragraph f) below for the exclusive uses described below. The County may use such funds should it decide to enforce said obligations.

8. These CC&Rs shall be confirmed by the County prior to recording the first subdivision map.

f. Applicant shall submit the initial HOA budget, subject to Department of Real Estate (DRE) rules, for review and approval by the County, that includes a set aside fund of $300,000.00, for the purpose of repairing or replacing any solar panels (see Appendix J1), should such work not be eligible for reimbursement from the property owner's insurance policy or warranty. The set aside funds may also be used to enforce the provisions of the Covenant and any insurance claim if needed. The amount of the set aside funds shall be adjusted each year by the HOA, based on the annual indexed increases in construction costs and expenses consistent with the California Construction Cost Index or similar construction industry standard index, through a reserve study prepared by a qualified consultant, hired by the HOA as required by the DRE, provided however, in no event shall the reserve fund be increased more than three percent (3 percent) in a given year. This budgeted reserve amount shall be designated and restricted exclusively for the sole purposes set forth herein and may be used by the County should it decide to enforce the obligations of the property owner. If any amount of the set aside is used by the HOA or County for such purposes, the HOA shall replenish the fund in an amount equal to what has been withdrawn.

TIMING: Mitigation measure M-GHG-1 (a, b, c, and d) shall be implemented prior to the issuance of the first grading permit.

MONITORING: M-GHG-1 includes a series of safeguards that will ensure continual compliance and monitoring during the 30-year period as described below.

The HOA is responsible for monitoring compliance with this mitigation measure and shall be responsible for taking such actions as necessary to enforce the Covenant. Additionally, a fund shall be set aside by the HOA to ensure the funding needed to enforce this provision. The County shall also be named a party to the CC&Rs, allowing the County to enforce the terms and conditions of the CC&Rs in the same manner as the HOA or any owner within the subdivision. As provided for in the Mitigation Measure, the HOA is responsible for the ongoing monitoring of the solar panels for the 30-year period. Per subparagraph c) of the M-GHG-1, above, substantial evidence will be provided that the mitigation would not occur independent of the Project (i.e., that installation of solar panels on an existing building would not otherwise be required, consistent with the CARB 2022 Scoping Plan).

The property owner is also required to maintain a policy of insurance to cover the repair or replacement of the solar system. The insurance policy will name the HOA and County as additional insureds so that the HOA/County can pay for any damage to the panels through such insurance. Finally, the Covenant shall also require the property owner to maintain and/or replace such panels as necessary if the HOA/County does not complete the repair work.

If the identified building is vacated, abandoned, or demolished before the end of the 30-year period, the property owner must install an equivalent unit (and provide insurance for the same) on one or

more existing buildings that meet the same criteria described in M-GHG-1 a) above within the County, that would generate an equivalent amount of solar power for the remaining term of the 30-year period. The same Covenant must be recorded against the property on which the new building with the replacement solar unit is located for the remaining term of the 30-year period and the property owner shall notify the HOA and County of the recordation of the Covenant prior to the vacation, abandonment, or demolition of the existing building.

Funds must be set aside for repairing or replacing solar panels if such costs are not subject to reimbursement from the property owner's insurance policy or warranty. The set-aside funds may also be used to enforce the provisions of the Covenant and any insurance claim if needed and may be used by the County should it decide to enforce the obligations of the property owner.

Prior to the issuance of the first grading permit for the Project, the PDS Director shall receive a copy of the report described in c) that demonstrates the mitigation measures have been performed and are quantified using appropriate, accurate, and conservative methodologies that account for the amount of GHG emissions that will be reduced by the installation of such panels. The report also verifies that if such GHG reductions may be reversed, mechanisms are in place to replace any reversed GHG emission reductions to ensure that all credited reductions endure for the 30-year period.

2.7.5.1 *Potential Subsequent Environmental Impacts Related to Mitigation Measure Implementation and CEQA Exemption*

ConSol 2023 (Attachment B to Appendix J1) also provides details as to what would be necessary to supply the remaining portion of CO_2e mitigation. ConSol documents that a 1MW system within the County could be expanded to reduce total Project emissions to Zero MT CO_2e. They found that operations of a 1MW solar array would create 1,645 MWh annually and would require as much as 83,000 s.f. of roof space to install the system.

GHG modeling was conducted for a 1 MW off-site system to determine the estimated construction and operational emissions.

The off-site installation would require delivery of panels which would take as many as six loaded semi delivery trucks during construction. The model also assumes a crew of nine people to install systems over a period of one month. Construction emissions during that one month would generate 4.72 MT CO_2e and after a 30-year amortization, would generate 0.16 MT CO_2e annually. Operationally, the system would avoid 603.61 MT CO_2e annually. Therefore, total avoidance after construction would be 603.45 MT CO_2e (603.61 minus 0.16) annually per MW, or 0.60345 MT CO_2e annually per kW of solar installed.

The construction-period crews and activities are provided for context. These actions would be short-term in nature and overall minimal relative to area ADT. Relative to GHG effects, as noted above, not only would the full CO_2e impacts be mitigated, but in fact, the energy use avoidance would be over the initial savings of 0.60345 MT CO_2e per kW of solar installed. Moreover, the installation of such PV system shall be required to qualify for a CEQA exemption at the time of application for such installation.

The installation of such PV system will be required to qualify for a CEQA exemption, such as for a ministerial action pursuant to County Zoning Code Section 6954, Solar Energy System for on-site uses, or under PRC 21080.35. It is considered an "on-site" use as the solar installed during mitigation measure implementation would primarily serve the building it is installed upon. (Because a commercial/industrial building is proposed, it is acknowledged that if the business has a slated closure day during the week energy generated on that day could go directly onto the grid, to the benefit of off-site users.) Section 6954 allows these systems as accessory uses by right on commercial, industrial, agricultural and other uses, as long as they comply with: setback and height thresholds, applicable special area regulations, and specifics of the panel manufacturer and model is provided in the building permit. These conditions would be satisfied and confirmed through plan check as opposed to new analysis.

PRC 21080.35 does not require preparation of environmental analysis for the installation of a solar energy system on the roof of an existing building or at an existing parking lot. Exclusions from the exemption relate to placement of equipment associated with one of the following:

> *(d.1) An individual federal permit pursuant to Section 401 or 404 of the federal Clean Water Act (33 U.S.C. Sec. 1341 or 1344) or waste discharge requirements pursuant to the Porter-Cologne Water Quality Control Act (Division 7 (commencing with Section 13000) of the Water Code).*
>
> *(d.2) An individual take permit for species protected under the federal Endangered Species Act of 1973 (16 U.S.C. Sec. 1531 et seq.) or the California Endangered Species Act (Chapter 1.5 (commencing with Section 2050) of Division 3 of the Fish and Game Code).*
>
> *(d.3) A streambed alteration permit pursuant to Chapter 6 (commencing with Section 1600) of Division 2 of the Fish and Game Code.*
>
> *(e) This section does not apply if the installation of a solar energy system at an existing parking lot involves either of the following:*
>
> *(e.1) The removal of a tree required to be planted, maintained, or protected pursuant to local, state, or federal requirements, unless the tree dies and there is no requirement to replace the tree.*
>
> *(e.2) The removal of a native tree over 25 years old.*
>
> *(f) This section does not apply to any transmission or distribution facility or connection.*

In this instance, the proposed solar mitigation would be installed upon an existing building on existing impervious surface with associated drainage improvements. No impact to stream courses or water resources would occur. No take permits for species protected under the federal ESA or California ESA are anticipated. Similarly, no trees at all would be removed. Finally, the Project proposes installation of PV panels to a building already on the electrical grid—no modified transmission, distribution, or connection facilities would be required. As such, consistent with PRC 21080.35, the Project mitigation would be exempt from CEQA environmental analysis. Visual effects associated with panel implementation would be less than notable. Modern panels are not largely reflective, and they would be placed in a developed setting. Potential biological effects

would be minor as actions would take place within developed areas and within a limited timeframe for construction, after which installation effects would be relatively passive. Runoff numbers would not be expected to change as impervious surfaces over which the panels would be installed would remain impervious. Should any of these assumptions not apply, the PV system would need to qualify for another CEQA exemption or be relocated to where a CEQA exemption would apply. The County will review the Project's compliance with this mitigation measure before the issuance of the first grading permit for the Project.

Taking into consideration an amortized impact of 0.16 MT CO_2e annually for installation of the panels, followed by an annual operational offset of a minimum of 603.45 MT CO_2e, this is a conservative approach.

2.7.6 Conclusion

The Project Applicant proposes to offset all Project GHG emissions, related to both construction and operations, to net zero. The Project Applicant(s) has responded to the California Court of Appeal decision with proposed modifications to the Project's GHG reduction measures. The Project would offset 100 percent of the Project's GHG emissions with the implementation of previously identified PDFs, updated as applicable, and a new mitigation measure (M-GHG-1) consistent with CARB's 2022 Scoping Plan, Appendix "D" Local Actions.

This analysis uses a different strategy to mitigate GHG emissions from the 2018 FEIR, which focused on strategies to reduce or offset electrical and natural gas emissions using solar within the Project site and purchase of off-site GHG reduction credits for remaining Project emissions. The current Project maximizes on-site GHG reductions (i.e., increased and more efficient photovoltaic solar panels) and any remaining GHG emissions that cannot be fully reduced to zero on site would be mitigated using solar installed on existing facilities off the Project site within San Diego County. This is possible because all relevant GHG emissions equate to CO_2e values which may be generated from any source including electrical, area, mobile, waste, water, and generator uses. The goal is to reduce any Project-generated net increase in GHG emissions with reductions or avoidances in GHG emissions elsewhere in the County based on the requirements specified in the CEQA statute, CEQA Guidelines, and case law – i.e., mitigating at locations not otherwise required (CEQA Guidelines Section 15126.4[c][3]), through enforceable measures (CEQA Guidelines Section 15126.4[a][2]), and supported by substantial evidence, etc. The mitigated Project would not generate GHG emissions that may have a significant impact on the environment because the mitigated Project would have no net increase in GHG emissions, as compared to the existing environmental setting (CEQA Guidelines Section 15064.4[b][1]). Because the mitigated Project would have no net increase in the GHG emissions level, the mitigated Project would not make a cumulatively considerable contribution to global GHG emissions.

Relative to plan consistency, the Project Applicant(s) shall be conditioned to implement the PDFs and Mitigation Measure identified in this report. Upon installation of M-GHG-1 discussed above, GHG emissions from all Project sources would be net zero and would therefore be consistent with the Project-specific GHG threshold of zero GHG emissions. Therefore, the Project would not conflict with any federal, state or County applicable plans, policies or regulations adopted for the purposes of reducing GHGs. Nor would it change the other sections of the FEIR since GHG emissions from all Project sources would still remain at net zero.

Table 2.7-1
GLOBAL WARMING POTENTIALS AND ATMOSPHERIC LIFETIMES OF COMMON GHGs

Greenhouse Gas	Atmospheric Lifetime (Years)	100-year GWP[1]
Carbon Dioxide (CO_2)	50-200	1
Methane (CH_4)	12	25
Nitrous oxide (N_2O)	114	298
HFC-134a[2]	14	1,430
PFC[3]: Tetrafluoromethane (CF_4)	50,000	7,390
PFC: Hexafluoroethane (C_2F_6)	10,000	12,200
Sulfur Hexafluoride (SF_6)	3,200	22,800

Source: IPCC 2007
[1] GWPs are calculated over 100-year time horizon.
[2] HFC = hydrofluorocarbon, PFC = perfluorocarbon

Table 2.7-2
PROJECT COMPONENT ASSUMPTIONS

Land Use Type	Land Use Subtype	Size	Metric
Residential	Single Family Housing	193	Dwelling Unit
Residential	Multi-Family Housing	260	Dwelling Unit
Retail	Strip Mall	5	1,000 square feet
Roadway	New Road Construction	2.2	Miles
Parking	Center House Parking Lot	46	Spaces
Recreational	City Park	1.5	Acres

Table 2.7-3
EXPECTED CONSTRUCTION EQUIPMENT

Equipment Identification	Proposed Start	Proposed Complete	Quantity
Site Preparation	10/09/2025	01/07/2026	
Crushing/Proc. Equipment			1
Rubber Tired Dozers			3
Tractors/Loaders/Backhoes			4
Backbone infrastructure	01/08/2026	07/08/2026	
Forklifts			1
Off-Highway Trucks			2
Other Material Handling Equipment			1
Tractors/Loaders/Backhoes			1
Trencher			1
Roadway Construction	01/08/2026	07/08/2026	
Crawler Tractor			1
Excavators			3
Grader			1
Rollers			2
Rubber Tired Loader			1
Scrapers			2
Signal Boards			4
Tractors/Loaders/Backhoes			2
Grading	07/09/2026	10/07/2026	
Excavators			2
Grader			1
Rubber Tired Dozer			1
Scrapers			2
Tractors/Loaders/Backhoes			2
Bridge Construction	07/09/2026	07/09/2027	
Cranes			2
Forklift			1
Generator Sets			2
Pump			1
Tractors/Loaders/Backhoes			3
Building Construction	10/09/2026	01/10/2029	
Crane			1
Forklifts			3
Generator Set			1
Tractors/Loaders/Backhoes			3
Welder			1
WTWRF Building Construction	10/9/2026	3/10/2027	
Crane			1
Forklifts			3
Tractors/Loaders/Backhoes			3
Welder			1
On-site Solar Construction	3/1/2028	3/1/2029	
Aerial Lifts			1
Rough Terrain Forklifts			1

Table 2.7-3 (cont.)
EXPECTED CONSTRUCTION EQUIPMENT

Equipment Identification	Proposed Start	Proposed Complete	Quantity
Architectural Coating	08/09/2028	01/08/2029	
Air Compressors			1
Paving	08/09/2028	01/08/2029	
Pavers			2
Paving Equipment			2
Rollers			2

Note: Equipment hours of operation and duration, worker trips, etc. are provided in EIR Appendix J1, Attachment A (see Section 3.0 of the modeling output).

Table 2.7-4
ESTIMATED CONSTRUCTION CO_2E EMISSIONS SUMMARY

Year	Bio-CO_2	NBio-CO_2	Total CO_2	CH_4	N_2O	CO_2e
2025	0.00	122.04	122.04	0.03	0.00	122.91
2026	0.00	1,518.07	1,518.07	0.3632	0.0209	1,533.39
2027	0.00	1,137.97	1,137.97	0.1427	0.0419	1,154.02
2028	0.00	841.62	841.62	0.13	0.03	853.12
2029	0.00	37.45	37.45	0.01	0.00	37.92
Project Total (MT CO_2e)						**3,701.36**
Annualized Emission Increase over 30 years (MT CO_2e per Year)						**123.38**

Note: Expected construction emissions are based upon CalEEMod modeling for equipment listed in Table 2.7-3, above.

Table 2.7-5
ESTIMATED 2030 ANNUAL GHG EMISSIONS SUMMARY (MT/YEAR)
WITH PROJECT DESIGN FEATURES AND
STATE AND FEDERAL MANDATES

Source	CO_2e (MT/Yr)
Area	5.63
Electrical	461.83
Mobile	2,846.07
Waste	132.5
Water	84.19
Diesel Generators	14.14
Annual Emissions Total (Includes all PDFs not shown below)	3,544.36
Amortized Construction	123.38
Emissions including all PDFs excluding post-processed PDFs below	**3,667.74**
2018 PDF 10R (Install 8 EV Charging Stations at the Center House)	-38.14
2024 PDF 10R (Install EV Chargers in all 453 Garages)	-257.52
2024 PDF 13R (On-site Installed Residential Solar – 4,615kW or 11,570 360 W panels)	-2,310.39
2018 PDF 21 (Install 2,045 Trees)	-23.97
2024 PDF 27 Natural Gas is not designed within this Project	0
2024 PDF 28 – On-site Project Installed Solar on the Center House (no credit taken)	0
PDFs Emission Totals	**-2,632.32**
Project Emissions Summary (All PDFs identified in Section 2.7.2.2 included)	**1,037.72**

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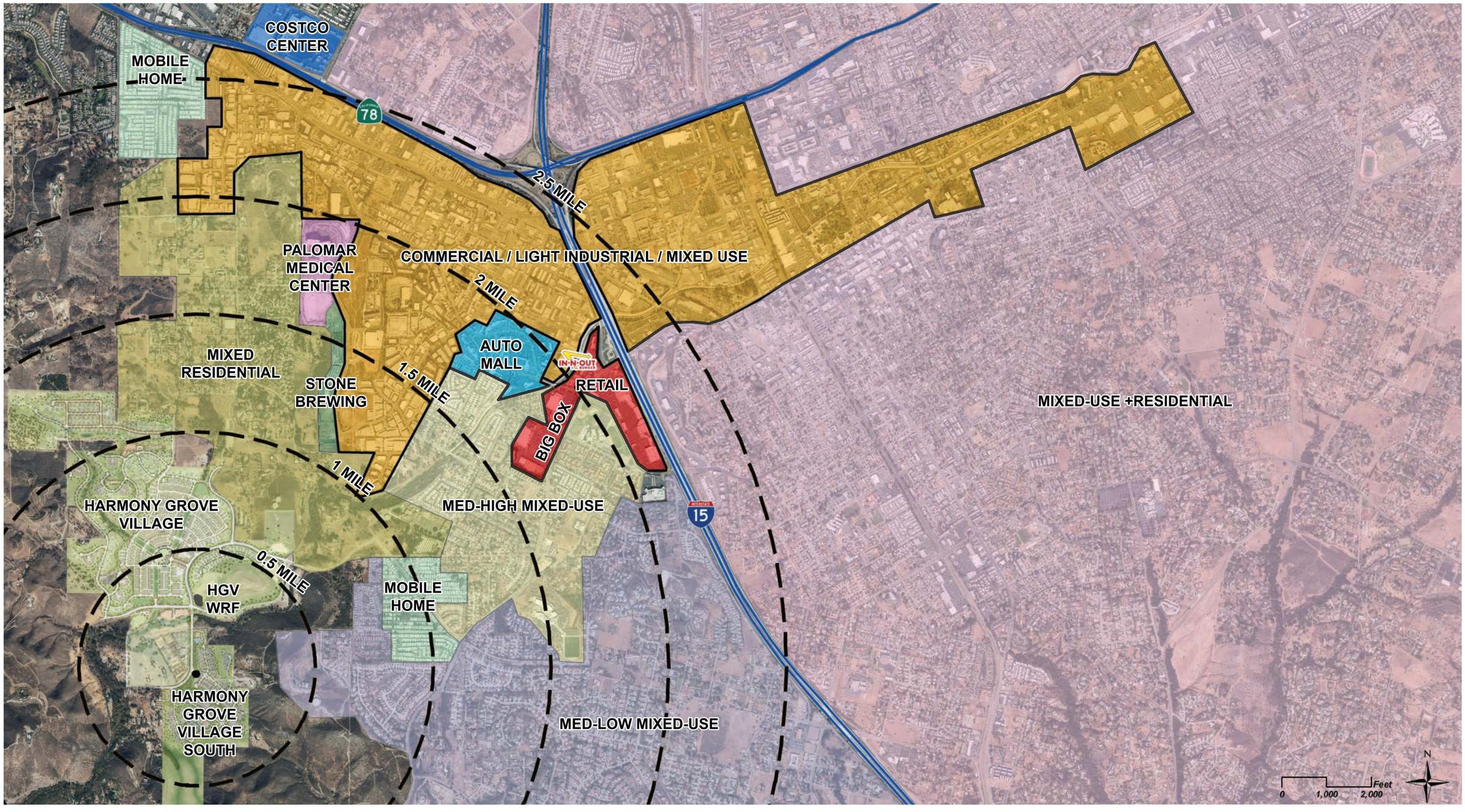


Source: Project Design Consultants, 2018

HGV + HGV South Adjacent Land Uses

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

Figure 2.7-1

I:\PROJECTS\R\RSC\HarmonyPartners_03087\KOV-01_HarmonyGroveSE\Map\ENV\EIR\Fig2_7-1_HGV_AdjacentLandUses.indd KOV-01 5/07/18 -RK

SUBCHAPTER 2.8

SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES RESULTANT FROM PROJECT IMPLEMENTATION

2.8 Significant Irreversible Environmental Changes Resultant from Project Implementation

CEQA Guidelines Section 15127 requires irreversible changes be evaluated in EIRs prepared for projects that would involve: (a) the adoption, amendment, or enactment of a plan, policy, or ordinance of a public agency; (b) the adoption by a LAFCO of a resolution making determinations; and (c) the requirement for preparing an environmental impact statement pursuant to the National Environmental Policy Act. The Proposed Project would involve a GPA as well as LAFCO determinations regarding annexation to the San Diego County Sanitation District, which could provide wastewater services. The following analysis addresses Project changes that would be considered irreversible and Project commitments/use of resources that would be considered irretrievable.

The construction and implementation of the Project would result in irreversible environmental changes to the Project site. The on-site physical effects of these changes are fully addressed in Chapters 2.0 and 3.0 of this EIR. In general, conversion of currently predominately vacant land, with sensitive habitat, to village uses (paved roadways and graded lots with buildings and landscaping) would represent an irreversible loss of existing biological resources on approximately 77 acres of on-site habitat, including sensitive vegetation communities, special status wildlife species, and jurisdictional wetlands. These impacts are considered permanent and the losses are considered irreversible.

Approximately 34.8 acres of biological open space would be dedicated on site. Some of the biological open space would preserve wetlands and provide wetland buffers. Only the lots that are kept in undisturbed condition would be considered to not constitute an irreversible change to biological resources. Open space areas with manufactured slopes and drainage facilities would add to the irreversibly changed footprint of the Project.

The cut and fill proposed to support the developed footprint of the Project would result in an irreversible change to the existing topography. Also, any potential presently unknown cultural resources that may be buried could be irreversibly changed if they were to be inadvertently disturbed, though data recovery for study would be accomplished. The changes in topography and overall conversion of the Project area from rural to developed uses also would result in irreversible aesthetic changes. Likewise, the placement of residential activities into the existing undeveloped area would irreversibly change the noise and transportation environment, and modification of drainage patterns would irreversibly change on-site hydrology.

As described in Section 3.2.1, *Agriculture,* the Proposed Project would result in a loss of approximately 20 acres of Farmland of Local Importance. However, the site does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Therefore, implementation of the Project would not result in significant impacts related to the loss of agricultural lands.

The Project site has been classified by the California Department of Conservation – Division of Mines and Geology as an area of "Potential Mineral Resource Significance" (MRZ-3), as described in Section 3.1.2, *Geology/Soils*. The Project site is adjacent to existing and proposed residential areas, however, which would be incompatible with future extraction of mineral

resources on the Project site. In addition, the material that underlies the site has been determined to be not economically viable to extract (Appendix R and Section 3.2.2, *Mineral Resources*, of this EIR. Therefore, implementation of the Project would not result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state.

More generally, the Project construction would require the commitment of energy, natural resources, and building materials. Non-renewable fuels would be used by construction equipment, haul trucks, and worker vehicles. Non-renewable energy also would be expended during the harvesting and mining of natural resources such as wood and aggregate and during the subsequent manufacturing of construction materials such as framing and concrete. This commitment of resources and energy would be commensurate with that of other projects of similar size but would be irretrievable.

Post-construction consumption of non-renewable resources would include the use of electricity ~~and natural gas~~ by Project residents, workers, and visitors. This energy use would be a long-term commitment and irretrievable, although energy-saving features of the Project would reduce this commitment.

CHAPTER 3.0

ENVIRONMENTAL EFFECTS FOUND NOT TO BE SIGNIFICANT

SUBCHAPTER 3.1

EFFECTS FOUND NOT SIGNIFICANT AS PART OF THE EIR PROCESS

3.0 ENVIRONMENTAL EFFECTS FOUND NOT TO BE SIGNIFICANT

3.1 Effects Found Not Significant as Part of the EIR Process

3.1.1 Energy

This section provides an evaluation of existing energy production/consumption conditions, as well as potential energy use and related impacts from the Proposed Project. The following discussion is consistent with and fulfills the intent of CEQA Guidelines Appendix F, Energy Conservation (2017), and is based on information from the Greenhouse Gas Analyses Report prepared by HELIX (2017d; Appendix J); the California Energy Demand 2014-2024 Final Forecast (California Energy Commission [CEC] 2014a); and the CEC's 2013 Integrated Energy Policy Report (IEPR) (CEC 2013).

3.1.1.1 *Existing Conditions*

Existing Energy Consumption and Generation

Units of Measure

The units of energy used in this section are the British thermal units (BTU), kilowatt[1] hours (kWh), therms and gallons. A BTU is the quantity of heat required to raise the temperature of one pound of water one degree Fahrenheit (°F) at sea level. Because the other units of energy can all be converted into equivalent BTU, the BTU is used as the basis for comparing energy consumption associated with different resources. A kWh is a unit of electrical energy, and one kWh is equivalent to approximately 3,413 BTU, taking into account initial conversion losses (i.e., from one type of energy, such as chemical, to another type of energy, such as mechanical) and transmission losses. Natural gas consumption is described typically in terms of cubic feet or therms; 1 cubic foot of natural gas is equivalent to approximately 1,050 BTU, and one therm represents 100,000 BTU. One gallon of gasoline/diesel is equivalent to approximately 125,000/ 139,000 BTU, respectively, taking into account energy consumed in the refining process.

Overview of Energy Supply

California's electricity needs are satisfied by a variety of entities, including investor-owned utilities, publicly owned utilities, electric service providers and community choice aggregators.[2] As of 2010, in-state generating facilities accounted for about 71 percent of the total electric power produced in California, with the remaining electricity coming from out-of-state imports. In-state generation also accounted for approximately 12 percent of the State's natural gas supply and approximately 38 percent of the State's crude oil supply. The remaining energy supply comes from

[1] Kilowatt hours is the most commonly used measure of electrical consumption; however, due to the scope of this analysis, gigawatt hours (GWh; equivalent to one million kilowatt hours [kWh]) is also used.

[2] Community choice aggregation is authorized in California by AB 117 (Chapter 836, Statutes of 2002), which allows cities, counties, and groups of cities and counties to aggregate the electric load of the residents, businesses and institutions within their jurisdictions to provide them electricity.

other western states and Canada (CEC 2011). Table 3.1.1-1, *California Energy Sources 2010*, provides a summary of California's energy sources as of 2010.

Since deregulation in 1998, the CEC has licensed or given small power plant exemptions to 84 power plants, including:

- 66 projects representing 22,965 megawatts[3] (MW) currently on-line
- 5 projects totaling 2,054 MW currently on hold but available for construction
- 13 projects totaling 4,518 MW approved but will not be built due to license termination/ expiration

In addition, as of March 2017, the CEC had a total of eight proposed projects under review, totaling approximately 3,874 MW (CEC 2017). One additional project, representing 496 MW, has been suspended while in review.

The American Recovery and Reinvestment Act of 2009 (ARRA) was signed on February 13, 2009, providing $787 billion nationwide to create new jobs, jump-start the economy and invest in long-term growth. ARRA funding provided California additional resources to develop and conduct programs aimed at saving energy, creating jobs and contributing to California's economic recovery through energy efficiency upgrade projects in existing buildings. The ARRA programs emphasized collaborations of local governments and industry to deliver energy assessments, ratings, efficiency improvements and quality assurance. ARRA-funded programs have allowed California to establish revolving loan programs that will remain in operation after the ARRA funding ceases, provide loan loss reserves to encourage lenders to provide financing for energy efficiency upgrades and pilot Property Assessed Clean Energy (PACE) financing in concert with local property assessments. ARRA funding will contribute to California's energy policy goals of achieving cost-effective energy efficiency in existing buildings, meeting a 33 percent renewable energy target by 2020 and reducing the State's dependence on petroleum fuels.

On the demand side, Californians consumed 273,103 gigawatt hours (GWh) of electricity in 2010, primarily in the commercial, residential and industrial sectors. CEC staff forecasts of future electricity demand anticipate that consumption will grow by between 1.03 and 1.69 percent per year from 2010 to 2022, with peak demand growing by 1.0 to 1.91 percent annually over the same period.

The San Diego Regional Energy Office's (SDREO) 2003 *San Diego Regional Energy Infrastructure Study* provided an integrated and comprehensive analysis of the electricity and natural gas supply and demand inventory and issues (SDREO 2003). The San Diego Regional Energy Infrastructure Study found that the San Diego region is unique compared to the rest of the State because of its proximity to Baja California, Mexico and the close integration with respect to trade flows, movement of people, and capital. Currently, there is a growing interdependency between San Diego County and Northern Baja California in terms of both the supply and demand of energy. Electric power transfers have taken place between California and northern Baja

[3] Megawatt (MW) is a unit of power and represents the rate at which energy is generated or used. One MW is equivalent to one million watts.

California, to some extent, for more than 20 years and recently, the bi-national supply and demand interdependencies have increased dramatically. Additionally, while abundant renewable resources are located within the County, the available resources are much greater when the potential of surrounding counties and northern Baja California are considered. The San Diego region's economic and energy development future depends on bi-national as well as interregional cooperation and joint problem solving.

SANDAG's 2009 Regional Energy Strategy (RES) (SANDAG 2009) identifies priority early implementation actions, essential to meeting the region's energy goals:

1. Pursue a comprehensive building retrofit program to improve efficiency and install renewable energy systems;

2. Create financing programs to pay for projects and improvements that save energy;

3. Utilize SANDAG-San Diego Gas & Electric (SDG&E) Local Government Partnership to help local governments identify opportunities and implement energy savings at government facilities and throughout their communities;

4. Support land use and transportation planning strategies that reduce energy use and greenhouse gas emissions;

5. Support planning of electric charging and alternative fueling infrastructure; and

6. Support use of existing unused reclaimed water to decrease the amount of energy needed to meet the water needs of the San Diego region.

The RES identified the main drivers of the strategy, including the State's preferred loading order for meeting new energy needs and global climate change and its policy implications. The California Public Utilities Commission (CPUC) and CEC adopted a preferred loading order to meet the goals for satisfying the State's growing demand for electricity, which would place top priority on increasing energy efficiency and demand response (i.e., temporary reduction or shift in energy use during peak hours), generating new energy from renewable and distributed generation resources, and improvements to clean fossil-fueled generation and infrastructure. Environmental changes caused by climate change are anticipated to have an increasing impact on energy production and peak demand for electricity. Global climate change is discussed in detail in Subchapter 2.7, *Greenhouse Gas Emissions*, of this EIR.

The major sources of energy in the San Diego region, which encompasses the Project area, include petroleum, electricity and natural gas. Electricity and natural gas are primarily provided to the San Diego region by SDG&E. The following discussion outlines consumption rates for these various energy sources in San Diego.

Electricity

San Diego County has two major steam electric generating units and a number of smaller combustion turbine units, most of which were constructed between 1960 and 1978. Although these units have continued operation with modifications and upgrades, they are quickly nearing

technological and economical obsolescence. Reliability must-run units are generation facilities that are necessary during certain operating conditions in order to maintain the security of power systems in a competitive environment. A number of the units that are currently considered "must-run" to meet the region's energy needs have been operating in the three percent capacity range, but need to be operating in the five percent capacity range. Must-run units are more expensive to operate and are only used as operating reserves during peak periods or in times of emergency backup. This is because the outage costs are much higher than the power generating cost (SDREO 2003).

As of 2003[4] when the San Diego Regional Energy Infrastructure Study was completed, San Diego had a total on-system generation capacity of about 2,359 MWs, which was about 55 percent of the region's summer peak demand. This capacity consists of 1,628-MW base-load plants. Base-load plants are the production facilities used to meet some or all of a given region's continuous energy demand, and produce energy at a constant rate, usually at a low cost relative to other production facilities available to the system. The remaining capacities are small and medium-sized peaking plants and on-site generators (excluding backup generation). All of this generation is not normally available since many of the generators are for emergency use and not available when needed. During peak demand periods, approximately 64 percent of peak demand can be met by in-County electrical generation.

The Project site is currently served by SDG&E. The SDG&E service area covers 4,100 square miles within San Diego and southern Orange counties. Energy is provided by SDG&E to 3.4 million customers through 1.4 million electric meters and 870,000 natural gas meters (SDG&E 2015). San Diego's electricity supply was supplemented in 2012 by the Sunrise Powerlink, a 117-mile, 500,000-volt transmission line which carries renewable energy from Imperial Valley County to San Diego County. This transmission line will eventually carry 1,000 MW of power (enough energy for 650,000 homes; SDG&E 2012).

As shown in Table 3.1.1-2, *San Diego County Electricity Consumption 2007 – 2013*, the electricity consumption within the County of San Diego decreased approximately six percent from 2008 to 2010 because of the economic downturn, followed by an upward trend with an increase of approximately three percent from 2010 to 2012 (CEC 2015). Figure 3.1.1-1, *SDG&E Electricity Forecast*, shows the SDG&E planning area's anticipated electricity demands through the year 2024 as compared to the historical electricity use represented by the blue line. The California Energy Demand (CED) 2013 projections present three demand scenarios: high, mid, and low. The high demand scenario (represented by the green line) is characterized by low electricity rates, high population growth, low levels of efficiency, and low self-generation. Inversely, the low demand scenario (represented by the purple line) is characterized by high electricity rates, low population growth, high levels of efficiency, and high self-generation. The mid demand scenario (represented by the brown line) uses assumptions in between the high and low scenarios. Additionally, these 2013 forecast scenarios are compared to the adopted CED 2011 forecast represented by the red line (CEC 2014a). As shown in Figure 3.1.1-1, the CED 2013 adopted forecast estimates that

[4] An update to this 2003 document is in preparation by the San Diego Regional Energy Office, but it is not available as of May 7, 2018.

annual electricity consumption for the County would reach between 23,000 and 26,000 GWh by 2024, depending on which demand scenario is realized.

Figure 3.1.1-2, *SDG&E Per Capita Electricity Consumption*, illustrates the per-capita electricity consumption[5] projections within the SDG&E planning area through 2024. Projections are shown to increase toward the end of the forecast period (2024) as a result of consumption from electric vehicles. The recent recession and increased savings from conservation and energy efficiency programs combined to cause a short-term dip in per capita consumption from 2008 to 2011. By 2024, per capita electricity consumption is projected to range between approximately 6,375 and 7,000 kWh per person.

Residential and commercial sectors use the most electricity in the San Diego region, and consumption is projected to increase with regional population and job growth (SANDAG 2009). Figure 3.1.1-3, *SDG&E Electricity Consumption per Household*, shows the 2024 forecast electricity consumption within the SDG&E planning area for residential uses. As depicted, the CED 2013 adopted projections increase over the forecast period; this is a result of increased electric vehicle consumption in the residential sector. By 2024, electricity consumption per household is expected to reach between approximately 6,900 and 7,375 kWh per year.

Figure 3.1.1-4, *SDG&E Electricity Consumption for Commercial Uses*, shows the 2024 forecast energy consumption within the SDG&E planning area for commercial uses. As depicted, 2024 commercial electricity consumption rates are anticipated to reach between approximately 10,500 and 11,250 GWh based on the CED 2013 adopted forecast.

The 2024 forecast energy consumption within the SDG&E planning area for the Transportation, Communication, Utilities and Street Lighting (TCU) sector is shown in Figure 3.1.1-5, *SDG&E Electricity Consumption for the TCU Sector*. The lower forecast for CED 2013 is a result of the lower historical consumption estimates that are reflective of the recent economic downturn.

SDG&E forecasts future energy consumption demand on a continual basis; primarily based on installation of transmission and distribution lines. The SDG&E Long Term Procurement Plan (LTPP), as discussed under the Regulatory Setting subheading below, ensures that adequate energy supplies are available to meet existing and projected future demands.

In situations where projects with large power loads are planned, this is considered together with other loads in the Project vicinity, and electrical substations are upgraded, if required. Several transmission lines of varying capacities are near the Project site, including 12-kilovolt (kV) residential distribution lines fronting the Project on Country Club Drive and crossing the Project site. Additionally, eight substations are located within a 5-mile radius of the Project site (CEC 2014b).

Natural Gas

Natural gas continues to play an important and varied role in California. In 2012, nearly 45 percent of the natural gas burned in California was used for electricity generation, and much of the

[5] Per-capita electricity consumption is the average amount of electricity used by each person within the SDG&E planning area.

remainder consumed in the residential (21 percent), industrial (25 percent), and commercial (9 percent) sectors (CEC 2013). Natural gas supplies are currently plentiful and relatively inexpensive as a result of technological advances that allow recovery of natural gas from formations such as shale reservoirs that were previously inaccessible. However, potential environmental concerns are causing decision makers to re-examine the development of shale resources and consider tighter regulations, which could affect future natural gas supplies and prices.

Several major generating plants were implemented in the last two decades in San Diego County, including the 90-MW Larkspur Energy Facility in Chula Vista in 2001; the 550-MW Palomar Power Plant in Escondido in 2006; and the 513-MW Otay Mesa Center power plant near the U.S.-Mexico border in 2009. In addition, a proposal has been submitted to SDG&E to annex the proposed 558-MW Carlsbad Energy Center to the existing 965-MW Encina Power Plant, for use as a peaking or intermediate power plant.

As shown in Figure 3.1.1-6, *San Diego Regional Natural Gas Consumption Forecast*, the San Diego region currently consumes approximately 581 million therms (MMTh) of natural gas per year (not including gas used for electricity generation, as accounted for above). The majority of natural gas uses are for residential and commercial purposes. Currently, California imports 87 percent of natural gas needs from out of state, while in-state natural gas production is decreasing. Regional gas consumption is expected to increase to 660 MMTh in 2020 and 730 MMTh in 2030, as shown in Figure 3.1.1-6.

Varying demand for natural gas makes reliably predicting future gas prices difficult. Even though the forecast shown in Figure 3.1.1-6 shows a slight increase in natural gas consumption throughout the forecast, as shown in Table 3.1.1-3, *San Diego County Natural Gas Consumption 2007 – 2013*, the CEC found that natural gas consumption within the County actually decreased approximately two percent from 2007 to 2013 (CEC 2015). This discrepancy in projected rates compared to actual rates may be a result of unexpected decreases in natural gas consumption associated with construction activity and income, which both experienced downturns between 2007 and 2009.

Water-related Energy

Before it reaches arid San Diego, water is pumped hundreds of miles from either the Sacramento-San Joaquin Bay Delta in northern California or from the Colorado River. Energy is used in the conveyance, treatment and distribution of water; therefore, there is a certain amount of energy use in every unit of water utilized by a project. This is known as "embedded" energy. Figure 3.1.1-7, *Water Embedded Energy Sources*, illustrates the key segments of the water use cycle. Each unit of water may have a different amount of energy embedded in it depending on how much it is processed or conveyed before it is delivered to the user. This energy is quite different in northern California compared to southern California, because it depends on pumping requirements related to distance and topography. Treatment and distribution before end use is better defined and fairly consistent across California (CEC 2007a).

The CEC established a benchmark for evaluating the relative values of embedded/proxy energy use per water use, estimating the amount of energy needed for each segment of the water use cycle in terms of the number of kWh needed to collect, extract, convey, treat and distribute one million

gallons (MG) of water, and the number of kWh needed to treat and dispose of the same quantity of wastewater. Table 3.1.1-4, *CEC-recommended Water Energy Proxies for Southern California*, shows the CEC's recommended water energy proxies for southern California based on the water use cycles for indoor and outdoor uses.

As water demand grows in the State, so grows water-related energy demand. Because population growth drives demand for both resources, water and energy demands are growing at about the same rate and, importantly, in many of the same geographic areas (CEC 2007a).

In California, water-related energy use consumes about 19 percent of the State's electricity (3 percent of which is used by the State Water Project to convey water from northern California to southern California [CEC 2007b]), 30 percent of its natural gas and 88 billion gallons of diesel fuel every year. Of this amount, more than 12,000 GWh (26 percent, about 5 percent of the State's total electricity requirements) were deemed attributable to energy used by water and wastewater systems and their operations. The balance of water-related energy was attributed to the amount of energy needed to apply and use water for agricultural, residential, commercial and industrial purposes.

Figure 3.1.1-8, *Water-related Energy Use in California*, shows how and where power is used in the State's water systems (CEC 2007a). Total water-related electrical consumption for the State amounts to approximately 52,000 GWh. Electricity to pump water by the water purveyors in the State amounts to 20,278 GWh. The remaining 32,000 GWh represent electricity that customers use to move, heat, pressurize, filter and cool water (CEC 2007b). Water supply-related electrical demands exceed 2,000 MW on summer peak days in California. Agricultural groundwater and surface water pumping represent 60 percent of the total water supply-related peak day electrical demand, with water agency demands representing the remaining 40 percent. Over 500 MW of water agency electrical demand is used for providing water/sewer services to residential water customers.

The CEC's Water Supply Related Electricity Demand in California study (CEC 2007b) examined electrical demand necessary to treat water and get it to the customer, to take the wastewater from the customer and dispose of it, and to provide groundwater pumping and surface water pumping for the agricultural community. The study examined the water supply-related peak day demands of the California investor-owned utilities (IOUs): Pacific Gas & Electric (PG&E), Southern California Edison (SCE) and SDG&E.

Within the SDG&E planning area, within which the Proposed Project is located, the predominant water-related demand is for urban water supply. Approximately 20 percent of water supply-related electricity use is due to agricultural pumping, with the remaining 80 percent being provided by the water/sewer agencies.

SDG&E has the lowest embedded residential peak water supply-related electrical demand of any of the utility service areas. The San Diego area is at the end of the pipeline. Almost all of its water is treated somewhere else (generally in the SCE service area at the big MWD treatment plants) and shipped to the San Diego area. Residential water demand in the San Diego area results in electrical-demand increases in the SCE area for treatment and shipping. However, collaboration between SDG&E and the region's water agencies has resulted in most of the treatment (fresh water

and sewer) facilities in this area having their own self-generation, dramatically reducing electrical demand by the water sector as the treatment facilities produce most of their own electricity (CEC 2007b).

As discussed in Section 3.1.10, *Utilities and Service Systems*, Rincon MWD would provide water service to the Proposed Project. Table 3.1.1-5, *Historical and Projected Water Energy Consumption in the Rincon Del Diablo MWD*, illustrates the amount of energy associated with the historical and projected total water use within the service area.

Wastewater Service

As further discussed in Section 3.1.10, the Project is not located in any of the local sanitation or maintenance districts. Wastewater generation is included in the California Emission Estimator Model (CalEEMod) data for water, discussed above under *Water-related Energy*. Additionally, energy demand related to wastewater treatment is accounted for in the CEC's recommended water-energy proxies based on the water-use cycles for indoor and outdoor uses, as described above (CEC 2007a).

Transportation

Automobiles and trucks consume gasoline and diesel fuel, which are nonrenewable energy products derived from crude oil. In addition to energy consumption associated with on-road vehicle use, energy is consumed in connection with construction and maintenance of transportation infrastructure. The transportation sector consumes relatively minor amounts of natural gas and electricity, but, propelled by air quality laws and regulations, technological innovations in transportation are expected to increasingly rely on compressed natural gas and electricity as energy sources. Biodiesel, derived from plant sources such as used vegetable oils, is a small but growing source of transportation fuel.

As shown in Figure 3.1.1-9, *San Diego Regional Projected On-road Fuel Consumption 1990-2030*, passenger cars and light-duty trucks are by far the largest consumers of transportation fuel, accounting for approximately 1.6 billion gallons of gasoline and diesel fuel per year (SANDAG 2009). Without changes in policy or behavior, on-road consumption of petroleum-based fuels is expected to increase considerably by 2020 and through 2030.

Based on the CARB EMFAC Emissions Database, the average fuel economy of the 2014 vehicle fleet in the County was estimated as 18.5 miles per gallon (mpg) for gasoline and 8.1 mpg for diesel. Based on the CARB EMFAC2011 vehicle fleet type breakdown for the County, approximately 95 percent of the VMT is from gasoline-powered vehicles and approximately 5 percent is from diesel-powered trucks. The energy consumption rates for gasoline- and diesel-powered vehicles are 6,750 and 17,180 BTU per VMT, respectively.

Table 3.1.1-6, *Fuel Economy and Energy Consumption Rates for Autos and Trucks in the County (2014),* presents the fuel economy and energy consumption rates associated with existing conditions in the County. The total automobile and truck-related energy usage in the County in 2014 was approximately 229 trillion BTU per year.

Energy Efficiency Potential

Infrastructure Development

Several challenges exist to siting major energy infrastructure projects in San Diego. In addition, there is a lack of suitable sites away from populous areas and near transmission lines. Power plants, particularly coastal plants that restrict public access to coastal areas, are not perceived as ideal neighbors. Additionally, the transmission and distribution infrastructure required to support power plants create aesthetic, health, and quality of life concerns with residents in the local community. Lastly, siting is more problematic for water-cooled plants than dry-cooled plants due to the effects of power plant cooling systems on the ecosystem (SANDAG 2009).

In addition, the SDAB (which encompasses the County) is currently classified as a nonattainment area for ozone (O_3) and particulate matter (PM_{10} and $PM_{2.5}$) under State standards and eight-hour ozone is in marginal nonattainment for the federal standard as well (refer to Subchapter 2.6). This means that all new major emission sources of ozone and particulate matter must be mitigated through the purchase of offsets (credits for reduction of emissions) from other sources within the County. The SDAPCD requires emission offsets, and limited availability of emission reduction credits is a barrier to the building of new power plants. Several strategies could be used to create the needed emissions credits. These include repowering existing power plants, allowing mobile offsets to be used for stationary power plants, and creating inter-border pollution offsets.

Energy Demand Reductions

Estimates vary on what level of future energy reductions will be attributed to efficiency programs and standards over the next decade, depending on the assumptions used. The CPUC estimates that in the San Diego region, efficiency programs will achieve gross savings of 1,514 GWh and 52 MMTh between 2012 and 2020, the largest contributor to energy reductions over this period (University of San Diego [USD] Energy Policy Initiative Center [EPIC] 2009).

A 2009 study intended to determine the remaining potential for energy efficiency programs in California included a detailed, bottom-up study of energy efficiency program potential in San Diego County (USD EPIC 2009). The primary objective of the work underlying this report was to produce estimates of remaining potential energy savings that might be obtainable in the near (2007-2016) and foreseeable (2017-2026) future through publicly funded energy efficiency programs in the existing and new residential, industrial, and commercial sectors. The study focused on providing a reasonable proxy of the remaining potential for implementation of local government policies to affect energy savings.

Study results show that the residential sector has the highest remaining potential for energy program reductions, representing 49 percent of the total potential, followed by the commercial (34 percent) and industrial (17 percent) sectors. Existing buildings represent 89 percent of the energy reduction estimate, while new construction represents 11 percent.

Table 3.1.1-7, *Summary of Potential Energy Efficiency Through Local Policies*, *2020 Forecast, San Diego County*, details the anticipated remaining energy efficiency potentials for various land uses in San Diego County through the year 2020.

Regulatory Setting

Energy consumption is a large source of GHGs. Regulations to address energy also address GHGs; resulting in some overlap in the discussions in the following text and Subchapter 2.7. In addition to the federal, State, and local regulations directed at reducing GHG emissions through increased efficiencies presented in Subchapter 2.7 and EIR Appendix J (i.e., Corporate Average Fuel Economy [CAFE] Standards; California Code of Regulations, Title 24, Part 6: California Energy Code; California Code of Regulations, Title 24, Part 11; EO S-01-07; SB 1078, EO S-14-08, and S-21-09; AB 32; AB 1493; SB 97; SB 375; SB 1368; the CEC New Solar Homes Partnership; the CARB Scoping Plan; the SANDAG Climate Action Strategy), energy efficiency regulations that have the potential to considerably influence the Proposed Project are discussed below.

Federal Energy Regulations

Energy Independence and Security Act of 2007

House of Representatives Bill 6 (HR 6), the federal Energy Independence and Security Act of 2007, established new standards for a few equipment types not already subjected to a standard, and updated some existing standards. Perhaps the most substantial new standard that HR 6 established is for general service lighting that is being deployed in two phases. First, phased in between 2012 through 2014, common light bulbs were required to use about 20 to 30 percent less energy than previous incandescent bulbs. Second, by 2020, light bulbs must consume 60 percent less energy than today's bulbs; this requirement will effectively phase out the incandescent light bulb.

Energy Improvement and Extension Act of 2008

The formerly entitled "Renewable Energy and Job Creation Act of 2008," or Division B of HR 1424, was signed into law by President Bush in October 2008. The signed bill contains $18 billion in incentives for clean and renewable energy technologies, as well as for energy efficiency improvements.

California Energy Regulations

Assembly Bill 811

AB 811 is a property tax bill that gives all California cities and counties the ability to offer low-interest loans for energy-efficiency projects and solar panels to homeowners and small businesses.

California Code of Regulations, Title 24, Part 6: California Energy Code

CCR Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24; Energy Code) were first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The latest update to the Title 24 standards occurred in 2016 and went into effect January 2017. Title 24 of the CCR comprises the State Building Standards Code. Part 6 of Title 24

is the California Energy Code, which includes the building energy efficiency standards. The standards include provisions applicable to all buildings, residential and non-residential, which describe requirements for documentation and certificates that the building meets the standards. These provisions include mandatory requirements for efficiency and design of the following types of systems, equipment, and appliances:

- Air conditioning systems
- Heat pumps
- Water chillers
- Gas- and oil-fired boilers
- Cooling equipment
- Water heaters and equipment
- Pool and spa heaters and equipment
- Insulation and cool roofs
- Lighting and control devices
- Windows and exterior doors
- Joints and other building structure openings (envelope)
- Gas-fired equipment including furnaces and stoves/ovens

The standards include additional mandatory requirements for space conditioning (cooling and heating), water heating and indoor and outdoor lighting systems and equipment in non-residential, high-rise residential and hotel or motel buildings.

Mandatory requirements for low-rise residential buildings cover indoor and outdoor lighting, fireplaces, space cooling and heating equipment (including ducts and fans), and insulation of the structure, foundation and water piping.

California's Electricity Loading Order

The loading order, adopted by the CEC in 2003, calls for California's electricity needs to be met with: (1) increased energy efficiency and demand response; (2) new generation from renewable energy and distributed generation resources; and (3) clean fossil-fueled generation and infrastructure improvements.

CEC Tier II Energy Efficiency Goals

Under State law, the CEC is required to establish eligibility criteria, conditions for incentives and rating standards to qualify for ratepayer-funded solar energy system incentives in California. As part of this effort, the CEC establishes energy efficiency standards for homes and commercial structures, and requires new buildings to exceed current building standards by meeting Tier Energy Efficiency goals. CEC Tier II Energy Efficiency goals will continue to be updated to achieve energy efficiency best practices, and are consistent with what is needed to meet the CPUC Strategic Plan goals of zero net-energy buildings. CEC proposed guidelines for the solar energy incentive program recommend a Tier II goal for residential and commercial projects of a 30 percent reduction in building combined space heating, cooling and water-heating energy, compared to the 2008 Title 24 Standards.

Senate Bill 1

This 2006 bill enacted Governor Schwarzenegger's Million Solar Roofs program with the overall goal of installing 3,000 MW of new solar photovoltaic systems by 2017.

CEQA Guidelines – Appendix F

Section 15126.4(a)(1) of the CEQA Guidelines states that an EIR shall describe feasible measures which could minimize significant adverse impacts, including, where relevant, inefficient and unnecessary consumption of energy.

CEQA Guidelines Appendix F, Energy Conservation, provides guidance for EIRs regarding potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing the inefficient, wasteful and unnecessary consumption of energy. In addition, though not described as thresholds for determining the significance of impacts, Appendix F seeks inclusion of information in the EIR addressing the following topics:

- The project's energy requirements and its energy-use efficiencies by amount and fuel type for each stage of the project, including construction, operation, maintenance, and/or removal. If appropriate, the energy intensiveness of materials may be discussed.
- The effects of the project on local and regional energy supplies and on requirements for additional capacity.
- The effects of the project on peak and base period demands for electricity and other forms of energy.
- The degree to which the project complies with existing energy standards.
- The effects of the project on energy resources.
- The project's projected transportation energy use requirements and its overall use of efficient transportation alternatives.

Regional

SANDAG 2009 San Diego Regional Energy Strategy

The RES is an important and integral part of the larger San Diego Regional Comprehensive Plan, intended to contain an integrated set of public policies, strategies and action plans to promote a smarter, more sustainable growth for the San Diego region. The following goals set forth by the RES are relevant to the Proposed Project:

1. Energy Efficiency and Conservation

   GOAL: Reduce per capita electricity consumption in the residential and commercial sectors by 20 percent by 2030 in order to keep total electricity consumption flat between now and 2030.

2. Renewable Energy

   GOAL: Support the development of renewable energy resources to meet or exceed a 33 percent renewable portfolio standard (RPS) by 2020 and a 45 percent RPS by 2030.

3. Distributed Generation

   GOAL: Increase the total amount of clean distributed generation (renewable and non-renewable) to reduce peak demand and diversify electricity resources in the San Diego region.

4. Energy and Water

   GOAL: Reduce water-related energy use.

5. Peak Demand

   GOAL: Implement cost-effective steps and incentives to utilize demand response and energy efficiency measures to reduce peak demand.

6. Transportation Fuels

   GOAL: Substantially increase the deployment of alternative transportation fuels and vehicles.

SDG&E Long Term Procurement Plan

As required by the CPUC, utility companies such as SDG&E must prepare an LTPP to ensure that adequate energy supplies are available to maintain a reserve margin of 15 percent above the estimated energy demand. These plans outline any future energy needs and how those needs can be met. In December 2006[6], SDG&E filed its LTPP with the CPUC, which included a 10-year energy resource plan that details its expected portfolio of energy resources over the planning horizon of 2007 through 2016. The projections included in the current LTPP were based on the CEC's California Energy Demand 2008-2018 Forecast, dated November 2007. The 2014-2024 CEC Energy Demand Forecast, shows that projections are now lower than what was anticipated in 2007.

San Diego County

General Plan

The Land Use and Conservation and Open Space (COS) elements contain goals and policies relevant to energy conservation. These elements provide a framework to accommodate future development within the County in an efficient and sustainable manner, and include goals and policies to encourage efficient use of water and other natural resources, efficient energy use in buildings and infrastructure, renewable energy production, and land use development patterns and transportation choices that would reduce pollutants and energy use. Refer to Section 3.1.5 of this EIR for a more detailed discussion of relevant goals and policies as they relate to the Proposed Project.

[6] As of May 7, 2018, the LTPP has not been updated.

Strategic Energy Plan 2013-2015

The purpose of the Strategic Energy Plan is to provide energy and sustainability objectives and goals in the following areas: energy and water conservation and efficiency, sustainable design, energy supply, distributed generation, vehicular transportation, energy and sustainability education and outreach, energy consumer choice, recycling and landfill diversion, and greenhouse gas emissions reductions. The following community goals of the Strategic Energy Plan are applicable to the Proposed Project relative to energy conservation (County 2013b):

- Community Goal #1: Reduce Energy Consumption. Reduce per capita energy consumption of County communities by 20 percent from 2007 to 2030 through a comprehensive approach that addresses new construction, existing buildings, and water use. Energy efficiency in existing buildings is the key to achieving cost-effective carbon reductions on a mass scale in the time frame that is required. Existing residential buildings in particular represent the largest potential for energy performance improvements in our region.

- Community Goal #2: Renewable Energy. Facilitate the development of at least 200 residential/commercial photovoltaics projects per year and the development of commercial renewable energy in the unincorporated County with the goal of at least 50 MW of production by 2015.

- Community Goal #4: Transportation and Land Use. Reduce petroleum demand through reduced vehicle demand and vehicle miles traveled, and by encouraging deployment of alternative fuel vehicles.

- Community Goal #5: Education and Outreach. Provide resources to the residents of the unincorporated County so they can be readily informed of steps they can take to reduce their energy consumption and improve energy efficiency at their homes and businesses.

- Community Goal #6: Recycling. Reduce energy use associated with first generation manufacturing and distribution through increased recycling and reuse.

3.1.1.2 *Analysis of Project Effects and Determination as to Significance*

Guideline for the Determination of Significance

Consistent with CEQA Guidelines Appendix F, the Proposed Project would result in a significant impact to energy conservation if it would:

1. Substantially increase the consumption of electricity, natural gas, gasoline, diesel or other non-renewable energy types such that the construction of new facilities and sources of energy or major improvements to local infrastructure would be required; or

2. Cause the use of large amounts of electricity and natural gas in a manner that is wasteful or otherwise inconsistent with adopted plans or policies.

Guideline Source

The guideline is based on CEQA Guidelines Appendix F.

Analysis

Per CEQA Guidelines Appendix F, energy conservation impacts were analyzed by estimating Project energy requirements by amount and type, and evaluating Project compliance with regulatory requirements. These data were used to evaluate the Project's effects on energy resources and the degree to which the Project would comply with existing energy standards.

The Project site is currently vacant; therefore, this analysis uses a baseline demand of zero for electric, natural gas, water, wastewater or other energy demands. The analysis included in this section utilizes the CalEEMod Version 2013.2.2 results from the Project's air quality and GHG analyses to evaluate energy impacts (refer to EIR Appendices H and J, respectively).

Substantially Increase Consumption of Non-Renewable Energy

Construction Impacts

Project construction would require the use of construction equipment for grading, hauling and building activities, as well as construction workers and vendors traveling to and from the Project site. Construction equipment requires gasoline, diesel and potentially other fuel sources to operate. To assess construction-related energy consumption for development of the Project, a worst-case analysis assessing the four-year construction schedule was assumed. Construction data used in CalEEMod (refer to Subchapter 2.6 for details) were utilized to determine energy consumption associated with the proposed construction activities.

Construction energy was calculated based on the fuel consumption rates from the SCAQMD CEQA Air Quality Handbook for each piece of off-road heavy-duty equipment (SCAQMD 1993). Fuel economy (i.e., gasoline and diesel) for all off-road equipment was determined using values provided in the CARB's OFFROAD2011 model. Fuel economy for on-road vehicles was determined by using the average fuel economy in the County for 2014 (estimated as 18.5 mpg for gasoline and 8.1 mpg for diesel) based on the CARB EMFAC Emissions Database. The analysis did not assume increases in fleet fuel economy due to changes in technology, as the effects on the average fuel economy of the future years' equipment and vehicle fleet remain uncertain.

Table 3.1.1-8, *Total Energy Consumption from Construction Equipment and Vehicles*, presents the amount of energy in BTU required during construction of the Proposed Project. Energy consumption from construction equipment and off-road vehicles would be approximately 32.9 billion BTU. Construction workers and vendors are estimated to generate 3,208,255 VMT during the four-year construction duration; this would result in approximately 23.4 billion BTU. Therefore, the total estimated amount of energy consumption required during construction would be approximately 56.3 billion BTU.

Construction of the Project would incorporate on-site energy conservation features. The following practices would be implemented during Project construction to reduce waste and energy consumption:

- Follow maintenance schedules to maintain equipment in optimal working order and rated energy efficiency, which would include, but not be limited to, regular replacement of filters, cleaning of compressor coils, burner tune-ups, lubrication of pumps and motors, proper vehicle maintenance, etc.;

- Reduce on-site vehicle idling; and

- In accordance with CALGreen criteria as well as State and local laws, at least 50 percent of on-site construction waste and ongoing operational waste would be diverted from landfills through reuse and recycling.

The Proposed Project's construction-related energy usage would not represent a significant demand on energy resources because it is considered temporary in nature (i.e., projected to last only four years). Additionally, with implementation of the on-site energy conservation features (refer to Table 1-2 in Chapter 1.0 of this EIR), Project construction would not result in energy consumption that is wasteful. Therefore, the Project's construction-phase energy impacts would be **less than significant.**

Operational Impacts

Electricity, natural gas, and water demand, as well as wastewater generation, anticipated VMT associated with the operation of the Proposed Project, and the amount of diesel necessary for the WTWRF emergency generators, were calculated in CalEEMod for the unmitigated (without Project Design Features [PDFs]) scenario (refer to EIR Appendix J) using features such as Project size and location. Table 3.1.1-9, *Projected Annual Energy Consumption at Buildout*, summarizes this information and converts the values to kWh and BTU for energy comparison purposes. As shown in Table 3.1.1-9, the Proposed Project would result in approximately 31 GWh or 107 billion BTU of energy demand annually under the unmitigated scenario.

This scenario was then compared to the Project with PDFs, which incorporated several energy reduction measures. Measures include reducing overall energy consumption by complying with 2016 Title 24 standards, providing 100 percent of Project electricity through renewable sources, installing Energy Star appliances in all residential units, and implementing a water conservation plan (refer to Chapter 1.0 for a complete list of PDFs). As shown in Table 3.1.1-9, the Proposed Project with PDFs would result in approximately 28 GWh or 94 billion BTU of energy demand annually, a reduction of 12.2 percent (3.7 GWh or 12.7 billion BTU) from the unmitigated scenario.

Stationary Energy. Stationary energy demands include electricity, natural gas, water, wastewater, and the WTWRF emergency generators. The total demand associated with these uses with implementation of PDFs, as shown in Table 1-2 in Chapter 1.0, is estimated at approximately 5 GWh or 16 billion BTU annually. It should be noted that the energy consumption associated with the Proposed Project's water demand (including wastewater treatment and conveyance) was estimated using the CEC-recommended water energy proxies for southern California (refer to Table 3.1.1-4), which include substantial energy usage associated with water conveyance and distribution. Since the Project includes an on-site WTWRF with on-site utilization of reclaimed water, the Project's water-related energy demand is likely overstated.

As discussed in Subsection 3.1.1.1, in 2013, the County's electricity use was approximately 19,264 GWh (equivalent to 65.7 trillion BTU) and natural gas usage was approximately 538 MMTh (equivalent to 53.8 trillion BTU). The projected energy usage from the Project represents an increase from 2013 County usage of 0.01 percent for both electricity and natural gas.

While the Proposed Project would increase the consumption of energy related to electricity, natural gas, water and wastewater, the increase is consistent with the energy projections for the State and the region, as described in Section 3.1.1.1. The PDFs described in Chapter 1.0, Table 1-2, would also reduce the energy usage as compared to the unmitigated scenario, as shown above. Additionally, adequate energy transmission facilities are located within the vicinity of the Project site on Country Club Drive. Thus, the incremental increase associated with implementation of the Project would not require the construction of new energy facilities or sources of energy that would not otherwise be needed to serve the region. It is anticipated that these services would be provided from existing utilities on site, or from extensions from existing facilities immediately abutting the site (see Section 3.1.11 for more information). Based on the location of existing infrastructure across and adjacent to the Project site, it is anticipated that the Project would not require major improvements to local energy infrastructure. Impacts from stationary energy would, therefore, be **less than significant**.

Mobile Energy. Energy is used for transportation in the form of fuel for vehicular trips. The analysis used the fuel economy for on-road vehicles as described under Construction Impacts. However, as described further below, due to anticipated increases in fuel economy standards driven by legislated deadlines, the actual average fuel economy at Project buildout would likely be much higher than that included in this analysis.

Trip generation rates provided in the Project TIA (refer to EIR Appendix D) were used in CalEEMod to estimate the annual total number of VMT. As shown in Table 3.1.1-9, VMT was estimated to be approximately 11.5 million miles per year or 69 VMT per dwelling unit per day.

Table 3.1.1-10*, Project Fuel Economy and Energy Consumption Rates for Autos and Trucks*, presents the fuel economy and energy consumption rates for the Project-related automobile and truck use. As shown, the total estimated direct annual energy consumption from Project-related automobile and truck use (both gasoline and diesel combined) would be approximately 83.6 billion BTU per year at buildout.

State and federal regulations are expected to require increasingly stricter standards for vehicular fuel efficiency. As discussed in Subchapter 2.7 of this EIR, the federal CAFE standards, EO S-1-07 Low Carbon Fuel Standard (LCFS), and AB 1493 fuel efficiency standard (analogous to the federal CAFE standard), as well as light/heavy vehicle efficiency/hybridization programs, all contribute to increased fuel efficiency, and therefore, would reduce vehicle fuel energy consumption rates over time. Thus, the annual vehicular energy consumption calculated for the Proposed Project is considered a conservative estimate, since 2014-level fuel efficiency was used in the calculation. The projected energy usage from the Project represents an increase from 2014 County usage of 0.04 percent for transportation fuels. While the Project would increase the consumption of gasoline and diesel proportionately with projected population growth, the increase is consistent with the energy projections for the State and the region, as described in Section 3.1.1.1. Thus, this percentage increase would not require the construction of new regional

facilities and sources of energy. Because gasoline and diesel are transported via truck to individual service stations, the increase in demand also is not anticipated to require major improvements to local fueling infrastructure. Therefore, energy impacts related to vehicular energy during Project operations would be **less than significant**.

Waste Non-renewable Energy or be Inconsistent with Adopted Plans and Policies

The Proposed Project is located within the SDG&E planning area which is covered by the LTPP. As discussed in Subchapter 2.7, the current LTPP plans for higher levels of demand than has actually occurred (i.e., the projections contained in the current LTPP are approximately 9 percent higher than current estimates). Thus, the Project would not result in an unanticipated increase of energy demand beyond what is already planned for and included in the LTPP.

The Proposed Project would be required to comply with city, State and federal energy conservation measures related to Project construction and operations. Many of the regulations regarding energy efficiency are focused on increasing building efficiency and renewable energy generation, as well as reducing water consumption and VMT. The Proposed Project includes several energy conservation measures to meet and exceed these regulatory requirements. Table 1-2, in Chapter 1.0, contains a complete list of PDFs under the Air Quality and Greenhouse Gases headings that would be implemented to ensure that the Proposed Project would not use energy in a wasteful manner or conflict with adopted energy conservation plans.

A major objective of many of the energy-related regulations involves increasing renewable energy generation. The Project proposes to include renewable energy systems in the form of solar power (on-site PV panels), as discussed in Table 1-2 and Subchapter 2.7 of this EIR, which would provide a minimum of 100 percent of residential electricity demand. This inclusion would decrease the Project's reliance on regional energy sources and would support the federal, State and local goals associated with renewable energy.

The experts at CARB attest to the State being on a trajectory to meet the 2020, 2030 and 2050 GHG reduction targets set forth in AB 32, SB 32 and Executive Order S-3-05 (see Subchapter 2.7 of this EIR and Appendix J). With the Project's inclusion of energy conservation measures, including on-site renewable energy, the Project would not interfere with the State meeting these targets. Additionally, as further described in Subchapter 2.7, the Project would not interfere with the State's goal to install 12,000 MW of renewable distributed generation systems by 2020, the ability of the California Building Commission to mandate constructing net-zero energy homes after 2020, implementation of building retrofits under AB 758 or SB 350, or implementation of the Cap-and-Trade program.

The California Energy Code Building Energy Efficiency Standards include provisions applicable to all buildings, residential and non-residential, which are mandatory requirements for efficiency and design. The Proposed Project would comply with Title 24 (2016) through implementation of energy-reduction measures, such as energy efficient lighting and appliances.

The County's Strategic Energy Plan includes energy efficiency standards for new development, renewable energy generation, water conservation measures, transportation measures to reduce trips and VMT and waste diversion programs. This plan serves as a companion document to the

County's General Plan and provides the framework for land-based policy decisions to improve energy efficiency in existing and future development. The Proposed Project would be consistent with the Strategic Energy Plan as discussed below.

As described in Section 3.1.5 of this EIR, the Proposed Project would be consistent with applicable energy conservation goals and policies within the General Plan. In addition to the goals and policies discussed in Section 3.1.5, the Project would also be consistent with the goals and policies listed and described Section 3.1.1.1 of this discussion. The Strategic Energy Plan goal of efficient use of water and other natural resources would be met through reducing potable water usage in compliance with 2016 CALGreen standards, as well as utilization of reclaimed water produced on site for parks, streetscapes and other landscaping, as noted in Chapter 1.0, Table 1-2. The Strategic Energy Plan goal of efficient energy use in buildings and infrastructure would be met through the Project's energy efficiency measures and sustainable building practices that comply with 2016 Title 24 requirements. The Strategic Energy Plan goal of renewable energy production would be met by requiring 100 percent of the Project's electricity needs to be derived from renewable sources. Additional details regarding Project consistency with General Plan goals and policies are provided in Section 3.1.5.

The Proposed Project design features and conservation strategies that are proposed as part of the Project (Table 1-2) are intended to ensure that the Project's energy consumption would not be wasteful, inefficient, or unnecessary. The Project is anticipated to generate energy use demand of 94 billion BTU or 28 GWh per year. The Proposed Project's demand on energy resources and services would not be anticipated to require the construction of new energy facilities or require improvements to local infrastructure. Therefore, impacts related to inconsistency with adopted plans and policies and energy waste would be **less than significant**.

3.1.1.3 *Cumulative Impact Analysis*

Short-term and long-term cumulative development is expected to result in an increase in the demand for energy sources throughout the County. Sixty-five cumulative projects in the vicinity of the Proposed Project were identified in Table 1-3. Several County programs and policies and SDG&E initiatives would serve to reduce total energy demand among cumulative projects. Additionally, minimum standards for energy efficiency are outlined in California's Energy Efficiency Standards for Residential and Non-residential Buildings. To exceed these standards, SDG&E as well as State and federal agencies offer incentive programs to encourage developers to exceed current (2016) Title 24 standards. These programs encourage the use of Energy Star appliances, automatic light sensors, extra insulations and other measures to reduce energy consumption.

The Proposed Project, along with other cumulative projects, would be required to comply with County and SDG&E programs as well as Statewide regulations such as Title 24 and CALGreen. Compliance with these regulations and programs would ensure that the energy consumed by cumulative growth would not be wasteful, inefficient, or otherwise inconsistent with adopted plans or policies. Therefore, cumulative energy impacts would be **less than significant**.

3.1.1.4 *Significance of Impacts*

Based on the analysis provided above, the Proposed Project would have less than significant impacts related to energy.

3.1.1.5 *Conclusion*

Based on the Project design features and above analysis, the Proposed Project would have less than significant Project-specific or cumulative impacts related to energy.

Table 3.1.1-1
CALIFORNIA ENERGY SOURCES 2010

Fuel Type	Percent of California Power
Natural Gas	53.4
Nuclear	15.7
Large Hydro	14.6
Coal	1.7
Renewable	14.6
Total	**100.00**

Source: CEC 2011

Table 3.1.1-2
SAN DIEGO COUNTY ELECTRICITY CONSUMPTION 2007 – 2013
(GWh)

Year	2007	2008	2009	2010	2011	2012	2013
Usage	19,569	19,908	19,347	18,801	18,875	19,443	19,264
Percent Change (Annual)	--	1.73	-2.82	-2.82	0.40	3.01	-0.92

Source: CEC 2015
GWh = gigawatt hours

Table 3.1.1-3
SAN DIEGO COUNTY NATURAL GAS CONSUMPTION 2007 – 2013
(in MMTh)

Year	2007	2008	2009	2010	2011	2012	2013
Usage	547	541	515	561	538	524	538
Percent Change (Annual)	--	-1.03	-4.89	8.91	-4.07	-2.52	2.56

Source: CEC 2015
MMTh = million therms

Table 3.1.1-4
CEC-RECOMMENDED WATER ENERGY PROXIES FOR SOUTHERN CALIFORNIA

Water-Use Cycle	Indoor Uses kWh/MG	Outdoor Uses kWh/MG
Water Supply and Conveyance	9,727	9,727
Water Treatment	111	111
Water Distribution	1,272	1,272
Wastewater Treatment	1,911	0
Regional Total	**13,021**	**11,110**

Source: CEC 2007a
kWh = kilowatt hours; MG = million gallons

Table 3.1.1-5
HISTORICAL AND PROJECTED WATER ENERGY CONSUMPTION IN THE RINCON DEL DIABLO MWD

Year	Acre Feet per Year	kWh per Year	BTU per Year
2005	7,819.6	28,308,589	288,747,609,587
2010	9,558.4	34,603,409	352,954,774,090
2015	9,583.0	34,692,466	353,863,157,024
2020	9,823.0	35,561,317	362,725,429,558
2025	10,041.0	36,350,522	370,775,327,109
2030	10,263.0	37,154,209	378,972,929,202
2035	10,371.0	37,545,191	382,960,951,842

Source: Adapted from Rincon MWD 2011

Table 3.1.1-6
FUEL ECONOMY AND ENERGY CONSUMPTION RATES FOR AUTOS AND TRUCKS IN THE COUNTY (2014)

Vehicle Type	Fuel Economy (mpg)	VMT per day	VMT per year	Energy Consumption Factor (BTU/vehicle mile)	BTU per year
Passenger Vehicles	18.52	81,459,221	29,732,615,816	6,750	200,962,750,302,861
Heavy Trucks	8.09	4,536,577	1,655,850,613	17,180	28,167,674,782,747
				Total	**229,130,425,085,608**
				Total Mobile Energy Consumption Per Year = 229.1 Trillion BTU	

Source: HELIX 2017d and CARB 2012

Table 3.1.1-7
SUMMARY OF POTENTIAL ENERGY EFFICIENCY THROUGH LOCAL POLICIES
2020 FORECAST, SAN DIEGO COUNTY

Sector	Natural Gas (MMTh)	Natural Gas MMT CO_2e	Electric (GWh)	Electric MMT CO_2e	Total MMT CO_2e
Commercial - Existing	0.4	0.002	352	0.1	0.1
Commercial - New Construction	2.0	0.01	108	0.03	0.04
Industrial - Existing	10.2	0.06	69	0.02	0.1
Industrial - New Construction	N/A	N/A	2	0.001	0.001
Residential - Existing	12.0	0.1	505	0.1	0.2
Residential - New Construction	0.2	0.00	9	0.002	0.003
TOTAL	**24.8**	**0.13**	**1,045**	**0.28**	**0.41**

Source: USD EPIC 2009
MMTh = million therms; MMT CO_2e = million metric tons carbon dioxide equivalent; GWh = gigawatt hours; N/A = not available

Table 3.1.1-8
TOTAL ENERGY CONSUMPTION
FROM CONSTRUCTION EQUIPMENT AND VEHICLES

Equipment	Qty	Diesel Fuel (gallons)	BTU
Air Compressors	1	1,616	224,632,362
Cranes	3	33,550	4,663,403,274
Crushing/Proc. Equipment	1	2,275	316,282,824
Excavators	2	4,225	587,341,498
Forklifts	5	20,244	2,813,937,350
Generator Sets	3	36,365	5,054,747,766
Graders	1	2,448	340,326,043
Off-Highway Trucks	2	20,867	2,900,451,840
Other Material Handling Equipment	1	4,585	637,336,128
Pavers	2	6,043	839,971,440
Paving Equipment	2	5,387	748,774,541
Pumps	1	8,533	1,186,132,147
Rollers	2	3,499	486,383,462
Rubber Tired Dozers	4	14,003	1,946,355,840
Scrapers	2	11,894	1,653,257,549
Tractors/Loaders/Backhoes	13	51,729	7,190,267,633
Trenchers	1	2,746	381,638,400
Welders	1	6,427	893,298,067
Construction Equipment Total		**236,436**	**32,864,538,164**
Construction Workers and Vendors		**3,208,255 VMT**	**23,419,513,851**
Total Construction Energy Expenditure = 56.3 Billion BTU			

Source: HELIX 2017d, CARB 2012 and 2011a

Table 3.1.1-9
PROJECTED ANNUAL ENERGY CONSUMPTION
AT BUILDOUT (OPERATIONAL)

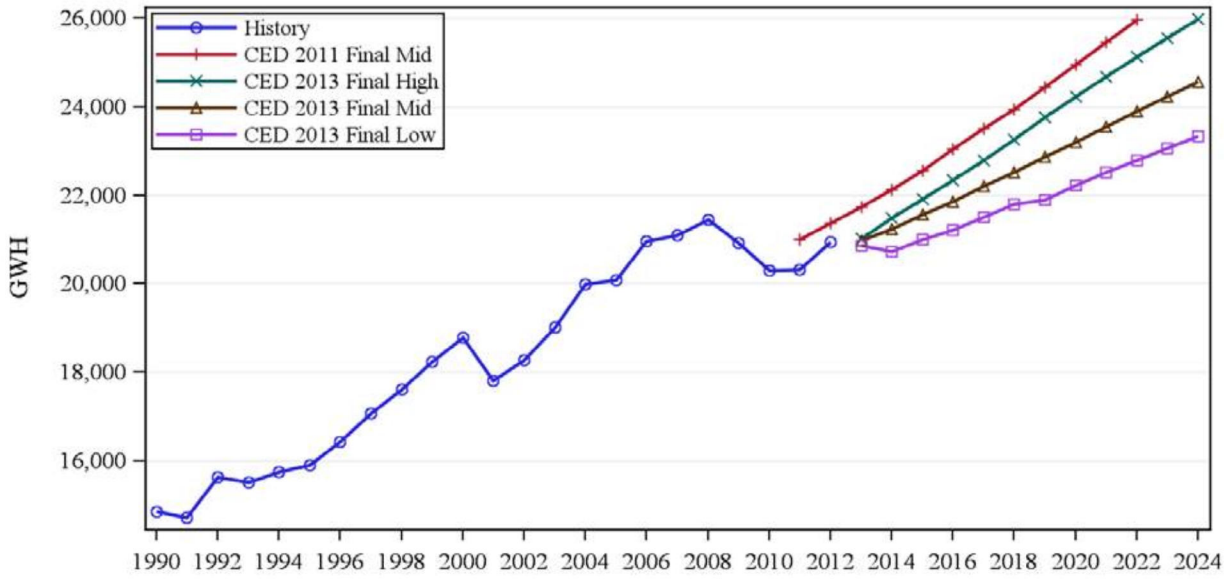
Source	Demand (Available Unit)	kWh	BTU
Proposed Project without Project Design Features			
Electricity	2,588,262 kWh	2,588,262	8,833,738,206
Natural Gas	8,934,240 kBTU	2,617,709	8,934,240,000
Water	50.51 MGal	561,126	1,915,124,493
Wastewater	29.89 MGal	389,133	1,328,112,312
Transportation	11,455,912 VMT	24,502,046	83,625,483,430
WTWRF Generators	17,067 Gal Diesel	695,067	2,372,264,294
	Total	**31,353,344**	**107,008,962,735**
Proposed Project with Project Design Features			
Electricity	0 kWh	0	0
Natural Gas	5,702,600 kBTU	1,670,847	5,702,600,000
Water	40.86 MGal	453,967	1,549,389,746
Wastewater	23.91 MGal	311,307	1,062,491,610
Transportation	11,455,912 VMT	24,502,046	83,625,483,430
WTWRF Generators	17,067 Gal Diesel	695,067	2,372,264,294
	Total	**27,633,234**	**94,312,229,080**
Total Annual Energy Consumption = 27.6 GWh or 94.3 Billion BTU			
Total Reduction from Project Design Features = 3.7 GWh or 12.7 Billion BTU			

Source: HELIX 2017d and CARB 2012

Table 3.1.1-10
PROJECT FUEL ECONOMY AND ENERGY CONSUMPTION RATES
FOR AUTOS AND TRUCKS

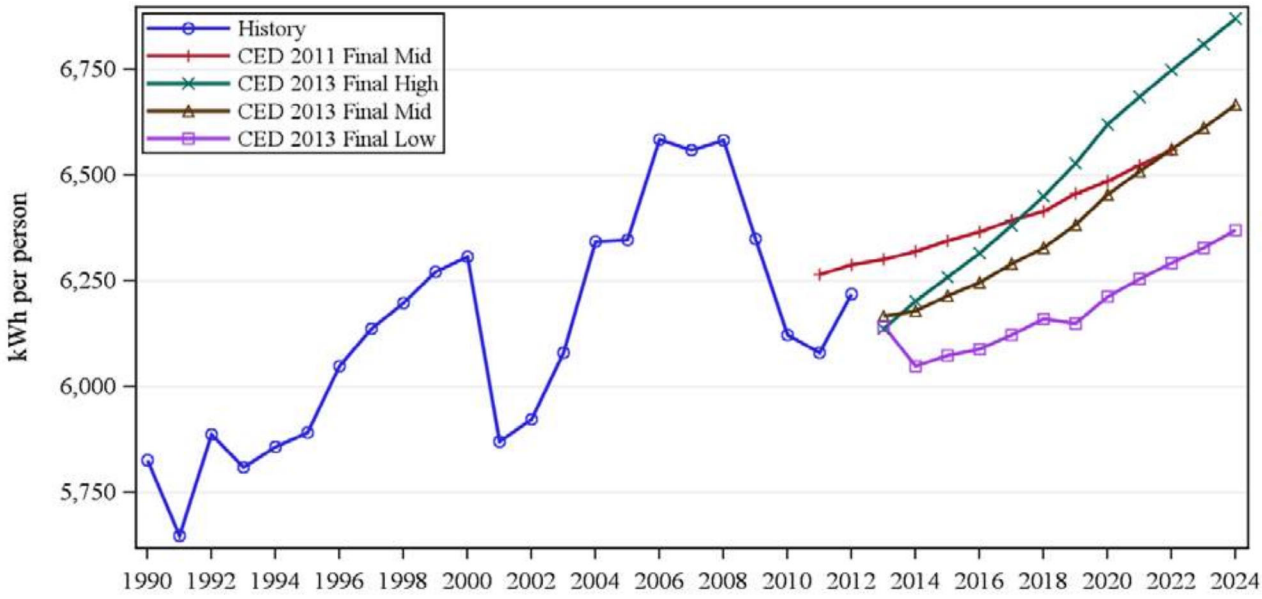
Vehicle Type	Fuel Economy (mpg)	VMT per year	Energy Consumption Factor (BTU/vehicle mile)	BTU per year
Passenger Vehicles	18.52	10,851,573	6,750	73,242,955,287
Heavy Trucks	8.09	604,339	17,180	10,382,528,143
			Total	**83,625,483,430**
Total Mobile Energy Consumption Per Year = 83.6 Billion BTU				

Source: HELIX 2017d and CARB 2012



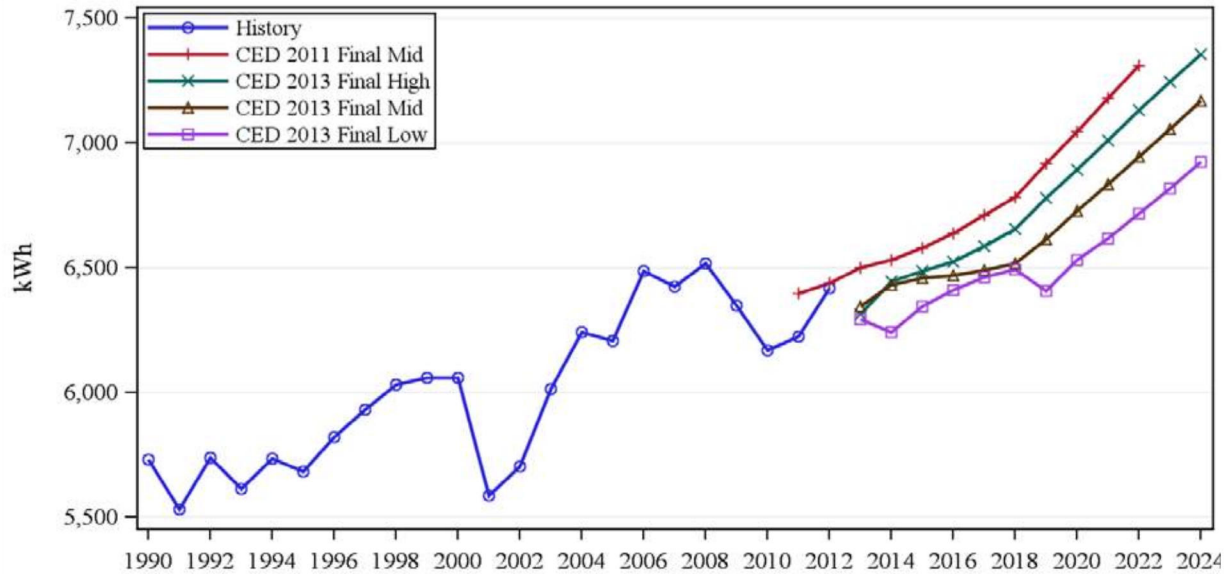
Source: CEC 2014a

SDG&E ELECTRICITY FORECAST
Figure 3.1.1-1



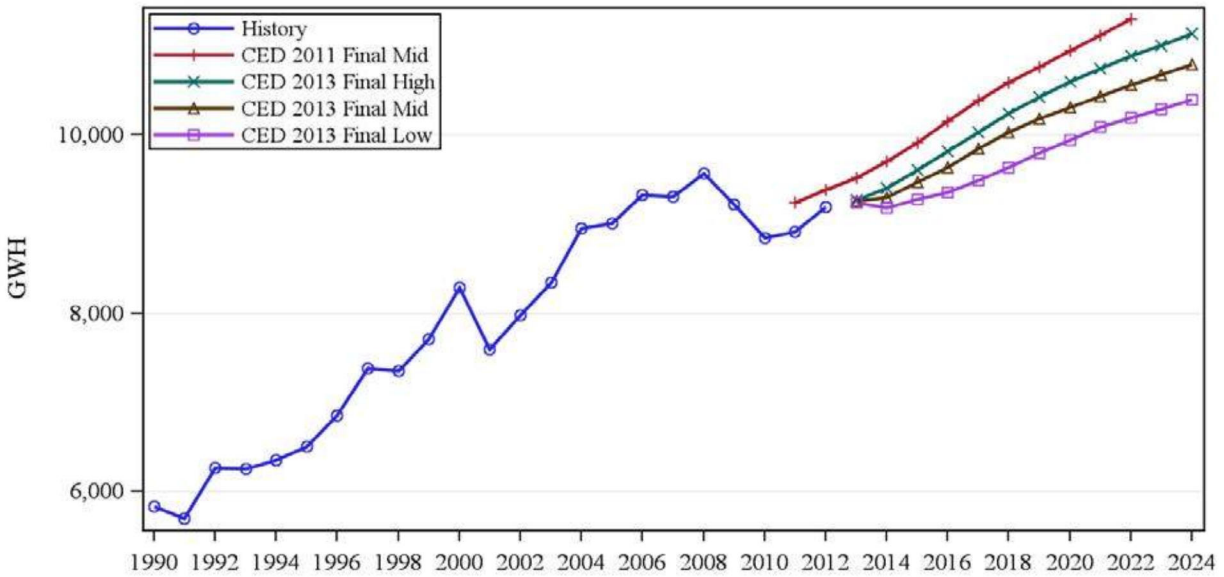
Source: CEC 2014a

SDG&E PER CAPITA ELECTRICITY CONSUMPTION
Figure 3.1.1-2



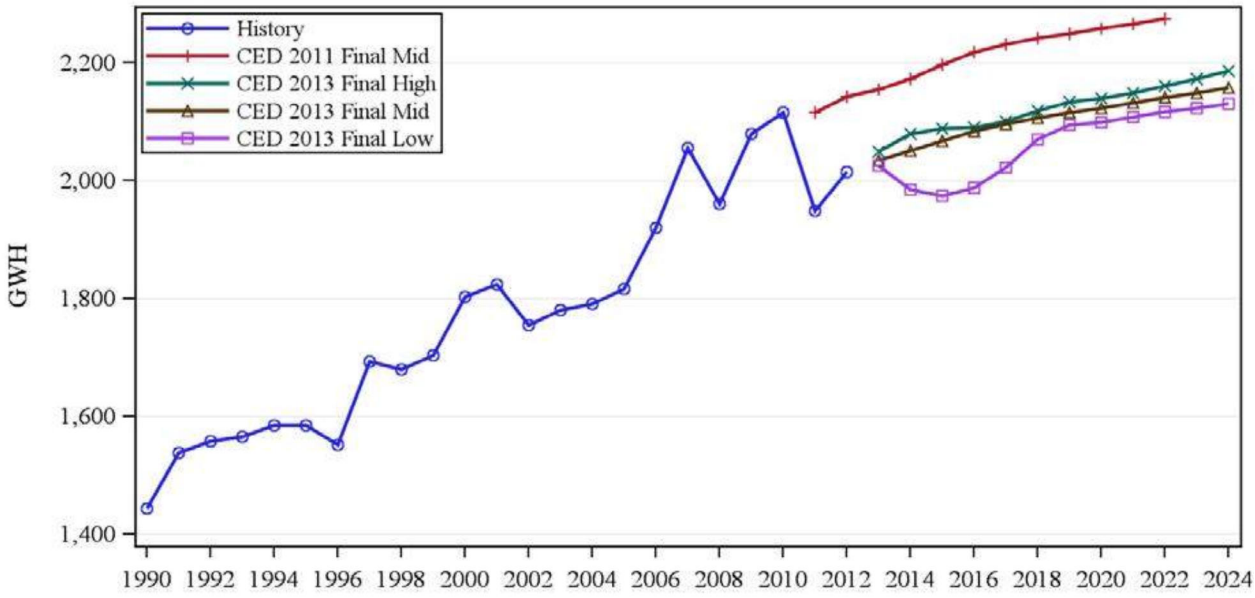
Source: CEC 2014a

SDG&E ELECTRICITY CONSUMPTION PER HOUSEHOLD
Figure 3.1.1-3



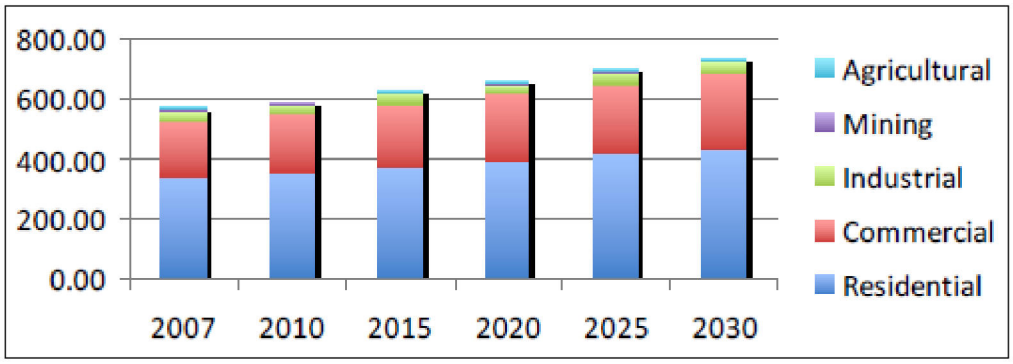
Source: CEC 2014a

SDG&E ELECTRICITY CONSUMPTION FOR COMMERCIAL USES
Figure 3.1.1-4



Source: CEC 2014a

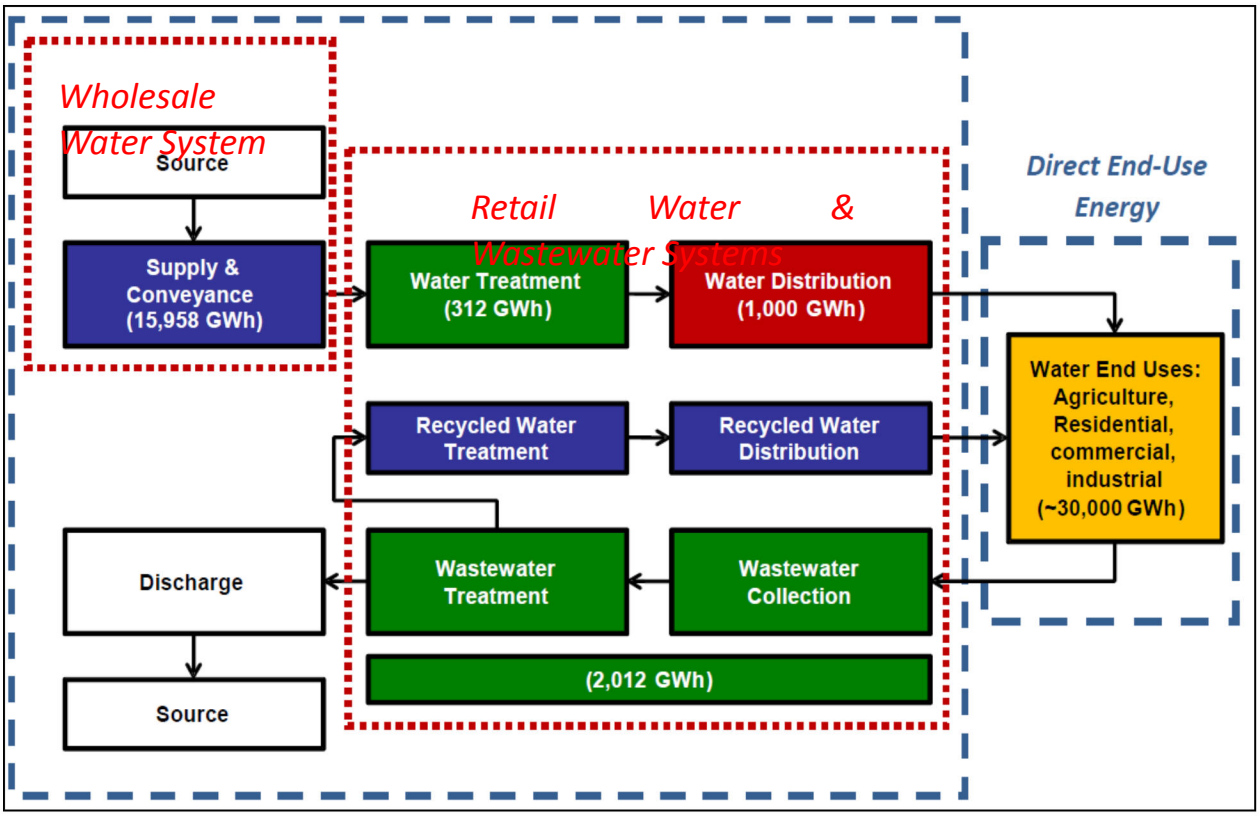
SDG&E ELECTRICITY CONSUMPTION FOR THE TCU SECTOR
Figure 3.1.1-5



Source: SANDAG 2009

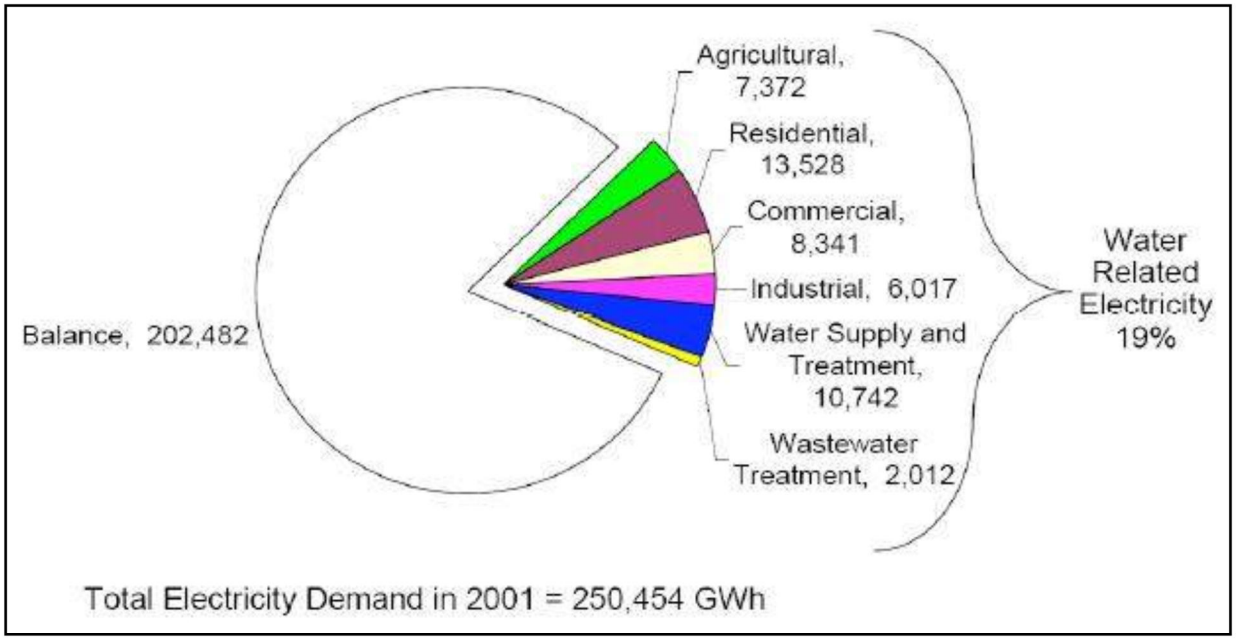
Note: Natural gas consumption shown in MMThs.

SAN DIEGO REGIONAL NATURAL GAS CONSUMPTION FORECAST
Figure 3.1.1-6



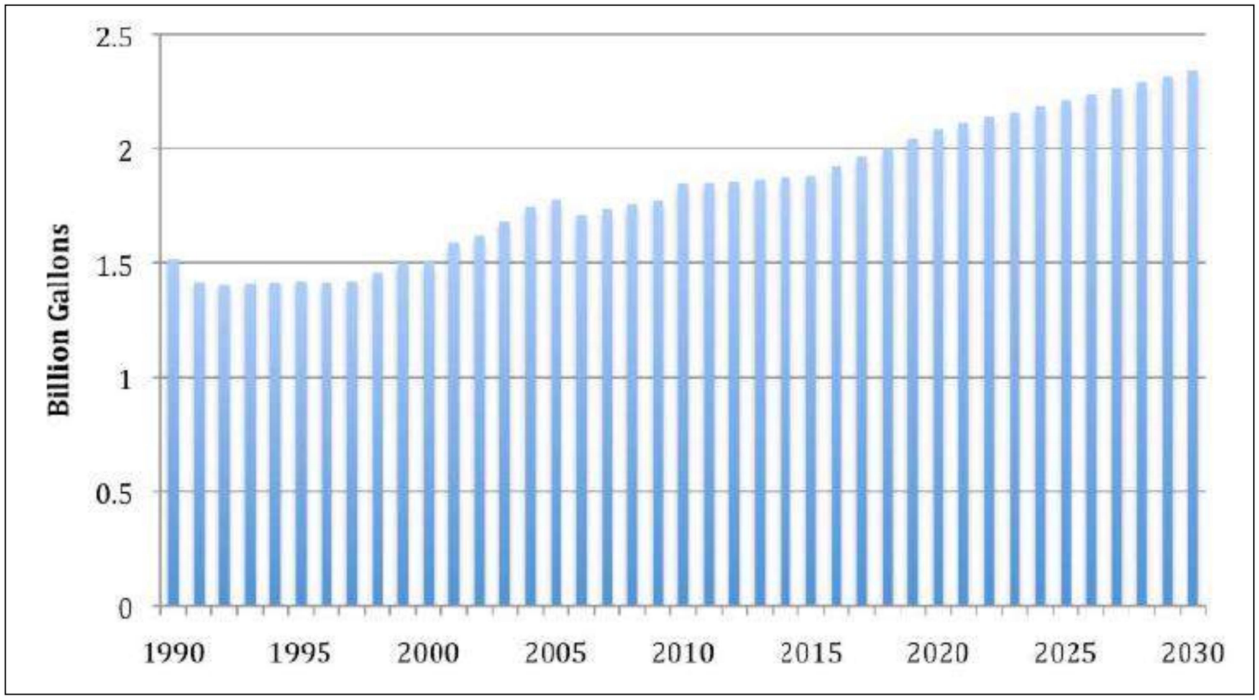
Source: Adapted from CPUC 2010

WATER EMBEDDED ENERGY SOURCES
Figure 3.1.1-7



Source: CEC 2007a

WATER-RELATED ENERGY USE IN CALIFORNIA
Figure 3.1.1-8



Source: SANDAG 2009

SAN DIEGO REGIONAL PROJECTED ON-ROAD FUEL CONSUMPTION 1990 – 2030
Figure 3.1.1-9

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3.1.2 Geology/Soils

This section describes the existing geologic and soils conditions within the Project site and vicinity, identifies regulatory requirements and industry standards associated with geologic and soils issues, and evaluates potential impacts and attenuation measures (as applicable) related to implementation of the Proposed Project. Geotechnical investigations were undertaken on the Project site by Geocon (2015a). Relevant portions of the Project geotechnical investigations are summarized below along with other pertinent information, with the complete geotechnical report included in Appendix I of this EIR.

3.1.2.1 *Existing Conditions*

Regional Geology/Topography

The Project site is located within the Peninsular Ranges Geomorphic Province, a region characterized by northwest-trending structural blocks and intervening fault zones. Typical lithologies in the Peninsular Ranges include a variety of igneous intrusive (i.e., formed below the surface) rocks associated with the Cretaceous (between approximately 65 and 135 million years old) Southern California Batholith (a large igneous intrusive body). These igneous bodies are typically intruded into older metavolcanic and/or metasedimentary units in western San Diego County. Basement rocks in the coastal portion of San Diego County are locally overlain by a sequence of primarily Tertiary (between approximately 2 and 65 million years old) marine and non-marine sedimentary strata, with most of these deposits associated with several sea level advance/retreat cycles over approximately the last 55 million years. The described geologic sequence is locally overlain with Quaternary (less than about two million years old) materials such as alluvium, colluvium, and topsoil.

Topographically, the Peninsular Ranges Province is composed of generally parallel ranges of steep hills and mountains separated by alluvial valleys. More recent uplift and erosion has produced the characteristic canyon and mesa topography present today in much of western San Diego County, as well as the deposition of the noted Quaternary deposits.

Site Geology/Topography

Geologic and surficial units present within the Project site include Cretaceous-age granitic rocks (the Escondido Creek Granodiorite); Quaternary-age alluvium, colluvium and topsoil; and historic (recent) undocumented fill materials (i.e., fill not known to conform to current engineering standards for criteria such as composition and placement methodology). These units (except for topsoils) are depicted on Figure 3.1.2-1, *Geology Map*, with additional descriptions of on-site surficial and formational deposits provided below under the discussion of Stratigraphy.

On-site topography is generally characterized by a broad, relatively gentle valley bottom in the northern and central portions of the site, and moderately steep slopes to the south and northeast. On-site elevations range from approximately 938 feet above mean sea level (amsl) near the southeastern-most property corner, down to 570 feet amsl along portions of the northern site boundary. Surface drainage is primarily to the north and northwest (with some local variability based on topography), with all flows from the site entering Escondido Creek (which is located approximately 250 feet north and 1,000 feet west of the site, respectively, at its closest points).

Stratigraphy

Surficial and geologic exposures within or underlying the Project site and vicinity are described below in order of increasing age, with the principal units shown on Figure 3.1.2-1.

Undocumented Fill (Map Symbol Qudf)

Fill deposits within the Project site include three relatively small fill embankments located along the southwestern, northern, and southeastern site boundaries. Fill materials along the southwest and eastern boundaries are apparently associated with existing horse corrals and a previous containment structure, with fill in the northern area of unknown origin (and assumed to be undocumented, Geocon 2015a).

Topsoils (not mapped)

Topsoils blanket the majority of the site and extend to maximum depths of approximately one foot in tested locations (Geocon 2015a). Topsoil mapping within the Project site and vicinity has been conducted by the U.S. Natural Resources Conservation Service (NRCS, formerly the U.S. Soil Conservation Service [SCS], 1973). Mapped soils within the Project site include six soil series encompassing nine individual soil types. These soils are generally characterized as loams and sandy loams, with a summary of soil series locations and features provided in Table 3.1.2-1, *Description of On-site Soil Characteristics*.

Alluvium (Map Symbol Qal)

Quaternary alluvial materials occur within a number of drainage courses located throughout the Project site. These deposits generally consist of relatively loose (unconsolidated) to medium dense, silty sands, with varying amounts of gravel and cobbles derived from bedrock units. The maximum observed depth of alluvial deposits was approximately 19 feet in the east-central portion of the site, with some of the deeper alluvial materials exhibiting higher levels of consolidation.

Colluvium (Map Symbol Qc)

Colluvial materials are deposited by gravity and are present along the base of most on-site hillsides located above alluvial drainages. These deposits typically consist of loose sandy clays and clayey sands, with cobbles and occasional boulders (and most larger rocky materials more angular in nature than those associated with alluvium). The maximum observed depth of colluvium is approximately 21.5 feet in the east-central portion of the site, with more highly cemented colluvium in the eastern portion of the site. These consolidated materials occur both surficially and at depth, and consist of dense silty to clayey sands and gravel.

Escondido Creek Granodiorite (Map Symbol Ke)

The Cretaceous-age Escondido Creek Granodiorite (granitic rock) is present throughout the site, and occurs as both surface exposures and underlying bedrock beneath the described surficial materials. These rocks exhibit a variable weathering pattern ranging from completely weathered/ decomposed granite to areas of fresh and very hard granitic bedrock.

Groundwater

Shallow groundwater seepage was encountered in alluvial deposits during a 2005 subsurface geotechnical exploration in the northern, northwestern, and northeastern portions of the site. Moderate groundwater seepage was observed at a depth of 16 feet below surface grade in the northern site area (Trench T-4 on Figure 3.1.2-1), with sediments below this level observed to be saturated (to a depth of 17.5 feet, where the trench was terminated). Minor seepage was also observed at depths of 4 and 6 feet (respectively) in the northwestern (Trench T-10) and northeastern (Trench T-16) portions of the site (refer to Figure 3.1.2-1). No deeper saturation was observed, within these trenches, which extend to maximum depths of 13 and 8 feet, respectively. These occurrences were interpreted as resulting from above average precipitation (T-10 and T-16) and associated heavy flow in Escondido Creek (T-4), with seasonal variations in groundwater seepage anticipated locally, particularly in areas proximal to Escondido Creek. Groundwater seepage was not observed in other portions of the site during geotechnical investigation, and no shallow permanent groundwater was observed (or anticipated to occur) within or adjacent to the site (Geocon 2015a).

Structure/Seismicity

The Project site is located within a broad, seismically active region characterized by a series of northwest-trending faults associated with the San Andreas Fault System. No active or potentially active faults, County-designated Near-Source Shaking Zones, California Geological Survey (CGS) Alquist-Priolo Earthquake Fault Zones, or County Special Study Fault Zones are mapped or known to occur within or adjacent to the Project site (CGS 2010, 2007; County 2007d). The closest active fault structures are located within the Newport-Inglewood and Rose Canyon Fault Zone, approximately 13 miles to the west (Table 3.1.2-2, *Summary of Regional Fault Locations and Seismicity Data*). Active faults are defined as those exhibiting historic seismicity or displacement of Holocene (less than approximately 11,000 years in age) materials, while potentially active faults have no historic seismicity and displace Pleistocene (between approximately 11,000 and 2 million years old) but not Holocene strata. The described CGS and County fault zone designations are generally intended to "[r]egulate development near active faults so as to mitigate the hazard of surface fault rupture" (CGS 2007). The closest seismic hazard designations to the Project site are CGS Earthquake Fault Zones located along onshore sections of the Newport-Inglewood and Rose Canyon Fault Zone approximately 18 miles to the southwest.

A seismic hazard analysis was conducted to estimate the maximum earthquake magnitudes and associated peak horizontal ground acceleration (PGA, or ground shaking) values associated with proximal active faults. This analysis included both deterministic and probabilistic evaluations, with the deterministic method encompassing distance/magnitude data to produce ground acceleration values for individual faults, while the probabilistic model generates a percentage probability of exceeding a ground acceleration value within a designated time period. The results of the deterministic analysis are summarized in Table 3.1.2-2, with an associated maximum on-site PGA value of 0.24g (where g equals the acceleration due to gravity) identified for the Project site in association with a magnitude 7.5 event along proximal segments of the Newport-Inglewood and Rose Canyon Fault Zone. The probabilistic evaluation identified on-site PGA values with a 10 percent chance of being exceeded in a 50-year period ranging from 0.24 to 0.3g

(Geocon 2015a). These estimated acceleration values, along with other applicable seismic considerations such as motion frequency/duration and International Building Code/California Building Code (IBC/CBC) design criteria, are used to evaluate related site-specific hazards such as liquefaction. Additional information on IBC/CBC criteria and associated Project seismic considerations is provided below under the discussion of *Regulatory Setting*, as well as in Section 3.1.2.2, below, and Appendix I.

The Project site, like all of San Diego County, is located within a Seismic Zone 4 designation. Seismic Zone 4 is the highest risk category of the four nationwide seismic zones, and is generally defined as exhibiting a 10 percent chance of experiencing an earthquake-generated peak ground acceleration of 0.4g within the next 50 years. For comparison purposes, Seismic Zone 1 (the lowest risk category) exhibits a 10 percent chance of experiencing an earthquake-generated peak ground acceleration of 0.1g within the next 50 years. As noted above, the identified PGA values for the Project site (0.24 to 0.3g) are lower than the 10 percent recurrence ground acceleration level noted for Seismic Zone 4 (0.4g)

Regulatory Setting

Development of the Proposed Project is subject to a number of regulatory requirements and industry standards related to potential geologic hazards. These requirements and standards typically involve measures to evaluate risk and mitigate potential hazards through design and construction techniques. Specific guidelines encompassing geologic criteria that may be applicable to the design and construction of the Proposed Project include: (1) the San Diego County General Plan Safety Element (2011a); (2) the County Guidelines for Determining Significance – Geologic Hazards (2007d); (3) Title 8, Division 4 (Design Standards and Performance Requirements) and Division 7 (Excavation and Grading), and Title 5, Division 1 (Amendments to the State Building Standards Code) of the County Code of Regulatory Ordinances; (4) the International Code Council, Inc. (ICC) IBC (2012 or most recent update), and the related CBC (California Code of Regulations, Title 24, Part 2, Volumes 1 and 2, 2013 or most recent update); and (5) the Greenbook Committee of Standard Specifications for Public Works Projects (2012 or most recent update). Regulatory requirements related to potential erosion and sedimentation effects (e.g., under the NPDES Construction General Permit) are discussed in Section 3.1.4, *Hydrology/Water Quality* of this EIR, due to their relationship to water quality issues. Summary descriptions of the listed geologic standards are provided below, with specific elements applicable to the Proposed Project discussed in Section 3.1.2.2.

Local

The San Diego County General Plan Safety Element is intended to identify and evaluate seismic hazards in the County, and to provide policies to reduce the loss of life and property damage related to seismic hazards. Associated policies in the Safety Element applicable to the Proposed Project include requirements to minimize risk resulting from seismic hazards and to minimize personal injury and property damage by mudslides, landslides, or rockfalls. The Safety Element requires conformance with applicable laws and standards such as the referenced County Guidelines for Determining Significance – Geologic Hazards, the Alquist-Priolo Act (for Fault-Rupture Hazard Zones), the CBC/IBC, and the Greenbook.

The County Guidelines for Determining Significance – Geologic Hazards provide direction for evaluating environmental effects related to geologic hazards. Specifically, these guidelines address potential adverse effects to life and property (pursuant to applicable CEQA standards) from hazards including fault rupture, ground shaking, liquefaction, landslides, rockfalls, and expansive soils. Significance guidelines are identified for the noted issues, as well as related regulatory standards, impact analysis methodologies, potential attenuation/design strategies, and reporting requirements.

The County Excavation and Grading requirements are implemented through issuance of grading permits, which apply to most projects involving more than 200 cubic yards of material movement (e.g., grading and excavation). Specific requirements for such "Major Grading" efforts include, among other criteria, use of qualified engineering and geotechnical consultants to design and implement grading plans, implementation of appropriate measures related to issues such as manufactured slope design and construction, and conformance with requirements related to issues including erosion and storm water controls.

County Building Code standards related to geotechnical concerns include applicable portions of the CBC and IBC, along with specific County amendments. The County Building Code is implemented through the issuance of building permits, which may encompass requirements related to preparation of soils reports and implementation of structural loading and drainage criteria.

Industry Standards

The IBC (which encompasses the former Uniform Building Code [UBC]) is produced by the ICC (formerly the International Conference of Building Officials) to provide standard specifications for engineering and construction activities. Publication of the *Greenbook, the Standard Plans for Public Works Construction*, is under the oversight of Public Works Standards, Inc. (PWSI), a nonprofit mutual benefit corporation whose members include the American Public Works Association, Associated General Contractors of California, and Engineering Contractors Association. The IBC and Greenbook provide standard specifications for engineering and construction activities, including measures to address geologic and soil concerns. Specifically, these measures encompass issues such as seismic loading (e.g., classifying seismic zones and faults), ground motion, engineered fill specifications (e.g., compaction and moisture content), expansive soil characteristics, and pavement design. The referenced guidelines, while not comprising formal regulatory requirements per se, are widely accepted by regulatory authorities and are routinely included in related standards such as municipal grading codes. The IBC and Greenbook guidelines are regularly updated to reflect current industry standards and practices, including criteria such as the American Society of Civil Engineers (ASCE) and ASTM International.

The CBC standards encompass a number of requirements related to geologic issues. Specifically, these include general provisions (Chapter 1); structural design, including soil and seismic loading (Chapters 16/16A); structural tests and special inspections, including seismic resistance (Chapters 17/17A); soils and foundations (Chapters 18/18A); concrete (Chapters 19/19A); masonry (Chapters 21/21A); steel (Chapters 22/22A), wood, including consideration of seismic design categories (Chapter 23); construction safeguards (Chapter 33); and grading, including

excavation, fill, drainage, and erosion control criteria (Appendix J of the CBC). The CBC encompasses standards from other applicable sources, including the IBC and ASTM International, with appropriate amendments and modifications to reflect site-specific conditions and requirements in California.

3.1.2.2 *Analysis of Project Effects and Determination as to Significance*

Fault Rupture

Guidelines for the Determination of Significance

A significant geologic impact would occur if:

1. The Project proposes any building or structure to be used for human occupancy within 50 feet of the trace of an Alquist-Priolo fault or County Special Study Zone fault.

2. The Project proposes the following uses within an Alquist-Priolo Zone which are prohibited by the County:

    a. Uses containing structures with a capacity of 300 people or more. Any use having the capacity to serve, house, entertain, or otherwise accommodate 300 or more persons at any one time.

    b. Uses with the potential to severely damage the environment or cause major loss of life. Any use having the potential to severely damage the environment or cause major loss of life if destroyed, such as dams, reservoirs, petroleum storage facilities, and electrical power plants powered by nuclear reactors.

    c. Specific civic uses. Police and fire stations, schools, hospitals, rest homes, nursing homes, and emergency communication facilities.

Guidelines Source

These guidelines are based on the County Guidelines for Determining Significance – Geologic Hazards (2007d).

Analysis

Seismic fault (or ground) rupture is the physical surface or near surface displacement resulting from earthquake-induced movement (typically along a fault structure). No known active or potentially active faults, or associated Alquist-Priolo/County Special Study Zones, are mapped or known to occur within or adjacent to the Project site, with the closest active fault located approximately 13 miles to the west along the Newport-Inglewood and Rose Canyon Fault Zone (refer to Table 3.1.2-2). The closest fault zone designations include an Alquist-Priolo Earthquake Zone approximately 18 miles to the southwest along a section of the Newport-Inglewood and Rose Canyon Fault Zone in La Jolla, while the closest County Special Study Zone is located along the Elsinore Fault Zone approximately 20 miles to the northeast (CGS 2010, 2007; County 2007d). Accordingly, Project-related impacts associated with seismic ground rupture or the

placement of prohibited uses within an Alquist-Priolo Earthquake Fault Zone or County Special Study Zone would be **less than significant.**

Seismic Ground Acceleration (Ground Shaking)

Guideline for the Determination of Significance

A significant geologic impact would occur if:

3. The Project is located within a County Near-Source Shaking Zone or within Seismic Zone 4 and the Project does not conform to the International Building Code (IBC, which encompasses the former UBC).

Guideline Source

This guideline is based on the County Guidelines for Determining Significance – Geologic Hazards (2007d).

Analysis

Seismically generated ground shaking typically represents the most substantial hazard associated with earthquakes, and can affect the integrity of surface and subsurface facilities such as structures, foundations and utilities. Specifically, associated potential effects can occur directly from vibration-related damage to rigid structures, or indirectly through associated hazards including liquefaction (as described below). While the Project site is not located within or adjacent to a County Near-Source Shaking Zone (County 2007d), it is within a Seismic Zone 4 designation as previously described.

Based on the Project geotechnical analyses outlined above in Section 3.1.2.1, the estimated maximum on-site peak ground acceleration values range from approximately 0.24 to 0.3g, which are lower than the 10 percent recurrence ground acceleration level noted above for Seismic Zone 4 (i.e., 0.4g). These ground shaking levels could potentially result in damage to Proposed Project facilities such as structures, foundations, and utilities. Accordingly, the Project geotechnical investigations recommend that seismic design considerations, including the frequency/duration of motion and the soil conditions underlying the site, should be incorporated into the Project design, pursuant to applicable regulatory/industry standards and related guidelines currently adopted by the County of San Diego. Appendix I identifies a number of specific seismic design criteria to address the noted potential on-site ground shaking hazards, pursuant to applicable criteria in the County Building Code, IBC/CBC, and Greenbook. Specifically, these regulatory measures would involve incorporating the noted seismic factors into the design of facilities such as structures, foundations/slabs, pavement and utilities, as well as related activities including remedial grading (e.g., removal and/or reconditioning unsuitable soils), manufactured slope/retaining wall design, site drainage, and proper fill composition/ placement. This process would include verification through standard plan review and site-specific geotechnical observations and testing during Project excavation, grading, and construction activities, with these efforts included in the Project description as design considerations (see Table 1-2 of this EIR). Implementation of these standard engineering and construction practices, as well as conformance with applicable regulatory/industry requirements

and standards, would effectively avoid or reduce potential seismic ground acceleration hazards to **less than significant levels.**

Liquefaction

Guideline for the Determination of Significance

A significant geologic impact would occur if:

4. The Project site has potential to expose people or structures to substantial adverse effects because:

    a. The Project site has potentially liquefiable soils; and

    b. The potentially liquefiable soils are saturated or have the potential to become saturated; and

    c. In-situ densities are not sufficiently high to preclude liquefaction.

Guideline Source

This guideline is based on the County Guidelines for Determining Significance – Geologic Hazards (2007d).

Analysis

Liquefaction and related effects such as dynamic settlement can be caused by strong vibratory motion, and are most commonly associated with seismic ground shaking. Loose (cohesionless), saturated, and granular (low clay/silt content) soils with relative densities of less than approximately 70 percent are the most susceptible to these effects. Liquefaction results in a rapid pore-water pressure increase and a corresponding loss of shear strength, with affected soils behaving as a viscous liquid. Surface and near-surface manifestations from these events can include loss of support for structures/foundations, excessive (dynamic) settlement, the occurrence of sand boils (i.e., sand and water ejected at the surface), and other related effects such as lateral spreading (horizontal displacement on sloped surfaces as a result of underlying liquefaction).

The Project site is not located within or adjacent to a County Potential Liquefaction Area (County 2007d). Liquefaction potential for the site is characterized as low due to the high density and grain-size distribution of local fill and formational materials, as well as the absence of a permanent water table in most development areas (Geocon 2015a). It should also be noted, however, that two areas of potentially shallow, seasonal groundwater were identified during site investigation (refer to the discussion of Groundwater in Section 3.1.2.1 and Figure 3.1.2-1). A number of standard design and construction measures have been identified that would address any associated liquefaction potential in these (or other) areas, including efforts such as installation of subdrains in appropriate areas to avoid near-surface saturation, removal of unsuitable (e.g., compressible) deposits in areas proposed for development, and replacement of unsuitable materials with engineered fill (i.e., fill exhibiting characteristics such as proper

composition, moisture content, application methodology and compaction (Geocon 2015a). In addition, as noted above under the discussion of Ground Shaking, these standard remedial efforts associated with liquefaction and related hazards would be verified through plan review and site-specific geotechnical observations and testing during Project excavation, grading, and construction activities, with these efforts included in the Project description as design considerations (see Table 1-2 of this EIR). Implementation of standard engineering and construction practices, as well as conformance with applicable regulatory/industry standards, would avoid or reduce potential Project-related impacts associated with seismically induced liquefaction and related hazards to **less than significant** levels.

Landslides/Slope Stability

Guidelines for the Determination of Significance

A significant geologic impact would occur if:

5. The Project site would expose people or structures to substantial adverse effects, including the risk of loss, injury, or death involving landslides.

6. The Project is located on a geologic unit or soil that is unstable, or would become unstable as a result of the Project, potentially resulting in an on- or off-site landslide.

7. The Project site lies directly below or on a known area subject to rockfall which could result in collapse of structures.

Guidelines Source

These guidelines are based on the County Guidelines for Determining Significance – Geologic Hazards (2007d).

Analysis

The Project site is not located within or adjacent to any County Landslide Susceptibility Areas (County 2007d), and the Project geotechnical report concludes that there is no evidence of ancient landslide deposits at the site (Geocon 2015a). Additionally, the geotechnical investigations included a stability analysis for manufactured fill slopes, which concludes that: (1) fill slopes constructed with approved material and at a maximum grade of 2:1 (horizontal to vertical) per the Proposed Project design, would exhibit a factor of safety of at least 1.5 as required by current County guidelines (and other related industry standards); and (2) cut slopes with maximum grades of 1.5:1 and maximum heights of 90 feet are anticipated to exhibit factors of safety of at least 1.5 (per current standards).

A number of additional design and construction measures related to cut and fill slope stability are also identified in the report, including standard requirements for proper compaction and surface treatment of fill slopes, height limitations, over-excavation or -blasting for cut slopes in granitic rock (to reach unweathered and stable rock exposures), field observation and design/construction modification where applicable (as noted above under the discussion of Ground Shaking), and use of drought-tolerant landscaping and irrigation controls (refer to Chapter 8.0 of Appendix I;

Geocon 2015a). These standard recommendations are included in the Project description as design considerations (see Table 1-2 of this EIR).

Implementation of standard engineering and construction practices, as well as conformance with County guidelines and other applicable regulatory/industry standards, would avoid or reduce potential Project-related impacts associated with landslides and slope stability to **less than significant levels**.

Expansive Soils

Guideline for the Determination of Significance

A significant geologic impact would occur if:

8. The Project is located on expansive soil, as defined in Section 1803.5.3 of the IBC and CBC (2012 and 2013 Editions, respectively), and does not conform to the IBC and CBC.

Guideline Source

This guideline is based on the County Guidelines for Determining the Significance – Geologic Hazards (2007d).

Analysis

Expansive (or shrink-swell) behavior in soils is attributable to the water-holding capacity of clay minerals, and can adversely affect the integrity of facilities such as foundations, pavement, and underground utilities. Soil conditions encountered on site range from very low expansive silty sands, to potentially highly expansive topsoil, alluvium and/or colluvium containing clay materials. Specifically, several mapped on-site soils exhibit moderate or high expansion potential (refer to Table 3.1.2-1), and the Project geotechnical investigations identify the presence of clay soils in alluvium and note that observed colluvial deposits "…generally possess low to high expansion potential…" Accordingly, a number of standard measures are identified to address potential expansion impacts. Specifically, these include efforts such as: (1) removing and replacing expansive soils with engineered fill exhibiting very low or low expansion potential (per IBC/CBC or other applicable regulatory/industry criteria); (2) use of appropriate foundation design (including post-tensioned slabs), reinforcement and footing depths (as detailed in Appendix I); (3) implementation of appropriate concrete placement methodology and design, including proper installation/curing and moisture conditioning, doweling (anchoring) of exterior flatwork and driveways to building foundations, and use of crack-control joints; and (4) use of subdrains in appropriate areas to avoid near-surface saturation. As previously described, these standard recommendations would be verified through plan review and site-specific geotechnical observations and testing during Project excavation, grading and construction activities, and are included in the Project description as design considerations (see Table 1-2 of this EIR). Implementation of such design and construction recommendations, as well as conformance with applicable County, IBC/CBC, Greenbook or other pertinent guidelines, would avoid or reduce impacts from expansive soils to a **less than significant** level.

Construction-related Hazards

Guideline for the Determination of Significance

A significant geologic impact would occur if:

9. The Project is located on a geologic unit that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site subsidence or collapse.

Guideline Source

This guideline is based on the County Guidelines for Determining the Significance – Geologic Hazards (2007d).

Analysis

Corrosive Soils

Potential issues related to corrosive soils include pH levels, soluble sulfate concentrations and resistivity values (i.e., the ability to restrict, or resist, electric current). Long-term exposure to corrosive soils can result in deterioration and eventual failure of underground concrete (from sulfate) and metal structures (from pH and resistivity), including foundations or utility lines. As noted in Table 3.1.2-1, on-site soils exhibit slightly to moderately acidic conditions, and may also potentially encompass corrosive sulfate and/or resistivity levels. Associated potential impacts would be addressed through conformance with applicable industry/regulatory criteria (e.g., County Guidelines and the IBC/CBC and/or Greenbook). Specifically, these measures may involve standard efforts such as removal of unsuitable deposits and replacement with non-corrosive fill, use of corrosion-resistant construction materials (e.g., coated or non-metallic facilities) and/or installation of cathodic protection devices (e.g., use of a more easily corroded "sacrificial metal" to serve as an anode and draw current away from the structure to be protected). These standard recommendations are included in the Project description as design considerations (see Table 1-2 of this EIR). Implementation of such standard design and construction measures, in conformance with applicable County, IBC/CBC, Greenbook or other pertinent regulatory guidelines, would avoid or reduce impacts from corrosive soils to a **less than significant** level.

Oversize Materials

As described above in Section 3.1.2.1, granitic deposits within the Project site range from a highly weathered and rippable condition to fresh and very hard bedrock. Based on a rippability analysis conducted as part of the Project geotechnical investigations, it was concluded that excavations below depths of between approximately 29 to 60 feet (depending on location) may require blasting. While blasting operations do not represent geotechnical issues per se, blasting typically generates oversize materials (rocks greater than 12 inches in maximum dimension), which can potentially result in development hazards if improperly handled or placed on site. That is, the presence of oversize materials in engineered fills can result in effects such as differential settlement (different degrees of settlement over relatively short distances), with associated potential effects to structures, pavement, foundations/footings, subsurface utilities or drainage.

Appendix I identifies a number of standard measures to address potential hazards from oversize materials, pursuant to applicable industry/regulatory standards (e.g., the IBC/CBC and/or Greenbook). Specifically, these measures may involve standard efforts such as selective disposal (e.g., burial in deeper fills), crushing (a rock crusher is currently anticipated), use in landscaping efforts, or off-site disposal, with these efforts included in the Project description as design considerations. Implementation of standard engineering and construction practices, as well as conformance with applicable County, IBC/CBC, Greenbook or other pertinent regulatory guidelines, would avoid or reduce potential impacts from oversize materials to a **less than significant** level.

3.1.2.3 *Cumulative Impact Analysis*

As noted above, all potential Project-specific geotechnical impacts would be avoided or reduced below identified significance guidelines through implementation of geotechnical recommendations and conformance with established regulatory requirements as part of the Project design and/or construction efforts. Most potential geologic and soils effects are site-specific (inherently restricted to the areas proposed for development) and would not contribute to cumulative impacts associated with other planned or proposed development. That is, issues including seismic ground acceleration and liquefaction, as well as landslide/slope stability, expansive soils and construction-related hazards would involve effects to (and not from) the proposed development and/or are specific to on-site conditions.

Addressing these potential hazards for the proposed development would involve using standard geotechnical measures to comply with existing requirements, and/or implementing site-specific design and construction efforts that have no relationship to, or impact on, off-site areas. Avoiding liquefaction impacts through efforts such as removing/replacing unsuitable materials, for example, would not affect or be affected by similar deposits/hazards in off-site areas. Similarly, while landslide/slope stability hazards could potentially affect off-site areas (e.g., sloughing of surficial material onto off-site roadways), these issues would be reduced to less than significant levels through identified design and construction measures, and these efforts would not affect or be affected by similar deposits/hazards in off-site areas. Based on the described nature of potential geologic hazards and the measures to address them, there would be no connection to similar potential issues or cumulative effects to or from other properties. Accordingly, the Project's contribution to potential cumulative geologic hazard impacts would be less than considerable and therefore **less than significant.**

3.1.2.4 *Significance of Impacts*

Based on the analysis provided above, the Proposed Project would have less than significant impacts related to geologic and soils hazards. Accordingly, no additional attenuation measures are required or proposed.

3.1.2.5 *Conclusion*

Based on the analysis provided above, no significant Project-specific or cumulative impacts related to geologic hazards would result from implementation of the Project.

Table 3.1.2-1
DESCRIPTION OF ON-SITE SOIL CHARACTERISTICS

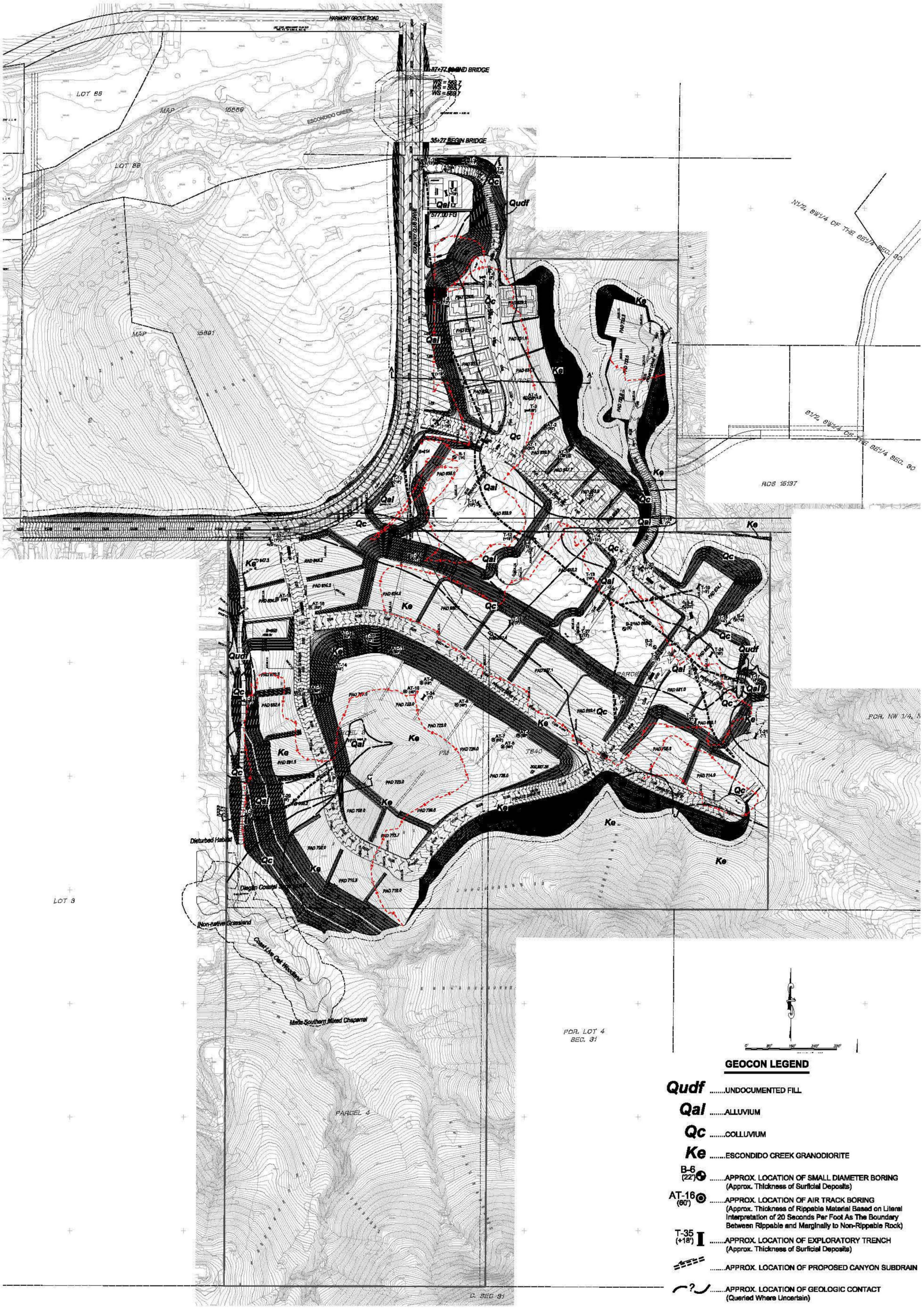
Soil Series	Physical Characteristics/Location	Expansion (shrink-swell) Potential	Reactivity	Erosion Potential
Cieneba	Excessively-drained coarse sandy loam with boulders and outcrops derived from granitic rock. Occurs widely on moderate to steep slopes in the southern site area.	Low	Moderately acidic (pH 5.6 to 6.0)	Low to high
Escondido	Well-drained, fine sandy loam derived from metamorphosed sandstone. Occurs on moderate slopes in the northwestern site area.	Low	Slightly acidic to neutral (pH 6.1 to 7.3)	Moderate to high
Huerhuero	Moderately well-drained loam with a clay subsoil derived from marine sediments. Occurs on shallow to moderate slopes along the west-central site boundary.	High	Strongly acidic to neutral (pH 5.1 to 7.8)	Low to moderate
Las Posas	Well-drained, moderately deep stony fine sandy loam with a clay subsoil derived from igneous rock. Occurs on shallow to moderate slopes in the northeastern central and southern portions of the site.	High	Neutral (pH 6.6 to 7.3)	Moderate
Visalia	Moderately well-drained sandy loam derived from granitic alluvium. Occurs on shallow slopes along the northern-most site boundary.	Low	Slightly acidic (pH 6.1 to 6.5)	Low to moderate
Wyman	Well-drained loam derived from igneous rock and alluvium. Occurs in the northwestern and north-central portions of the site.	Moderate	Slightly acidic to neutral (pH 6.1 to 7.3)	Low

Source: NRCS/SCS 1973

Table 3.1.2-2
SUMMARY OF REGIONAL FAULT LOCATIONS
AND SEISMICITY DATA

Fault Zone	Distance from Site (miles)	Maximum Earthquake Magnitude	Estimated Peak Ground Acceleration (g)[1]
Newport-Inglewood	13	7.5	0.24
Rose Canyon	13	6.9	0.21
Elsinore	18	7.85	0.23
Coronado Bank	28	7.4	0.16
Palos Verde Connected	28	7.7	0.17
Earthquake Valley	32	6.8	0.116
San Jacinto	43	7.88	0.14
San Joaquin Hills	47	7.1	0.09
Palos Verdes	47	7.3	0.10

Source: Geocon 2015a
[1] Maximum on-site peak horizontal deterministic ground acceleration, where g equals the acceleration due to gravity.



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Source: GEOCON 2015

Geology Map

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

Figure 3.1.2-1

3.1.3 Hazards and Hazardous Materials

This section describes the existing hazards and hazardous materials conditions within the Project site and vicinity, identifies regulatory requirements associated with hazards and hazardous materials issues, and evaluates potential impacts related to implementation of the Proposed Project. Three Hazardous Materials Investigations were prepared for the Project site by Geocon, including a Phase 1 Environmental Site Assessment (ESA) conducted in 2009; a 2014 records review update of hazardous materials site listings on federal, State and local databases; and a Phase II ESA conducted in 2015 (Geocon 2009, 2014, and 2015a). In addition, a Fire Protection Plan (FPP) was prepared by Dudek (2018) to assess the potential impacts resulting from wildland fire hazards and identify protective measures. Relevant portions of the Hazardous Materials Investigations and FPP are summarized below along with other pertinent information, with the complete technical reports included in Appendices K and L of this EIR.

3.1.3.1 *Existing Conditions*

Hazardous Materials

The Phase I ESA conducted for the Proposed Project encompassed the entire Project site and applicable off-site areas. The primary objective of the Phase I ESA was to identify "Recognized Environmental Conditions" (RECs) to the extent feasible, based on the following definition of an REC provided in ASTM Standard E 1527-13:

> …the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment…de minimis conditions[1] are not recognized environmental conditions.

Specifically, the Phase I ESA involved the following four components: (1) site reconnaissance; (2) review of the Project site and vicinity physical setting; (3) review of the Project site and vicinity history; and (4) records review. The nature and results of these efforts are outlined below.

Site Reconnaissance

The Project site and adjacent properties were reconnoitered on January 16, 2009, with the objective of identifying the potential occurrence of RECs. The site was noted to encompass primarily undeveloped areas supporting native vegetation, with the following specific observations:

- No indicators of potential RECs were observed, including: (1) hazardous substances/ petroleum products; (2) hazardous wastes; (3) above-ground storage tanks (ASTs) or underground storage tanks (USTs); (4) unidentified substance containers;

[1] De minimis conditions are defined as circumstances that generally do not present a threat to human health or the environment, and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.

(5) polychlorinated biphenyls (PCBs); (6) wastewater systems (drains/clarifiers/sumps); (7) evidence of releases (odors, stained soil or distressed vegetation); (8) pools of liquid, pits, ponds or lagoons; (9) wells; or (10) other site issues.

- Several unpaved roads were present in the central and northern site areas, with scattered trash and debris observed in various locations, primarily in the central portion of the site.

- The remnants of former residential use were observed near the western site boundary along Country Club Drive. While much of the structure is no longer present, portions of the concrete foundation remain, along with a partial chimney structure along the north side of the former residence.

- A concrete structure measuring approximately 20-feet square and extending to a depth of 8 to 12 feet was observed in the central portion of the site. The interior bottom of this structure was filled with trash and debris.

Observed and reported uses in the Phase I ESA for adjacent and surrounding off-site areas include the following:

- Escondido Creek and Harmony Grove Road are located on adjacent properties to the north, and areas farther north included a rock quarry and dairy operation. The rock quarry and dairy have since been removed as part of ongoing development at the HGV project.

- Areas to the south of the Project site encompass predominantly undeveloped open space supporting native vegetation.

- Several estate residential properties are located on adjacent properties to the east, with surrounding areas consisting primarily of undeveloped open space with native habitat.

- A dairy site, now inactive, was previously located on the property adjacent to the northwestern site boundary, with additional adjacent properties to the west along Cordrey Drive encompassing low- to medium-density residential development and associated equestrian facilities (corrals, rings, barns, etc., with a number of these facilities extending into the Project site).

Site and Vicinity Physical Setting

On-site topography is generally characterized by a broad, relatively gentle valley bottom in the northern and central portions of the site, and moderately steep slopes to the south and northeast. Based on information provided in the Phase I ESA and the Project Geotechnical Investigations (Geocon 2015a), the Project site is located within the Peninsular Ranges Geomorphic Province, a region characterized by northwest-trending structural blocks and intervening fault zones. In general, the Province is underlain by Mesozoic-age (between approximately 65 and 250 million years old) igneous and metamorphic rocks to the east, and Cenozoic-age (approximately 65 million years or less in age) sedimentary rocks to the west (with an overlying dissected coastal plain). Geologic and surficial units present within the Project site include Cretaceous-age (between approximately 65 and 135 million years old) granitic rocks; Quaternary-age (less than

approximately two million years old) alluvium, colluvium and topsoil; and historic (recent) fill materials (refer to Figure 3.1.2-1, *Geology Map*).

Local groundwater is generally categorized as sodium chloride in character, with reported total dissolved solid (TDS) levels of 250 to 5,000 milligrams per liter (mg/l). The chemical character of local groundwater aquifers is largely attributed to local domestic waste disposal (septic) systems, with surface flows in nearby Escondido Creek also receiving treated effluent discharge from the City of Escondido Hale Avenue Resource Recovery Facility. Existing beneficial uses identified for local groundwater by the RWQCB include municipal and domestic, agricultural, and industrial service supply (RWQCB 1994, as amended). Shallow groundwater seepage was encountered in alluvial deposits during 2005 subsurface geotechnical exploration in the northern and north-eastern portions of the site. Moderate groundwater seepage was observed at a depth of 16 feet below surface grade in the northern site area, with sediments below this level observed to be saturated (to a depth of 17.5 feet, where the trench was terminated). Minor seepage was also observed at a depth of 4 feet in the northeastern portion of the site, with no saturation at greater depths (and this trench extending to a depth of 13 feet). These occurrences were interpreted as resulting from above average precipitation and associated heavy flow in Escondido Creek, with seasonal variations in groundwater seepage anticipated locally, particularly in areas proximal to Escondido Creek. Groundwater seepage was not observed in other portions of the site during geotechnical investigation, and no shallow permanent groundwater was observed (or anticipated to occur) within or adjacent to the site (Geocon 2015a). The Project Phase I ESA estimates on-site groundwater depths at approximately 10 to 20 feet below the surface in the northern portion of the site (with this area likely encompassing seasonal perched[2] aquifers as noted above), and more than 100 feet below grade in the remainder of the site.

Site and Vicinity History

The Phase I ESA assessment of historical uses at the Project site and adjacent/nearby properties was based on review of historic aerial photographs and topographic maps, as well as an interview with a property owner representative and review of previous environmental documents. A summary of this information is provided below, with additional description provided in Appendix K-1).

Historic Aerial Photo/Topographic Map Review – The assessment of historic aerial photographs and topographic maps in the Phase I ESA included the following specific sources: (1) historic aerial photographs dated 1946, 1953, 1963, 1974, 1989, 1994, 2002 and 2005; and (2) historic topographic maps dated 1901, 1904, 1947, 1949, 1968, 1975 and 1996. In addition, the following descriptions include the online review of several historic aerial photos dated between 1947 and 2005 (HistoricAerials.com 2014). From this analysis, the following summary is provided of historic uses in the Project site and vicinity:

- The Project site and surrounding areas were predominantly undeveloped between 1901 and 1946, with no observed structures, roadways or other development.

[2] Perched aquifers are defined generally as unconfined (i.e., not under pressure) groundwater contained by impermeable or semi-permeable strata, and are typically limited in extent and associated with seasonal precipitation and local landscape and/or agricultural irrigation.

- Residential and other structures apparently related to agricultural use were present on site as early as 1946, with nearby portions of Country Club Drive and Harmony Grove Road visible beginning in 1947. Additional surrounding development present in 1946-1947 included cultivated crops/orchards to the north and west, as well as the previously described rock quarry to the north.

- Agricultural cultivation within the site appears to have been expanded to the south by 1953, but was mostly removed by 1963. Surrounding development in the 1950s and 1960s is generally similar to that described for 1946-1947, with a few additional structures present to the north.

- Land use and development at the Project site in 1974-1975 are generally similar to those described above for the period of 1946-1963, although a number of additional unpaved roads are present and native vegetation was recovering in previously disturbed areas. Most surrounding uses are also generally similar to those noted during 1946-1963, although by 1975 additional unpaved roads are present, as well as several additional agricultural uses including the previously described dairy operation at the HGV project site, the Harmony Egg Ranch (as described below under Records Review), and the noted (currently inactive) dairy operation adjacent to the northwestern Project site boundary.

- On-site land use and development during the period of 1989 to 2005 are generally similar to those described above in 1974-1975, with more extensive native vegetation observed in the western half of the site by 2002. Most surrounding land uses are also similar to those described for 1974-1975, although the rock quarry and agricultural uses to the north had expanded by 1989, and additional residential/roadway development was present in several off-site areas between 1989 and 2005.

Site Representative Interview – A representative of the (then) property owner was interviewed in 2004 regarding current and historical on-site uses, as part of a previous Phase I ESA conducted at the Project site for HGV studies (Geocon 2004, as outlined below). This individual indicated that, to his knowledge: (1) the site was developed for business use and did not encompass any ASTs or USTs; (2) no environmental cleanup liens had been recorded for the site; and (3) no institutional/engineering controls or other land use restrictions had been associated with the site.

Previous Environmental Document Review – As noted above, a Phase I ESA was conducted for the Project site in 2004, with this report prepared as part of a due diligence process. The 2004 Phase I ESA concluded that the site was vacant and undeveloped at that time, with no RECs observed on site and additional environmental assessment considered unwarranted (Geocon 2004).

Records Review

The 2009 Phase I ESA incorporates a review of applicable regulatory records related to hazardous material listings and other potential contaminant sources at the Project site and vicinity, including the following efforts: (1) a search of federal, State, local and other databases for hazardous material/waste listings; and (2) contacts with local government agencies and utility districts, as outlined below.

Regulatory Database Listings – A search of applicable database listings was conducted for the site and vicinity as part of the Project Phase I ESA. This search included numerous databases maintained by federal, State and local agencies, as well as tribal sources and proprietary records (with a complete list of database sources provided in Appendix K-2). The search radii in this process varied between 0.25 and 1 mile for most databases, with certain efforts (e.g., liens, mines, and air emissions) limited to the Project site. Based on this review, no listed sites were recorded within the Project site or the associated search radii in 2009 (Geocon 2009).

As previously noted, an updated records review of hazardous materials databases was conducted for the Project site and surrounding areas in 2014. This effort was based on a similar methodology as described above for the 2009 search, with no hazardous material or other listings recorded within the Project site. Several off-site listings were observed within the associated search radii during the 2014 review, however, including the following three listings located at distances that could potentially result in associated on-site effects (i.e., within 0.25 mile for USTs and 0.125 mile for other listings). All other listings identified in the 2014 records review update are located at greater distances and/or are down-gradient from the Project site, and are not included in the following analysis (with these listings outlined in Appendix K-2).

- Harmony Egg Ranch. This site is located on the previously described HGV project, and is approximately 340 feet north of the Project site northern boundary. As noted for other former activities at HGV, the egg ranch has been completely removed as part of the ongoing site development. The egg ranch is listed on the State Solid Waste Facility/ Landfill (SWF/LF) and San Diego County Hazardous Materials Division (HMD) databases, and is described as a closed landfill/burn site and animal material composting facility. The last HMD inspection of the site is listed as October 12, 2011, with no additional information provided regarding the potential contaminate(s) involved or affected media (i.e., soil or groundwater). Based on the listing status and location of this facility, the potential for any associated contaminates to affect the Project site is identified as low (Geocon 2014).

- Harmony Grove Village. This site (listed as "Harmony Village Grove" in the updated records review) is located on the portion of the HGV project north of Harmony Grove Road, and is approximately 375 feet northwest of the Project site at its closest point. HGV is listed on two State databases, including the Spills, Leaks, Investigation and Cleanup Program (SLIC); and SWRCB GeoTracker site. HGV is identified on the GeoTracker list as a Voluntary Assistance Program (VAP) Open Site Assessment through the San Diego County Department of Environmental Health (DEH) as of June 2014, and requests oversight of environmental investigation and monitoring activities by the DEH prior to site development. Based on the nature and location of the site, the potential for any associated contaminates to affect the Project is identified as low (Geocon 2014).

- Continental Hydraulics, Inc. The Continental Hydraulics site is located along Harmony Grove Road, approximately 405 feet north of the Project site. This site is listed on the federal Resource Conservation and Recovery Act (RCRA) Small Quantity Generators (SQG) database, and is described as a facility that generates between 100 and 1,000 kilograms (220 to 2,200 pounds) of hazardous waste during any calendar month.

No specific waste categories or types are identified, and no violations have been reported for the Continental Hydraulics facility. Based on the listing status and location of this site, the potential for any associated contaminates to affect the Project site is considered low (Geocon 2014).

In addition to the sites described above, six listings were included in the records review update "Orphan Summary" which identifies listings that are not mapped due to "incomplete address information" and therefore could not be accurately plotted. Two of these listings are associated with the previously described Harmony Egg Ranch which was located north of Harmony Grove Road, with the remaining four "orphan sites" described as follows:

- Caltrans UST Facility. A Caltrans facility UST is identified near the I-5 and SR-76 interchange, approximately 16.25 miles northwest of the Project site. Based on the City (Escondido) and zip code (92029) identified for this site, however, it is assumed that that the noted facility is actually located near the I-15 and SR-78 interchange, approximately 2.3 miles northeast of the Project site.

- Dixon Dam Landfill. The Dixon Dam Landfill facility listing is located at the Lake Dixon Dam Spillway, approximately 6.2 miles northeast of the Project site.

- Mayhew Landfill. The Mayhew Landfill site listing is located near Greenwood Place in the City of Escondido, approximately 1.5 miles east of the Project site.

- Benton Landfill. The Benton Landfill site listing is located near Stillwater Glen in the City of Escondido, approximately 4.5 miles north of the Project site.

Based on the listing status and locations of the noted "orphan sites," the potential for any associated contaminates to affect the Project site is identified as low (Geocon 2014).

Agency/District Contacts – A number of State and local agency contacts were conducted as part of the Project Phase I ESA and records review update. Specifically, all of the following agencies were contacted in both 2009 and 2014, except the San Diego County Department of Agriculture, Weights and Measures (DAWM), which was only contacted in 2014.

- California Department of Conservation, Division of Oil, Gas and Geothermal Resources. Based on review of DOGGR records, no existing or former oil, gas or geothermal wells are located within 1 mile of the Project site.

- County of San Diego Building Department. Based on review of online records, no County Building Department permits were identified for the Project site.

- County of San Diego Department of Agriculture, Weights and Measures. A request was submitted to the DAWM in 2014 to identify any record of restricted pesticide/herbicide use at the Project site. This department maintains such records for approximately four years. No such use was recorded for the parcels associated with the Project during the period of 2011 to 2014.

- County of San Diego DEH. Requests were submitted to the DEH to identify any records associated with the Project site, with no such records identified.

- San Diego Air Pollution Control District. Requests were submitted to the SDAPCD to identify any records associated with the Project site, with no such records identified.

- Rincon MWD. District staff were contacted to obtain information regarding local municipal water sources, sewage disposal methods, the location and depth of municipal water wells, and any potential drinking water contamination issues. The associated responses indicated that: (1) municipal water for local uses is purchased by Rincon MWD from the SDCWA; (2) current residents in the Project area primarily utilize local septic systems for wastewater disposal; (3) no known municipal water wells are located within the Project site or immediate vicinity; and (4) there are no recorded issues related to drinking water contamination in the Project site vicinity.

Airport Hazards

The closest airport facilities to the Project site are the McClellan-Palomar Airport, located approximately 8.4 miles to the west, and the Lake Wohlford Resort Airstrip approximately 9 miles to the northeast. Based on these distances, the Project site is not located within the Airport Influence Areas of any local airport or airstrip facilities.

Wildland Fire Hazards

The FPP prepared for the Project was based on a field assessment of the Project site (including on-site and off-site adjacent areas) on September 30, 2014, and a subsequent assessment of fire risk resulting from the site's topography, natural vegetation and fuel loading, fire history, and general susceptibility to wildfire. The FPP also presents the results of fire behavior modeling that was conducted to document the type and intensity of fire that would be expected on this site given characteristic site features such as topography, vegetation, and weather. A summary of this information is provided below, with additional description provided in Appendix L).

The Rancho Santa Fe Fire Protection District (RSFFPD) is the Fire Authority Having Jurisdiction (FAHJ). Areas of significant fire hazards in the County have been mapped by the California Department of Forestry and Fire Protection (CAL FIRE) through their Fire and Resource Assessment Program. These maps place areas of the County into different Fire Hazard Severity Zones (FHSZ) based upon fuels, terrain, weather, and relevant factors. The FHSZs are divided into three levels of fire hazard severity: moderate, high, and very high. The Project lies within an area statutorily designated a State Responsibility Area (SRA) "Very High Fire Hazard Severity Zone (VHFHSZ)," by CAL FIRE and recognized by the County and RSFFPD.

A Wildland Urban Interface (WUI) is an area where development is located in proximity to open space or lands with native vegetation and habitat that are prone to brush fires. The WUI creates an environment that if not properly designed and maintained, can facilitate movement of fire between structural and vegetation fuels.

The Project site is within a WUI area, as mapped by CAL FIRE (2007).

A FPP was prepared to assess the potential impacts resulting from wildland fire hazards and identify the measures necessary to adequately mitigate those impacts. As part of the assessment, this plan considered the fire risk presented by the site including: property location and topography, geology (soils and slopes), combustible vegetation (fuel types), climatic conditions, fire history and the proposed land use and configuration.

The HGV South site is an irregularly shaped parcel that includes a relatively flat valley "floor" flanked by more rugged terrain to the south, east and west. The "valley floor" is uniquely surrounded by a series of ridgetops (ranging in size from just under 1,000 feet to just under 2,000 feet) that encircle the site and valley floor on the east, west and south. The majority of the site is relatively flat with approximately 66.7 acres ranging between zero and 25 percent slope. An estimated 39.7 acres are between 25 and 50 percent slope and there is approximately 4.6 acres of extremely steep hillside that exceeds 50 percent. All of the slopes drain to the northwest towards Escondido Creek, which meanders through San Elijo Canyon to the southwest of the Project site. Elevations on the site range from roughly 580 amsl in the northwestern portion of the property to just over 840 feet amsl in the southeastern portion of the Project site.

Based on the Project's Vegetation Map (Figure 2.3-1), there are nine vegetation communities and land covers within the Project site boundaries: coast live oak woodland, coastal sage-chaparral transition, Diegan coastal sage scrub (including disturbed), disturbed habitat, eucalyptus woodland, granitic southern mixed chaparral, non-native grassland, non-native vegetation, and urban/developed. Vegetation communities of concern are those that are (1) more likely to facilitate fire spread, and (2) occur adjacent to the proposed development. Three off-site vegetation communities (coast live oak woodland, Diegan coastal sage scrub, and southern mixed chaparral) were identified as potentially facilitating fire spread toward Project residences. It is noted that existing structures can provide varying levels of protection for other structures/ open space when they are located between the wild fire and other uses.

The wind factor is a key to the spread of wildfires in southern California. The most critical wind pattern for the Project area would be an off-shore wind coming out of the north/northeast, typically referred to as a Santa Ana wind. Such wind conditions are usually associated with strong, hot winds with very low relative humidity. Santa Ana winds are caused by high-pressure weather systems and can occur any time of the year. However, they generally occur in the late fall (September through November). This is also when non-irrigated vegetation is at its lowest moisture content.

Based on fire history data obtained from CAL FIRE's Fire and Resource Assessment Program (FRAP) database, numerous fires have been recorded by fire agencies in the direct vicinity of the Project site, primarily associated with the open space preserves (DDHP and Park and EFRR) to the south of the Project area (see Appendix L). One recorded fire has burned on the Project site, occurring in 1997 (Del Dios Fire), and the Cocos Fire (2014) burned up to (although not on) the northwest edge of the property. The average fire return interval for fires burning within 3 miles of the Project site is seven years.

To determine fire risk in developed Project conditions, the FPP developed several scenarios modeling the potential fire behavior of a wildland fire that might occur in the vicinity of the Project. Fire Behavior calculations were used to determine clearance requirements, allowable

distances of vegetation treatment and maintenance requirements. The distances and requirements are delineated as FMZs.

Based on the results of fire behavior modeling, a typical fire in the Project vicinity would be a sage scrub-chaparral fueled fire that moves quickly, burning with moderate to high intensity. The fire is anticipated to be a wind-driven fire from the east or north during the fall. Flame lengths in the fuels could reach 84 feet with spread rates reaching approximately 17 mph during an extreme weather event at the *worst-case* condition area modeled. A typical cause may be related to structure fires in the neighborhoods to the north and east or roadways (tossed cigarette, car fire, or electrical power line arching). These conclusions for the Project site are consistent with results throughout large portions of southern California, where Santa Ana wind driven fires present the highest risk of non-containment by initial or extended attack and the occurrence of a major incident.

The FPP concluded that given the climatic, vegetative, WUI, and topographic characteristics and fire history of the area, the Project site, once developed, would be subject to occasional off-site wildfires that would be expected to be potentially fast moving and of primarily low- to moderate intensity. The Santa Ana threat was considered minimal post-development, however, because there is a lack of wildland fuels to the north, where HGV is under development.

Regulatory Setting

Hazardous Materials

Resource Conservation and Recovery Act of 1976 – Federal hazardous waste laws are largely promulgated under RCRA (40 CFR, Part 260), as amended by the Hazardous and Solid Waste Amendments of 1984 (which are primarily intended to prevent releases from leaking underground storage tanks [LUSTs]). These laws provide for the "cradle to grave" regulation of hazardous wastes. Specifically, under RCRA any business, institution or other entity that generates hazardous waste is required to identify and track its hazardous waste from the point of generation until it is recycled, reused or disposed of. The USEPA has the primary responsibility for implementing RCRA, although individual states are encouraged to seek authorization to implement some or all RCRA provisions (with California an authorized RCRA state as outlined below under State Standards).

Hazardous Material Transportation Act – The U.S. Department of Transportation (USDOT) regulates hazardous materials transportation under 49 CFR, which requires the USDOT Office of Hazardous Materials Safety to generate regulations for the safe transportation of hazardous materials. The California Highway Patrol (CHP) and Caltrans are the State agencies with primary responsibility for enforcing federal and State regulations and responding to hazardous materials transportation emergencies. These agencies also govern permitting for hazardous materials transportation within the State.

Comprehensive Environmental Response, Compensation, and Liability Act – The 1980 Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, provides federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment.

Federal actions related to CERCLA are limited to sites on the National Priority List (NPL) for cleanup activities, with NPL listings based on the USEPA Hazard Ranking System (HRS). The HRS is a numerical ranking system used to screen potential sites based on criteria such as the likelihood and nature of hazardous material release, and the potential to affect people or environmental resources. CERCLA was amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986 as outlined below.

Superfund Amendments and Reauthorization Act – SARA is intended primarily to address the emergency management of accidental releases, and to establish State and local emergency planning committees responsible for collecting hazardous material inventory, handling and transportation data. Specifically, under Title III of SARA, a nationwide emergency planning and response program established reporting requirements for businesses that store, handle or produce significant quantities of hazardous or acutely toxic substances as defined under federal laws. Title III of SARA also requires each state to implement a comprehensive system to inform federal authorities, local agencies and the public when significant quantities of hazardous or acutely toxic substances are stored or handled at a facility. These data are made available to the community at large under the "right-to-know" provision, with SARA also requiring annual reporting of continuous emissions and accidental releases of specified compounds.

Chemical Accident Prevention Provisions – The federal CAA Amendments of 1990 required the USEPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. These rules, which built upon existing industry codes and standards, require companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program.

Title 22 of the California Code of Regulations & Hazardous Waste Control Law, Chapter 6.5 – Department of Toxic Substances Control (DTSC) is responsible for implementing the RCRA program as well as California's own hazardous waste laws, which are collectively known as the Hazardous Waste Control Law. Under the Certified Unified Program Agency (CUPA) program, CalEPA has in turn delegated enforcement authority of State law to the County for regulating hazardous waste producers or generators. The DTSC regulates the generation, transportation, treatment, storage and disposal of hazardous waste under RCRA and the California Hazardous Waste Control Law. Like RCRA, Title 22 imposes "cradle to grave" regulatory systems for handling hazardous waste in a manner that protects human health and the environment. CalEPA has delegated some of its authority under the Hazardous Waste Control Law to county health departments and other CUPAs, including the DEH.

California Health and Safety Code – The CalEPA/DTSC has established rules governing the use of hazardous materials and the management of hazardous wastes. California Health and Safety Code Section 25531, et seq., incorporate the requirements of SARA and the federal CAA as they pertain to hazardous materials. Under the California Accidental Release Prevention Program (CalARP, California Health and Safety Code Section 25531 to 25545.3), certain businesses that store or handle more than 500 pounds, 55 gallons or 200 cubic feet (for gases) of acutely hazardous materials at their facilities are required to develop and submit a Risk Management Plan (RMP) to the appropriate local authorities, the designated local administering agency and the USEPA for review and approval. The RMP is intended to satisfy federal "right-to-know" requirements and provide basic information to regulators and first responders, including

identification/quantification of regulated substances used or stored on site, operational and safety mechanisms in place (including employee training), potential on- and off-site consequences of a release and emergency response provisions.

Under California Health and Safety Code Section 25500-25532, businesses handling or storing certain amounts of hazardous materials are required to prepare a Hazardous Materials Business Plan (HMBP), which includes an inventory and map of hazardous materials (and related facilities) stored on site above specified quantities, an emergency response plan, and an employee training program. An HMBP is a written set of procedures and information created to help minimize the effects and extent of a release or threatened release of a hazardous material. An HMBP must be prepared prior to facility operation, with updates and amendments required for appropriate circumstances (e.g., changes in business location, ownership or pertinent operations).

Pursuant to California Health and Safety Code Chapter 6.11, CalEPA established the Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program), which consolidated a number of existing State programs related to hazards and hazardous materials. The Unified Program also allows the designation of Certified Unified Program Agencies (CUPAs) to implement associated State regulations within their jurisdiction. For businesses within the County, HMBPs are submitted to and approved by the HMD, which is the local CUPA as outlined below under County requirements.

California Human Health Screening Levels – The California Human Health Screening Levels (CHHSLs) are concentration thresholds established by CalEPA for 54 hazardous chemicals in soil or soil gas of concern for risks to human health. The CHHSLs were developed using standard exposure assumptions and chemical toxicity values published by the USEPA and CalEPA. The CHHSLs can be used to screen sites for potential human health concerns where releases of hazardous chemicals to soils have occurred. Under most circumstances, the presence of a chemical in soil, soil gas, or indoor air at concentrations below the corresponding CHHSL can be assumed to not pose a significant health risk to people who may live or work at the site. There are separate CHHSLs for residential and commercial/industrial sites.

Waste Discharge Requirements – The RWQCBs issue and/or enforce Waste Discharge Orders for numerous discharge categories pursuant to the Porter-Cologne Water Quality Control Act (California Water Code, Division 7, Section 13000, et seq.). For the proposed Project, the on-site wastewater treatment plant is the only such discharge anticipated to be subject to RWQCB regulation (other than storm water related requirements, as outlined in Section 3.1.4 of this EIR, *Hydrology/Water Quality*). Depending on the facility design and nature of associated discharge, the proposed treatment plant would likely be regulated under one or more existing orders of the San Diego RWQCB, or through a site-specific Waste Discharge Order. Specific requirements associated with such orders may include effluent testing and surface and/or groundwater monitoring to ensure conformance with applicable water quality standards.

Investigation and Cleanup of Contaminated Sites – The oversight of hazardous materials release sites often involves several different agencies that may have overlapping authority and jurisdiction. The DTSC and RWQCB are the two primary State agencies responsible for issues pertaining to hazardous material release sites. Investigation and remediation activities that would

involve potential disturbance or release of hazardous materials must comply with applicable federal, State and local hazardous materials laws and regulations. DTSC has developed standards for the investigation of sites where hazardous materials contamination has been identified or could exist based on current or past uses. These regulations would be applied during grading activities if, for example, previously unknown underground tanks or other potential contaminant sources were uncovered.

Hazardous Materials Transportation – As noted above under federal guidelines, the CHP and Caltrans are the State enforcement agencies for hazardous materials transportation regulations. Transporters of hazardous materials and waste are responsible for complying with all applicable packaging, labeling and shipping regulations.

County Significance Guidelines – The County Guidelines for Determining Significance – Hazardous Materials and Existing Contamination, provide direction for evaluating environmental effects related to hazardous materials and contamination. Specifically, these guidelines address potential adverse effects to people or the environment (pursuant to applicable CEQA standards) from hazards including: (1) the transport, use, or disposal of hazardous materials; (2) upset and accident conditions involving the release of hazardous materials; (3) emission of hazardous materials within 0.25 mile of an existing or proposed school; and (4) location within a site listed on the Government Code Section 65962.5 database (Cortese List). Significance guidelines are identified for the noted issues, as well as related regulatory standards, impact analysis methodologies, attenuative design strategies, and reporting requirements.

County DEH/HMD – As noted above under State guidelines, the HMD is the local CUPA, and has jurisdiction over HMBPs in the County. The HMD provides detailed guidelines for the preparation and implementation of HMBPs, including direction on covered businesses/materials, inventory/site mapping, employee training, storage/safety criteria, spill prevention requirements, emergency/contingency response requirements and exemptions.

County of San Diego General Plan – The County General Plan Land Use and Safety elements include a number of policies related to hazards/hazardous materials such as emergency services availability and access, storage and transfer of the hazardous materials, and assessment of potentially contaminated lands. These policies and the Project's compliance with them are addressed in Section 3.1.5 of this EIR.

Wildfire

California Fire Code – The California Fire Code (CFC) is Chapter 9 of Title 24 of the California Code of Regulations (CCR). It was created by the California Building Standards Commission and is based on the International Fire Code created by the International Code Council. It is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The CFC regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The CFC and the California Building Code use a hazard classification system to determine what protective measures are required to protect fire and life safety. These measures may include construction standards, separations from property lines, and specialized equipment. Specifically, CBC Chapter 7 (Fire and Smoke Protection Features) includes standards related to

building materials, systems and assembly methods to provide fire resistance and prevent the internal and external spreading of fire and smoke (such as the use of non-combustible materials and fire/ember/smoke barriers). CBC Chapter 9 (Fire Protection Systems) provides standards regarding when fire protection systems (such as alarms and automatic sprinklers) are required, as well as their design, installation and operation. Section R327 of the CRC includes measures to identify Fire Hazard Severity Zones and assign agency responsibility (i.e., Federal, State and Local Responsibility Areas), and provides fire-related standards for building design, materials and treatments. The CFC establishes minimum standards to safeguard public health and safety from hazards including fire in new and existing structures. Specifically, this includes requirements related to fire hazards from building use/occupancy (e.g., access for fire-fighting equipment/personnel and provision of water supplies), the installation or alteration/removal of fire suppression or alarm systems, and the management of vegetative fuels and provision of defensible space. To ensure that these safety measures are met, the CFC employs a permit system based on hazard classification. The CFC is updated every three years.

Division 12 (Fires and Fire Protection) of the California Health and Safety Code provides a number of standards related to fire protection methods, including requirements for management of vegetation comprising a potential fire hazard under Part 5, Chapters 1 through 3.

California Department of Forestry and Fire Protection (CAL FIRE) - State Responsibility Areas System – Legislative mandates passed in 1981 (Senate Bill 81) and 1982 (Senate Bill 1916) required CAL FIRE to develop and implement a system to rank fire hazards in California. Areas are rated as moderate, high or very high based primarily on the assessment of different fuel types. Non-federal lands outside cities that are covered wholly or in part by timber, brush, undergrowth or grass (for which the State has the primary financial responsibility of preventing and suppressing fires, per PRC Section 4125) are referred to as State Responsibility Areas (SRAs).

Rancho Santa Fe Fire Protection District Ordinance No. 2015-01, Vegetation Management. This ordinance addresses the accumulation of weeds, rubbish, and other materials on a private property found to create a fire hazard and be injurious to the health, safety, and general welfare of the public. Specifically, the presence of such weeds, rubbish, and other materials is identified as a public nuisance, which must be abated in accordance with applicable provisions of the ordinance.

Rancho Santa Fe Fire Protection District Fire Code – Ordinance No. 2014-01A. This ordinance adopts the 2013 California Fire Code and 2012 International Fire Code with certain amendments. Ordinance 2014-01A addresses fire-related requirements including building ignition resistance, fire apparatus access, water supply and fire flow, and blasting requirements, as well as requirements for building in wildland-urban interface areas. The RSFFPD is responsible for the enforcement of defensible space inspections within the District. Inspectors from RSFFPD are responsible for the initial review of landscape plans and ongoing inspection of properties to ensure an adequate defensible space has been created and maintained around structures. If violations of the program requirements are noted, inspectors provide a list of required corrective measures and provide a time frame to complete the task. If the violations still exist upon re-inspection, the local fire inspector will pursue enforcement through forced abatement procedures.

County of San Diego Consolidated Fire Code – Section 13869.7(a) of the California Health and Safety Code provides that a fire protection district organized pursuant to Division 12 of the Code may adopt building standards relating to fire safety that are more stringent than the building standard adopted by the State Fire Marshal and contained in the California Building Standards Code. The County of San Diego, in collaboration with the local fire protection districts, created the first Consolidated Fire Code in 2001. The Consolidated Fire Code contains the County and fire protection districts amendments to the CFC. The purpose of consolidation of the County and local fire districts adoptive ordinances is to promote consistency in the interpretation and enforcement of the fire code for the protection of the public health and safety, which includes permit requirements for the installation, alteration, or repair of new and existing fire protection systems, and penalties for violations of the code. The Code provides the minimum requirements for access, water supply and distribution, construction type, fire protection systems, and vegetation management. Additionally, the Code regulates hazardous materials and associated measures to ensure that public health and safety are protected from incidents relating to hazardous substance releases. The 2014 CFC is based upon the County's 2014 Fire Code as currently amended and adopted in Title 9, Division 6, Chapter 1 of the County Code, subject to the modifications of each fire protection district to the Building Standards Code based upon their respective determinations as to what modifications are reasonably necessary because of local climatic, geological and topographical conditions within the respective districts.

County Required Fire Prevention in Project Design Standards – Following the October 2003 wildfires, the County incorporated a number of fire prevention strategies into the discretionary project review process for CEQA projects. One of the key changes was the requirement for most discretionary permits (e.g., subdivision and use permits) in WUI areas to prepare an FPP for review and approval. An FPP is a technical report that considers the topography, geology, combustible vegetation (fuel types), climatic conditions and fire history of the Proposed Project location (see Appendix L). The plan addresses the following items for compliance with applicable codes and regulations: (1) water supply; (2) primary and secondary access; (3) travel time to the nearest fire station; (4) structure setback from property lines; (5) ignition-resistant building features; (6) fire protection systems and equipment; (7) impacts to existing emergency services; (8) defensible space; and (9) vegetation management.

County of San Diego General Plan – The County General Plan Land Use and Safety elements, as well as the Elfin Forest and Harmony Grove Community Plan, include a number of policies related to fire relative to site defensibility (including structure requirements, fuel management, minimization of flammable vegetation, service availability and ensured emergency access, etc. The Project's compliance with these policies is addressed in Section 3.1.5 of this EIR.

Overall Emergency Response and Evacuation

Emergency response plans are maintained at the federal, state, and local level for all types of disasters, including human-made and natural disasters. Emergency response plans include elements to maintain continuity of government, emergency functions of governmental agencies, mobilization, and application of resources, mutual aid, and public information. The Unified San Diego County Emergency Services Organization has the primary responsibility for preparedness and response activities, and addresses disasters and emergency situations within the unincorporated area of San Diego County. The County of San Diego Office of Emergency

Services (OES) serves as staff to the Unified Disaster Council (UDC), the governing body of the Unified San Diego County Emergency Services Organization.

Emergency response and preparedness plans include the Operational Area Emergency Response Plan and the San Diego County Multi-Jurisdictional Hazard Mitigation Plan. Both of these plans develop goals and objectives for OES in regards to large-scale natural or man-made disasters.

The Operational Area Emergency Plan provides guidance for emergency planning and requires subsequent plans to be established by each jurisdiction that has responsibilities in a disaster situation. The Multi-Jurisdictional Hazard Mitigation Plan provides the framework for emergency response throughout the County, including at the Project site. It includes an overview of the risk assessment process, identifies hazards present in the jurisdiction, hazard profiles, and vulnerability assessments. The plan also identifies goals, objectives, and actions for each jurisdiction in the County of San Diego, including all cities and the County unincorporated areas. Hazards specifically relevant to the Project that are profiled in the plan include hazardous materials, structure fire and wildfires, each of which is addressed in Section 3.1.3.2, below.

Airports Hazards

County of San Diego General Plan – The County General Plan Safety Element addresses issues related to development of flight hazards, as addressed in Section 3.1.5 of this EIR.

3.1.3.2 *Analysis of Project Effects and Determination as to Significa*nce

Release of Existing Hazardous Substances

Guideline for the Determination of Significance

A significant impact to public safety or the environment would occur if:

1. The proposed project is located on or within 0.25 mile from a site identified in one of the regulatory databases compiled pursuant to Government Code Section 65962.5 or is otherwise known to have been the subject of a release of hazardous substances, and as a result the project may result in a significant hazard to the public or the environment.

Guideline Source

This guideline is based on County Guidelines for Determining Significance – Hazardous Materials and Existing Contamination (2007f).

Analysis

As mentioned previously, a search of federal, State, and local databases for the Project site and surrounding areas was performed. The search distance for the review extended 0.25 to 1 mile from the Project site. Copies of the reports summarizing the results of these searches are included in the appendices of the respective ESAs and Records Review Update (Appendix K-2 of this EIR). No sites identified in the searched databases are located within the bounds of the Project site. The three listings located at distances that could potentially result in associated on-site

effects (i.e., within 0.25 mile for USTs and 0.125 mile for other listings) were determined to have a low potential to affect the Project site. One site has been completely removed (Harmony Egg Ranch), one site is being monitored as it is being constructed (HGV north of Harmony Grove Road), and one site has had no violations (Continental Hydraulics, Inc.). Based on information provided for the listed properties, their locations, and the databases on which the properties were listed, **impacts associated with existing hazardous substances would be less than significant.**

Airport Hazards

Guidelines for the Determination of Significance

A significant impact to public safety or the environment would occur if:

2. For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, the project result in a safety hazard for people residing or working in the project area.

3. For a project within the vicinity of a private airstrip, the project result in a safety hazard for people residing or working in the project area.

Guidelines Source

These guidelines are based on County Guidelines for Determining Significance – Airport Hazards (2007b).

Analysis

As mentioned above, the Proposed Project is not located within the Airport Influence Area for any public or private airport/airstrip sites. The nearest airport facilities include Palomar McClellan-Palomar Airport approximately 8.4 miles to the west, and the Lake Wohlford Resort Airstrip approximately 9 miles to the northeast. Based on these distances, the Project site is not located within the Airport Influence Areas of any local airport or airstrip facilities, and Project implementation would not generate any associated safety hazards. Accordingly, **no impacts related to airport hazards would result from implementation of the Proposed Project.**

Human or Environmental Exposure to Hazardous Materials

Guideline for the Determination of Significance

A significant impact to public safety or the environment would occur if:

4. The proposed project could result in human or environmental exposure to soils or groundwater that exceed the U.S. Environmental Protection Agency Region 9 Preliminary Remediation Goals, California Environmental Protection Agency California Human Health Screening Levels, or Primary State or Federal Maximum Contaminant Levels for applicable contaminants and the exposure would represent a hazard to the public or the environment.

Guideline Source

This guideline is based on County Guidelines for Determining Significance – Hazardous Materials and Existing Contamination (2007f).

Analysis

The ESA and the Records Review Update prepared for the Project site did not identify any RECs on the site or adjacent properties during the site reconnaissance of the area, with the exception of the three listings noted above which have a low potential to affect the Project site.

The review of historical aerial photographs conducted for the ESA indicated that the central portion of the site was used for agricultural purposes from as early as 1946, with no mention of agriculture in the central portion thereafter, and the southern portion was used for agriculture from as early as 1953 until as late as 1963.

According to the Rincon MWD, there are no reported drinking water contamination problems or municipal drinking water wells on site or in the general vicinity (Appendix K-2).

The Phase II ESA (Appendix K-3) detected arsenic in 18 of the 21 shallow soil samples at concentrations up to 2.6 milligrams per kilogram (mg/kg). The regulatory health risk-based soil screening levels developed by the State of California (the California Human Health Screening Levels [CHHSLs]) for residential land uses is 0.070 mg/kg. Although the detected arsenic concentrations exceed the CHHSLs, the maximum level detected is below the California's DTSC regional background for arsenic in southern California soils of 12 mg/kg. As a result of the well-documented background levels of arsenic in California soils, the CalEPA (2005) published the following statement regarding CHHLs: "Naturally occurring background concentrations of arsenic, beryllium, cadmium, chromium, and other metals in soils may exceed their respective soil CHHSLs. Cal/EPA generally does not require cleanup of soil to below background levels. This issue is frequently encountered with arsenic. Natural background concentrations of arsenic in California are often well above the health-based, direct-exposure goals in soil of 0.07 mg/kg for residential land use…" The Phase II ESA, as well as various database searches and site reconnaissance, found no sources of hazardous materials that would have contaminated Project site soils. Therefore, **impacts associated with soil contamination would be less than significant.**

No issues with drinking water or water well contamination have been indicated by Rincon MWD, and no sources of hazardous materials that could have contaminated groundwater underlying the Project site have been identified during the various database searches and site reconnaissance. Therefore, **impacts associated with groundwater contamination would be less than significant.**

Handling and Storage of Hazardous Materials

Guidelines for the Determination of Significance

A significant impact to public safety or the environment would occur if:

5. The proposed project is a business, operation, or facility that proposes to handle hazardous substances in excess of the threshold quantities listed in Chapter 6.95 of the California Health and Safety Code (H&SC), generate hazardous waste regulated under Chapter 6.5 of the H&SC, and/or store hazardous substances in underground storage tanks regulated under Chapter 6.7 of the H&SC and the project will not be able to comply with applicable hazardous substance regulations.

6. The proposed project is a business, operation, or facility that would handle regulated substances subject to California Accidental Release Prevention (CalARP) RMP requirements that in the event of a release could adversely affect children's health due to the presence of a school or day care within 0.25 mile of the facility.

Guidelines Source

These guidelines are based on County Guidelines for Determining Significance – Hazardous Materials and Existing Contamination (2007f).

Analysis

The Proposed Project includes a WTWRF that would be located in the northern-most portion of the Proposed Project. The on-site WRF would be located a minimum of 315 feet from the closest on-site planned residence, approximately 930 feet from the closest HGV residence north of Harmony Grove Road, and approximately 1,250 feet from the nearest existing off-site residence to the east. Each of these existing or planned residences is or would be at higher elevations than the WTWRF. Schools are located at even greater distances. The closest identified school is Del Dios Middle School off West 9th Avenue, approximately 1.75 miles as the bird flies. This type of land use could require the handling and storage of hazardous materials for operations.

Prior to building permit approval, the proposed WTWRF would be conditioned to prepare a HMBP and an RMP to document the type of materials proposed for plant operations, as well as, proposed storage and handling procedures, procedures for transport of materials, an emergency response plan, and an employee training program. The RMP and HMBP would be prepared and submitted for approval by the County DEH HMD, which is responsible for regulating HMBPs, chemical inventories, hazardous wastes, permitting, and RMPs. The preparation of a Risk Management Plan is a regulatory requirement that would be implemented for any aspect of the Project that would include the use or storage of hazardous materials as described, prior to issuance of a building permit. The MUP for the WRF would also not be issued by the County PDS until the RMP is approved. This would assure safety measures, as discussed in the RMP, are in place. The DEH HMD is also required to conduct ongoing routine inspections to ensure compliance with existing laws and regulations; to identify safety hazards that could cause or contribute to an accidental spill or release; and to suggest preventative measures to minimize the risk of a spill or release of hazardous substances. Implementation of the RMP and HMBP would

minimize the potential for accidental release of hazardous materials and the associated potential risk to public safety. Additionally, as noted above, the WTWRF would not be located within 0.25 mile of an existing or proposed school site. Therefore, **impacts related to the handling and storage of hazardous waste associated with the proposed on-site WTWRF would be less than significant.**

Demolition of Structures that May Contain ACM, LBP, and/or Other Hazardous Materials

Guideline for the Determination of Significance

A significant impact to public safety or the environment would occur if:

7. The proposed project would involve the demolition of commercial, industrial or residential structures that may contain asbestos containing materials (ACM), lead based paint (LBP) and/or other hazardous materials and as a result, the project would represent a significant hazard to the public or the environment.

Guideline Source

This guideline is based on County Guidelines for Determining Significance – Hazardous Materials and Existing Contamination (2007f).

Analysis

Asbestos was used extensively in the United States, especially from the 1940s until the late 1970s. The material was used in buildings for fireproofing, acoustical insulation, condensation control, and decoration. It can be found in products such as asphalt roofing products, insulation inside fuse boxes and old wire insulation, shingles and siding, and floor tile. Its use was largely discontinued after 1980. Lead based paint was used up until 1978 in paint and other products, and is found on the walls, woodwork, windows and doors of many older structures. Stained soils, pitted concrete, and leaking containers/drums on sites can indicate the presence of other sources of contamination. Structures appear to have been on site prior to 1948. The remains of them, however, are currently restricted to cement pads, some partial cement walls and a chimney remnant. As such, materials associated with roofing, insulation, etc. are not expected. Therefore, **a less than significant impact related to the demolition of these structures could occur.**

Wildland Fire Hazards

Guidelines for the Determination of Significance

A significant impact to public safety or the environment would occur if:

8. The project cannot demonstrate compliance with all applicable fire codes.

9. A comprehensive FPP has been accepted, and the project is inconsistent with its recommendations.

10. The project does not meet the emergency response objectives identified in the Public Facilities Element of the County General Plan or offer feasible alternatives that achieve comparable emergency response objectives.

Guidelines Source

These guidelines are based on County Guidelines for Determining Significance – Wildland Fire and Fire Protection (2011e).

Analysis

A comprehensive FPP was prepared for the Proposed Project (Appendix L), consistent with the County Consolidated Fire Code (2014 CCFC Ordinance #10357), and the CCR, Title 14, Fire Safe Regulations. Title 14 SRA also allows provision of "same practical effect" potential for any non-conforming Project features. The FPP addresses compliance with fire regulations, analyzes fire risks, and evaluates anticipated emergency response conditions of the developed Project. Using reconnaissance data and modeling, the FPP also evaluates potential impacts resulting from wildland fire hazards based on surrounding land uses/open space and known wind patterns/ wildfire patterns, and identifies the measures necessary to adequately mitigate those impacts. The recommended measures, as set forth in the FPP, have been incorporated into the Project as project design features, or PDFs. In addition, the reader is referred to Section 3.1.8, *Public Services*, of this document for a more detailed discussion of wildfire impacts as they relate to fire protection services (e.g., station locations, capacities, travel times, etc.).

The FPP found that the Proposed Project complies with all applicable fire regulations, including but not limited to the California Fire Code, CCR, County Fire Code, or the CCFC, except in one regard. A request for a modification from Section 503.1.3 requirements, with respect to dead end road lengths, is being requested for the Project because of the topographical, geological, and environmental conditions of the site that make compliance with this standard infeasible. Also, provision for a secondary access route (the typical mitigation for exceeding the dead end road length) is infeasible. Therefore, the Project proposes meeting the intent of the Fire Code through a combination of measures that provide a system of fire safety above and beyond the code requirements. One of the most significant measures is construction of roads on site that include an additional travel lane that is within 800 feet of all Project structures. The additional travel lane provides additional capacity for evacuation and would occur throughout the Project, would include Country Club Road from the southernmost Project entrance northward to Harmony Grove Road, including the bridge over Escondido Creek. This enhanced road capability would be supplemented by a complete system of fire protection that includes a redundant layering of measures designed to keep roadways open and passable, and reduce the possibility that wildfire threatens the Project.

The FPP provides a detailed discussion regarding secondary access and how the Project would meet the intent of the code through a layered and redundant fire protection and evacuation system. The primary Project access for HGV South would be via a widened Country Club Drive that provides three travel lanes. This includes a three-lane-wide bridge constructed over Escondido Creek that also includes separated horse and pedestrian pathways. Various alternatives for secondary access to the north, south, east and west of the Project site were also

analyzed with both County staff and RSFFPD input, as described in Appendix C of EIR Appendix L. FPP Alternative 4, which would require improving sections of a privately owned off-site road that connects east of the Project with Johnston Road (a public road beyond its gates where it crosses into the City of Escondido, becomes a two-lane road and eventually intersects with Citracado Parkway to the east) was determined to be the option with the fewest physical challenges. That route would involve improving the private off-site roadway to County roadway standards where necessary to allow emergency access in specific areas (e.g., where turn radius is limited and would not allow emergency vehicles). All such improvements would occur between the Project and Johnston Road in areas already disturbed by existing residential construction and residential access patterns, and dirt portions of the road would remain dirt (as it currently exists for most of its length). At the northeast extent, it would join a paved but still private portion of Johnston Road, west of the gate across the road just west of the Jasper Glen and Tecate Glen intersections with Johnston Road. As indicated, the existing roadway is in a disturbed condition relative to vegetation. Any improvement areas that might contain native vegetation at the time of construction and therefore result in small areas of potentially significant impacts would be mitigated for using the same thresholds and standards as the Proposed Project; as identified in Subchapter 2.3 of this EIR. No known archaeological or historical sites were noted for this area in the Project records search; potential location of currently unknown sites that may be located beneath the surface would be addressed as identified in Subchapter 2.4 of this EIR. Visual effects would remain similar to the existing scarring across the hills east of the Project; any minimal widening in focused areas would not be expected to meaningfully differentiate from the existing condition. Noise effects would be limited to construction in focused areas, which would be localized and short-term in nature, and therefore less than significant. Many of the other routes include a combination of steep terrain and environmental and notable biological habitat issues, including those associated with building a road with a creek crossing. Also, the configuration of the emergency secondary access routes would necessitate a modification to the County's roadway standards. However, it was determined that ultimately, all of the alternatives are infeasible due to difficulties in obtaining legal access rights from private property owners.

Since secondary access is not feasible given the constraints described above, the potential for impairment of a single road by vehicle congestion, condition of terrain, climatic conditions or other factors was evaluated. The Project has developed an alternative approach for secondary access that meets the intent of the code through the implementation of a list of specifically developed measures and features described in the Findings and Mitigation section of the FPP. These measures and features provide the ability for the FAHJ to make findings that the intent of the code has been met for this Project in this particular setting. The FPP concludes that the Project meets the intent of the code through a layered and redundant fire protection and evacuation system.

Additional project design features (see Table 1-2) that would implement the intent of the FPP include clustering of the residential footprint to minimize placement of homes adjacent to wildland fuels (all structures would be a minimum of 100 feet distant from wildland fuels) and shorten emergency response time. Central to the latter issue is enhancement of Country Club Drive, currently the only north-south circulation element providing ingress and egress to existing Harmony Grove residents south of Harmony Grove Road, as well as the HGV South and HGV properties. The anticipated improvements to Country Club Drive include replacement of the existing Arizona crossing with a three-lane bridge.

As discussed in Section 3.1.8, fire protection at a public services level would be provided from the new fire station being built in the HGV project. The station location would be within 1.3 miles north from the most distant portion of HGV South. The Proposed Project would provide funding for fire and emergency medical response through participation in a Community Facilities District or other similar financing mechanism, as agreed between RSFFPD and the Applicant. The new station would be staffed by career personnel provided by the RSFFPD. The planned fire station 1.3 miles to the north of HGV South would provide response to all Project lots (including the most distant) within 2 minutes and 50 seconds, which is well below the General Plan's 5-minute travel time standard.

Based on fire behavior modeling, the FPP determined that wildfires may occur in wildland areas to the west, east, south, and southwest of the Project site, but would not be significantly increased in frequency, duration, or size with the construction of the Project. One reason is that the developing HGV project has created a large lower risk area in alignment with north/northeast wind directions, reducing the fire threat at the Project site. In addition, various Project features would result in a site that is less susceptible to wildfire than surrounding landscapes and that would facilitate firefighter and medical aid response as well as Project resident evacuation in a wildfire emergency. The Project is providing code-exceeding measures (as described below) through a layered and redundant fire protection and evacuation system that would result in a highly defensible community, offer a means of equivalent egress, and provide contingency planning if evacuation from the site is considered unsafe. The following section provides details for the measures that have been developed for this Project. Fire protective features of the Project provided in the FPP are illustrated in Figure 3.1.3-1, *Fire Protection Features*, of this EIR and include the following:

- The parts of the Project area proposed for development would convert the existing vegetation to a lower flammability, ignition resistant landscape than under current conditions. This conversion would include removal of primarily non-native grasses and construction of roads, structures, and irrigated, managed landscape vegetation.

- A third travel lane would be provided for the entirety of Country Club Drive from its intersection with Harmony Grove Road to the southernmost Project entrance and would extend within the Project so that no structure exceeds 800 feet from that extra lane as an equivalent form of egress. A new bridge that includes the "three-lane capacity," along with a barrier-separated multi-use (including equine) trail, and from this intersection, has been evaluated by the County. The Project conservatively assumes construction of this bridge over Escondido Creek with separated equestrian and pedestrian pathways. This would represent an improvement over the existing condition for the estimated 75 residential units that currently rely on Country Club Drive as their only ingress/egress. The improvements to the existing Arizona crossing at Escondido Creek would provide year-round access where historically, the roadway can be flooded.

- The Project would incorporate the same fire protection philosophies and physical attributes as Rancho Santa Fe's shelter in place communities; including ignition resistant structures built to the latest codes, pre-approved and inspected landscapes to retain defensible space function, water supply and availability throughout the Project, fire apparatus access, meeting the emergency responder response times, and a focus on early

evacuation, amongst others, and providing a last resort for potential temporary refuge if early, safe, evacuation is not possible.

- Existing access for several residences east of the Project crosses the HGV South site (Figure 3.1.3-1). Such access would continue to be provided through the HGV South site after development, but via improved, code conforming on-site roadways, thereby improving the evacuation situation to the west for those off-site residences. Additionally, a route to the east is accessible by typical passenger vehicles, does connect with Johnston Road to the east, and would be available in an emergency situation where people needed to be moved to the east and the primary access route (Country Club Drive) was not available.

- The Project would provide three separate access ways off of Country Club Drive (Figure 3.1.3-1). The first would be a paved service road 450 feet south of Harmony Grove Road adjacent to the HGV South wastewater land use area. The second would be an access into the community approximately 800 feet south of the first access. The third would be approximately 400 feet south of the second. These three access ways are part of a looped interior road system so if one or both of the southern roads are blocked, the northern roadway would still be accessible by all residents. These three ingress/egress points are in addition to the existing evacuation route to the east noted above, and would enable resident evacuation without compromising emergency respondent access to the community.

- New road and driveway grades would comply with the Fire Code, not exceeding 20 percent. Any sections exceeding 15 percent would be constructed with Portland Concrete surface and provided heavy broom finish or equivalent surfacing and subject to FAHJ approval.

- Project structures would be a minimum of 100 feet from wildland fuels. Fuel Modification Zone setbacks would exceed the County standard of 100 feet that is typically 50 feet irrigated and 50 feet thinned zones. HGV South would provide 75 feet of irrigated Zone 1 and a minimum of 25 feet of thinned Zone 2. To ensure long-term identification and maintenance, permanent markers would be installed to identify the fuel modification zones on the perimeter of the developed areas. In some locations, particularly the southwestern and eastern sides of the Project, the setbacks would vary between 110 feet and nearly 200 feet wide to focus FMZs where fire behavior is anticipated to be the most aggressive.

- Structure setbacks from the top of the slope would be a minimum of 15 horizontal feet from top of slope to the farthest projection from a roof for single-story structures and 30 horizontal feet from top of slope to the farthest projection from a roof for two-story structures where applicable (southwestern portion of the Project). Structures taller than two stories and where the slope is greater than 2:1 may require a setback greater than 30 feet. For lots where a full 30-foot setback would not be possible, installation of a 6-foot tall, non-combustible, heat deflecting, wall would be provided as part of Project Design for additional heat and flame deflection. This wall may be a combination of masonry and dual pane (one pane tempered glazing) materials. During the site plan

review process required for this Project, the FAHJ would review setbacks relative to appropriate fire standards and if the appropriate setback is unavailable, the walls would be implemented along one or more of these lots.

- Fuel modification in environmentally sensitive areas, if any are encountered, would require approval from the County and the appropriate resource agencies (CDFW and USFWS) prior to any vegetation management activities occurring within those areas. Riparian habitat enhancement maintenance/fuel modification at the Escondido Creek bridge crossing would be provided within the roadway easement; including removal of dead/dying plants, exotic/invasive species, and highly flammable species.

- Crowns of trees located within defensible space would maintain a minimum horizontal clearance of 10 feet for fire resistant trees and mature trees would be pruned to remove limbs one-third the height or 6 feet, whichever is less, above ground surface. Ornamental trees would be limited to groupings of two- to- three trees with canopy separation as described in Table 7 of the FPP for trees located on slopes.

- The internal Project development area between residential structures and building clusters (see green portions of Figure 3.1.3-1) would be cleared of vegetation and re-planted with permanently irrigated fire-resistant plants, thereby excluding native fuels within the development area and minimizing the likelihood of ignitions internal to the Project.

- Plants used in the fuel modification areas or landscapes would include drought-tolerant, fire resistive trees, shrubs, and groundcovers. The plantings would be consistent with County of San Diego's Suggested Plant List for Defensible Space. The FPP also provides a list of prohibited plant species to avoid planting within the first 50 feet adjacent to a structure in Appendix J to the FPP, unless the potential for spreading fire has been otherwise reduced or eliminated. (The Final Landscape Plan for the Project will not contain any of the plants in Appendix J.) Landscaping would be inspected annually and on an ongoing basis by the FAHJ.

- The HGV South HOA would be required to ensure long-term funding and ongoing compliance with all provisions of the FPP, including vegetation planting, fuel modification, vegetation management, and maintenance requirements throughout the common areas of the Project site. Individual property owners would be enforced through HOA Codes, Covenants & Restrictions.

- RSFFPD's Fire Marshal may require a property owner to modify combustible vegetation in the area within 20 feet from each side of the driveway or a public or private road adjacent to their property to establish a fuel modification zone.

- Fire hydrants would be placed every 300 feet along Project streets (Figure 3.1.3-1), exceeding the Fire Code requirement of 350 feet to the structure. The additional fire hydrants would assist fire operations by reducing operational time to extinguish any fires.

- The minimum fire flow requirements for the Project would be dual 2,500 gallons per minute (gpm) at 20 pounds per square inch (psi), compliant with the requirements of the

Rincon MWD. Thus, the water system would be designed to deliver 5,000 gpm during fire demands, exceeding code requirements by 100 percent.

- Each of the Project's three entrances would be provided a lighted map directory, and internal signage would be customized to provide clear, intuitive navigation within the Project. Street signs would be customized for the Project and would meet or exceed lettering size to provide clear, easy-to-follow signage to aid emergency response.

- All site access roads would have fire department turnarounds (cul-de-sacs). Roadway cul-de-sacs would comply with the County's minimum 36-foot radius (72-foot diameter) cul-de-sac bulb standard. Where parking is provided within cul-de-sacs, the additional space would be provided outside the 72-foot diameter bulb.

- All proposed private streets would have a minimum paved width of 24 feet. Where vehicles would be allowed to park on one side of the street, the road width would be 30 feet. Head-in parking areas would include an additional 18 feet of paved area outside travel lanes.

- Minimum unobstructed vertical clearance of 13.5 feet would be maintained for the entire required width for all streets, including driveways that require emergency vehicle access.

- No gates or speed bumps or humps would be allowed within the Project, so that traffic flow (ingress and/or egress) would be able to move more rapidly in the case of emergency. No gates are anticipated at the Project's entrances. If gates are proposed elsewhere, all access gates would comply with CFC Section 503.6. Gates on private roads and driveways would comply with County and FAHJ standards for electric gates, including an emergency key-operated switch overriding all command functions and opening the gate.

- Through provision of seven times more parking spaces than are required under the County's Zoning Code (434 guest spaces provided, 52 guest spaces required), and implementing the Parking Management Plan, the Project would eliminate the potential for roadway obstructions. The Project has been planned to far exceed the available resident and guest parking standards in order to maintain the Project roads as unobstructed travel lanes so that emergency response vehicles are not hindered during responses. A parking management plan would designate Center House parking area as valet/shuttle staging area for all homeowners' events exceeding 10 guests. Homeowners would obtain parking permits for use of guest parking overnight. "No Parking" signs would be installed on designated streets. A contract with a towing company would be maintained so that illegally parked vehicles would be towed within a short period of time.

- Based on its location and ember potential, the Project is required to include the latest ignition and ember resistant construction materials and methods for roof assemblies, walls, vents, windows, and appendages, as mandated by San Diego County Consolidated Fire and Building Codes (Chapter 7A and 2014 CCFC). Exterior walls would have a noncombustible covering. Ember resistant vents (BrandGuard, O'Hagin, or similar approved vent of 1/8-inch screening) would be utilized in all structures. Multi-pane

glazing would be required with a minimum of one tempered pane, fire-resistance rating of not less than 20 minutes. All habitable structures and garages would be provided interior residential fire sprinklers per County Consolidated Fire Code requirements.

- Prior to bringing combustible materials onto the site, utilities shall be in place, fire hydrants operational, an approved all-weather roadway in place, and fuel modification zones established and approved. Other pre-construction requirements include implementation of perimeter fuel modification areas, reduction by 60 percent of existing flammable vegetation on vacant lots, and proper pruning of trees/shrubs.

- FMZs, including rear yard areas, would be limited building zones (LBZs), which exceeds code.

- The individual lot owners would be subject to strict limitations, with any sheds, gazebos, play equipment, or other structures being constructed to standards in Chapter 7A of the California Building Code (ignition resistant construction).

As previously stated, the Project is requesting a modification to the 2014 CCFC regarding maximum dead end road lengths. CCFC Section 96.1.104.8 allows for such modifications based on topographical, geological, and environmental conditions that would make compliance with such regulations unattainable, provided a finding can be made that the intent of the Fire Code is met through the implementation of other measures and features that would not lessen health, life, and fire safety requirements. Pursuant to the FPP, the Project provides a layered and redundant fire protection and evacuation system that provide a system of fire safety above and beyond the code requirements. More particularly, the Project has developed an alternative approach that meets the intent of the code through the implementation of a list of specifically developed measures and features (detailed in Section 5.2.1.2 of the FPP). These measures and features supported a finding by the RSFFPD that the intent of the code has been met and does not lessen health, life, and fire safety requirements (RSFFPD FPP acceptance letter prepared by Chief Tony Michel – August 2016). The requirements described in the FPP, including the measures that result in conformance with the intent of the building and fire codes, such as improvement of Country Club Drive and provision of ignition-resistive construction, additional fire protection systems, and fuel modification/ vegetation management will be included as design features of the Project. Therefore, the Project would not expose people or structures to a significant risk of loss, injury or death from wildland fires. The Project would comply with the FPP that has been prepared in conformance with the CCFC, and would be in compliance with the fire codes by including as design features of the Project, the specifically developed measures and features (detailed in Section 5.2.1.2 of the FPP). Also, with implementation of the planned fire station 1.3 miles to the north of HGV South, travel time to all Project lots (including the most distant) would be within 2 minutes and 50 seconds, which is well below the General Plan's 5-minute travel time standard. Consequently, the Project would more than comply with the emergency response objectives identified in the Public Facilities Element of the County General Plan, has demonstrated compliance with all applicable fire codes and a comprehensive FPP has been accepted and the Project design features would be consistent with its recommendations. Therefore, **impacts associated with wildland fire hazards would be less than significant.**

Emergency Response and Evacuation Plans

Guidelines for the Determination of Significance

A significant impact would occur if a project:

11. would impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

12. or propose a structure or tower 100 feet or greater in height on a peak or other location where no structures or towers of similar height already exist and as a result, the project could cause hazards to emergency response aircraft resulting in interference with the implementation of an emergency response.

Guidelines Source

The guideline related to adopted emergency response/evacuation plans is based on Appendix G of the CEQA Guidelines. The guideline related to structure height and aircraft response is based on the County's Guidelines for Determining Significance – Emergency Response Plans (2007l).

Analysis

As described above, hazards specifically relevant to the Project that are profiled in the Operational Area Emergency Plan include wildfire, structure fire and hazardous materials, each of which is addressed above. In summary and relative to wildfire, the wildfire behavior assessment addressed the worst-case scenario for wildland fire. As a result of the fire modeling, Project design features were incorporated into the Project, including fuel modification zones, use of ignition-resistant building materials, wide turning radii and additional parking potential, etc. These considerations reduce the risk of fire hazard. The Project would meet fire and building code requirements, including spacing of hydrants adjacent to Project structures. The Project FPP also addresses improvements to the two-lane road abutting the Project that would benefit all residents south of Harmony Grove Road, and not only the Project, in the case of any kind of evacuation due to fire or hazardous materials spills in the area.

The Project would not include any structural elements located on peaks. The tallest structures on the Project, associated with the granaries, would be a maximum of 54 feet in height (this includes potential non-inhabitable architectural projections); a full 46 feet below the 100-foot threshold.

The Project would not impair implementation of either the Operational Area Emergency Plan or the Multi-Jurisdictional Hazard Mitigation Plan or interfere with evacuation activities conducted in accordance with these documents. Similarly, the Project would not cause hazards to emergency response aircraft resulting in interference with the implementation of an emergency response due to structure location and height as the Project has been designed to avoid peak-top development and keep maximum structure heights below 55 feet. Impacts would be **less than significant.**

3.1.3.3 *Cumulative Impact Analysis*

Impacts associated with hazardous materials are generally site-specific. The Project site does not contain known contaminated groundwater or soils, or asbestos- or lead-containing structures. In addition, the proposed Project would not result in significant impacts related to airport hazards or regional emergency/evacuation plans. Cumulative projects in the site vicinity would be required to implement, as appropriate, similar site-specific measures to address potential impacts from hazardous materials and airport hazards. These kinds of impacts do not combine together to increase effects. Therefore, there would be less than significant cumulative impacts from hazardous materials and airport hazards.

The FPP concluded that under existing conditions, the Project site includes numerous potential fire issues including unmaintained, non-native vegetation and limited access/egress for approximately 70 residences to the west of HGV South. The Project would convert fuels into developed land with designated landscaping and fuel modification areas and highly ignition resistant structures. As such, the site would be largely converted from readily ignited fuels to ignition resistant landscape. In addition, the Project would enhance access (both ingress and egress) in the area. The proposed Project also would provide developer impacts fees and assessments along with state fire fees, to combine with similar contributions from other area projects. Fire and emergency medical response from the new fire station being built in HGV within 1.3 miles from the most distant portion of HGV South (see also Section 3.1.8, *Public Services*), ultimately would result in an increase in service availability and a reduction in the travel times for fire service calls in the cumulative project area.

A development like HGV South would typically include a demographic that results in fewer calls, per capita. Using San Diego County fire agencies' calculated 82 annual calls per 1,000 population, the Project's estimated 1,410 residents (calculated based on 3.12 persons per dwelling; SANDAG 2013), would generate up to 115 calls per year (0.3 call per day), most of which would be expected to be medical-related calls, consistent with typical emergency call statistics. These estimates are likely overly conservative due to the per capita call factors, which are based on an average of all demographics and sociological populations, including dense, urban areas which, on average, result in higher call volumes, resulting in an overly conservative estimate for the Project. Populations associated with HGV and other surrounding neighborhoods would be expected to generate similar per capita call volumes. The station would not be considered a busy station until it averaged a call load of up to 7 to 10 calls per day. Therefore, the Project's contribution of 0.3 call per day with respect to the new fire station in the cumulative project area is considered insignificant.

Based on the type of wildfire anticipated/modeled for this area, wildland fire hazards exist for this and other projects in the vicinity. With implementation of the corresponding fire protection Project features, including conformance with building and fire codes, provisions for alternative ingress/egress, ongoing maintenance of roads, infrastructure, vegetation management and defensible space, however, the Project would not contribute to a cumulative wildland fire risk. Further, as with the Project, the cumulative projects in the study area, along with any future projects, would be required to implement site-specific measures to address potential impacts from wildfires. Based on the conclusion that the Project would not contribute to a cumulative wildland fire risk, and on the requirement that future projects in the vicinity would also

implement preventative wildfire measures, **cumulative impacts from wildland fire hazards would be less than significant.**

3.1.3.4 *Significance of Impacts*

Based on the analysis, mandatory regulatory compliance and Project design features provided above, the Proposed Project would have less than significant impacts related to hazards and hazardous materials.

3.1.3.5 *Conclusion*

Based on the analysis, mandatory regulatory compliance and Project design features provided above, the Proposed Project would have less than significant Project-specific or cumulative impacts related to hazards and hazardous materials.

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Source: Dudek 2016

Fire Protection Features

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

Figure 3.1.3-1

3.1.4 Hydrology/Water Quality

This section describes existing hydrologic and water quality conditions within the Project site and vicinity, identifies regulatory requirements and industry standards associated with hydrologic and water quality issues, and evaluates potential impacts and mitigation measures related to implementation of the Proposed Project.

Five technical studies related to hydrology and water quality have been prepared for the Proposed Project by Project Design Consultants (PDC) and Chang Consultants (Chang), including: (1) CEQA Preliminary Hydrology/Drainage Study (Drainage Study, PDC 2017a); (2) Hydromodification Screening Analysis (Chang 2016a); (3) Preliminary Hydromodification Management Study (HMS, PDC 2017b); (4) Hydraulic (Floodplain) Analyses for Harmony Grove Village South (Floodplain Analyses, Chang 2016b); and (5) Priority Development Project Storm Water Quality Management Plan (SWQMP, PDC 2017c). These studies are summarized below along with other applicable data, with the complete reports included in Appendices M (Drainage Study, Hydromodification Screening Analysis, HMS, and Floodplain Analyses) and N (SWQMP) of this EIR.

3.1.4.1 *Existing Conditions*

Watershed and Drainage Characteristics

The Project site and related off-site roadway/utility improvements are located within the Carlsbad Hydrologic Unit (HU), one of 11 major drainage areas identified in the San Diego RWQCB *Water Quality Control Plan for the San Diego Basin* (Basin Plan, 1994 as amended). The Carlsbad HU is a generally triangular-shaped area encompassing approximately 210 square miles, and extends from the east side of Lake Wohlford to Solana Beach-Carlsbad along the coast (Figure 3.1.4-1, *Project Location within Local Hydrologic Designations*). The Carlsbad HU is divided into a number of hydrologic areas and subareas based on local drainage characteristics, with the Project site and vicinity located within the Escondido Creek Hydrologic Area (HA) and the Escondido Hydrologic Subarea (HSA). Drainage within the Carlsbad HU is predominantly through a number moderate sized creeks and associated tributaries, including Escondido Creek in the Project vicinity. The Project site and related off-site roadway/utility improvement areas drain generally north and/or west before ultimately discharging to Escondido Creek, which continues west and south and enters the Pacific Ocean via San Elijo Lagoon near the City of Solana Beach approximately 10.5 miles to the southwest (with related on- and off-site drainage patterns outlined below). Average annual precipitation in the Project site vicinity (City of Escondido, 92025) is approximately 15.1 inches, with much of this (approximately 86 percent) occurring during the period of November through March (Melissadata.com 2015).

The Project site is predominantly undeveloped, with existing on-site uses including extensive disturbed and undisturbed open space, minor equestrian facilities (associated with an adjacent off-site property), structural remnants from former site uses, an electrical distribution line, and a number of paved and unpaved roads and trails (refer to Figure 1-4, *Project Site Aerial Photograph*). No known drainage facilities are located within the Project site, with off-site drainage structures including an at-grade crossing of Escondido Creek at Country Club Drive

just north of the site, as well as downstream bridge crossings of the creek at major roadways including Rancho Santa Fe Road and I-5.

Surface drainage within the Project site and related watershed areas flows generally north and west, and occurs as both confined (point) and unconfined (sheet or non-point) flow. As previously noted, the Project site is tributary to Escondido Creek, which is located approximately 200 feet to the north at its closest point. Existing site drainage is divided generally into four watershed areas (or systems) in the Project Drainage Study, designated as Systems 100 through 400. These four existing Project drainage systems are summarized below, and are depicted on the Existing Conditions Drainage Maps included as Exhibit B of the Project Drainage Study (PDC 2017a in EIR Appendix M-1). The corresponding proposed Drainage Systems are shown on the Proposed Conditions Drainage Maps in Exhibit C of the Drainage Study, and are discussed as applicable below in Subsection 3.1.4.2, *Analysis of Project Effects and Determination as to Significance*.

Existing Drainage System 100

Drainage System 100 includes approximately 18.6 acres, and encompasses the northeastern corner of the site and adjacent off-site areas to the north and east. Flows in this system drain generally north through a natural drainage channel extending through the site, and discharge to Escondido Creek. Existing peak 100-year storm flow[1] from System 100 is approximately 28.0 cubic feet per second (cfs).

Existing Drainage System 200

System 200 incorporates approximately 81.9 acres in the northern and central portions of the site (including most proposed development areas), as well as adjacent off-site areas to the east and south. This area is drained via a previously disturbed creek that begins off site to the east, extends generally northwest through the main central valley of the site, and then flows north along the east side of Country Club Drive before discharging into Escondido Creek. Existing peak 100-year storm flow from System 200 is approximately 116.4 cfs.

Existing Drainage System 300

System 300 encompasses approximately 15.7 acres in the southwestern portion of the site. Drainage in this watershed flows through a natural creek that extends generally west to a defined drainage course along the western site boundary, which continues generally north through existing residential properties located west of Cordrey Drive and ultimately flows into Escondido Creek west of the Project site. Existing peak 100-year storm flow from System 300 is approximately 26.3 cfs.

Existing Drainage System 400

This drainage system includes approximately 76.1 acres in the southern-most portion of the site, as well as adjacent off-site areas to the east and south. Flows in System 400 drain generally north through two natural creeks that begin off site to the south and east. These drainages extend

[1] A 100-year storm is defined as an event with a one percent chance of occurring in any given year.

generally parallel through the southern portion of the site, merge near the western site boundary, and continue north to Escondido Creek through the same off-site drainage described above for System 300. Existing peak 100-year storm flow from System 400 is approximately 131.6 cfs.

Flood Hazards

The Federal Emergency Management Agency (FEMA) has mapped flood hazards on the Project site and vicinity. The majority of the Project site and associated off-site roadway/utility improvements along Country Club Drive are designated as Zone X, or areas determined to be outside the 500-year (and 100-year) floodplain (FEMA 2012a and 2012b, refer to Exhibit A of the Project Drainage Study in EIR Appendix M-1). The northern-most portion of the site, as well as adjacent portions of the proposed off-site roadway/utility improvements along Country Club Drive and the related crossing of Escondido Creek, are within one of the following mapped FEMA floodplain categories: (1) Zone AE, which includes 100-year floodplain areas where base flood elevations have been determined; (2) portions of the Escondido Creek floodway[2] that are within the AE Zone; and (3) "other flood areas" also designated as Zone X and defined by FEMA to include areas within the 500-year floodplain, areas within the 100-year floodplain with average depths of less than 1 foot or a drainage area of less than 1 square mile, and areas protected from the 100-year flood by levees.

Groundwater

The Project site is not located within the areal extent of any known mapped regional groundwater basins, with the closest such basins including Escondido Valley to the east and San Marcos Valley to the north (California Department of Water Resources [DWR] 2003). Shallow groundwater/seepage was encountered in alluvial deposits during 2005 subsurface geotechnical exploration in the northern and northeastern portions of the site, at depths ranging from 4 to 16 feet below surface grade (bsg). Specifically, moderate groundwater seepage was observed at a depth of 16 feet bsg (approximately the same elevation as nearby portions of Escondido Creek) in the northernmost site area (Trench T-4, refer to Figure 3.1.2-1, *Geology Map*). Minor seepage was also observed in the northwestern (Trench T-10) and north-central (Trench T-16) portions of the site, with the 2015 Update Geotechnical Report concluding that groundwater seepage in Trench Nos. T-10 and T-16 "…was likely associated with heavy rains that had occurred prior to…field work…Groundwater levels in drainage areas can be expected to fluctuate seasonally..." Groundwater seepage was not observed in other portions of the site during geotechnical investigation, and no shallow permanent groundwater was observed (or anticipated to occur) within or adjacent to the site (Geocon 2015a, 2005).

Water Quality

On-site and Vicinity Water Quality

Surface water within the Project site consists predominantly of intermittent flows from storm events, with local groundwater occurrences described above. No known surface water quality data are available for the Project site and adjacent areas, with surface storm and irrigation flows

[2] Generally defined as the channel of a river or stream and the adjacent portions of the floodplain that are reasonably required to efficiently carry and discharge the associated 100-year flood flow.

typically subject to variations in water quality due to local conditions such as runoff rates/amounts and land use. A summary of typical pollutant sources and loadings for various land use types is provided in Table 3.1.4-1, *Summary of Typical Pollutant Sources for Urban Storm Water Runoff*, and Table 3.1.4-2, *Typical Loadings for Selected Pollutants in Runoff from Various Land Uses*. No known groundwater quality data are available for the Project site and vicinity. Regional data indicate that groundwater in the Escondido Valley Basin is generally sodium-chloride in character, with observed TDS levels of between 250 and 5,000 milligrams per liter (mg/l; Geocon 2009, DWR 2003).

Off-site Water Quality

Receiving waters associated with the Project site include several local unnamed drainages, Escondido Creek approximately 200 feet to the north, and the Pacific Ocean/San Elijo Lagoon approximately 10.5 miles to the southwest. Existing water quality data for downstream areas include quantitative and qualitative monitoring and/or testing results, biological assessment (bioassessment) studies, and 303(d) impaired water evaluations conducted by the SWRCB and RWQCB. An overview of selected monitoring and reporting data is provided below, followed by a summary evaluation of overall water quality conditions within the Project site and related watersheds.

Surface Water Quality Monitoring Data

Historic and current water quality monitoring has been/is being conducted within the Escondido Creek watershed in association with requirements under the federal CWA, NPDES, and the associated Municipal Storm Water Permit (refer to Regulatory Setting below for additional information).

Wet weather monitoring has been conducted seasonally since 2001 at the Escondido Creek Mass Loading Station (MLS), located approximately 6.3 miles southwest of the Project site at the Escondido Creek/El Camino Del Norte bridge (with no monitoring conducted during the period of 2011/2012 through 2014/2015). This monitoring includes numerous physical, chemical and biological parameters, with resulting data for the most current monitoring effort (2010/2011) indicating the following trends: (1) applicable water quality objectives were exceeded at a high frequency (more than 50 percent) for TDS, fecal coliform bacteria, and bioassessment scores (as outlined below); and (2) water quality objectives were exceeded at a low frequency (25 percent or less) for general chemical parameters (e.g., pH and chloride), toxicity and nutrients (Weston Solutions, Inc. [Weston] 2013 and 2012). Bioassessment testing involves evaluation of the taxonomic richness and diversity of benthic macroinvertebrate (BMI) communities based on the Index of Biotic Integrity (IBI), which provides a quantified score reflecting biological conditions and associated water quality. The IBI score for bioassessment testing at the Escondido MLS in 2010/2011 is listed as very poor (Weston 2012).

Dry weather sampling has also been conducted since 2002/2003 at several sites located downstream of the Project impact footprint. This program is focused on collecting dry season samples from storm drain facilities, rather than streams or receiving waters, to identify urban pollutants and sources. Data from the most recent (2011) dry weather sampling events documented that water quality objectives were most commonly exceeded for nitrate, turbidity

and conductivity; and less commonly for pollutants including pH, fecal/total coliform bacteria and orthophosphate (Weston 2013, 2012).

In addition to the above efforts, wet weather monitoring was conducted during the 2007/2008 season at the Escondido Creek Temporary Watershed Assessment Station (TWAS), located at the Escondido Creek/Country Club Drive crossing (approximately 200 feet north of the Project site). The associated trends at the Escondido Creek TWAS were similar to those noted above for TDS and bacteria in 2010/2011 at the Escondido Creek MLS, although the frequency levels were somewhat lower. Monitoring at the Escondido Creek TWAS in 2007/2008 also identified very low IBI scores, similar to those noted for the Escondido Creek MLS in 2010/2011 (Weston 2013, 2012, 2009).

Section 303(d) Impaired Water Bodies and Total Maximum Daily Loads

The SWRCB and RWQCBs produce bi-annual qualitative assessments of statewide and regional water quality conditions. These assessments are focused on CWA Section 303(d) impaired water listings and scheduling for assignment of total maximum daily load (TMDL) requirements. A TMDL establishes the maximum amount of an impairing substance or stressor that a water body can assimilate and still meet water quality standards, and allocates that load among pollution contributors. TMDLs are quantitative tools for implementing State water quality standards, based on the relationship between pollution sources and water quality conditions. States are required to identify and document any and all polluted surface water bodies, with the resulting documentation referred to as the *Clean Water Act Section 303(d) List of Water Quality Limited Segments*, or more commonly the 303(d) list. This list of water bodies identifies the associated pollutants and TMDLs, along with projected TMDL implementation schedules/status. The most current (2010) approved 303(d) list identifies the following impaired waters in downstream watersheds (SWRCB 2016a):

- Escondido Creek (26 miles) is listed for Dichlorodiphenyltrichloroethane (DDT), enterococcus and fecal coliform bacteria, manganese, phosphate, selenium, sulfates, TDS, toxicity, and total nitrogen (as N). The expected TMDL completion date for all of the listed pollutants is 2019.

- San Elijo Lagoon (566 acres) is listed for eutrophic conditions, indicator bacteria, and sedimentation/siltation. The expected TMDL completion dates are 2015 for indicator bacteria and 2019 for other listed pollutants.

- The Pacific Ocean shoreline at San Elijo Lagoon (no area specified) is listed for total coliform bacteria, with the associated TMDL completion date listed as 2008.

Water Quality Summary

Based on the above information, surface water quality within the Project site and immediate vicinity is assumed to be generally moderate to good. This conclusion is based primarily on the fact that associated on-site and upstream watersheds include primarily natural open space and low density development. Monitoring data indicate generally moderate to poor water quality conditions in downstream portions of Escondido Creek and associated coastal waters, with some

variation among individual pollutants. These conditions are associated with the higher level of urban development (and associated pollutant generation) in areas further west, as well as the ongoing implementation of water quality control measures. Specifically, the most current (2010/2011) Urban Runoff Monitoring Report associated with NPDES requirements that includes the Escondido Creek MLS documents the following long-term trends: (1) concentrations of total coliform bacteria are increasing; and (2) concentrations of total phosphorus and diazinon (an organophosphate insecticide) are decreasing (Weston 2012). Based on the available historic data described above, regional water quality in the Escondido Valley Groundwater Basin ranges from good to poor.

Regulatory Setting

The Proposed Project is subject to a number of regulatory requirements associated with federal, State and local guidelines, as summarized below.

Federal/State

National Pollutant Discharge Elimination System Requirements

The Proposed Project is subject to applicable elements of the CWA, including the NPDES. Specific NPDES requirements associated with the Proposed Project include conformance with the following: (1) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit, NPDES No. CAS000002, SWRCB Order 2009-0009-DWQ; as amended by Order Nos. 2010-0014-DWQ and 2012-0006-DWQ); (2) General Waste Discharge Requirements for Groundwater Extraction Discharges to Surface Waters Permit (Groundwater Permit; NPDES No. CAG919003, RWQCB Order No. R9-2015-0013); (3) Waste Discharge Requirements for Municipal Separate Storm Sewer Systems (MS4) Permit (Municipal Permit, NPDES No. CAS 0109266, RWQCB Order No. R9-2013-0001; as amended by Order Nos. R9-2015-0001 and R9-2015-0100); and (4) related County standards as outlined below.

General Construction Activity Storm Water Permit

Conformance with the Construction General Permit is required prior to development of applicable sites exceeding 1 acre, with this permit issued by the SWRCB under an agreement with the USEPA. Specific conformance requirements include implementing a Storm Water Pollution Prevention Plan (SWPPP), an associated Construction Site Monitoring Program (CSMP), employee training, and minimum BMPs, as well as a Rain Event Action Plan (REAP) for applicable projects (e.g., those in Risk Categories 2 or 3, as outlined below). Under the Construction General Permit, project sites are designated as Risk Level 1 through 3 based on site-specific criteria (e.g., sediment erosion and receiving water risk), with Risk Level 3 sites requiring the most stringent controls. Based on the site-specific risk level designation, the SWPPP and related plans/efforts identify detailed measures to prevent and control the off-site discharge of pollutants in storm water runoff. Depending on the risk level, these may include efforts such as mandatory technology-based action levels, effluent and receiving water monitoring/reporting, and advanced treatment systems (ATS). Specific pollution control measures require the use of best available technology economically achievable (BAT) and/or

best conventional pollutant control technology (BCT) levels of treatment, with these requirements implemented through applicable BMPs. While site-specific measures vary with conditions such as risk level, proposed grading, and slope/soil characteristics, detailed guidance for construction-related BMPs is provided in the permit and related County standards (as outlined below), as well as additional sources including the *EPA National Menu of Best Management Practices for Storm Water Phase II – Construction* (USEPA 2013c), and *Storm Water Best Management Practices Handbooks* (California Stormwater Quality Association [CASQA] 2009). Specific requirements for the Proposed Project under this permit would be determined during SWPPP development, after completion of Project plans and application submittal to the SWRCB.

General Groundwater Extraction Discharges to Surface Waters Permit

If Project-related construction activities entail the discharge of extracted groundwater into receiving waters, the Applicant would be required to obtain coverage under the Groundwater Permit. Conformance with this permit is generally applicable to all temporary and certain permanent groundwater discharge activities, with exceptions as noted in the permit. Specific requirements for permit conformance include: (1) submittal of appropriate application materials and fees; (2) implementation of pertinent (depending on site-specific conditions) monitoring/ testing, disposal alternative, and treatment programs; (3) provision of applicable notification to the associated local agency prior to discharging to a municipal storm drain system; (4) conformance with appropriate effluent standards (as outlined in the permit); and (5) submittal of applicable documentation (e.g., monitoring reports).

Municipal Storm Water Permit

The current Municipal Permit (R9-2013-0001) became effective for listed co-permittees, including the County, on June 27, 2013. The Municipal Permit implements a regional strategy for water quality and related concerns, and mandates a watershed-based approach that often encompasses multiple jurisdictions. The overall permit goals include: (1) providing a consistent set of requirements for all MS4 co-permittees; and (2) allowing the co-permittees to focus their efforts and resources on achieving identified goals and improving water quality, rather than just completing individual actions (which may not adequately reflect identified goals). Under this approach, the co-permittees are tasked with prioritizing their individual water quality concerns, as well as providing implementation strategies and schedules to address those priorities. Municipal Permit conformance entails considerations such as receiving water limitations (e.g., Basin Plan criteria as outlined below), waste load allocations (WLAs), and numeric water quality based effluent limitations (WQBELs). Specific efforts to provide permit conformance and reduce runoff and pollutant discharges to the maximum extent practicable (MEP) involve methods such as: (1) using jurisdictional planning efforts (e.g., discretionary general plan approvals) to provide water quality protection; (2) requiring coordination between individual jurisdictions to provide watershed-based water quality protection; (3) implementing appropriate BMPs, including low impact development (LID) measures, to avoid, minimize and/or mitigate

effects including increased erosion and sedimentation, hydromodification[3] and the discharge of pollutants in urban runoff; and (4) using appropriate monitoring/assessment, reporting, and enforcement efforts to ensure proper implementation, documentation, and (as appropriate) modification of permit requirements.

Pursuant to the described Municipal Permit requirements, the County has adopted a number of associated implementation standards, including (most recently) the BMP Design Manual (BMP DM) which became effective on February 26, 2016 (County 2016). The BMP DM, along with other related storm water standards and ordinances, are intended to address storm water quality issues. The BMP DM provides guidance for conformance with County storm water standards, including preparation of Storm Water Quality Management Plans (SWQMPs, as discussed below under analysis of Water Quality), along with the selection, design and maintenance of associated BMPs (with additional discussion provided below under local requirements).

Basin Plan Requirements

The RWQCB Basin Plan establishes a number of beneficial uses and water quality objectives for surface and groundwater resources. Beneficial uses are generally defined in the Basin Plan as "the uses of water necessary for the survival or well-being of man, plus plants and wildlife." Identified existing and potential beneficial uses for the Project site and applicable downstream areas of the Escondido and San Elijo HSAs (including coastal waters) include: municipal and domestic supply (MUN); agricultural supply (AGR); industrial service supply (IND); contact and non-contact water recreation (REC 1 and REC aired2); biological habitats of special significance (BIOL); warm freshwater habitat (WARM); cold freshwater habitat (COLD); wildlife habitat (WILD); estuarine habitat (EST); rare, threatened or endangered species (RARE); marine habitat (MAR); migration of aquatic organisms (MIGR); and spawning, reproduction and/or early development (SPWN). Identified beneficial uses for groundwater in the Escondido and San Elijo HSAs include MUN, AGR, and IND. Water quality objectives identified in the Basin Plan are based on established beneficial uses, and are defined as "the limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses." Water quality objectives identified for surface and groundwater resources in the Escondido Creek HA and the Escondido HSA are summarized in Table 3.1.4-3, *Surface and Groundwater Quality Objectives for the Escondido Creek Hydrologic Area and the Escondido Hydrologic Subarea*.

Local

Pursuant to the described NPDES Permit requirements, the County has adopted and/or updated the following related standards: (1) the Watershed Protection, Storm Water Management and Discharge Control Ordinance (Storm Water Ordinance, No. 10410); (2) the associated BMP Design Manual (County 2016, as previously described) and LID[4] Handbook (County 2007j); (3) the County Jurisdictional Urban Runoff Management Program (JURMP, County 2015b); and

[3] Hydromodification is generally defined in the Municipal Permit as the change in natural watershed hydrologic processes and runoff characteristics (interception, infiltration and overland/groundwater flow) caused by urbanization or other land use changes that result in increased stream flows and sediment transport.

[4] The LID process is intended to mimic predevelopment hydrologic conditions by using design practices and techniques to effectively capture, filter, store, evaporate, detain and infiltrate runoff close to its source.

(4) the County Grading Ordinance (No. 10224). These sources provide, among other things, direction for applicants to determine if and how they are subject to County and related Municipal Storm Water Permit standards, and identify requirements for the inclusion of permanent LID/site design, source control and/or pollutant control BMPs to provide regulatory conformance for applicable projects. The County Storm Water Ordinance/BMP DM also requires construction-related BMPs to address issues including erosion and sedimentation. The County may, at its discretion, require the submittal and approval of a SWPPP to address construction-related storm water issues prior to site development (with such requirements in addition to the NPDES SWPPP criteria described above).

The San Diego County Hydrology Manual (County 2003) provides uniform procedures for analyzing flood and storm water conditions in the County. Specific elements of these procedures include methods to estimate storm flow peaks, volumes and time distributions. These data are used in the design of storm water management facilities to ensure appropriate dimensions and capacity (typically 100-year storm flow volumes), pursuant to applicable requirements in the San Diego County Hydraulic Design Manual (County 2014b).

The County Guidelines for Determining Significance – Hydrology (County 2007g), provide direction for evaluating environmental effects to and from hydrologic conditions and hazards. Specifically, these guidelines address potential adverse effects to hydrologic resources, life and property (pursuant to applicable CEQA standards) from issues including drainage alteration, increased water surface elevations, increased runoff velocities and peak flow rates, and flooding. The Hydrology Guidelines identify significance guidelines for the noted issues, as well as related regulatory standards, typical adverse effects, standard mitigation/design considerations, and reporting requirements.

The County Guidelines for Determining Significance – Surface Water Quality (County 2007h), provide direction for evaluating environmental effects related to water quality issues, pursuant to related CEQA standards. The Water Quality Guidelines give an overview of hydrologic resources, local watershed conditions, related regulatory standards and typical adverse effects, and provide guidance for identifying significance guidelines and standard mitigation/design considerations.

The County Guidelines for Determining Significance – Groundwater Resources (County 2007e), provide direction for evaluating environmental effects related to groundwater supplies (e.g., aquifer volumes/yields, local water table levels, and well production) and quality, pursuant to related CEQA standards. The Groundwater Resource Guidelines give an overview of groundwater resources, hydrogeologic principles, aquifer/well characteristics, associated water quality concerns, regulatory standards, and typical adverse effects, and provide guidance for identifying significance guidelines and standard mitigation/design considerations.

3.1.4.2 *Analysis of Project Effects and Determination as to Significance*

Drainage Alteration

Guideline for the Determination of Significance

A significant impact related to drainage alteration would occur if the Proposed Project would:

1. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off site.

Guideline Source

Guideline No. 1 is based on the County Guidelines for Determining the Significance – Hydrology (County 2007g).

Analysis

As described above in Section 3.1.4.1, surface flows within applicable portions of the Project site and associated off-site watersheds drain generally north and west. These flows move through the site, exit at four primary outlet points, and continue generally north and/or west before discharging to Escondido Creek. Escondido Creek continues generally west and south from the Project site area and enters the Pacific Ocean via San Elijo Lagoon approximately 10.5 miles to the southwest. Project implementation would result in some modification of the described existing on-site drainage patterns and directions through proposed grading and construction. Specifically, Project development would include a series of storm drain facilities to capture, regulate and convey flows within and through the site, with these facilities included as part of the Proposed Project design and depicted on Figure 1-13, *Conceptual Drainage Plan* (refer also to the related discussion under *Drainage* in Section 1.2.2.2).

In addition, an analysis of hydraulic conditions associated with the Proposed Project, including the proposed bridge crossing of Escondido Creek (Chang 2016b), as well as an HMS (PDC 2017b), were conducted to assess downstream conditions in the creek. The Hydraulic (Floodplain) Analyses involved preparing a Hydrologic Engineering Center-River Analysis System (HEC-RAS) model to assess potential changes to 100-year water surface and floodway elevations from implementation of the Proposed Project. This analysis incorporated the results of an approved Conditional Letter of Map Revision (CLOMR) for an upstream project along Escondido Creek (HGV), which includes a bridge crossing and adjacent development, as the existing baseline condition. The associated baseline data, along with grading and construction for the Proposed Project, were used in the Project HEC-RAS model to determine water surface and floodway elevations. The Hydraulic Analyses concludes that the Proposed Project would "…not result in any increase in flood levels or the volume or velocity of flood flows during the…base flood discharge within Escondido Creek in compliance with County of San Diego Ordinance Section 811.506." based on the flowing summary conditions (with additional information provided in Appendix M-4):

- The 100-year water surface elevations evaluated in the Project Hydraulic Analyses are identical to the baseline conditions, except at the two cross-sections bounding the proposed bridge, with associated water surface elevations to be equaled or slightly reduced at these locations (i.e., by approximately 0.00 foot at the downstream cross-section and 0.48 foot at the upstream cross-section). As a result, the analysis concludes that "…the bridge and grading will not raise the 100-year water surface elevations. Therefore, the County's no-rise policy is met."

- While the proposed bridge would encroach within the CLOMR floodway, the associated floodway surcharges at the up- and downstream bridge cross-sections were calculated at 0.10- and 0.19-foot, respectively. Accordingly, the revised floodway would be within the allowable base flood elevation increase of 1.0 foot, per County guidelines.

A Hydromodification Screening Analysis (Chang 2016a) and a related Preliminary HMS (PDC 2017b) were also completed for the Proposed Project, to assess potential downstream hydromodification effects per applicable County requirements. The results of these analyses conclude that proposed flow regulation in applicable locations would avoid any adverse downstream hydromodification effects, with additional information provided below under the analysis of Guideline No. 3 (Hydromodification).

Based on the information outlined above, the described modifications from Project implementation would not substantially alter the overall described on- and off-site drainage patterns and flow conditions. That is, flows within the site would continue to drain primarily to the north and west, the Proposed Project design would encompass a number of appropriately designed and located drainage facilities as noted above to retain the overall existing drainage features (including the use of similar outlet points for flows discharged from the site), and downstream flow conditions would not change substantially from the existing baseline conditions. Specifically, the Project Drainage Study (PDC 2017a) provides the following related conclusions:

- "The ultimate discharge points…, in relation to the project boundary, are effectively the same as the existing condition: north to Escondido Creek and west to the defined drainage along the western project boundary…"

- "The project's drainage patterns mimic the existing conditions…The project does not propose to substantially alter the adjacent Escondido Creek."

- "Development of the project will not result in substantial erosion or siltation on or off-site."

As a result, post-development flows from the Project site would mimic existing conditions to the extent feasible (including runoff rates and amounts, as outlined below under Guideline No. 2), with overall runoff patterns and directions maintained and off-site flows continuing to drain generally north and/or west to Escondido Creek and ultimately entering San Elijo Lagoon and the Pacific Ocean. Accordingly, with the inclusion of the proposed storm drain facilities in the Project design per the referenced Drainage Study (refer to Exhibits B and C, of the Project Drainage Study included in EIR Appendix M-1), **Project-related impacts to drainage**

alteration would be less than significant, including associated erosion and siltation effects (with additional information on potential erosion concerns provided below under the discussion of water quality).

Runoff Rates/Amounts and Related Drainage System and/or Flood Hazards

Guideline for the Determination of Significance

A significant impact related to runoff, drainage systems and related flooding would occur if the Proposed Project would:

2. Result in increased velocities and peak flow rates exiting the Project site that would cause flooding downstream or exceed the storm water drainage system capacity serving the site.

Guideline Source

Guideline No. 2 is based on the County Guidelines for Determining the Significance – Hydrology (County 2007g).

Analysis

Implementation of the Proposed Project would result in the construction of approximately 38 acres of new impervious surfaces, including pavement and structures. These areas would increase both the rate and amount of runoff within the site by reducing infiltration capacity and concentrating flows. Proposed on-site storm drain facilities include a series of curb/gutter inlets and two detention/hydromodification facilities (north and south vaults), all of which would be tied to an underground storm drain system of pipelines and related structures (refer to Figure 1-13). The proposed north and south vaults are intended to provide flow regulation for post-development drainage control and hydromodification compliance, as well as water quality treatment (as outlined below in this section). The proposed storm drain facilities would accommodate peak 100-year storm flows pursuant to County guidelines. The Project Drainage Study (PDC 2017a in Appendix M-1) includes an assessment of pre- and post-development runoff rates and amounts within and from the site, including analyses of Project-related effects to existing/proposed storm drain systems, off-site flows, and related downstream flooding hazards.

Calculated post-development flows from the Project site are summarized below for the proposed drainage systems, along with the previously described existing flows (refer to Exhibits B and C of the Project Drainage Study for depictions or pre- and of post-development drainage basin boundaries).

Proposed Drainage System 100

Proposed Drainage System 100 includes 17.4 acres compared to 18.6 acres for the existing system, with similar boundaries. The calculated peak 100-year flow from proposed System 100 is 27.4 cfs, a decrease of 0.6 cfs over the existing flow of 28.0 cfs. Specifically, the noted flow reduction is associated with off-site flows from undeveloped areas to the east, which would be routed around the Project development and discharged to Escondido Creek (i.e., similar to the existing off-site flow in this area). This system would incorporate primarily undeveloped areas,

with associated flows to discharge into an on-site segment of the drainage course that conveys flows in existing System 100 and continues north to Escondido Creek (except for off-site flows from the east as described). The related Project outlets would be equipped with energy dissipation facilities (e.g., riprap aprons) as applicable to reduce flow velocities and address potential erosion hazards. Because this system exhibits a minor net reduction of flows relative to the existing System 100, no flow regulation is required.

Proposed Drainage System 200

Proposed Drainage System 200 includes 81.2 acres compared to 81.9 acres for the existing system (with similar boundaries), and encompasses the majority of the proposed development (including single- and multi-family residential areas, community facilities and the potential on-site WTWRF site). The calculated peak 100-year flow in proposed System 200 is 215.6 cfs, an increase of approximately 99.2 cfs over the existing flow of 116.4 cfs. Flows within this system would be collected in the proposed storm drain facilities and conveyed to the north vault, which would provide detention and reduce the associated (detained) 100-year flow from System 200 to approximately 101.3 cfs. Flows from the north vault would discharge directly to Escondido Creek, with the proposed design including an energy dissipation facility at the north vault outlet to ensure that discharged flows would exhibit non-erosive velocities (PDC 2017a).

Proposed Drainage System 300

Proposed Drainage System 300 includes 14.1 acres and exhibits similar boundaries as existing System 300 (which includes 15.7 acres). This system incorporates the southern portion of the proposed development area, including single- and multi-family residential uses. Calculated peak 100-year flows in proposed System 300 are 58.2 cfs, an increase of 31.9 cfs over the existing flow of 26.3 cfs. Flows within System 300 would be collected in the proposed storm drain facilities and conveyed to the south vault, which would provide detention and reduce the associated (detained) 100-year flow from System 300 to approximately 25.1 cfs. Flows from the south vault would be discharged from the site further south at the existing outlet point along the western site boundary (refer to Figure 1-13). These flows would continue north and west within an existing defined channel to Escondido Creek, as previously described for existing drainage conditions. An energy dissipation facility also would be provided at the south vault outlet to ensure that discharged flows would exhibit non-erosive velocities (PDC 2017a).

Proposed Drainage System 400

Proposed Drainage System 400 includes 76.8 acres compared to 76.1 acres for the existing system, with similar boundaries. The calculated peak 100-year flow in System 400 is 132.6 cfs, an increase of one cfs over the existing flow of 131.6 cfs. This system would incorporate primarily undeveloped areas (including off-site flows from the south), with associated flows to continue to the existing outlet point along the western site boundary noted above for System 300 (and continue north and west to Escondido Creek as described). Because this system exhibits a minimal (less than one percent) increase in existing flows and does not encompass a defined discharge point into the associated existing natural drainage course, no related flow regulation or energy dissipation is required.

Proposed Drainage System 500

Proposed Drainage System 500 includes approximately 1.4 acres associated with proposed off-site roadway/utility improvements along Country Club Drive (including the bridge crossing of Escondido Creek, with additional discussion provided below under Guideline No. 5) and the related intersection with Harmony Grove Road (refer to Figure 1-6a, *Site Plan*). Specifically, proposed Drainage System 500 is located within the areal extent of existing Drainage System 200, with the associated acreage and pre-development 100-year flow described in Section 3.1.4.1. Calculated peak 100-year flow from this proposed new drainage system would be 9.6 cfs, with these flows to discharge directly to Escondido Creek via a separate pipeline (i.e., with no intervening development or storm drain facilities). Accordingly, flow regulation is not required as these flows would be combined with the previously described detained flow from proposed Drainage System 200, and the combined flow would result in a minor reduction from the existing Drainage System 200 runoff total. The related outlet from proposed Drainage System 500 would, however, be equipped with an energy dissipation facility to address associated potential erosion hazards.

Summary of Runoff-related Impacts

As noted above, Project drainage facilities (including improvements associated with off-site roadway/utility features) would accommodate peak 100-year storm flows and provide flow regulation (detention) and energy dissipation where applicable, with the identified storm drain system included as part of the proposed design (refer to Figure 1-13 and the related discussion in Section 1.2.2.2). Additionally, as previously described for Guideline No. 1, Drainage Alteration (and below for Guideline No. 3, Hydromodification), downstream flow conditions would not change substantially from the existing baseline conditions based on the results of the Project Hydraulic (Floodplain) Analysis and related HEC-RAS model, as well as the Hydromodification Screening Analysis/Preliminary HMS. As a result, the Project Drainage Study (PDC 2017a) and Hydraulic Analyses (Chang 2016b) provide the following related conclusions:

- Post-development flows from the Project site (including proposed detention in the north and south vaults) would total 138.3 cfs for the northern outfalls (proposed Drainage Systems 100, 200 and 500), and 157.7 cfs for the southern outfalls (proposed Drainage Systems 300 and 400). The combined flow of 296.0 cfs would comprise approximately 98 percent of the existing Project site flow total of 302.3 cfs. As a result, "The project will not… increase the rate or amount of surface runoff compared to the pre-project rates in the receiving streams…" (including the drainage located along the western site boundary and Cordrey Drive) and "…the storm drain system will be sufficient to satisfy County criteria in the post-development condition."

- "…the project will not contribute runoff water which would substantially change the existing condition to exceed the capacity of existing or planned storm water drainage systems."

- The Proposed Project "…will not result in any increase in flood levels or the volume or velocity of flood flows during the occurrence of the base flood discharge within the Escondido Creek."

Based on the noted considerations, and with the inclusion of the proposed storm drain facilities in the Project design per the Project Drainage Study (PDC 2017a), potential **Project-related impacts associated with increased peak flow rates and amounts, associated flooding hazards, and the capacity of existing or planned storm drain systems would be less than significant.**

Hydromodification

Guideline for the Determination of Significance

A significant impact related to hydromodification would occur if the Proposed Project would:

3. Exceed applicable hydromodification requirements or conflict with the County of San Diego Final Hydromodification Management Plan (HMP; County 2011e).

Guideline Source

Guideline No. 3 is derived from hydromodification requirements included in the previously described RWQCB NPDES Municipal Permit, and related County standards including the Final Hydromodification Management Plan (HMP) (County 2011f) and the BMP Design Manual (DM; County 2016).

Analysis

Pursuant to requirements under the NPDES Municipal Permit (as outlined above), the County of San Diego prepared the BMP DM (February 2016) for Priority Development Projects (PDPs), with the final (adopted) BMP DM dated February 2016. Specifically, the BMP DM requires that all PDPs must demonstrate compliance with pollutant control criteria and also either demonstrate that the project is exempt from HMP requirements based on the identified criteria, or provide compliance with the requirements to address hydromodification as outlined in the BMP DM.

The stated purpose of the BMP DM is to provide guidance for complying with updated post-construction storm water requirements for Standard Projects and PDPs, and provides updated procedures for planning, preliminary design, selection and design of permanent storm water BMPs based on the performance standards presented in the MS4 Permit and County Watershed Protection Ordinance." In general terms, hydromodification consists of the erosive impacts caused by cumulative changes in the quantity and duration of storm water flows resulting from the increase in impervious surfaces associated with development. Specifically, an increase in impervious areas typically generates related increases in both the rate and amount of storm water runoff compared to pre-development conditions. Flow thresholds associated with hydromodification requirements are typically expressed in terms of less intense storms (e.g., 2- to 10-year storm events) which, due to the increase of impervious area in associated watersheds, can potentially result in more accelerated cumulative long-term erosion than one larger storm event (such as a 100-year storm). As a result, hydromodification management techniques are aimed at reducing the duration and quantity of storm flows from the smaller and more frequent storm events.

The Proposed Project is a PDP and must therefore comply with the HMP requirements. Accordingly, a Hydromodification Screening Analysis and a related HMS were prepared for the Project to evaluate the HMP compliance efforts incorporated into the Project design (Chang 2016a and PDC 2017b in Appendices M-2 and M-3, respectively). Flow duration control is the most common form of hydromodification management and typically involves the use of facilities such as infiltration basins, bio-retention areas, detention basins, or cisterns to regulate and/or reduce flows and help reduce associated impacts to downstream receiving waters. Based on analysis in the Project HMS, the following observations and conclusions regarding hydromodification effects and related HMP requirements were identified for the Proposed Project:

- The Project would implement flow duration control to address potential hydromodification issues and requirements in applicable portions of the site, including virtually all areas proposed for development. Specifically, in addition to detention as noted above under Guideline 2 (Runoff Rates/Amounts), the two previously described on-site vaults would provide flow duration control to address hydromodification requirements at the two associated outlets, or point of compliance (POC) site Nos. 1 and 2. POC No. 1 is associated with the north vault, which would receive flows from the 81.2-acre proposed Drainage System 200, as previously described. These flows, as well as runoff from proposed drainage systems 100 (17.4 acres) and 500 (1.6 acres), would enter Escondido Creek under similar flow and discharge point conditions as the existing drainage (with flows from proposed system 500 conveyed to Escondido Creek through a separate pipeline as previously described). POC No. 2 is associated with the south vault, which would receive flows from the 14.1-acre proposed Drainage System 300. These flows, as well as undetained runoff from proposed Drainage System 400, would outlet to the existing drainage course along the western site boundary and continue north and west to Escondido Creek, similar to existing conditions.

  The modeled hydromodification capacities for the north and south vault facilities identified in the Project HMS are 6.1 acre-feet[5] for the north vault, and 1.8 acre-feet for the south vault (PDC 2017b). These modeled sizes were based on applicable criteria for the Project site and proposed development per requirements in the referenced HMP, and include: (1) soil types (A, C and D); (2) slopes and land cover (flat [0 to 5 percent] to steep [more than 10 percent] grades with vegetation and impervious areas); (3) precipitation data (from the Escondido gauge); and (4) lower and upper flow thresholds for associated storm events, including 50 percent of a 2-year storm ($0.5Q_2$) for the low-flow threshold, and a 10-year storm (Q_{10}) for the upper-flow threshold. It should also be noted that the lower (water quality) portions of the vaults would discharge to the "harvest and reuse system" (as described below under Guideline Nos. 8-11, Water Quality), while the upper portions of the vaults would discharge directly to Escondido Creek (north vault) or a related tributary drainage (south vault). Accordingly, the vault design was also modeled to address this situation (refer to Section 4.3 of the Project HMS for additional information). From this design analysis, the Project HMS concludes that

[5] One acre-foot is the amount of water required to cover a 1-acre area to a depth of 1 foot, or approximately 326,000 gallons.

the proposed vaults would adequately address increased flows and durations from the Proposed Project, per applicable criteria in the HMP (PDC 2017b).

- The HMP requires that hydromodification vaults exhibit a maximum drawdown time of 96 hours to avoid the creation of potential vector (e.g., mosquito) habitat (per County DEH standards). This requirement has been incorporated into the preliminary vault design criteria, and the Proposed Project would comply with related DEH guidelines.

- As previously noted, the Project design includes a number of areas that would be undeveloped and/or otherwise not subject to HMP requirements, including Proposed Drainage Systems 100, and 400, as well as a small portion of Proposed Drainage System 500 (the off-site improvements along Country Club Drive) located downstream of the Escondido Creek crossing. Flows from these areas would be conveyed directly to existing drainage courses via Project storm drain facilities, with energy dissipation provided where appropriate (as previously described).

Based on the described conclusions and considerations, **the Project design incorporates appropriate flow duration control facilities to provide compliance with applicable requirements under the HMP, and would avoid or reduce potential effects related to hydromodification to a less than significant level.**

Floodplains, Floodwater Surface Water Elevations and Related Flood Hazards

Guidelines for the Determination of Significance

A significant impact related to floodplains, floodwater surface elevations, and related flood hazards would occur if the Proposed Project would:

4. Place housing, habitable structures, or unanchored impediments to flow in a 100-year floodplain area or other special flood hazard area, as shown on a Flood Insurance Rate Map (FIRM), a County Floodplain Map or County Alluvial Plain Map, which would subsequently endanger health, safety and property due to flooding; or

5. Place structures within a 100-year flood hazard or alter the floodway in a manner that would redirect or impede flow resulting in any of the following:

    a. Alter the Lines of Inundation resulting in the placement of other housing in a 100-year flood hazard; or

    b. Increase the water surface elevation in a watercourse with a watershed equal to or greater than 1 square mile by 1 foot or more in height.

Guidelines Source

Guideline Nos. 4 and 5 are from Section 4.0 of the County Guidelines for Determining Significance – Hydrology (County 2007g).

Analysis

As described above in Section 3.1.4.1, most portions of the Project site, including all proposed habitable structures, are not located within a mapped 500- or 100-year floodplain area as depicted on the associated FEMA FIRM panel (FEMA 2012a and 2012b), a County Floodplain Map or a County Alluvial Plain Map. The northernmost portion of the site includes areas mapped as Zone AE and "other flood areas" (Zone X), with associated Project facilities located within these designations including the potential wastewater treatment plant site and the portion of the off-site improvements along Country Club Drive extending across Escondido Creek. Specifically, as described in Section 1.2.2.1, the off-site improvements to Country Club Drive would encompass a bridge crossing of Escondido Creek. Depending on the implementation timing for the Proposed Project, the Project Applicant would be subject to appropriate responsibilities related to technical/environmental analysis and funding of the proposed bridge. Accordingly, the Project Drainage Study (PDC 2017a) and Hydraulic (Floodplain) Analyses (Chang 2016b) provide evaluations of associated flood-related conditions and potential impacts. Specifically, the Drainage Study assesses flood-related concerns associated with the potential wastewater treatment plant site, while the Hydraulic Analyses include a HEC-RAS model to assess potential changes to 100-year water surface and floodway elevations from implementation of the Proposed Project. The associated results and conclusions from these investigations are summarized below.

- Preliminary design for the potential on-site wastewater treatment plant identifies a pad elevation of approximately 584 feet (refer to Figure 1-6a), with mapped 100-year flood elevations in this portion of the site ranging between 570 and 574 feet (FEMA 2012a, refer to Exhibit A of the Project Drainage Study in EIR Appendix M-1). Accordingly, the potential treatment plant site would be elevated above the 100-year flood level under the Proposed Project design, and would not notably redirect/impede flood flows (with additional supporting information from the Project Hydraulic Analyses outlined below).

- As described above under the analysis for Guideline No. 1, Drainage Alteration, the Project Hydraulic Analyses used an approved CLOMR/HEC-RAS model prepared for the adjacent portion of Escondido Creek as the existing baseline condition. The resulting HEC-RAS model prepared for the Proposed Project (including the bridge and wastewater treatment plant) was used to determine associated water surface and floodway elevations, with the evaluation concluding that implementation of the Proposed Project would: "…not result in any increase in flood levels or the volume or velocity of flood flows during the…base flood discharge within Escondido Creek…and will not raise the 100-year water surface elevations." (Chang 2016b).

- While the proposed bridge would encroach within the CLOMR floodway, the associated floodway surcharges at the up- and downstream bridge cross-sections were calculated at 0.10- and 0.19-foot, respectively. Accordingly, the revised floodway would be within the allowable base flood elevation increase of 1.0 foot.

From the above analysis, **potential impacts associated with floodplains, floodwater surface elevations, and related flood hazards would be less than significant.**

Groundwater

Guidelines for the Determination of Significance

A significant impact related to groundwater level drawdown/reduced well yields, or increased groundwater aquifer levels would occur if the Proposed Project would:

6. Cause or contribute to substantial drawdown of local groundwater aquifers, or cause or contribute to a substantial reduction in local groundwater well yields.

7. Cause or contribute to a substantial increase in local groundwater aquifer levels, resulting in adverse effects to conditions such as liquefaction/settlement potential, or the operation of septic systems.

Guidelines Sources

Guideline No. 6 is derived from Section 4.0 of the County Guidelines for Determining Significance – Groundwater Resources (County 2007e); while Guideline No. 7 is derived from Appendix G, Section VIe, of the CEQA Guidelines for septic system operation, and Section 4.0 of the County Guidelines for Determining Significance – Geologic Hazards (County 2007d).

Analysis

Domestic water supplies for the Proposed Project would be obtained from the Rincon MWD, with no groundwater use proposed for domestic or other purposes. As previously noted, implementation of the Proposed Project would result in the addition of approximately 38 acres of impervious surfaces in the form of pavement and structures. As a result, approximately 73 acres (or approximately 66 percent) of the site would remain pervious, including areas such as open space, landscaping, and unlined drainage facilities (refer to Figures 1-6a and 1-13). Based on these conditions, as well as the fact that virtually all areas proposed for development currently encompass Hydrologic Group C or D soils (with low or very low water transmission rates; PDC 2017a), infiltration of surface flows and related recharge capacity within the Project site are anticipated to exhibit a only a relatively minor reduction compared to existing conditions.

Project construction may also require localized extraction/disposal of shallow groundwater to accommodate activities such as grading and excavation. Because shallow groundwater is limited to the northernmost portion of the site, however (as described above in Section 3.1.4.1), construction-related dewatering is anticipated to be minor in extent and short-term in duration (refer also to the related discussion of potential groundwater extraction and associated water quality requirements below in this section under Guideline Nos. 8 through 11).

Based on the above considerations, **Project-related impacts associated with drawdown of local groundwater aquifers or reductions in local groundwater well yields would be less than significant.**

As described above under the discussion of Guideline No. 2, Runoff Rates/Amounts and Related Drainage System and/or Flood Hazards, Project implementation would generate approximately 140 cfs of additional 100-year storm flow within the site due to the proposed construction of

impervious surfaces (i.e., compared to existing flows and prior to detention). The majority of this additional runoff would be captured in the Project site storm drain system via a series of inlets, pipelines, etc., and conveyed to two proposed on-site vaults prior to off-site discharge or harvest/reuse (with some additional minor flows bypassing the vaults, as previously described). While some infiltration of these flows would occur from runoff routed through landscaping or conveyed within unlined drainage facilities (e.g., the central drainage feature, refer to Figure 1-13), most drainage structures would be impervious (streets, pipelines, etc.). Accordingly, infiltration associated with flows conveyed by the Project storm drain system would be minor.

An additional potential source of infiltration at the Project site would be associated with irrigation of landscaped areas. Infiltration within these areas is anticipated to generally minor, however, based on the following considerations: (1) the Project design includes extensive use of native and/or drought-tolerant landscape varieties, with correspondingly low irrigation requirements; (2) Project site irrigation systems would encompass "smart irrigation" technology, including appropriate water schedules and rain/pressure-sensitive shutoff devices, to minimize application rates, preclude unnecessary watering (e.g., during/after precipitation events), and avoid runoff; and (3) landscaped areas within the Project site would encompasses compacted fill and/or predominantly low-transmission soils (hydrologic groups C or D), as previously noted.

Based on the described conditions, as well as the fact that the Proposed Project would be expected to result in an overall minor reduction of on-site infiltration as outlined above, **no substantial increase in local groundwater aquifer levels are anticipated from Project implementation, and associated potential effects to local liquefaction potential or septic system operations would be less than significant**.

Water Quality

Guidelines for the Determination of Significance

A significant impact related to water quality would occur if the Proposed Project would:

8. Consist of a development project listed in County of San Diego, Code of Regulatory Ordinances (Regulatory Ordinances), Section 67.804(g), as amended and does not comply with the standards set forth in the County BMP Design Manual, Regulatory Ordinances 67.813, as amended, or the Additional Requirements for Land Disturbance Activities set forth in Regulatory Ordinances, Section 67.

9. Drain to a tributary of an impaired water body listed on the Clean Water Act Section 303(d) list, and contribute substantial additional pollutants for which the receiving water body is already impaired.

10. Contribute pollution in excess of that allowed by applicable State or local water quality objectives or cause or contribute to the degradation of beneficial uses.

11. Fail to conform to applicable Federal, State or local "Clean Water" statutes or regulations including, but not limited to, the Federal Water Pollution Control Act (Clean Water Act)

California Porter-Cologne Water Quality Control Act and the County of San Diego Watershed Protection, Stormwater Management, and Discharge Control Ordinance.

Guidelines Source

Guideline Nos. 8 through 11 are derived from Section 4.0 of the County Guidelines for Determining Significance – Surface Water Quality (County 2007h).

Analysis

Conformance with Federal, State and Local Water Quality Statues and Associated Regulations

Potential Project-related water quality impacts are associated with both short-term construction activities and long-term operation and maintenance. Project-related activities that could potentially result in direct effects to groundwater quality are limited to the percolation of Project-related surface runoff and associated pollutants (e.g., in pervious portions of the proposed storm drain system). Accordingly, the following assessment of potential water quality impacts is applicable to both surface and groundwater resources.

Short-term Construction Impacts. Potential water quality impacts related to on- and off-site Project construction include erosion/sedimentation, the use and storage of construction-related hazardous materials (e.g., fuels, etc.), generation of debris from demolition activities, and disposal of extracted groundwater (if required), as described below.

Erosion and Sedimentation. Proposed excavation, grading, and construction activities on the Project site and associated off-site (road/utility improvement) areas could potentially result in related erosion and off-site sediment transport (sedimentation). Project activities would involve the removal of surface stabilizing features such as vegetation, excavation of existing compacted materials from cut areas, redeposition of excavated (and/or imported) material as fill in proposed development sites, and potential erosion from disposal of extracted groundwater (if required). Project-related erosion could result in the influx of sediment into downstream receiving waters (including San Elijo Lagoon which includes a 303[d] listing for sedimentation/siltation), with associated water quality effects such as turbidity and transport of other pollutants that tend to adhere to sediment particles.

While graded, excavated and filled areas associated with construction activities would be stabilized through efforts such as compaction and installation of hardscape and landscaping, erosion potential would be higher in the short-term than for existing conditions. Developed areas would be especially susceptible to erosion between the beginning of grading/construction and the installation of pavement or establishment of permanent cover in landscaped areas. Erosion and sedimentation are not considered to be significant long-term concerns for the Proposed Project because developed areas would be stabilized through installation of hardscape or landscaping as noted. The Project also would incorporate long-term water quality controls pursuant to County and NPDES guidelines, including measures that would avoid or reduce off-site sediment transport. This would include efforts such as the use of detention/hydromodification vaults (which would also include a water quality treatment component), energy dissipators, irrigation controls and drainage facility maintenance (i.e., to remove accumulated sediment).

The short-term water quality effects from Project-related erosion and sedimentation could potentially affect downstream waters and associated wildlife habitats, with such impacts considered potentially significant. Short-term (construction) erosion and sedimentation impacts would be addressed through conformance with the NPDES Construction General Permit and associated County standards, as described above in Subsection 3.1.4.1 under Regulatory Setting. This would include implementing an authorized NPDES/County SWPPP for proposed construction, including (but not limited to) erosion and sedimentation BMPs.

While specific BMPs related to erosion/sedimentation would be determined during the SWPPP process based on site characteristics (soils, slopes, etc.), they would include standard industry measures and guidelines from the NPDES Construction General Permit and County Stormwater Ordinance/BMP DM, as well as the additional sources identified in Section 3.1.4.1 under Regulatory Setting. A summary of anticipated erosion and sedimentation BMPs that would be applicable to the Proposed Project are provided in Table 3.1.4-4, *Potential Measures to Avoid or Minimize Impacts Related to Erosion and Sedimentation*. Based on the implementation of these and/or other appropriate erosion and sediment control BMPs as part of (and in conformance with) the Project SWPPP and related requirements, **associated short-term (construction) erosion/sedimentation impacts would be less than significant**. Erosion and sedimentation controls implemented for the Proposed Project would be further defined during the NPDES/ County SWPPP process, with the resulting BMPs taking priority over the more general types of standard industry measures listed in Table 3.1.4-4.

Construction-related Hazardous Materials. Project construction would involve the use and/or storage of hazardous materials such as fuels, lubricants, solvents, concrete, paint, and portable septic system wastes. The accidental discharge of such materials during Project construction could potentially result in significant impacts if these pollutants reach downstream receiving waters, particularly materials such as petroleum compounds that are potentially toxic to aquatic species in low concentrations. Implementation of a SWPPP would be required under NPDES and (potentially) County guidelines as noted, and would include detailed measures to avoid or mitigate potential impacts related to the use and potential discharge of construction-related hazardous materials.

While detailed BMPs for construction-related hazardous materials would be determined as part of the NPDES/SWPPP process based on Project-specific parameters, they are likely to include the standard industry measures and guidelines from the NPDES Construction General Permit and County Stormwater Ordinance/BMP DM, as well as the additional sources identified in Section 3.1.4.1 under Regulatory Setting. A summary of anticipated construction-related hazardous material BMPs that would be applicable to the Proposed Project is provided in Table 3.1.4-5, *Potential Measures to Avoid or Minimize Impacts Related to the Use and Storage of Construction-related Hazardous Materials*. Based on the implementation of these and/or other appropriate hazardous material BMPs as part of (and in conformance with) the Project SWPPP and related requirements, associated short-term (construction) hazardous materials impacts would be less than significant. Construction-related hazardous materials controls implemented for the Project would be further defined during the NPDES/County SWPPP process, with the resulting BMPs taking priority over the more general types of standard industry measures in Table 3.1.4-5.

Demolition-related Debris Generation. The Proposed Project would involve the demolition of existing on-site facilities including minor pavement and structural remains (e.g., foundations and building remnants from an abandoned residence, and a concrete cistern. These activities could generate variable amounts of construction debris, potentially including concrete, glass, metal, etc. Demolition activities could also potentially generate particulates, as well as pollutants related to hazardous materials including lead-based paint and asbestos insulation. (Asbestos can be found in products such as asphalt roofing products, insulation inside fuse boxes and old wire insulation, shingles and siding, and floor tile. Because structural remains are currently restricted to cement pads, some partial cement walls and a chimney remnant, materials associated with roofing, insulation, etc., are not expected [refer to Section 3.1.3]). The introduction of demolition-related particulates or hazardous material pollutants into local drainages or storm drain systems could potentially result in significant downstream water quality impacts.

Project construction would be subject to a number of regulatory controls related to demolition, including NPDES/SWPPP requirements and hazardous materials controls described in Section 3.1.3. The Project SWPPP would include measures to address potential effects associated with pollutant generation from demolition activities, with detailed requirements to be determined as part of the SWPPP process. A number of standard BMPs that would likely be applicable to Project demolition efforts are provided in Table 3.1.4-6, *Potential Measures to Avoid or Minimize Impacts Related to the Generation of Debris during Demolition Activities*. Demolition-related activities involving hazardous materials, if required, would conform to the associated regulatory requirements described in Section 3.1.3 of this EIR (as summarized in Table 3.1.4-6).

Based on implementation of appropriate BMPs as part of (and in conformance with) an NPDES/County SWPPP, as well as conformance with applicable hazardous material regulations, **potential water quality impacts from Project-related generation of demolition debris would be less than significant**. Project controls for demolition-related debris generation would be further defined during the NPDES permitting and SWPPP process, with the resulting BMPs taking priority over the more general types of standard industry measures listed in Table 3.1.4-6.

Disposal of Extracted Groundwater. Shallow groundwater may potentially be encountered during Project-related excavation and construction. Disposal of groundwater extracted during construction activities into local drainages and/or storm drain facilities could potentially generate significant water quality impacts through erosion/sedimentation, or the possible occurrence of pollutants in local groundwater aquifers. Project construction would require conformance with applicable NPDES Groundwater Permit criteria prior to disposal of extracted groundwater (as outlined under Regulatory Framework in Section 3.1.4.1). Conformance with this permit is generally applicable to all temporary and certain permanent groundwater discharge activities, with exceptions as noted in the permit fact sheet. Specific requirements for permit conformance include: (1) submittal of appropriate application materials and fees; (2) implementation of pertinent (depending on site-specific conditions) monitoring/testing, disposal alternative, erosion control and treatment programs; (3) provision of applicable notification to the associated local agency prior to discharging to a municipal storm drain system; (4) conformance with appropriate effluent standards (as outlined in the permit); and (5) submittal of applicable documentation (e.g., monitoring reports).

Based on the required conformance with NPDES Groundwater Permit standards and the implementation of related BMPs, **water quality impacts from Project-related disposal of extracted groundwater would be less than significant**.

Long-term Operation and Maintenance Impacts. The Project SWQMP (Appendix N) identifies pollutants of concern and appropriate control measures related to development of the Proposed Project, based on procedures identified in the County Stormwater Ordinance/BMP DM, JURMP and LID Manual, as well as the related NPDES Municipal Permit (as outlined below). The Proposed Project is identified as a PDP due to the inclusion of proposed development categories such as residential and commercial properties, hillside development, parking areas, and roadways. Anticipated and potential pollutants associated with the Proposed Project include sediment, nutrients, heavy metals, organic compounds, trash and debris, oxygen demanding substances, oil and grease, bacteria and viruses, and pesticides (refer to Form I-3B, Page 7, of the SWQMP [PDC 2017c] in Appendix N). Urban pollutants accumulate in areas such as streets, parking areas, and drainage facilities, and are picked up in runoff during storm events. Runoff within the Project site would increase as a result of constructing impervious surfaces, with a corresponding increase in pollutant loading potential. Based on these conditions, long-term Project operation could result in the on- and off-site transport of urban pollutants and associated significant effects such as increased turbidity, oxygen depletion, and toxicity to attendant species in downstream receiving waters.

County standards require the use of LID/site design and source control BMPs for all development projects, as well as pollutant control BMPs for PDPs. The selection of pollutant control BMPs further requires initial screening to determine the feasibility of using retention (infiltration) BMPs for pollutant control. If infiltration is not feasible, PDPs are required to consider (in order of priority) harvest and reuse BMPs, biofiltration BMPs, and flow-through BMPs. The Proposed Project would conform to applicable County and NPDES storm water standards, with such conformance to include the use of appropriate post-construction LID/site design, source control and pollutant control BMPs. Specific proposed BMPs are identified in the Project SWQMP (Appendix N), with these measures summarized below and followed by a discussion of associated monitoring and maintenance activities.

LID/Site Design BMPs. LID/site design BMPs are intended to avoid, minimize and/or control post-development runoff, erosion potential and pollutants generation to the MEP by mimicking the natural hydrologic regime. The LID process employs design practices and techniques to effectively capture, filter, store, evaporate, detain and infiltrate runoff close to its source. Specific LID and site design BMPs identified in the Project SWQMP are summarized below, with additional discussion provided in Appendix N. All of the proposed LID and site design BMPs would help reduce long-term urban pollutant generation by minimizing runoff rates and amounts, retaining permeable areas, increasing on-site filtering and infiltration, and reducing erosion/ sedimentation potential.

- SD-1; Maintain Natural Drainage Pathways and Hydrologic Features. Specific efforts would include providing appropriate set-backs from drainages for development envelopes, and restricting construction equipment access in planned green/open space areas.

- SD-2; Conserve Natural Areas, Soils and Vegetation. This measure would include efforts such as preserving well-draining (Type A) soils, significant trees, critical areas (e.g., steep slopes and floodplains), and other sensitive areas wherever feasible.

- SD-3; Minimize Impervious Surfaces. This measure would involve designing hardscape areas (e.g., streets) to the minimum widths necessary to meet regulatory/safety standards, as well as providing covered parking (e.g., garages) where feasible.

- SD-4; Minimize Soil Compaction. Individual efforts to minimize soil compaction would include restricting construction equipment access in planned green/open space areas, re-tilling soils compacted during construction, and collecting native soil layers for reuse in on-site landscaping efforts.

- SD-7; Landscaping with Native or Drought-Tolerant Species. Individual landscaping design efforts would include revegetating/stabilizing disturbed slopes as soon as possible after/during construction, using native and/or drought-tolerant varieties in all permanent landscaping, and incorporating "smart irrigation" technology (including appropriate water schedules and rain/pressure-sensitive shutoff devices).

- SD-8; Harvesting and Using Precipitation. A harvest/reuse component would be included in the two proposed detention/hydromodification vaults, with additional information provided below under the discussion of PDP Pollutant Control BMPs.

Source Control BMPs. Source control BMPs are intended to avoid or minimize the introduction of pollutants into storm drains and natural drainages to the MEP by reducing on-site pollutant generation and off-site pollutant transport. Specific source control BMPs identified in the Project SWQMP are summarized below, with additional discussion provided in the Project SWQMP (Appendix N). All of the proposed source control BMPs would help to improve long-term water quality within and downstream from the Project site by avoiding or minimizing pollutant generation and exposure to storm flows at the source.

- SC-1; Prevention of Illicit Discharges into the MS4. This measure would include efforts such as conveying flows from applicable sources (e.g., fire sprinkler tests and wash water) to the sanitary sewer.

- SC-2; Storm Drain Stenciling or Signage. This measure would involve efforts such as installing "no dumping" stencils/tiles and/or signs with prohibitive language (per current County guidelines) at applicable locations such as drainages, storm drain inlets, catch basins and public access points to discourage illegal dumping.

- SC-4; Protect Materials Stored in Outdoor Work Areas from Rainfall, Run-On, Runoff and Wind Dispersal. This may include efforts such as minimizing storage of potential pollutants, enclosing/covering storage areas, providing secondary containment (e.g., berms), implementing appropriate record keeping, providing appropriate employee/ user training, and conducting applicable site inspection and maintenance.

- SC-5; Protect Trash Storage Areas from Rainfall, Run-On, Runoff, and Wind Dispersal. Specific efforts under this measure may include designing trash storage areas in applicable locations (i.e., multi-family residential sites and public areas such as parks and the Center House/community center) to reduce pollutant discharge through methods such as preventing runon/runoff (e.g., through grading), paving enclosure areas with impervious surfaces, and providing attached lids and/or roofs for trash containers to prevent direct precipitation contact and reduce trash dispersal.

- SC-6; Additional BMPs Based on Potential Sources of Runoff Pollutants. This would include efforts such as on-site storm drain inlet protection; proper control/treatment of runoff from sources such as food service/refuse areas, interior parking garages, manufactured slopes and paved plazas, sidewalks and parking lots (e.g., by directing runoff into landscaped/vegetated areas where feasible); use of structural pest controls (i.e., in lieu of chemical pesticides); proper use/control of chemical pesticides when required; provision of educational materials on storm water issues to residents and maintenance staff (e.g., proper disposal of household hazardous waste and use of structural pest controls); and appropriate design/maintenance of water features, *PDP Pollutant Control BMPs.* Pollutant control BMPs are designed to remove pollutants from urban runoff for a design storm event to the MEP through means such as filtering, treatment, or infiltration. As previously described, pollutant control BMPs are required for PDPs under County standards to address identified pollutants. Specific pollutant control BMPs identified in the Project SWQMP include harvest/reuse components in the two previously described north and south vaults, and two proprietary biofiltration units (with infiltration BMPs determined to be infeasible at the Project site, PDC 2017c). The harvest/reuse components would collect the identified water quality flow volumes from the associated north and south drainage management areas (DMAs), which encompass approximately 81.2 and 14.1 acres, respectively (refer to EIR Figure 1-12, *Conceptual Reclaimed Water and Sewer Plan*, and the DMA exhibit included in Attachment 1 of the Project SWQMP). This harvested water would then be conveyed to the proposed (subsurface) on-site wet weather storage facility, enter the recycled water (purple pipe) system owned by the Rincon MWD, and be used for landscape (or other) irrigation.

  The two proprietary biofiltration (Bioclean modular wetland) units would be located along the east and west sides of Country Club Drive north of Escondido Creek (off site), and would treat flows from the associated DMAs which encompass a combined area of approximately 1.4 acres. Treated flows from these biofiltration units would be discharged directly to Escondido Creek.

The proposed pollutant control BMPs would help to improve long-term water quality within and downstream of the Project site by harvesting/reusing urban runoff and/or treating/removing associated pollutants prior to downstream discharge. Additional discussion of proposed pollutant control BMP design, locations, sizing, and performance criteria is provided in the Project SWQMP (Appendix N).

Post-construction BMP Monitoring/Maintenance Schedules and Responsibilities. Identified BMPs include physical facilities that require ongoing monitoring and maintenance, such as no dumping signs/tiles, irrigation systems, the north and south vaults, and Bioclean modular

wetland (biofiltration) units. Applicable non-pollutant control BMPs (e.g., sign/tiles and irrigation systems), as well as the north and south vaults, would be owned and maintained by the Project HOA, with funding to be derived from HOA fees and/or recycled water sales (PDC 2017c). Specifically, the Project owner(s) or HOA must enter into a written Maintenance Agreement with the County for these BMPs, which would include requirements that the facilities be limited to the proposed use, include an access easement to the County where applicable, and provide adequate funding through means acceptable to the County.

The proposed Bioclean modular wetland (biofiltration) units would be owned and maintained by the County, with funding to be derived from County road maintenance funds (PDC 2017c). Accordingly, these facilities would require dedication to the County (along with associated property/access), and the County would implement all related monitoring and maintenance efforts. The Project owner(s) or HOA may be responsible for initial funding through means such as a cash deposit, letter of credit, or other source(s) acceptable to the County, with long-term funding provided by the County as noted.

Specific monitoring and maintenance efforts associated with applicable proposed BMPs include the following:

- Non-Pollutant Control BMPs. Typical measures include monitoring and reporting to document proper implementation/operation, regularly scheduled inspection and maintenance efforts, and making necessary modifications/repairs to ensure that intended BMP functions and regulatory efforts are being met (e.g., sign/tile replacement to ensure legibility, and as-needed repair/replacement of irrigation system hardware).

- Bioclean Modular Wetland (Biofiltration) Units. Typical measures include monitoring and reporting to document proper implementation/operation, regularly scheduled inspection and maintenance efforts, removal of trash from the screening device (typically every 6 to 12 months), removal of sediment from the separation chamber (typically every 12 to 24 months), replacement of the cartridge and drain down filter media (typically every 12 to 24 months), vegetation trimming/management (typically every 6 to 12 months), and as-needed repair/replacement.

- North and South Harvest and Reuse Vaults. Typical measures include monitoring and reporting to document proper implementation/operation, clearing of inlet/outlet obstructions, and implementation of as-needed repairs/replacement.

A detailed discussion of individual monitoring and maintenance requirements for the proposed PDP structural BMPs is provided in Attachment 3 (Structural BMP Maintenance Plan) of the Project SWQMP (Appendix N).

Based on implementation of proposed LID/site design, source control, and pollutant control BMPs in conformance with County storm water standards and the related NPDES Municipal Storm Water Permit (along with related monitoring/maintenance efforts), **long-term Project-related water quality impacts would be less than significant.**

Drainage to 303(d) List Impaired Waters or Tributaries

As described in Section 3.1.4.1, the Project site is tributary to 303(d) listed waters including Escondido Creek, San Elijo Lagoon and the Pacific Ocean shoreline. Based on Guideline No. 9 under Water Quality and the identified list of anticipated and potential pollutants from the Proposed Project, associated potential impacts to 303(d) listed waters would be related to pollutants including sediment (for sedimentation/siltation impairment), nutrients (e.g., for TDS and nitrogen impairment), heavy metals (e.g., for manganese and selenium impairment), oxygen-demanding substances (e.g., for eutrophic conditions), bacteria and viruses (e.g., for bacterial indicator impairment), and pesticides (e.g., for DDT impairment). Pursuant to the discussion of short- and long-term water quality issues provided above, the Proposed Project would incorporate a "treatment train" of LID/site design, source control and pollutant control BMPs to provide treatment for Project water quality flow volumes in conformance with applicable regulatory standards (including appropriate measures to address pollutants related to impaired water listings). As a result, **potential Project-related impacts associated with drainage to 303(d) listed waters or tributaries would be less than significant**.

Protection of Water Quality Objectives and Beneficial Uses

A summary of applicable San Diego Basin Plan water quality objectives and related beneficial uses is provided in Section 3.1.4.1, under the discussion of Regulatory Setting (refer also to Table 3.1.4-3). Pursuant to the discussion of short- and long-term water quality issues provided above under the analysis of regulatory conformance, the Proposed Project would incorporate a number of BMPs and related efforts to ensure conformance with the CWA, NPDES, California Porter-Cologne Water Quality Control Act, San Diego Basin Plan, and pertinent County of San Diego water quality requirements. Based on this conformance, the Proposed Project would not generate pollutants that exceed surface water quality objectives or cause or contribute to the degradation of associated beneficial uses, and related potential impacts would be less than significant.

3.1.4.3 *Cumulative Impact Analysis*

As described in the preceding analysis, implementation of the Proposed Project would require conformance with a number of regulatory requirements related to hydrology and water quality, including applicable elements of the CWA, NPDES, County storm water standards, California Porter-Cologne Water Quality Control Act, and RWQCB Basin Plan. Based on such conformance (including the design measures described in Chapter 7.0 of this EIR), all identified Project-level hydrology and water quality impacts from the Proposed Project would be avoided or reduced below a level of significance.

The described regulatory requirements constitute a regional effort to implement hydrology and water quality protections through a watershed-based program designed to meet applicable criteria such as Basin Plan Beneficial Uses and Water Quality Objectives. To this end, these standards require the implementation of efforts to reduce runoff and contaminant discharges to the MEP, with the NPDES Municipal Permit identifying the goal of "…promoting attainment of water quality objectives necessary to support designated beneficial uses." The County has implemented all of these requirements in the form of the Stormwater Ordinance/BMP DM. LID

Handbook, JURMP and related Municipal Code standards, as well as applicable education, planning, and enforcement procedures. Based on the described regional/watershed based approach required for hydrology and water quality issues in existing regulatory standards, as well as the fact that conformance with these requirements would be required for all identified projects within the cumulative projects area (including the Proposed Project), **cumulative hydrology/ water quality impacts would be less than significant**.

3.1.4.4 *Significance of Impacts*

Identified potential hydrology/water quality impacts associated with the Proposed Project would be less than significant prior to mitigation, based on the implementation of identified proposed design measures and conformance with applicable regulatory requirements.

3.1.4.5 *Conclusion*

Based on the discussions provided above, potential Project-specific and cumulative hydrology and water quality impacts associated with implementation of the Proposed Project would be effectively avoided or reduced below identified significance guidelines through implementation of recommendations provided in the Project Drainage Study, HMS, Hydraulic (Floodplain) Analyses and SWQMP, as well as conformance with established regulatory requirements.

Table 3.1.4-1
SUMMARY OF TYPICAL POLLUTANT SOURCES
FOR URBAN STORM WATER RUNOFF

Pollutants	Pollutant Sources
Sediment and Trash/Debris	Streets, landscaping, driveways, parking areas, rooftops, construction activities, atmospheric deposition, drainage channel erosion
Pesticides and Herbicides	Landscaping, roadsides, utility rights-of-way, soil wash-off
Organic Compounds	Landscaping, streets, parking areas, animal wastes, recreation areas
Oxygen Demanding Substances	Landscaping, animal wastes, leaky sanitary sewer lines, recreation areas
Heavy Metals	Automobiles, bridges, atmospheric deposition, industrial areas, soil erosion, corroding metal surfaces, combustion processes
Oil and Grease/Hydrocarbons	Roads, driveways, parking lots, vehicle maintenance areas, gas stations, illicit dumping to storm drains
Bacteria and Viruses	Landscaping, roads, leaky sanitary sewer lines, sanitary sewer cross-connections, animal wastes, recreation areas
Nutrients (Nitrogen and Phosphorus)	Rooftops, landscaping, atmospheric deposition, automobile exhaust, soil erosion, animal wastes, detergents, recreation areas

Source: USEPA 1999

Table 3.1.4-2
TYPICAL LOADINGS FOR SELECTED POLLUTANTS IN RUNOFF
FROM VARIOUS LAND USES
(lbs/acre/year)

Land Use	TSS	TP	TKN	NH_3 - N	NO_2 + NO_3 - N	BOD	COD	Pb	Zn	Cu
Commercial	1000	1.5	6.7	1.9	3.1	62	420	2.7	2.1	0.4
Parking Lot	400	0.7	5.1	2	2.9	47	270	0.8	0.8	0.04
HDR	420	1	4.2	0.8	2	27	170	0.8	0.7	0.03
MDR	190	0.5	2.5	0.5	1.4	13	72	0.2	0.2	0.14
LDR	10	0.04	0.03	0.02	0.1	N/A	N/A	0.01	0.04	0.01
Freeway	880	0.9	7.9	1.5	4.2	N/A	N/A	4.5	2.1	0.37
Industrial	860	1.3	3.8	0.2	1.3	N/A	N/A	2.4	7.3	0.5
Park	3	0.03	1.5	N/A	0.3	N/A	2	0	N/A	N/A
Construction	6000	80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Grains/Hay	400	0.8	N/A	N/A	N/A	20	150	N/A	N/A	N/A
Citrus/Vegetables	400	1.5	N/A	N/A	N/A	30	200	N/A	N/A	N/A

Sources: USEPA 1999; RWQCB 1988
HDR = High Density Residential; MDR = Medium Density Residential; LDR = Low Density Residential
N/A = Not available; insufficient data to characterize; TSS = Total Suspended Solids; TP = Total Phosphorus;
TKN = Total Kjeldahl Nitrogen; NH_3 – N = Ammonia - Nitrogen; NO_2 + NO_3 – N = Nitrite + Nitrate - Nitrogen;
BOD = Biochemical Oxygen Demand; COD = Chemical Oxygen Demand; Pb = Lead; Zn = Zinc; Cu = Copper

Table 3.1.4-3
SURFACE AND GROUNDWATER QUALITY OBJECTIVES FOR THE ESCONDIDO CREEK HYDROLOGIC AREA AND THE ESCONDIDO HYDROLOGIC SUBAREA[1]

SURFACE WATER												
Escondido Creek Hydrologic Area												
Constituent (mg/l or as noted)												
TDS	**Cl**	**SO_4**	**% Na**	**N&P**	**Fe**	**Mn**	**MBAS**	**B**	**Odor**	**Turb NTU**	**Color Units**	**F**
500	250	250	60	--[2]	0.3	0.05	0.5	0.75	None	20	20	1.0
GROUNDWATER												
Escondido Hydrologic Subarea												
Constituent (mg/l or as noted)												
TDS	**Cl**	**SO_4**	**% Na**	**NO_3**	**Fe**	**Mn**	**MBAS**	**B**	**Odor**	**Turb NTU**	**Color Units**	**F**
1,000	300	400	60	10	0.3	0.05	0.5	0.75	None	5	15	1.0

Source: RWQCB 1994, as amended

[1] Concentrations not to be exceeded more than 10% of the time during any one-year period; refer to Figure 3.1.4-1 for local hydrologic designation locations.

[2] Shall be maintained at levels below those that stimulate algae and emergent plant growth.

Abbreviations: TDS = Total Dissolved Solids; Cl = Chlorides; SO_4 = Sulfate; Na = Sodium; N&P = Nitrogen and Phosphorus; NO_3 = Nitrate; Fe = Iron; Mn = Manganese; MBAS = Methylene Blue Activated Substances (e.g., commercial detergent); B = Boron; Turb = Turbidity (measured in Nephelometric Turbidity Units [NTU]); F = Fluoride.

Table 3.1.4-4
POTENTIAL MEASURES TO AVOID OR MINIMIZE IMPACTS RELATED TO EROSION AND SEDIMENTATION

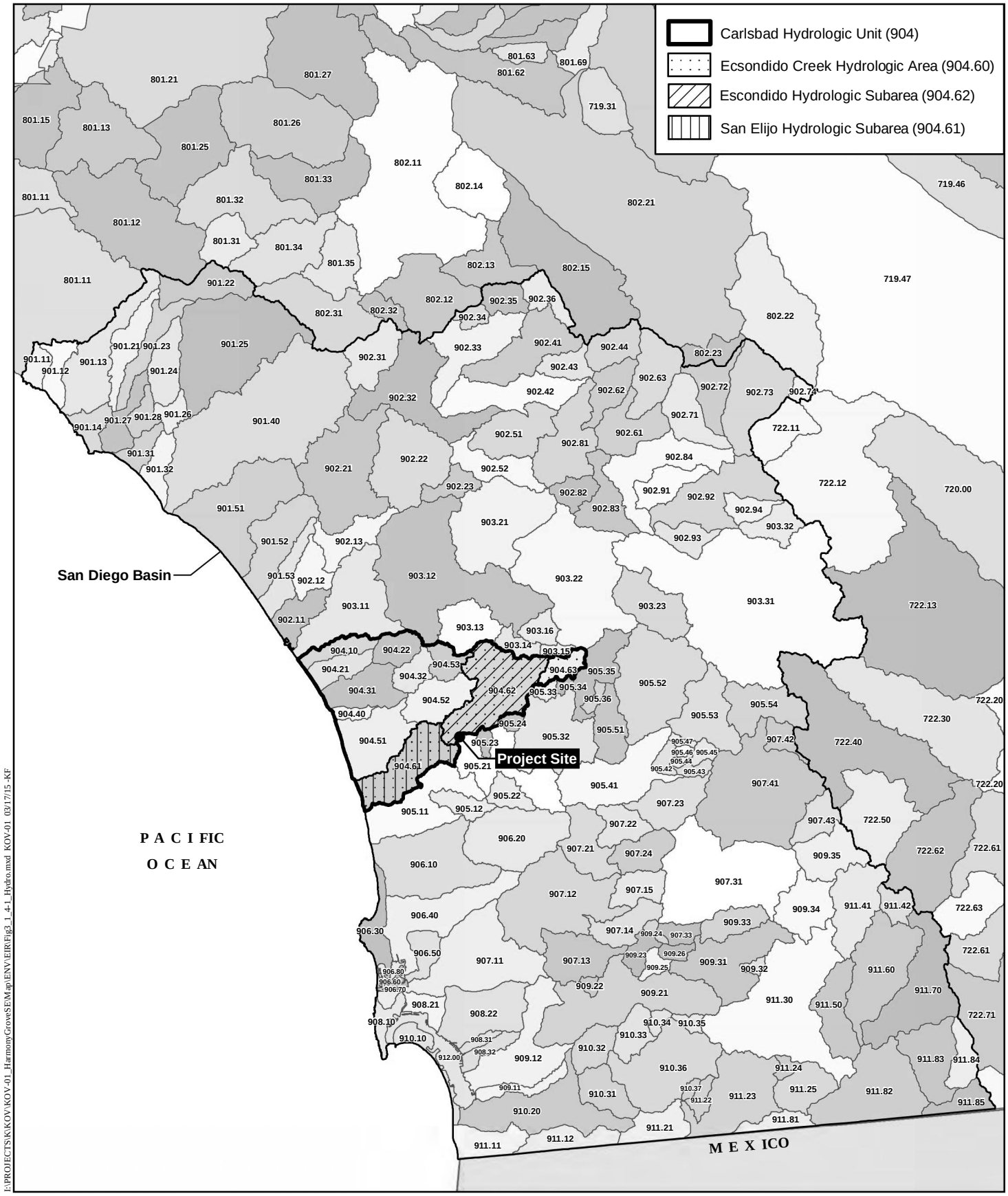
- Comply with seasonal grading restrictions during the rainy season (October 1 to April 30) for applicable locations/conditions.
- Prepare and implement a CSMP to ensure appropriate monitoring, testing, BMP effectiveness, and conformance with applicable discharge requirements.
- Prepare and implement a REAP, if applicable (i.e., depending on risk level), to ensure that active construction areas/activities have adequate erosion and sediment controls in place within 48 hours of the onset of any likely precipitation event (i.e., 50 percent or greater probability of producing precipitation, per National Oceanic and Atmospheric Administration projections).
- Preserve existing vegetation wherever feasible, and use phased grading schedules to limit the area subject to erosion at any given time.
- Properly manage storm water and non-storm water flows to minimize runoff.
- Use erosion control/stabilizing measures such as geotextiles, mulching, mats, plastic sheets/tarps, fiber rolls, soil binders, compost blankets, soil roughening, and/or temporary hydroseeding (or other plantings) established prior to October 1 in appropriate areas (e.g., disturbed areas and graded slopes).
- Use sediment controls to protect the construction site perimeter and prevent off-site sediment transport, including measures such as temporary inlet filters, silt fence, fiber rolls, silt dikes, biofilter bags, gravel bag berms, compost bags/berms, temporary sediment basins, check dams, street sweeping/vacuuming, ATS (if applicable based on risk assessment), energy dissipators, stabilized construction access points/sediment stockpiles, and properly fitted covers for sediment transport vehicles.
- Store BMP materials in applicable on-site areas to provide "standby" capacity adequate to provide complete protection of exposed areas and prevent off-site sediment transport.
- Provide full erosion control for disturbed areas not scheduled for additional activity for 14 or more consecutive calendar days.
- Provide appropriate training for the personnel responsible for BMP installation and maintenance.
- Use solid waste management efforts such as proper containment and disposal of construction debris.
- Comply with local dust control requirements, potentially including measures such as regular watering, use of chemical palliatives, limiting construction vehicle/equipment speeds, and restricting/precluding construction operations during periods of high wind speeds.
- Install permanent landscaping, with emphasis on native and/or drought-tolerant varieties, as soon as feasible during or after construction.
- Implement appropriate monitoring and maintenance efforts (e.g., prior to and after storm events) to ensure proper BMP function and efficiency.
- Implement sampling/analysis, monitoring/reporting and post-construction management programs per NPDES and/or County requirements.
- Implement additional BMPs as necessary to ensure adequate erosion and sediment control (e.g., enhanced treatment and more detailed monitoring/reporting).

Table 3.1.4-5
POTENTIAL MEASURES TO AVOID OR MINIMIZE IMPACTS RELATED TO THE USE AND STORAGE OF CONSTRUCTION-RELATED HAZARDOUS MATERIALS

- Minimize the amount of hazardous materials used and stored on site, and restrict storage/use locations to areas at least 50 feet from storm drains and surface waters.
- Use raised (e.g., on pallets), covered, and/or enclosed storage facilities for all hazardous materials.
- Maintain accurate and up-to-date written inventories and labels for all stored hazardous materials.
- Use berms, ditches, and/or impervious liners (or other applicable methods) in material storage and vehicle/equipment maintenance and fueling areas to provide a containment volume of 1.5 times the volume of stored/used materials and prevent discharge in the event of a spill.
- Place warning signs in areas of hazardous material use or storage and along drainages and storm drains (or other appropriate locations) to avoid inadvertent hazardous material disposal.
- Properly maintain all construction equipment and vehicles.
- Restrict paving operations during wet weather, use appropriate sediment control devices/methods downstream of paving activities, and properly contain and dispose of wastes and/or slurry from sources including concrete, dry wall and paint, by using properly designed and contained washout areas.
- Provide training for applicable employees in the proper use, handling and disposal of hazardous materials, as well as appropriate action to take in the event of a spill.
- Store absorbent and clean-up materials in readily accessible on-site locations.
- Properly locate, maintain and contain portable wastewater facilities.
- Regularly (at least weekly) monitor and maintain hazardous material use/storage facilities and operations to ensure proper working order.
- Implement solid waste management efforts such as proper containment and disposal of construction debris, and restrict construction debris storage areas to appropriate locations at least 50 feet from storm drain inlets and water courses.
- Employ a licensed waste disposal operator to regularly (at least weekly) remove and dispose of construction debris at an authorized off-site location.
- Use recycled or less hazardous materials wherever feasible.
- Post regulatory agency telephone numbers and a summary guide of clean-up procedures in a conspicuous on-site location.
- Implement additional BMPs as necessary (and in conformance with applicable requirements) to ensure adequate hazardous material control.

Table 3.1.4-6
POTENTIAL MEASURES TO AVOID OR MINIMIZE IMPACTS RELATED TO THE GENERATION OF DEBRIS DURING DEMOLITION ACTIVITIES

- Recycle appropriate (i.e., non-hazardous) construction debris for on- or off-site use whenever feasible.
- Use dust-control measures such as watering to reduce particulate generation for pertinent locations/activities (e.g., concrete removal).
- Use appropriate erosion prevention and sediment control measures downstream of all demolition activities.
- Conform with applicable requirements related to the removal, handling, transport and disposal of hazardous materials generated during demolition, including efforts such as implementing appropriate sampling and monitoring procedures; proper containment of contaminated materials during construction; providing protective gear for workers handling contaminated materials; ensuring acceptable exposure levels; and ensuring safe and appropriate handling, transport and disposal of hazardous materials generated during Project construction.



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Project Location within Local Hydrologic Designations

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

Figure 3.1.4-1

3.1.5 Land Use and Planning

This land use analysis for the Proposed Project describes the relevant land use policy and regulatory framework applicable to the Project, identifies guidelines for determination of significance, evaluates potential environmental impacts related to the Project's consistency with applicable County land use policies, goals and regulations, evaluates cumulative impacts and (as required) discusses feasible mitigation measures identified in Chapter 2.0 subchapters. The CEQA guidelines of significance used in this section require the EIR to consider whether a proposed project conflicts with an applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental impact. Under CEQA, a conflict or inconsistency with an applicable plan is not by itself considered a significant environmental impact. Instead, the inconsistency must result in a significant physical impact for there to be a significant impact under CEQA. In addition to the land use consistency analysis in this section, each chapter of the EIR contains a discussion of the Project's potential physical impacts related to consistency with applicable regulations, including General Plan goals and policies, relevant to the environmental issue area.

3.1.5.1 *Existing Conditions*

For information regarding the existing physical setting, the reader is referred to the discussion of Subchapter 1.4, *Environmental Setting*, of this EIR, as well as Figure 1-3, *Area Land Uses*.

Although the existing condition, or "baseline" for environmental review, is usually set as the date that the NOP is released for circulation; CEQA allows for an adjustment where that baseline would be misleading or without informational value as to a project's true impacts. Harmony Grove Village (of which the Project is proposing to expand the southern extent, see Figure 1-3) has already received all of its discretionary approvals and is currently undergoing development with 742 homes, recreational, and small commercial uses. (HGV's approved entitlements assumed first occupancy as early as 2008, with full build out of the Village occurring as early as 2013). The site has been rough graded, and approximately half of the site has been finish-graded. The construction of homes is under way, the Water Reclamation Facility that will serve HGV has been constructed, major infrastructure has been installed and homes have been available for sale since May 2015. Because the development is so far along, the presence of that project is included as a baseline environmental condition (an existing condition) in this EIR. As further described below, if the presence of the HGV project as developed was not included in the existing condition, the baseline would be misleading or without informational value and would not best define the Harmony Grove Valley which has undergone a rapid change to its environmental conditions.

If the existing setting reflected the existing condition on the date of NOP issuance (August 2015), it would have been outdated immediately after NOP issuance and an unnecessarily artificial image of the existing condition would have been used as the basis for Project effects. For instance, using the NOP baseline would have resulted in the Project being analyzed against a setting of large expanses of graded and raw soil, partial development, and vegetation at installation size or of young age. This would result in a large-scale highly disturbed existing condition of the valley floor which was identified as visually significant and unmitigable (for the construction period and first few years following installation) in the certified HGV EIR

against which visual and community character effects of the buildout condition of the Proposed Project would be minimized. This EIR assumes full build out of HGV prior to opening day of the Proposed Project, which allows incorporation of full traffic loading onto area streets, providing the most accurate and most conservative (most impactful) assessment of traffic and traffic-reliant technical issues, such as noise, air quality and GHG, when combined with Project effects. Additionally, this EIR assumes that HGV elements associated with residential, commercial and utility uses on both sides of Harmony Grove Road are fully built out with regard to the visual analysis. The analysis does not assume that the Equestrian Ranch is built. At this time, no construction associated with implementation of that facility, or the associated multi-purpose trail that HGV is conditioned to install on the west side of Country Club Drive south of the intersection with Harmony Grove Road, has occurred. Therefore, it was deemed inappropriate to interpret the Equestrian Ranch as "built."

The assumption that HGV will be present when HGV South construction begins provides a more conservative analysis in which impacts associated with the Proposed Project are given full weight. Analysis assuming that the existing conditions with their highly disturbed context would continue would minimize HGV South effects and lower associated impacts under CEQA. This approach is considered the most analytically conservative and to be of most informational value. It does not tie analyses to a point in time which has already changed since the NOP issuance (cf. Figure 2.1-3i and Figure 2.1-4a) and takes into consideration the already-approved development under construction. Thus, the existing physical environmental conditions would have been misleading and without informational value and would not provide a reasonable baseline.

Regulatory Setting

Land use plans, policies, and ordinances that apply to the Proposed Project are contained in the regional SANDAG San Diego Forward document, County General Plan, Elfin Forest and Harmony Grove Community Plan, County Zoning Ordinance (ZO), County Resource Protection Ordinance (RPO), County Park Land Dedication Ordinance (PLDO), Natural Community Conservation Planning (NCCP) Program, County Subdivision Ordinance, County Light Pollution Code (LPC), and a host of other implementing regulations discussed in the other sections of this EIR. These documents address a variety of issues, including development at appropriate densities, as well as conservation of sensitive habitats, provision of open space, protection of visual amenities, regulation of signage and lighting, and protection against incompatible land uses. Many of these issues are addressed in several elements of the General Plan, as well as in the Community Plan. The regulations discussed here are primarily related to land use and development.

San Diego Forward

The Regional Comprehensive Plan (RCP) was adopted by SANDAG in 2004 and served as a blueprint for the region's future growth and development. In 2011, SANDAG adopted the 2050 Regional Transportation Plan (RTP) which also included a Sustainable Communities Strategy as required by SB 375. Both documents served as advisory documents to local agencies in the San Diego region and for handling local issues of regional significance.

On October 9, 2015, SANDAG adopted "San Diego Forward" a Regional Plan that merged its RCP with the 2050 RTP and the Sustainable Communities Strategy (Regional Plan). The Regional Plan now serves as the blueprint for how the San Diego region will grow and how SANDAG will invest in transportation infrastructure to provide more choices, strengthen the economy, promote a healthy environment, and support thriving communities. The Regional Plan sets forth the following six general objectives:

- Habitat and Open Space Preservation
    - Focus growth in areas that are already urbanized allowing the region to set aside and restore more open space in our less developed areas.
    - Protect and restore the region's urban canyons, coastlines, beaches and water resources.
- Regional Economic Prosperity
    - Invest in transportation projects that provide access for all communities to a variety of jobs with competitive wages.
    - Build infrastructure that makes the movement of freight in the region's communities more efficient and environmentally friendly.
- Environmental Stewardship
    - Make transportation investments that result in cleaner air, environmental protection, conservation, efficiency and sustainable living.
    - Support energy programs that promote sustainability.
- Mobility Choices
    - Provide safe, secure, healthy, affordable and convenient travel choices between the places where people live, work and play.
    - Take advantage of new technologies to make the transportation system more efficient and accessible.
- Partnerships/Collaboration
    - Collaborate with Native American tribes, Mexico, military bases, neighboring counties, infrastructure providers, the private sector and local communities to design a transportation system that connects to the megaregion and national network, works for everyone, and fosters a high quality of life for all.
    - As we plan for our region, recognize the vital economic, environmental, cultural and community linkages between the San Diego region and Baja California.

- Healthy and Complete Communities
    - Create great places for everyone to live, work and play.
    - Connect communities through a variety of transportation choices that promote healthy lifestyles, including walking and biking.
    - Increase the supply and variety of housing types affordable for people of all ages and income levels in areas with frequent transit service and with access to a variety of services.

At the core of the Regional Plan is a Sustainable Communities Strategy that charts a course towards lowering GHG emissions and includes the following five building blocks:

- *A land use pattern* that accommodates our region's future employment and housing needs, and protects sensitive habitats, cultural resources, and resource areas.

- *A transportation network* of public transit, Managed Lanes and highways, local streets, bikeways, and walkways, built and maintained with reasonably expected funding.

- *Managing demands* on our transportation system (also known as Transportation Demand Management, or TDM) in ways that reduce or eliminate traffic congestion during peak

- *Managing our transportation system* (also known as Transportation System Management, or TSM) through measures that maximize the overall efficiency of the transportation network.

- *Innovative pricing policies* and other measures designed to reduce the number of miles people travel in their vehicles, as well as traffic congestion during peak periods of demand.

The Regional Plan includes the following set of principles to guide the development of the region's future transportation network:

- The SANDAG investment plan will be built with financial resources that are reasonably expected to be available between now and 2050.

- A more efficient transportation network will be achieved through two key strategies: effectively managing the overall system (TSM) and effectively managing demands on the system (TDM) with innovative technologies being integrated into both. The result will be maximized efficiency in the transportation network, which ultimately can lower GHG emissions.

- Managing parts of the network, such as adding Managed Lanes and transit only lanes on freeways, which encourage people to carpool and use public transit to bypass bottlenecks.

- The road toward a more sustainable San Diego region should include vehicles that use cleaner, alternative sources of energy with SANDAG playing an important role in promoting this transition.

County of San Diego General Plan

The General Plan was comprehensively updated and adopted on August 3, 2011. The General Plan Land Use Element provides maps, goals, and policies and serves as the regulatory document guiding land use, conservation, and development in the unincorporated County. This element provides a framework to accommodate future development within the County in an efficient and sustainable manner that is compatible with the character of unincorporated communities and the protection of valuable and sensitive natural resources (County 2011a).

A major component guiding the physical planning of the County is the Community Development Model (CDM). The CDM is implemented by three regional categories—Village, Semi-Rural, and Rural Lands—that broadly reflect the different character and land use development goals for the County's developed areas, its lower-density residential and agricultural areas, and its very low density or undeveloped rural lands. The CDM directs the highest intensities and greatest mix of uses to Village areas, while directing lower intensity uses, such as estate-style residential lots and agricultural operations, to Semi-Rural areas. The Semi-Rural category may effectively serve as an edge to the Village, as well as a transition to the lowest density category, Rural Lands, which represents large open space areas where only limited development may occur. The intent of the CDM is to guide new development into more compact development as a means to reduce associated impacts. Generally, locating housing closer to retail, services, schools, and job centers can reduce the size of required infrastructure improvements and number and length of automobile trips, while increasing the efficiency of delivering police, fire, and other public services including community enhancing amenities. This model of development likewise allows an increase in the amount of open space, natural habitat, and agriculture that can be preserved.

The Land Use Element describes Regional Land Use Categories and Land Use Designations that are applied to lands within the County's land use jurisdiction. Regional Categories provide a framework for the regional distribution of uses that serves as the foundation for the Land Use Map designations, goals, policies, and regulations that guide future development. The existing regional land use category for the Project site, as identified in the Land Use Element, is Semi-Rural. The Land Use Element defines the Semi-Rural category as areas of the County that are appropriate for lower density residential neighborhoods, recreation areas, agricultural operations, and related commercial uses that support rural communities.

Where the Regional Categories represent a broad framework for the form and organization of development, the Land Use Designations are property specific and identify the type and intensity of land uses that are allowed. The Land Use Designations are defined by the land use type and the maximum allowable residential density or nonresidential building intensity. The designations are applied throughout the County, as shown on community and subregional area land use maps, as contained in an appendix to the General Plan. The Project site is located within the Elfin Forest and Harmony Grove Planning Area of the larger San Dieguito Community Planning Area (CPA). The existing land use designations for the Project site, as shown on the San Dieguito CPA Land Use Map, are Semi-Rural Residential (SR-0.5) and Rural Lands (RL-20). The Project site is almost entirely (approximately 110.5 acres) designated Semi-Rural Residential (SR-0.5) except for the northernmost portion (approximately 0.5 acre), which is designated Rural Lands (RL-20).

The Land Use Element also includes a Community Services and Infrastructure section addressing water supply, wastewater collection and treatment, solid waste management, schools, libraries, and telecommunication services.

The Mobility Element of the General Plan describes the multi-modal transportation network within the unincorporated areas, including motor vehicle, public transportation, bicycle, pedestrian, rail, and air transportation facilities. The element states the goals and policies that address the safe and efficient operation, maintenance, and management of the transportation network, and identifies major existing and planned road network components in the County. These road network components are shown on maps and matrices in the Mobility Element Network Appendix. In the vicinity of the Project site, the following roads and their corresponding classifications are identified: Harmony Grove Road (Light Collector), Harmony Grove Village Parkway (formerly Lariat Drive; Community Collector) and Citracado Parkway (Major Road).

The Conservation and Open Space (COS) Element addresses four topics (Open Space, Conservation, Scenic Highway, and Energy) and describes the natural resources within the County and goals and policies to preserve them. This element provides direction for future growth and development in the County with respect to the conservation, management, and utilization of natural (biological, water, agricultural, paleontological, mineral, and visual [including scenic highways and dark skies]) and cultural resources; protection and preservation of open space; and provision of park and recreation resources. The closest scenic highway to the Project site is the segment of Elfin Forest Road/Harmony Grove Road between the San Marcos city limits and the Escondido city limits, which is located, at its closest point, approximately 350 feet north of the Project site. One other designated Scenic Highway in the general Project area includes the segment of Via Rancho Parkway between Del Dios Highway and SR-78, which is located approximately 0.7 mile east of the Project site and has no views to the site due to intervening topography. The COS Element also addresses air quality, climate change, and energy, and the associated generation of criteria pollutants and GHG emissions. Finally, the element contains goals and policies related to parks and recreation and uses residential densities to determine the spacing of parks based on population (i.e., 10 acres of local parks and 15 acres of regional parks for every 1,000 persons in the unincorporated County). Projects are required to provide in lieu fees and/or dedicate land to parks, passive recreation open space areas, and trails in accordance with the County PLDO.

The Safety Element brings safety considerations into the planning and decision-making process by establishing policies related to future development that will minimize the risk of injury, death, property and environmental damage associated with natural and human-made hazards (County 2011a). The Safety Element ensures that development accounts for physical constraints and natural hazards of the land. The goals and policies of this element were developed to protect residents and areas from wildland and urban fire, crime, hazardous materials incidents, earthquakes, flooding and hazardous incidents associated with aircrafts and airports. Disaster preparedness and emergency response also are addressed in this element.

The Noise Element ensures that noise considerations are incorporated into the land use decision-making process and establishes Noise Compatibility Guidelines to be used in the evaluation of proposed development projects. The community noise control standards within the County's

Noise Abatement and Control Ordinance are used in conjunction with the Noise Element in considering the environmental impacts of noise exposure. The Noise Element addresses transportation and non-transportation noise sources, noise-sensitive land uses, and existing and future noise levels. This element was developed to preserve County residents' quality of life by providing protection from the obtrusive impacts of noise and noise-generating uses such as traffic, construction, airplanes, and certain industrial uses.

The Housing Element is a policy framework that sets forth a range of County programs designed to meet the varying needs of the different communities within the unincorporated area and only some of these policies are relevant to private developments. This element documents and discusses the housing needs of County residents, includes an inventory of the resources and constraints relevant to meeting current and future housing needs, and seeks to reconcile housing needs with competing land use interests (e.g., agricultural operations, sensitive species habitat). The key issues addressed in this element are compliance with state housing requirements, the regional housing needs allocation (RHNA) process, village issues and semi-rural and rural lands issues. The goals and polices in the element address housing development, community character and environment, housing affordability, preservation of affordable housing, governmental constraints, and the delivery of housing services.

As noted above, the General Plan currently shows the Project site designations as Semi-Rural Residential (SR-0.5) and Rural Lands (RL-20). The SR-0.5 designation allows for one dwelling unit per 0.5, 1, or 2 gross acres, and the RL-20 designation allows for one dwelling unit per 20 gross acres. The General Plan policies adopted for protection of environmental resources or values are discussed under Project analysis of Guideline 1 in Section 3.1.5.2 below.

Elfin Forest and Harmony Grove Portion of the San Dieguito Community Plan

In general, community plans have been adopted as integral parts of the General Plan to provide the framework for addressing the issues and concerns unique to each community that are not reflected in the broader policies of the General Plan. Each community/subregional plan in San Diego County identifies specific community character attributes and outlines goals and policies intended to preserve those attributes. Community Plans must be consistent with the General Plan but can provide additional guidance that reflects the unique nature of each of the unincorporated area's communities. The General Plan has clearly delineated the relationship between the General Plan and the County's community plans. Community plans must be internally consistent with the General Plan's Goals and Policies and cannot be used to undermine the policies of the General Plan. This means that community plans must be read and interpreted in the context of the goals and policies set forth in the General Plan (General Plan Policy LU-2.2).

The Elfin Forest and Harmony Grove portion of the San Dieguito Community Plan (Community Plan) augments the 2011 General Plan and contains goals and policies specific to the San Dieguito CPA, specifically within the Elfin Forest and Harmony Grove Planning Area. The Community Plan covers the planning areas of Elfin Forest and Harmony Grove, which total approximately 6,793 acres in size. The entire Project site is located within the Harmony Grove community. Land Use goals for the Harmony Grove community include "preservation of the rural small town feeling," open access community design that unifies multiple developments into "one neighborhood," and continued preservation and dedication of natural and cultural resources

and open space. The Land Use Element encourages environmentally sensitive, responsible equestrian uses; preservation of a rural visual environment and visually significant resources; continued agricultural uses; and buffers between urban areas and rural residential uses. Goals of the Circulation and Mobility Element include providing safe roads for vehicle, pedestrian, bicycle and equestrian use, and adequately identified emergency response service providers. The COS Element outlines goals and policies for resource conservation and management, parks and recreation, and community open space planning. Other elements include the Safety Element, which discusses hazards/risk avoidance and mitigation, emergency preparedness and response and law enforcement; the Noise Element; and the Harmony Grove Specific Plan Area Element, which pertains to HGV project.

Community Plan policies adopted for protection of environmental resources or values are discussed under Project analysis for Guideline 1 in Section 3.1.5.2 below.

County of San Diego Board of Supervisors Policies

The Board of Supervisors is charged with the responsibility of establishing a Policy Manual to guide the various functions of the County. The nine board policies applicable to the Proposed Project are described below.

Policy I-17. "Right-of-Way Dedication and Public Improvement Requirements in Connection with Zone Reclassifications," requires that when a project is to obtain a zoning reclassification, it shall provide public improvements, facilities, and the lands, easements and right-of-way necessary to make the property suitable for the proposed zoning classification. The policy emphasizes improvements related to roads, drainage, sewage, and fire protection.

Policy I-18. "Right-of-Way Dedication and Public Improvement Requirements in Connection With Major and Minor Use Permits," requires that when a project is granted a use permit, it shall provide public improvements, facilities, and the lands, easements and right-of-way necessary to assure that the special use would not be materially detrimental to the public health, safety or welfare, or the property or improvements in the vicinity and zone in which the subject property is located. Similar to Policy I-17, the policy emphasizes improvements related to roads, drainage, sewage, and fire protection.

Policy I-36. "Prohibition of Sewer Extensions and Connections in Areas Not Annexed to the San Diego County Sanitation District," prohibits sewer extensions and connections in areas not annexed to the County Sanitation District.

Policy I-49. "Distribution of Notification of Land Use Hearings," establishes a minimum standard of public notification on land use matters that are to be considered before the Board of Supervisors, Planning Commission, or Director of PDS.

Policy I-63. "General Plan Amendment Initial Review," specifies the manner in which amendments to the County General Plan shall be initiated, pursuant to Government Code Section 65358.

Policy I-70. "Reporting Complaint and/or Violations History for Planning Actions Brought Before Hearing Boards," establishes a policy for providing the Planning Commission and/or

Board of Supervisors with a record of complaints and/or violations on property for a land use division, use permit, Rezone or General Plan Amendment (GPA) for which project approval is requested.

Policy I-73. "Hillside Development Policy," minimizes the effects of disturbing natural terrain and provides for creative design for hillside developments. The policy provides guidelines to assist the Board of Supervisors, Planning Commission, Director of PDS and staff in the evaluation of hillside development in San Diego County. It is intended that this policy serve as a guideline and supplement to other applicable regulations, including the RPO.

Policy I-78. "Small Wastewater Treatment Facilities," establishes a policy for the location of future small wastewater treatment facilities. In addition, the policy calls for these facilities to be subject to all appropriate plans, ordinances, statutes and regulations including, but not limited to, County General Plan and adopted population forecasts, Land Use Element of the County General Plan, County ZO, CEQA and County EIR Guidelines, and RWQCB rules and regulations.

Policy I-84. "Project Facility Availability and Commitment for Public Sewer, Water, School, and Fire Services," establishes procedures for using Project Facility Availability forms and Project Facility Commitment forms in the processing of land divisions and certain projects requiring discretionary approval by the County.

County of San Diego Zoning Ordinance

The County ZO (effective December 19, 1978, as amended) identifies the permitted uses of the Project site, consistent with the land use designations of the General Plan. The Project site is almost completely zoned A70 (Limited Agriculture), although the very southwest portion of the site is zoned RR (Rural Residential).

County of San Diego Resource Protection Ordinance

The County regulates natural and cultural resources via the RPO, which provides development controls for unique topography, ecosystems and natural characteristics within the County deemed to be fragile, irreplaceable, and vital to the general welfare of the County's residents. Resources addressed by the RPO include wetlands, wetland buffers, floodplains, steep slopes (lands having a natural gradient of 25 percent or greater and a minimum rise of 50 vertical feet, unless said land has been substantially disturbed by previous legal grading), sensitive habitat lands, and prehistoric and historic sites. The site does not contain any RPO wetlands, although Escondido Creek just north of the Project site is a RPO resource. In addition, the one cultural site within the Project site is not considered significant under the RPO.

RPO Sensitive Habitat Lands are located in the southern portion of the Project site where southern mixed chaparral communities support an estimated 20,000 wart-stemmed ceanothus individuals. Also present in this area are summer holly (20 to 30 individuals), San Diego sagewort (4 individuals), and ashy spike-moss (4 concentrations). These areas are "unique" in that they support rare plant species and they are considered sensitive by CDFW.

The majority of the Project site and associated off-site roadway/utility improvements along Country Club Drive are not located within a mapped 500- or 100-year floodplain area as

depicted on the associated FEMA FIRM panel (FEMA 2012a and 2012b), a County Floodplain Map, or a County Alluvial Plain Map (see also Section 3.1.4 of this EIR and EIR Appendices M-1 and M-4). The northernmost portion of the site, including a small portion of the WTWRF facilities, as well as adjacent portions of the proposed off-site roadway/utility improvements along Country Club Drive and the related crossing of Escondido Creek, are within one of the following mapped FEMA floodplain categories: (1) Zone AE, which includes 100-year floodplain areas where base flood elevations have been determined; (2) portions of the Escondido Creek floodway[1] that are within the AE Zone; and (3) "other flood areas" also designated as Zone X and defined by FEMA to include areas within the 500-year floodplain, areas within the 100-year floodplain with average depths of less than 1 foot or a drainage area of less than 1 square mile, and areas protected from the 100-year flood by levees. These areas within mapped floodplains are considered RPO resources.

There are approximately 44.3 acres of slopes on the property which meet or exceed 25 percent slope, and 26.5 acres that meet the definition of steep slopes under the County's RPO. This means that approximately 24 percent of Project site is subject to analysis under the RPO. RPO-protected steep slopes are primarily located in the northeast hills of the Project site, on the central primary slope rising above the valley floor, and in the southern third of the Project where terrain is overall higher and more rugged (refer to Figure 2.1-11b in Subchapter 2.1).

County of San Diego Park Land Dedication Ordinance

The PLDO is the mechanism that enables the funding or dedication of local parkland. The ordinance establishes several methods by which developers may satisfy their park requirements including payment of park fees, dedication of a public park, provision of private recreational facilities, or a combination of these methods.

Natural Community Conservation Planning Program

Regional conservation planning strategies under the CESA that provide protection, preservation, and conservation of listed and candidate species, their habitats, natural communities, and natural resources, while continuing to allow appropriate development and growth within the state, are authorized and implemented under the NCCP Act of 1991. These strategies are designed to allow for growth as well as to provide protection and conservation of threatened and endangered species through multi-species, habitat-based and long-term approaches that ensure both the conservation of, and net benefits to, the affected species. Development and implementation of regional multi-species open space systems is intended to protect viable populations of key sensitive plant and animal species and their habitat while accommodating continued economic development and quality of life for residents of the region.

The Project site is not within an adopted MSCP Subarea Plan, but it is within the Draft North County MSCP area. Projects or activities approved or initiated before completion of the North County MSCP are subject to the Interim Review Process described in Exhibit B of the Planning Agreement for the Planning and Preparation of the North and East County Multiple Species Conservation Program, entered into by and among the County of San Diego, the CDFW, and the

[1] Generally defined as the channel of a river or stream and the adjacent portions of the floodplain that are reasonably required to efficiently carry and discharge the associated 100-year flood flow.

USFWS ("Wildlife Agencies Planning Agreement" County et al. 2008). Therefore, the Project will require compliance with the Habitat Loss Permit (HLP) Ordinance and County and Wildlife Agencies Planning Agreement.

Development projects that are initiated before completion of this Plan are analyzed to determine consistency with the preliminary conservation objectives of Section 5 of the Wildlife Agencies Planning Agreement. The preliminary conservation objectives intended to be achieved through the Plan are to:

- Provide for the protection of species, natural communities, and ecosystems on a landscape level;
- Preserve the diversity of plant and animal communities throughout the Planning Areas;
- Protect threatened, endangered, or other special status plant and animal species, and minimize and mitigate the take or loss of proposed Covered Species;
- Identify and designate biologically sensitive habitat areas;
- Preserve habitat and contribute to the recovery of Covered Species;
- Reduce the need to list additional species;
- Set forth species-specific goals and objectives; and
- Set forth specific habitat-based goals and objectives expressed in terms of amount, quality, and connectivity of habitat.

Refer to Subchapter 2.3 and Appendix E to this EIR for additional information on NCCP implementation through the HLP Ordinance and Draft MSCP compliance.

County of San Diego Subdivision Ordinance

The County Subdivision Ordinance sets forth development standards for the subdivision of land with respect to design, dedication, and access, and required improvements. Applicable standards for the Proposed Project include several design regulations associated with lot size, orientation and configuration.

County of San Diego Light Pollution Code

The LPC is a County regulatory ordinance that restricts the use of outdoor lighting that emits undesirable light rays into the night sky that would have a detrimental effect on astronomical research. Although the primary intent of the code is to curb lighting that may affect astronomical research at the Mount Palomar and Mount Laguna observatories, it also contains language to minimize spill light into the dark night sky and adjacent neighborhoods. The LPC defines two zones in the unincorporated portion of San Diego County. Zone A consists of areas within a 15-mile radius of Mount Laguna and Mount Palomar. Zone B pertains to all remaining areas that are not defined as Zone A. The Project site falls within Zone B of the ordinance, which is defined

as all areas within the territorial limits of the unincorporated portion of San Diego County that are not within a 15-mile radius of the Palomar Observatory or the Mount Laguna Observatory.

Congestion Management Program Update

The Congestion Management Program (CMP) guidelines stipulate that any development project generating 2,400 or more ADTs, or 200 or more peak hour trips, must be evaluated in accordance with requirements of the Regional CMP, which requires enhanced CEQA review. The CMP requires that, as part of the additional CMP analysis, freeway links with 50 or more peak hour project trips (in either direction) must be addressed as part of the traffic impact analysis. Also, a ramp meter analysis would be required if the project trips would generate 20 or more trips at freeway on-ramps with existing ramp meters.

3.1.5.2 *Analysis of Project Effects and Determination as to Significance*

Goals, Policies and Objectives of Applicable Land Use Plans

Guideline for the Determination of Significance

A significant land use impact would occur if the Proposed Project would:

1. Conflict with the land use goals, objectives, policies, and recommendations of the adopted applicable plans, policies, ordinances, guidelines, or regulations adopted for protection of environmental resources or values.

Guideline Source

This land use guideline is based on Appendix G of the CEQA Guidelines and County staff guidance. This guideline is intended to ensure conformance with existing regional and local planning efforts.

Analysis

San Diego Forward

The Project provides a variety of housing types, densities and levels of affordability, as well as compact building footprints to minimize land consumption and maximize energy efficiency. The Project locates higher density and mixed-use development where infrastructure can be provided efficiently and close to existing infrastructure, such as along SR-78 and west of I-15. This area is surrounded by 10 incorporated cities (refer to Figure 1-1), that contain over one million existing residents (approximately one-third of the region) and are home to an estimated 500,000 jobs (2010 U.S. Census). Two transit centers—"Nordahl Road" and "Escondido Transit Center"—are also located nearby. The Project requires less roadway infrastructure because of its location. It would provide residential opportunities near major commercial and employment centers, potentially reducing travel by automobile. It is also noted that SANDAG has identified the average trip length as 7.9 miles. The Project traffic engineers, LLG, calculated the average distance of Project trips to be 7.88 miles, which is consistent with 7.9 (see the Average Trip Length memorandum in Appendix J). The Project would locate a range of housing types within

0.5 mile (10-minute walk) from the commercial and civic core of the existing HGV Village, and would connect by trail HGV commercial area with the Project's residential areas, park and commercial uses. This would contribute to ability to pursue a healthy lifestyle promoted by the Regional Plan, through allowing for walking and biking. The project also would support introduction of housing across a span of all ages and income levels. The Project would cluster development in portions of the site that would allow a block of 34.8 acres (approximately 31 percent of the site) to be protected within a BOS easement. This would allow for preservation of a large area of permanent open space that would be managed through implementation of a resource management plan to protect biological resources in perpetuity. The Project also would enhance water resources through enhancements to Escondido Creek (removal of an at-grade crossing and installation of a bridge, allowing for free flow of creek waters, and revegetation with non-invasives).

Therefore, the Project would not be in conflict with the objectives of San Diego Forward. Potential impacts associated with regional plans or policies would thus be **less than significant**. The Project could be included in the next update of both the Sustainable Communities Strategy and the RTP documents as contained in San Diego Forward.

County of San Diego General Plan

In addition to the land use consistency analysis contained in this section, each topical analysis in this EIR contains a discussion of the Project's potential physical impacts related to consistency with applicable regulations, including General Plan goals and policies, relevant to the environmental issue area.

Aesthetics. This section is divided into three separate issues, as presented below. Refer to Subchapter 2.1, Aesthetics, for additional information regarding Proposed Project compliance with the General Plan as indicated through technical analysis of the Proposed Project design and an identified mitigation measure.

Scenic Vistas and Scenic Resources. To preserve scenic vistas and scenic resources, the Proposed Project must be consistent with General Plan goals and policies from the Land Use, Mobility, and COS Elements. The relevant policies are LU-6.2, LU-6.3, LU-6.4, LU-6.6, LU-6.7, LU-6.9, LU-10.1, LU-10.2, M-2.3, COS-11.1, COS-11.2, COS-11.3, COS-11.6, and COS-11.7 (refer to the County General Plan [County 2011a] for the text of these policies). Consistent with analysis provided in Subchapter 2.1 of this EIR (which provides focused discussion on potential visual effects relative to scenic vistas and scenic corridors), the Project complies with these policies by proposing clustered development in the least environmentally sensitive areas (to the extent possible) and away from natural areas with intact sensitive resources. In addition, the Project complies with these policies by proposing a conservation-oriented design, conserving a large area of open space that connects to adjacent open space and natural resources, providing open space on steep slopes to protect natural topography and to minimize and mitigate visual impacts from roads and vistas. The Project site would also be encumbered with a D1 (design review) special area designator that requires review for consistency and conformance with the Project Specific Plan Project Visual Impact Assessment (VIA). Adherence to these policies would reduce potential obstruction, interruption, or detraction of scenic vistas and resources from Project implementation.

Visual Character or Quality. To maintain the visual character and quality, the Proposed Project must be consistent with General Plan goals and policies from the Land Use, Mobility, and Housing Elements. The relevant policies are LU-1.4, LU-2.3, LU-2.5, LU-4.1, LU-4.3, LU-11.2, LU-12.4, M-10.6, and H-2.1 (refer to the County General Plan [County 2011a] for the text of these policies). The Project complies with these policies by implementing a Specific Plan (and associated design guidelines within the Specific Plan) to reflect and maintain the community character of the area consistent with HGV as an expansion of the existing Village. Proposed densities would be compatible with HGV and would provide a transition from the Village Center to existing surrounding residential and semi-rural and rural uses. Greenbelts in the form of large open space areas and landscaping would be provided to define the community and reduce visual effects along the site perimeter. Adherence to these policies would reduce impacts associated with visual character or quality from Project implementation.

Light or Glare. To maintain dark skies, the Proposed Project must be consistent with General Plan goals and policies from the COS Element. The relevant policies are COS-13.1 and COS-13.3 (refer to the County General Plan [County 2011a] for the text of these policies). The Proposed Project includes lighting elements to both accent community focal elements and to provide safety. As described in Section 1.2.2.6, *Lighting*, and Table 1-2 of this EIR, the Project would implement design features to minimize impacts from light and glare. Overall, Project lights would be low level, timed, directed downward and screened to minimize Project impacts on the dark sky and minimize spillover onto adjacent properties. Lighting for the Proposed Project is designed to use the least amount of lighting possible, be energy efficient, and still be in compliance with State and local regulations for safety, and to adhere to the County LPC and dark skies policies. In addition, the Project would implement a lighting plan that regulates the Project's outdoor lighting for preservation of the dark skies that are consistent with the rural character of the community and dark skies policies. Substantial glare is generally not anticipated from residential units, as large expanses of glass are not proposed for the Project. Windows often would be located below shielding architectural elements and exterior lighting design would include the use of glare louvers, ensuring that glare and spillage into the sky or onto adjacent property are restricted to levels permitted by ordinance. Potential glare associated with use of photovoltaic panels and possible use of tempered glass on potential fire-resistive walls would be less than significant, as analyzed in Subchapter 2.1. Adherence to these policies would reduce impacts associated with light and glare from Project implementation.

Conclusion. As indicated above, the Proposed Project is compliant with General Plan goals and policies applicable to the Project. Accordingly, impacts associated with the goals and policies of the County General Plan related to aesthetics would be **less than significant.**

Agricultural Resources. This section is divided into three separate issues, as presented below. Refer to Section 3.2.1, Agriculture, for additional information regarding agriculture.

Direct Conversion of Agricultural Resources. To reduce impacts due to the direct conversion of agricultural resources, the Proposed Project must be consistent with policies from the Land Use and COS Elements. The only relevant policy is LU-6.4 (refer to the County General Plan [County 2011a] for the text of this policy), which requires (among other things) protection of agricultural operations for residential subdivision projects. There are no existing agricultural operations on, or adjacent to, the Project site, and as discussed in Section 3.2.1, the site does not

contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Only Farmland of Local Importance (approximately 20 acres and assigned a "low" rating for water availability) and "Other" (approximately 91 acres) categories are present. As described in Subchapter 3.2, Farmland of Local Importance is land that meets characteristics of prime and statewide farmland, with the exception of irrigation. "Other" includes timber, brush, wetlands, and/or riparian habitats not suitable for cattle grazing, vacant and non-agricultural land surrounded by development, etc.

Based on available soil types and the low water rating, the site was not considered agriculturally significant and direct agricultural impacts related to the conversion of Farmland of Local Importance are identified as less than significant. The Project therefore, would be consistent with this policy relative to agricultural resources.

Land Use Conflicts. As described above, there are no existing agricultural operations on, or adjacent to, the Project site. Although not agriculture per se, environmental considerations regarding potential nuisance effects associated with large-animal keeping by nearby neighbors are addressed in Table 1-2 and Section 3.2.1 of this EIR. No land use conflicts with agricultural impacts would occur.

Indirect Conversion of Agricultural Resources. As described above, there are no existing agricultural operations on, or adjacent to, the Project site. Therefore, the Project would not result in indirect conversion of agricultural resources. No impacts would occur.

Conclusion. No significant impacts to agricultural resources would occur as a result of Project implementation. Accordingly, impacts associated with the goals and policies of the County General Plan related to agricultural resources would be **less than significant**.

Air Quality. This section is divided into five separate issues, as presented below. Refer to Section 2.6, *Air Quality*, for additional information regarding Proposed Project compliance with the General Plan as indicated through technical analysis of the Proposed Project design.

Air Quality Plans. The General Plan does not include policies related specifically to air quality plans. Therefore, no impact would occur. In addition, as discussed in Subchapter 2.6, the Project would not result in a significant air quality impact with regard to construction- or operational-related emissions of ozone precursors or criteria air pollutants. Located in proximity to job centers in Escondido and San Marcos, as well as two transportation hubs, the Project also has the ability to provide residents with opportunities to minimize vehicular travel, supporting reductions in vehicle miles traveled.

Air Quality Violations. To maintain air quality, the Proposed Project must be consistent with General Plan goals and policies from the COS Element. The relevant policies are COS-14.1, COS-14.2, COS-15.1, COS-15.4, COS-16.2, and COS-16.3 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would not generate significant levels of air pollutants, and no air quality violations are projected. The Project is consistent with the County's CDM whereby compact development is concentrated at the core and lower densities and open space are in outlying areas. The Project would provide a human-scaled, pedestrian-oriented environment with multi-modal connections (trails connecting to County multi-purpose

trails as well as to the HGV Village Center) to encourage use of transportation modes other than the automobile. Buildings would include sustainable design features and would meet or exceed 2016 Title 24 standards to reduce impacts to air quality. Adherence to these policies would reduce impacts associated with air quality from Project implementation.

Non-attainment Criteria Pollutants. The General Plan policies associated with non-attainment criteria pollutants are the same as those listed above under *Air Quality Violations*. Adherence to the above policies would reduce impacts associated with air quality from Project implementation.

Sensitive Receptors. The General Plan does not include policies related specifically to sensitive receptors. No impacts would occur.

Objectionable Odors. The General Plan does not include policies related specifically to odors. No impacts would occur.

Conclusion. As indicated above, the Proposed Project is compliant with applicable General Plan goals and policies applicable to the Project. Accordingly, impacts associated with the goals and policies of the County General Plan related to air quality would be **less than significant.**

Biological Resources. This section is divided into six separate issues, as presented below. Refer to Subchapter 2.3, Biological Resources, for additional information regarding Proposed Project compliance with the General Plan as indicated through technical analysis of the Proposed Project design and identified mitigation measures.

Special Status Species. To minimize impacts to special status species, the Proposed Project must be consistent with goals and policies from the COS and Land Use Elements. Relevant policies are COS-1.3, COS-1.6, COS-1.8, COS-1.9, COS-1.10, COS-2.1, COS-2.2, LU-6.1, LU-6.2, LU-6.3, LU-6.4, LU-6.6, LU-6.7, and LU-10.2 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would comply with these policies by clustering development in portions of the site that are the most highly disturbed and/or have the lowest acreage of valuable contiguous habitat (to the extent possible). This would allow for preservation of a large area of permanent open space that would be managed through implementation of a resource management plan to protect biological resources in perpetuity. Specifically, a block of 34.8 acres (approximately 31 percent of the site) would be protected within a BOS easement. The BOS on site would primarily consist of granitic southern mixed chaparral; with a large population of wart-stemmed ceanothus. Other habitat, such as coast live oak woodland, is also included. In addition, the Project would mitigate for impacts to sensitive species and their habitats through on- and off-site preservation. Adherence to these policies would reduce impacts associated with special status species from Project implementation.

Riparian Habitat and Other Sensitive Natural Communities. The General Plan policies associated with sensitive natural communities are discussed above under *Special Status Species*. One additional policy, COS-3.1 also applies to the Project, which requires development to preserve wetland areas and riparian and upland buffers (refer to the County General Plan [County 2011a] for the text of these policies). The Project would comply with this policy by providing a minimum 100-foot buffer from the Escondido Creek riparian canopy as well as an

additional limited building zone between any Project development and the edge of the wetland buffer. Impacts to riparian and sensitive upland buffer habitat would be mitigated in accordance with County and Wildlife Agency requirements as specified in Section 2.3.5 of this EIR. Adherence to this policy and the above policies would reduce impacts associated with sensitive natural communities from Project implementation.

Federally Protected Wetlands. To avoid impacts to federally protected wetlands, the Proposed Project must be consistent with goals and policies from the COS Element. Relevant polices are COS-3.1 and COS-3.2 (refer to the County General Plan [County 2011a] for the text of these policies). Project compliance with COS-3.1 is discussed above under *Riparian Habitat and Other Sensitive Natural Communities*. Impacts to federally protected wetlands would occur, but would be mitigated to ensure no net loss of wetlands would occur in accordance with County and Wildlife Agency requirements. Adherence to these policies would reduce impacts associated with federally protected wetlands from Project implementation.

Wildlife Movement Corridors and Nursery Sites. To address potential impacts to wildlife movement corridors and nursery sites, the Proposed Project must be consistent with goals and policies from the COS and Land Use Elements. The relevant policies are COS-1.1, COS-1.2, COS-1.3, LU-6.1, and LU-6.7 (refer to the County General Plan [County 2011a] for the text of these policies). Project development has been consolidated to reduce edge effects and concentrated in the portions of the site with the lowest, relative biological value. The Project would provide large areas of permanent open space contiguous with portions of the Escondido Creek Open Space to the north; DDHP to the south; and undeveloped lands, residential properties, and lands constrained by steep slopes and rugged terrain to the east and west. Adherence to these policies would reduce impacts associated with wildlife movement corridors and nursery sites from Project implementation.

Local Policies and Ordinances. There are no General Plan goals or policies related to conflicts with local policies and ordinances. No impacts would occur.

Habitat Conservation Plans and Natural Community Conservation Plans. There are no General Plan goals or policies related to conflicts with habitat conservation plans and natural community conservation plans. No impacts would occur.

Conclusion. As indicated above, the Proposed Project is compliant with applicable General Plan goals and policies. Accordingly, **impacts associated with the goals and policies of the County General Plan related to biological resources would be less than significant**.

Cultural Resources. This section is divided into four separate issues, as presented below. Refer to Subchapter 2.4, *Cultural Resources and Tribal Cultural Resources*, and Section 3.1.6, *Paleontological Resources*, for additional information regarding Proposed Project compliance with the General Plan as indicated through technical analysis of the Proposed Project design and identified cultural resource mitigation measures.

Historical Resources. To address impacts to historical resources, the Proposed Project must be consistent with General Plan goals and policies from the COS Element. The relevant policy is COS-8.1 (refer to the County General Plan [County 2011a] for the text of this policy), which

encourages adaptive re-use of historic structures, sites or objects. No standing structures or sites are located on site or within areas potentially affected by off-site Project elements. The sole historic-period element (remnants of a residence and associated uses) was evaluated and determined to not be significant (i.e., not to be an historic resource) under CEQA or RPO.

Archaeological Resources. In order to minimize or avoid impacts to archaeological resources, the Proposed Project must be consistent with General Plan goals and policies from the COS Element. The relevant policies are COS-7.1, COS-7.2, COS-7.3, and COS-7.4 (refer to the County General Plan [County 2011a] for the text of these policies). Based on prior on-site reconnaissance, and a Project records search review and cultural survey, no known prehistoric archaeological resources occur on site. Mitigation is identified in the event that resources are discovered during Project construction. Additionally, the County has initiated consultation with local tribes, pursuant to CA Senate Bill 18 and CA Assembly Bill 52,[2] and consultation is ongoing. The reader is referred to Subchapter 2.4 of this EIR. Adherence to these policies would reduce impacts associated with archaeological resources from Project implementation.

Paleontological Resources. To address impacts to paleontological resources, the Proposed Project must be consistent with General Plan policy COS-9.1 from the COS Element (refer to the County General Plan [County 2011a] for the text of this policy). Policy COS-9.1 does not apply to the Proposed Project because on-site surficial and underlying deposits (i.e., historic fill Quaternary-age topsoil, alluvium and colluviums, and Cretaceous-age granitic rocks) exhibit low or no potential for the occurrence of significant paleontological resources, and the Project site is not within an area requiring paleontological monitoring on the San Diego County Paleontological Resources Potential and Sensitivity Map (County 2009f).

Human Remains. To address impacts to human remains, the Proposed Project must be consistent with General Plan policy COS-7.5 from the COS Element (refer to the County General Plan [County 2011a] for the text of this policy). Based on a record search review and cultural survey conducted for the Project, human remains are not expected on site. Regardless, impacts related to unanticipated discovery of human remains would be avoided with mitigation that includes a grading monitoring program in accordance with California state law requirements if such a discovery occurs in consultation with local tribal representatives. Adherence to this policy would reduce impacts associated with discovery of human remains from Project implementation.

Conclusion. As indicated above, the Proposed Project is compliant with applicable General Plan goals and policies. Accordingly, impacts associated with the goals and policies of the County General Plan related to cultural resources would be **less than significant**.

Geology and Soils. There are no General Plan policies related to geology and soils. **No impacts would occur.**

Hazards and Hazardous Materials. This section addresses nine separate issues, divided into five categories, as presented below. Refer to Section 3.1.3, *Hazards and Hazardous Materials*, for additional information regarding Proposed Project compliance with the General Plan as indicated through technical analysis of the Proposed Project design.

[2] Local Native American tribes were noticed of EIR preparation during the NOP process, with one response received from the San Luis Rey Band of Mission Indians. AB 52 outreach was initiated on October 1, 2015.

Hazardous Materials. The General Plan does not include policies related specifically to transport, use, and disposal of hazardous materials, accidental release of hazardous materials, hazards to schools or existing hazardous materials sites. No impacts would occur.

Public and Private Airports. To avoid hazards associated with public and private airports, the Proposed Project must be consistent with policies from the Land Use, Safety, and Mobility Elements. There are no policies applicable to the Proposed Project because the Project is not located near any airports or within an Airport Influence Area. No impacts would occur.

Emergency Response and Evacuation Plans. To address hazards associated with emergency response and evacuation plans, the Proposed Project must be consistent with policies from the Mobility and Safety Elements. The relevant policies are M-1.2, M-3.3, M-4.3, S-1.3 and S-6.4 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would comply with these policies by implementing roadway improvements to Country Club Drive to provide added capacity to accommodate emergency vehicles and improved accessibility across Escondido Creek, providing multiple access points to the Project from Country Club Drive, and establishing adequate fuel modification zones. The closest fire station (at HGV) would provide emergency response within less than three minutes of road time. Please also see more detailed discussion in Section 3.1.3 of this EIR. Adherence to these policies would reduce impacts associated with emergency response and evacuation plans from Project implementation.

Wildland Fires. To avoid hazard impacts associated with wildland fires, the Proposed Project must be consistent with policies from the Land Use and Safety Elements. The relevant polices are LU-6.11, LU-11.2, S-3.1, S-3.2, S-3.3, S-3.4, S-3.6, S-4.1 and S-6.4 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would comply with these policies by implementing an approved fire protection plan (FPP, Appendix L to this EIR), incorporating adequate fuel modification zones (including expanded zones as appropriate, c.f. Section 3.1.3 of this EIR), and implementing roadway improvements to Country Club Drive to facilitate improved emergency vehicle movement and response times. The closest fire station (at HGV) would provide fire response within three minutes of road time. Additional detailed discussion is provided in Section 3.1.3 of this EIR, with important design considerations detailed in that section, and included on Table 1-2 and in Chapter 7.0 of this document. Adherence to these policies would reduce impacts associated with wildland fires from Project implementation.

Vectors. The General Plan does not include policies related specifically to vectors. No impacts would occur.

Conclusion. As indicated above, the Proposed Project is compliant with applicable General Plan goals and policies. Accordingly, impacts associated with the goals and policies of the County General Plan related to hazards and hazardous materials would be **less than significant**.

Hydrology and Water Quality. This section is divided into nine separate issues, as presented below. Refer to Section 3.1.4, *Hydrology and Water Quality*, for additional information regarding Proposed Project compliance with the General Plan as indicated through technical analysis of the Proposed Project design.

Water Quality Standards and Requirements. To address conformance with water quality standards and requirements, the Proposed Project must be consistent with policies from the Land Use and COS Elements. The relevant policies are LU-6.5, LU-6.9, LU-14.1, LU-14.2, LU-14.3, LU-14.4, COS-4.2, COS-4.3, COS-4.4, COS-5.2, COS-5.3, and COS-5.5 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would comply with these polices by implementing low impact development (LID) features (e.g., detention/ hydromodification vaults, bioswales, permeable pavers), avoiding development on ridgelines, constructing the Project in accordance with underlying existing topographic variation (i.e., not resulting in meaningful changes to water flow patterns in terms of destination or volume [refer to Section 3.1.4 of this EIR]), providing drainage improvements that includes erosion protection, providing treatment for wastewater generated by the Project in accordance with required standards, and installing drought tolerant landscaping. Adherence to these policies would reduce impacts associated with water quality standards and requirements from Project implementation.

Groundwater Supplies and Recharge. To avoid impacts related to groundwater supplies and recharge, the Proposed Project must be consistent with policies from the Land Use and COS Elements. The relevant policies are LU-13.1, LU-13.2, COS-4.1, COS-4.2, COS-4.3, COS-4.4, and COS-5.2 (refer to the County General Plan [County 2011a] for the text of these policies). Domestic water supplies for the Proposed Project would be obtained from the Rincon del Diablo Municipal Water District (Rincon MWD), with no groundwater use proposed for domestic or other purposes. The Project would comply with the cited policies by coordinating with the Rincon MWD to ensure availability of water services for residents, incorporating water conservation features (e.g., use of reclaimed water for irrigation), installing drought tolerant landscaping, and implementing LID features (e.g., detention/hydromodification vaults, bioswales, permeable pavers). Adherence to these policies would reduce impacts associated with groundwater supplies and recharge from Project implementation.

Erosion or Siltation. To address impacts associated with erosion and siltation, the Proposed Project must be consistent with policies from the Land Use and COS Elements. The relevant policies are LU-6.5, LU-6.9, and COS-5.3 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would comply with these policies by implementing LID features (e.g., bioswales, permeable pavers), incorporating the dominant physical characteristics of the site, using natural topography to convey stormwater, and providing drainage improvements that includes erosion protection. Adherence to these policies would reduce impacts associated with erosion or siltation from Project implementation.

Flooding. To address flooding impacts, the Proposed Project must be consistent with policies from the Land Use and Safety Elements. The relevant policies are LU-6.5, LU-6.10, S-9.2, S-10.2, S-10.3, S-10.4, and S-10.6 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would comply with these policies by implementing LID features (including use of permeable surfaces and features), avoiding development within mapped floodplains, improving the Escondido Creek crossing on Country Club Drive to eliminate existing roadway flooding hazards, and providing drainage improvements to avoid potential flooding. Adherence to these policies would reduce impacts associated with flooding from Project implementation.

Exceed Capacity of Stormwater Systems. To address stormwater system capacity impacts, the Proposed Project must be consistent with policies from the Land Use, COS, and Safety Elements. The relevant policies are LU-6.5, LU-6.9, COS-4.3, COS-5.2, S-9.2, S-10.2, S-10.3, S-10.4, S-10.5, and S-10.6 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would comply with these policies by implementing LID features (e.g., detention vaults and bioswales), maintaining overall existing drainage patterns, avoiding habitable development within mapped floodplains, improving the Escondido Creek crossing on Country Club Drive to eliminate existing roadway flooding hazards, and providing drainage improvements to accommodate Project runoff. Adherence to these policies would reduce impacts associated with stormwater capacity from Project implementation.

Housing within a 100-year Flood Hazard Area. To avoid impacts related to housing within floodplains, the Proposed Project must be consistent with policies from the COS and Safety Elements. The relevant policies are COS-5.1, S-9.1, S-9.2, S-9.3, S-9.4, S-9.5, and S-10.1 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would comply with these policies by avoiding habitable development within mapped floodplains, improving the Escondido Creek crossing on Country Club Drive to eliminate existing roadway flooding hazards, and mitigating for impacts due to development within the floodplain fringe. Adherence to these policies would reduce impacts associated with housing within floodplains from Project implementation.

Impeding or Redirecting Flood Flows. To address impacts related to impeding or redirecting flood flows, the Proposed Project must be consistent with policies from the COS and Safety Elements. The relevant policies are COS-5.1, S-9.1, S-9.2, S-9.3, S-9.4, S-9.5, and S-10.1 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would comply with these policies by avoiding habitable development within mapped floodplains, improving the Escondido Creek crossing on Country Club Drive to eliminate existing roadway flooding hazards, and mitigating for impacts due to development within the floodplain fringe. Adherence to these policies would reduce impacts associated with impeding or redirecting flood flows from Project implementation.

Dam Inundation and Flood Hazards. To address impacts related to dam inundation and flood hazards, the Proposed Project must be consistent with policies from the COS and Safety Elements. The relevant policies are COS-5.1, S-9.1, S-9.2, S-9.3, and S-10.1 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would comply with these policies by avoiding habitable development within mapped floodplains and improving the Escondido Creek crossing on Country Club Drive to eliminate existing roadway flooding hazards. No impacts associated with dam inundation would occur because the Project site is not located within a dam inundation area. Adherence to these policies would reduce impacts associated with flood hazards from Project implementation.

Seiche, Tsunami and Mudflow Hazards. To avoid hazards related to seiche, tsunami, and mudflows, the Proposed Project must be consistent with policies from the COS and Safety Elements. The relevant policies are COS-5.1, S-8.1, S-8.2, and S-9.3 (refer to the County General Plan [County 2011] for the text of these policies). The Project would comply with these policies by avoiding habitable development within mapped floodplains and engineering Project development in accordance with required regulatory standards to ensure slope stability.

According to the Project geotechnical study (Geocon 2015a), there is no evidence of previous landslides, and the potential for landslides within the Project site is low. Adherence to these policies would reduce impacts associated with seiche, tsunami, and mudflow hazards from Project implementation.

Conclusion. As indicated above, the Proposed Project is compliant with applicable General Plan goals and policies. Accordingly, impacts associated with the goals and policies of the County General Plan related to hydrology and water quality would be **less than significant**.

Land Use and Planning. This section addresses two separate issues, as presented below. The issue of physical division of an established community is separately addressed under the heading "Community Character," below.

Land Use Policies and Regulations Conformance. To support and integrate with an established community, the Proposed Project must be consistent with policies from the Land Use, Mobility, and Housing Elements. The relevant policies are LU-1.4, LU-2.3, LU-2.4, LU-2.5, LU-6.9, LU-9.2, LU-11.2, LU-12.4, M-10.6, and H-2.1 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would comply with these policies because it would be an expansion of an existing Village and would provide connections to the adjoining HGV. Proposed densities would be compatible with HGV (see detailed discussion about proposed densities and land use designations below) and also would provide a transition from the on-site residential uses to transition into existing lower-density portions of Harmony Grove Valley. Greenbelts in the form of large open space areas and buffers would be provided to further integrate the project into the surrounding rural and semi-rural uses. Overall topography would be retained by the Project's implementation of the Grading Policies set forth in the HGV South Specific Plan that encourage the placement of pads in conformance with the underlying topography, as it varies in elevation rather than a single large flat pad. This results in incorporating, rather than altering, the dominant physical characteristics of the site and retaining drainage patterns to the north and west to convey stormwater to the maximum extent practicable. In general, areas with more protected steep slopes and other environmental constraints were set into biological open space or HOA open space with lower density designations. The Center House, with its commercial and civic uses, would incorporate design guidelines contained in the Specific Plan that would include architectural styles and treatments to reinforce a rural style reflective of a repurposed agricultural use. Proposed residential development also would incorporate design guidelines contained in the Specific Plan that are characterized by design treatments and architectural styles to reflect surrounding communities and agricultural elements. On-street parking would be provided, but streetscapes would include rural style elements and landscape treatments.

The Project is consistent with the County's CDM, whereby compact development is concentrated in and around a core area and transitions out into lower density development and open space. The Project's most intense uses are located within 0.5 mile of the adjacent HGV Village Center where HGV's highest densities are also located. HGV South would provide a transition from the Village portion of the site and the existing surrounding community by maintaining the perimeter of the site within the existing Semi-Rural regional category. This land surrounds the HGV South's Village area along the southwestern, southern, and eastern property boundaries. Lower intensity single-family uses (typically with larger lot sizes) are planned in this

area in addition to the designated open space areas being located in this vicinity. These designated open space areas reduce visual effects (less than significant) along the Project's perimeter, provide views to natural areas, and contribute to an open environment. In addition, approximately 34.8 acres (31 percent) of the Project site would be placed within a single BOS easement.

As previously stated, the existing General Plan Land Use Designation is Semi-Rural Residential (SR-0.5) for nearly the entire site (approximately 110.5-acres) and Rural Lands (RL-20) for a small portion (approximately 0.5-acre) located at the northerly portion of the site. The Semi-Rural Residential (SR-0.5) portion would allow a density of two dwelling units per acre to one dwelling unit per 2 acres depending on the slope of the site, while the Rural Lands (RL-20) portion requires a minimum of 20 acres per dwelling unit. Without taking into consideration the site's topographical and other constraints, under the existing land use designations, there is a maximum yield of approximately 220 residences that would be allowed on the approximately 111-acre site.

The Project, therefore, proposes density that is not consistent with adopted General Plan land use designations. The Project proposes a GPA (specifically addressed under the heading *Amendment to the General Plan*, below) to extend the HGV Regional Land Use Category of "Village" to include the Proposed Project's boundaries.

The Village category supports the highest intensity and range of land uses, and is intended for compact development patterns where residential uses are located within walking distance of commercial services, employment centers, and civic uses. This results in the preservation of swaths of open space (thus preserving the natural and scenic qualities of the site); and encourages walking and biking, which further reduces auto dependence. The Project would be compact enough to encourage residents to walk to amenities and service, as no resident would be over 0.5 mile, or more than a 10-minute walk, from HGV's Town Center or from the commercial and civic uses of the Project. The use of a variety of lot and building designs reinforce an efficient, clustered, pedestrian-orientation.

The GPA would redesignate the majority of the site to Village Regional Category and change land use designations from Semi-rural Residential 0.5 to Village Residential (VR) 10.9 and Neighborhood Commercial for the central commercial/civic use area. Approximately 58 acres (more than half of the property) would remain in Semi-rural Residential 0.5 land use designation, as addressed in the Project Specific Plan. If approved, a combination of SR-0.5 and VR-10.9 within the development footprint would allow for a range of densities from 2 dwelling units per gross acre to up to 10.9 dwelling units per gross acre, depending on the slope of the site. The Project proposes a maximum density of approximately 8.4 dwelling units. The proposed density is also consistent with the adopted density for the Village Center (Planning Area 1) of the adjacent HGV Specific Plan, which contains 519 dwelling units on 60 residential acres (or approximately 8.7 dwelling units per acre).

Policy LU-1.1 states that land use designations on the Land Use Map are to be assigned in accordance with the CDM and boundaries established by the Regional Categories Map. This does not prevent future amendments to the Regional Land Use Map; rather the Regional Categories Map and the Land Use Maps are graphic representations of the Land Use Framework

and the related goals and policies of the General Plan. The Land Use Maps must be interpreted in conjunction with the language of the General Plan's Goals and Policies which expressly provide authority to make future amendments as may be determined appropriate by the County Board of Supervisors (County General Plan 2011:3-18). HGV South would expand HGV pursuant to the requirements set forth in General Plan Policy LU-1.4 as discussed below, and would further implement the CDM by concentrating the highest densities of uses closest to HGV while decreasing intensities adjacent to existing larger lot residential development and nearby open space areas.

Policy LU-1.4 permits new Village Regional Category designated land uses only where contiguous with an existing or planned Village and where all of the criteria described in the Policy are met. These criteria include: contiguity with an existing or planned Village, compatibility with environmental conditions and constraints, accomodation of the General Plan road network, public facilities and services support expansion, and consistency with community character. Extensive analysis of these points is provided in the 2018 HGV South Specific Plan, circulated with this EIR. Salient points are summarized below.

Contiguity with an Existing or Planned Village – The Project site lies physically adjacent or contiguous to HGV. HGV is an existing Village, approved in 2007 as a master planned community that was designed in accordance with the CDM. Its highest densities of uses are concentrated within the "Village Center," with densities progressively decreasing as development moves further away from the village center. HGV South would expand the HGV Village by locating its highest intensities of development contiguous to the Village Center or approximately 2,100 feet (less than 0.5 mile) south of the adjacent HGV Village Center, where HGV's highest densities are located. A County public park which is part of HGV is also adjacent (less than 300 feet) from the HGV South site and designated under the Village Regional Category. The park will provide an additional community gathering place for both HGV South and HGV that further serves to unify and provide a focal point for both sites.

Compatibility with Environmental Conditions and Constraints – The Project site's topography is characterized by a broad, relatively gentle valley bottom in the northern and central portions of the site adjacent to HGV, and moderately steep slopes to the south and northeast. An east-west trending bench extends across the roughly center point on the Project site, separating the existing parcels visually into north and south halves. Prominent hilltops and ridgelines are located south and southwest of the site and are associated with the higher hills located in the DDHP and EFRR, respectively. In particular, slopes exceeding 50 percent slope are primarily situated in the southern third of the site (identified for permanent set-aside).

The proposed development is concentrated mainly in areas of the site that have been previously disturbed. All habitable Project improvements are designed to avoid the existing 100-year floodplain. The site topography naturally rises and falls, and the grading has been designed to reflect this pattern. The Project would comply with the RPO steep slopes criteria through a waiver for encroachment into insignificant slopes, an exception for access roads, and strict compliance with remaining lot encroachment percentages of less than 10 percent; each of which follows RPO criteria. These elements are addressed in detail under the "County of San Diego Resource Protection Ordinance, *Steep Slopes*," discussion, below in this section, with additional detail on insignificant steep slopes provided in Subchapter 2.1. The Project has been designed to

preserve a large block (34.8 acres, or 31 percent of the Project) of contiguous open space, including southern mixed chaparral with narrow endemic species, a small patch of coast live oak woodland, and (non-RPO) jurisdictional drainages. The Project would maintain existing drainage patterns to the extent feasible, create an opportunity to re-establish a drainage feature that was largely eliminated from the site due to early agricultural activities, and maintain significant visual resources.

HGV South would contribute to or participate in implementation of a new bridge being constructed over Escondido Creek which will lift the current roadway out of the water, allowing the creek to return to a more natural state. It would enhance the wetland areas and provide better quality habitat for fish and birds. The bridge would also create a safer wildlife crossing for species traveling east-west along the creek as they could pass under the bridge and not cross vehicular traffic.

Accommodation of the General Plan Road Network – Primary access to HGV South is provided by two Mobility Element roads north of the Harmony Grove Road and Country Club Drive intersection (Country Club Drive continues south from that intersection along the Project's western boundary). The Proposed Project would reconfigure the intersection to enhance safety and access for pedestrians, bicyclists and equestrian riders through provision of multi-purpose trail south of the intersection through the bridge, pathway from Harmony Grove Road to the southern Project entry, and inclusion of three lanes south of the intersection (consistent with the existing configuration from the north). South of the intersection, the roadway would transition to three lanes. The roadway network proposed by HGV South would improve multi-modal circulation and implement the County's Community Trails Master Plan.

HGV South would not result in any significant direct impacts to County roadways within the General Plan road network. Cumulative impacts would be addressed either through the TIF or by other mitigation measures.

Public Facilities and Services Support Expansion – Compliance with General Plan Policies, County ordinances, and mitigation measures identified through the environmental review process and Project approval process would ensure that public facilities and services needed to support the Project would not result in a reduction of services to other County residents. HGV South would be required to provide the infrastructure and facilities needed to provide services to the Project either directly or through the payment of fees. Detail is provided in Chapter 1.0, as well as Sections 3.1.8, *Public Services* and 3.1.10, *Utilities and Service Systems* of this EIR. Service Providers are required to provide "will-serve" letters indicating that they can provide service to HGV South prior to the recordation of final maps and the issuance of any building permits for the Project. Community Facility Availability Forms have been received from service providers indicating that service will be available (see Appendix O).

Consistency with the Scale and Orderly and Contiguous Growth of HGV – HGV implements the CDM by concentrating the highest densities within a "Village Center" and decreasing the density progressively as development moves further away from the Village Center and into the surrounding community. The proximity of the Project's densest residential neighborhoods to HGV and its Village Center, illustrates the contiguous nature of these areas and how they are part of the same compact, walkable village. Residents would be encouraged to walk to amenities

and services that are within 0.5 mile (approximately 2,100 feet), and less than a 10-minute walk from both the HGV Village Center and HGV South's commercial/community center (the Center House). This design allows for the benefits of compact development which include increasing the amount of land that can be preserved contiguous to existing open space areas, decreasing the need for additional infrastructure, and enhancing the walkability of the communities. Surrounding the Village Residential designation along the western, southern, and eastern perimeter, the remaining 58 acres of HGV South is designated Semi-Rural Residential with a density of 0.5 dwelling unit per acre. Up to 30 dwelling units are proposed within this Semi-Rural Residential area in addition to open space. The Project's highest densities would be located in the northern and central portions of the site to avoid impacting the combined sensitive habitats and steep slopes located in the southern part of the site. This establishes a development pattern that is less dense around the perimeter.

The Project would enhance connections to HGV by encouraging pedestrian activity along an improved Country Club Drive through landscaping, shade trees, and interpretive signage; as well as contributing to or implementing the development of a bridge over Escondido Creek to replace the existing substandard "Arizona" crossing.

Consistency with Community Character – The Project is proposing to expand HGV, in a manner that is consistent with the community character of HGV and the surrounding areas. In approving HGV, the County determined that it was compatible with the existing character of the community and the more intense uses of the surrounding jurisdictions (HGV Specific Plan, Rick Engineering et al. 2007: 124).

If approved, HGV South would become part of the same compact, walkable community; connected by an integrated network of multi-use trails and pathways. HGV South features the most intense uses within 0.5 mile of the adjacent HGV Village Center where HGV's highest densities are also located. The Project has been designed to provide a wider range of housing options that are not only compatible with the housing options of HGV but also enhance the viability of the commercial uses located in the adjacent Village Center. Both HGV and HGV South, when combined, would create a range of housing opportunities supporting an economically vibrant community.

Lower intensity single-family uses (typically with larger lot sizes) would be located along the site perimeter in addition to designated open space (with an approximately 35-acre permanent set-aside of BOS in the southern portion of the Project). These designated open space areas would reduce visual effects along the Project's perimeter, provide views to natural areas, and contribute to an open environment. HGV South would provide a transition from the existing surrounding community by maintaining these perimeter areas within the existing Semi-Rural regional category.

The design principles outlined in the Specific Plan would ensure that the community character would be upheld. In particular, the Project's Design Guidelines are intended to ensure overall cohesiveness between HGV South and HGV. The Project includes a system of interconnected trails and pathways that encourage pedestrian and bicycle activity and establish important links to HGV as noted above, but also DDHP and EFRR. HGV South proposes to utilize consistent street trees, similar planting materials, lighting, signage, walls, fences, and architecture to

provide a continuous link between HGV and the Project, strengthening the concept that the two communities constitute one unified village. The architectural design is rural in inspiration and the Project's architectural guidelines identify elements to reduce the apparent size, bulk, and scale of proposed buildings. The smaller lot single-family development would replicate the character and design of the existing development. Multi-family housing types would be designed to appear as detached single-family homes or re-purposed rustic/agricultural buildings. Parking would be located internal to the development.

Adherence to these policies would reduce impacts associated with physical division of an established community from Project implementation, and support integration into the existing Village.

Conflicts with HCPs or NCCPs. The General Plan does not include policies related specifically to conflicts with HCPs or NCCPs. No impacts would occur.

Conclusion. As indicated above, the Proposed Project is compliant with applicable General Plan goals and policies. Accordingly, impacts associated with the goals and policies of the County General Plan related to land use would be **less than significant**.

Mineral Resources. While the General Plan contains policies related to mineral resources in the COS Element, these policies focus on retention of lands currently used for mining and/or identified as MRZ-2 (or those properties with a substantial likelihood of containing mineral resources), and located in areas appropriate for mining (e.g., not within proximity to existing or planned residential uses due to potential mining-associated noise, air quality, and traffic impacts). As described in Appendix R and in Subchapter 3.2 of this EIR, the Project site is not located in an area that contains MRZ-2 designated lands, nor is it located within 1,300 feet of such lands. Therefore, the Proposed Project would not result in the loss of availability of locally important mineral resource(s). In addition, the Project site is adjacent to existing and proposed residential areas, which would be incompatible with future extraction of mineral resources. Accordingly, impacts associated with the goals and policies of the County General Plan related to minerals extraction would be **less than significant**.

Noise. This section is divided into five separate issues, as presented below. Refer to Subchapter 2.5, Noise, for additional information regarding Proposed Project compliance with the General Plan as indicated through technical analysis of the Proposed Project design and identified mitigation measures.

Excessive Noise Levels. To address impacts related to excessive noise levels, the Proposed Project must be consistent with policies from the Land Use, Mobility, and Noise Elements. The relevant policies are LU-2.8, M-2.4, N-1.4, N-2.1, N-2.2, N-4.1, and N-4.2 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would comply with these policies by implementing mitigation measures to reduce significant noise impacts to below a level of significance, including construction of noise barriers (sound walls associated with two residences adjacent to Country Club Drive) and noise shielding (potential placement of some sound-generating equipment within structures). The reader is referred to Subchapter 2.5 of this EIR for detail. Adherence to these policies would reduce impacts associated with excessive noise levels from Project implementation.

Excessive Groundborne Vibration. To avoid impacts related to excessive groundborne vibration, the Proposed Project must be consistent with policies from the Noise Element. The relevant policies are N-6.3 and N-6.4 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would be consistent with these policies through compliance with the County Noise Ordinance. Adherence to these policies would reduce impacts associated with excessive groundborne vibration from Project implementation.

Permanent Increase in Ambient Noise Levels. To avoid impacts associated with permanent increases in ambient noise levels, the Proposed Project must be consistent with policies from the Land Use, Mobility, and Noise Elements. The relevant policies are LU-2.8, M-2.4, N-4.1, N-4.2, and N-5.1 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would be consistent with these policies by implementing mitigation measures to reduce significant noise impacts to below a level of significance (including construction of noise barriers and noise shielding) and locating uses where truck access might be required (the Center House, or the potential WTWRF) away from the densest residential uses as a matter of Project design. Adherence to these policies and the related mitigation measures and design features would reduce impacts associated with potential permanent increases in ambient noise levels from Project implementation.

Temporary Increase in Ambient Noise Levels. To avoid impacts associated with temporary increases in ambient noise levels, the Proposed Project must be consistent with policies from the Noise Element. The relevant policies are N-6.3 and N-6.4 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would be consistent with these policies through compliance with the County Noise Ordinance. Adherence to these policies via compliance with the Noise Ordinance would reduce impacts associated with temporary increases in ambient noise levels from Project implementation.

Excessive Noise Exposure from a Public or Private Airport. The Project is not located near any airports or in the vicinity of aircraft flight patterns. No impacts would occur.

Conclusion. As indicated above, the Proposed Project is consistent with applicable General Plan goals and policies. Accordingly, impacts associated with the goals and policies of the County General Plan related to noise would be **less than significant**.

Population and Housing. The Housing Element includes six goals and related policies; however, only some of these policies are relevant to private developments. The relevant policies to an individual project are H-1.3, H-1.6, H-1.7, H-1.8, H-2.1, and H-2.2 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would be consistent with these policies by providing opportunities for small-lot single-family and multi-family building types in a Village, and a range of housing types, lot sizes and building sizes; implementing development that would not degrade the character of surrounding development, provision of uses that would include amenities and common open space areas; and coordinating with the local fire agency to improve fire protection for multi-story construction. Impacts associated with the goals and policies of the County General Plan related to Housing would be **less than significant** through Project design.

Public Services. This section is divided into four separate issues, as presented below. Refer to Section 3.1.8, Public Services, for additional information regarding Proposed Project compliance with the General Plan as indicated through technical analysis of the Proposed Project design.

Fire Protection Services. To address impacts to fire protection services, the Proposed Project must be consistent with policies from the Land Use and Safety Elements. The relevant policies are LU-1.4, LU-6.4, LU-6.11, LU-12.3, LU-12.4, S-3.4, S-6.1, S-6.2, S-6.3, S-6.4, and S-6.5 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would be consistent with these policies by providing adequate fuel modification zones, coordinating with the Rincon MWD to ensure adequate fire flows are provided, paying applicable fees for public services, and coordinating with the appropriate Fire Authority to ensure fire protection services are available to serve the Project, as specified in Chapter 1.0 of this EIR on the Permit matrix. In addition, the Project would be located less than 1.3 miles from a new fire station being constructed in conjunction with HGV. Based on the Facility Availability Form provided in Appendix O to this EIR, the closest fire station (at HGV) would provide response within fewer than three minutes of road time. Adherence to these policies would reduce impacts associated with fire protection services from Project implementation.

Police Protection Services. To address impacts to police protection services, the Proposed Project must be consistent with policies from the Land Use Element. The relevant policies are LU-1.4, LU-12.3, and LU-12.4 (refer to the County General Plan [County 2011a] for the text of these policies). The Law Enforcement Services information provided to the Project by the San Marcos Command states that physical facilities are adequate and that no new staff would be required to serve the Project. Compliance with LU-1.4 is discussed above. Lack of need for new facilities and adherence to these policies would reduce impacts associated with police protection services from Project implementation.

School Services. To address impacts to school services, the Proposed Project must be consistent with policies from the Land Use Element. The relevant policies are LU-1.4, LU-9.7, LU-12.3, and LU-12.4 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would be consistent with these policies by paying applicable development impact fees for school services and coordinating with applicable school districts to procure an agreement between the Applicant and the affected school districts in accordance with the School Facilities Mitigation Ordinance (7966). Adherence to these policies would reduce impacts associated with school services from Project implementation.

Other Public Services. To address impacts to other public services, the Proposed Project must be consistent with policies from the Land Use Element. The relevant policies are LU-1.4, LU-9.4, LU-9.7, LU-12.3, LU-12.4, LU-18.1, and LU-18.2 (refer to the County General Plan [County 2011a] for the text of these policies). These policies address provision of infrastructure and public facilities, as well as civic uses consistent with intensity of development and community character. The majority of these policies address accessibility and availability of facilities, but context sensitive elements are also addressed. LU-1.4 is addressed in some detail above. The Project would be consistent with these policies by including a centrally located community center (the Center House) easily accessible by road and trail, that that incorporates architecture and local features. Project infrastructure would be provided timely with development, with roads and utilities installed prior to vertical construction. Will serve letters will be required. The

Project would be conditioned and applicable development impact fees would be assessed and paid by the Applicant to fund the Project's contribution towards schools and fire protection services. Adherence to these policies would reduce impacts associated with other public services from Project implementation.

Conclusion. As indicated above, the Proposed Project is compliant with the applicable General Plan goals and policies. Accordingly, impacts associated with the goals and policies of the County General Plan related to public services would be **less than significant**.

Recreation. This section is divided into two separate issues, as presented below. Refer to Section 3.1.9, *Recreation*, for additional information regarding Proposed Project compliance with the General Plan as indicated through technical analysis of the Proposed Project design.

Deterioration of Parks and Recreational Facilities. To address impacts related to deterioration of parks and recreational facilities, the Proposed Project must be consistent with policies from the Land Use, Mobility, Housing, and COS Elements. The relevant policies are LU-12.1, LU-12.2, M-12.1, M-12.2, M-12.4, M-12.8, M-12.10, H-2.2, COS-21.1, COS-21.2, COS-22.1, COS-23.1, COS-24.1, and COS-24.2 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would be consistent with these policies by provision of public and private parks serving as gathering places, a community center, open space, and a pathway/trail system throughout the development that connects to the Del Dios Highlands Trail. These facilities are shown on Figures 1-17, 1-20a, 1-20c, and 3.1.9-1; and described in Section 3.1.9 of this EIR. The Project would also comply with the County's PLDO by providing in lieu fees for additional acreage not provided on site. Adherence to these policies would reduce impacts associated with deterioration of parks and recreational facilities from Project implementation.

Construction of New Recreational Facilities. To avoid impacts associated with construction of new recreational facilities, the Proposed Project must be consistent with policies from the Land Use, Mobility, Housing, and COS Elements. The relevant policies are LU-6.4, LU-9.7, LU-18.2, M-12.9, M-12.10, H-2.2, COS-21.2, COS-21.3, COS-21.5, COS-21.4, and COS-23.1 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would be consistent with these policies by providing a variety of recreational activities on site, a centrally located community center co-located with a park and trails within appropriate areas throughout the development that connect to public trails (including multi-use facilities with potential bike use) off site and through proposed preserve area, as appropriate. The proposed parks and community center would incorporate design guidelines of the Specific Plan to reflect the surrounding character of the area. No existing recreational facilities would be impacted in order to construct Project amenities and use of the on-site facilities would not require additional road capacity beyond what is proposed as part of Project upgrades through design or traffic mitigation proposed in Subchapter 2.2 of this EIR. Adherence to these policies would reduce impacts associated with construction of new recreational facilities from Project implementation.

Conclusion. As indicated above and discussed in detail in Section 3.1.9 of this EIR, the Proposed Project is compliant with applicable General Plan goals and policies through Project design and payment of in lieu fees per the PLDO. Accordingly, impacts associated with the goals and policies of the County General Plan related to recreation would be **less than significant**.

Transportation/Traffic. This section is divided into six separate issues, as presented below. Refer to Subchapter 2.2 Transportation/Traffic, for additional information regarding Proposed Project compliance with the General Plan as indicated through technical analysis of the Proposed Project design and identified mitigation measures.

Unincorporated County Traffic and LOS Standards. To address impacts related to County traffic and LOS standards, the Proposed Project must be consistent with policies from the Land Use and Mobility Elements. The relevant policies are LU-5.1, LU-12.2, M-1.1, M-1.2, M-2.1, M-2.3, M-3.1, M-3.2, M-3.3, M-4.2, and M-9.1 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would be consistent with these policies by providing a development that accommodates multi-modal transportation options (automobiles, walking, bicycling, and horse) and an interconnected local roadway network, implementing traffic mitigation to road segments and intersections as described in Section 2.2.6 of Subchapter 2.2 to reduce impacts to below a level of significance, implementing roadway improvements, and providing three access points to the Project from Country Club Drive. The Project would also contribute to or implement a bridge crossing of Escondido Creek by Country Club Drive to eliminate existing roadway flooding and to provide for improved wildlife movement. Proposed roadways and trails have been designed to meet County standards to accommodate facility users. Adherence to these policies would reduce impacts associated with County traffic and LOS standards from Project implementation.

Adjacent Cities' Traffic and LOS Standards. To avoid impacts associated with traffic and LOS standards of adjacent cities, the Proposed Project must be consistent with policies from the Land Use and Mobility Elements. The relevant policies are LU-4.3 and M-4.6 (refer to the County General Plan [County 2011a] for the text of these policies). Proposed projects from the cities of San Marcos and Escondido, as well as the County were used to identify potential direct and cumulative impacts on area roadways. Potentially significant impacts were identified on County and City of Escondido segments and intersections. The Project would be consistent with these policies in that the Project traffic analysis evaluated potential traffic impacts using both the County and City of Escondido methodology and significance thresholds. Although mitigation of traffic impacts are in the City of Escondido, which is outside the jurisdiction and control of the County, the Project considered traffic impacts on neighboring jurisdictions and identified mitigation measures that would mitigate impacts to City roadway segments and intersections as specified in Subchapter 2.2. Coordination with the City of Escondido is ongoing. Although the City is expected to approve the proposed mitigation, because the improvements remain within the purview of another public agency, and because the County cannot guarantee that the City would ultimately require implementation of those mitigation measures, the impact to City road segment and intersections is currently conservatively assessed as significant and unmitigated in Subchapter 2.2 relative to traffic and transportation impacts. Relative to Land Use plan conformity, however, the Project would meet the M-4.6 goal of coordination "to the extent practical."

Road Safety. To avoid impacts related to road safety, the Proposed Project must be consistent with policies from the Land Use and Mobility Elements. The relevant policies are LU-2.8, LU-6.10, M-4.3, M-4.4, M-4.5, and M-9.1 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would be consistent with these policies by designing proposed roadways to meet County standards to avoid traffic safety hazards and accommodate

emergency vehicle access, providing roadway improvements to Country Club Drive, and incorporating design guidelines of the Project Specific Plan to include rural elements along Project roadways and trails. Adherence to these policies would reduce impacts associated with road safety from Project implementation.

Emergency Access. To avoid impacts related to emergency access, the Proposed Project must be consistent with policies from the Land Use, Mobility, and Safety Elements. The relevant policies are LU-2.8, LU-6.10, LU-12.2, M-1.2, M-4.4, S-3.5, and S-14.1 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would be consistent with these policies by implementing a fire protection plan (Appendix L to this EIR), implementing traffic mitigation to reduce impacts to below a level of significance, implementing roadway improvements to improve emergency vehicle access south of Escondido Creek, and providing three access points to the Project off Country Club Drive and an interconnected roadway network as addressed in Subchapter 2.2 and Section 3.1.3 of this EIR. Adherence to these policies would reduce impacts associated with emergency access from Project implementation.

Parking Capacity. To address impacts associated with parking capacity, the Proposed Project must be consistent with policies from the Mobility Element. The relevant policies are M-10.1, M-10.2, M-10.3, and M-10.4 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would be consistent with these policies by providing vehicular parking that meets or exceeds County standards, and provision of access to trail staging areas. Parking areas would not restrict pedestrian circulation patterns. Adherence to these policies would reduce impacts associated with parking capacity from Project implementation.

Alternative Transportation. To avoid impacts related to alternative transportation, the Proposed Project must be consistent with policies from the Land Use and Mobility Elements. The relevant policies are LU-5.1, LU-5.5, LU-9.8, M-3.1, M-3.2, M-4.3, M-11.1, M-11.2, M-11.3, M-11.4, and M-11.7 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would be consistent with these policies by accommodating multi-modal transportation options (automobiles, walking, bicycling, and horse) and an interconnected local roadway and multi-use trails network. Proposed roadways, bike routes, and trails have been designed to meet County standards to accommodate facility users. Additionally, design guidelines of the proposed Specific Plan would be incorporated into Project roadways and trails to include rural elements along these facilities. Adherence to these policies would reduce impacts associated with alternative transportation from Project implementation.

Conclusion. Impacts associated with the goals and policies of the County General Plan related to transportation/traffic within County jurisdiction would be **less than significant**. Impacts associated with the ability of the County to implement mitigation within City jurisdiction are addressed in Subchapter 2.2 of this EIR. County goals and policies as they relate to use of City of Escondido thresholds for impact assessment, as well as ongoing coordination regarding implementation of mitigation proposed within City jurisdiction has, and will continue, to occur. As a result, impacts associated with the goals and policies of the County General Plan related to transportation/traffic within City of Escondido jurisdiction are identified as **less than significant.**

Utilities and Service Systems. This section is divided into seven separate issues, as presented below. Refer to Section 3.1.10, *Utilities and Service Systems*, for additional information regarding Proposed Project compliance with the General Plan as indicated through technical analysis of the Proposed Project design.

Wastewater Treatment Requirements. To address compliance with wastewater treatment requirements, the Proposed Project must be consistent with policies from the Land Use Element. The relevant policies are LU-9.4, LU-12.1, LU-12.2, LU-14.1, LU-14.2, LU-14-3, and LU-14.4 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would be consistent with these policies by providing infrastructure improvements to serve the Project and treatment for wastewater generated by the Project in accordance with required standards. In particular, HGV South would be consistent with LU-14.4 upon its designation as a Village which allows it to provide sewer services by one of the options identified in its Sewer Master Plan by amending the General Plan Regional Land Use Map to re-designate the portion of the site served by the Project sewer as "Village" pursuant to Policy LU-1.4 (expansion of existing HGV Village. Adherence to these policies would reduce impacts associated with wastewater treatment requirements from Project implementation.

New Water or Wastewater Treatment Facilities. To avoid impacts related to new water or wastewater treatment facilities, the Proposed Project must be consistent with policies from the Land Use and Housing Elements. The relevant policies are LU-1.4, LU-4.3, and H-1.3 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would be consistent with these policies by providing a development (Village extension) contiguous with HGV and provision of wastewater services without reducing services for other County residents. The sewer system has been planned and sized to serve HGV South for the densities depicted by the Specific Plan. A Sewer Master Plan was prepared for HGV South in which several options for providing wastewater service to the Project were identified and analyzed. There are three wastewater treatment system scenarios that could be used to serve the Project, the largest of which is addressed as part of the Proposed Project (please see Chapter 4.0, *Alternatives*, for discussion of smaller design scenarios). Adherence to these policies would reduce impacts associated with new water or wastewater treatment facilities from Project implementation.

Sufficient Stormwater Drainage Facilities. To avoid impacts related to sufficient stormwater drainage facilities, the Proposed Project must be consistent with policies from the Land Use and COS Elements. The relevant policies are LU-6.5, LU-6.9, and COS-4.3 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would comply with these policies by incorporating LID features into the Project and avoiding alteration of ridgelines and significant steep slopes to preserve major topographic site features and maintain overall drainage patterns. Adherence to these policies would reduce impacts associated with stormwater drainage facilities from Project implementation.

Adequate Water Supplies. To address impacts associated with adequate water supplies, the Proposed Project must be consistent with policies from the Land Use and COS Elements. The relevant policies are LU-13.1, LU-13.2, COS-4.1, COS-4.2, COS-4.3, COS-5.2, and COS-5.5 (refer to the County General Plan [County 2011a] for the text of this policy). The Project would comply with these policies by incorporating water conservation measures (use of reclaimed water), drought tolerant landscaping, on-site infiltration areas (detention/hydromodification

vaults with park areas above them, and other pervious areas), and potential water use restrictions as discussed in Section 3.1.10 as necessary to address focused drought events. The project also must obtain a PFAF from the Rincon MWD (included in Appendix O). Adherence to these policies would reduce impacts associated with water supplies from Project implementation.

Adequate Wastewater Facilities. To address impacts related to adequate wastewater facilities, the Proposed Project must be consistent with one policy from the Land Use Element, LU-4.3 (refer to the County General Plan [County 2011a] for the text of this policy). The Project would comply with this policy in that other projects in the vicinity within other jurisdictions (i.e., Escondido and San Marcos) were considered in the cumulative analysis conducted for the Proposed Project. The neighboring cities will be provided opportunities to comment on the Project through the environmental review process. Adherence to this policy would reduce impacts associated with adequate wastewater facilities from Project implementation.

Sufficient Landfill Capacity. To avoid impacts associated with sufficient landfill capacity, the Proposed Project must be consistent with policies from the Land Use and COS Elements. The relevant policies are LU-12.1, LU-12.2, COS-17.1, COS-17.2, COS-17.4, and COS-17.6 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would be consistent with these policies through compliance with construction and demolition waste recycling requirements, provision of community gardens where composting will be encouraged, and provision of space for recycling containers within the development. Adherence to these policies would reduce impacts associated with sufficient landfill capacity from Project implementation.

Energy. To address impacts related to energy, the Proposed Project must apply policies from the COS Element. The relevant policies are COS-14.7, COS-15.1, and COS-15.4 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would be consistent with these policies by including provision of 100 percent of Project electricity needs through photovoltaic systems, incorporation of energy efficiency features into Project facilities of this EIR relevant to electrical design features, and meeting or exceeding 2016 Title 24 standards, as described on Table 1-2. Adherence to this policy would reduce impacts associated with energy from Project implementation.

Conclusion. As indicated above, the Proposed Project is compliant with applicable General Plan goals and policies. Accordingly, impacts associated with the goals and policies of the County General Plan related to utilities and service systems would be **less than significant**.

Global Greenhouse Gases. This section is divided into two separate issues, as presented below. Refer to Subchapter 2.7, *Greenhouse Gas Emissions*, of this EIR for additional information regarding Proposed Project compliance with the General Plan as indicated through technical analysis of the Proposed Project design.

Compliance with AB 32. To address compliance with AB 32, the Proposed Project must be consistent with policies from the COS Element. The relevant policies are COS-14-1, COS-14.3, COS-15.1, COS-15.4, COS-17.2, COS-17.6, and COS-19.1 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would be consistent with these policies including provision of a minimum of 100 percent of Project electricity needs,

incorporating sustainability and efficiency design features into the Project as described on Table 1-2 of this EIR relevant to electrical design features, use of only gas fireplaces in residences, encouraging recycling by provision of space for recycled containers within the village, and incorporating features to minimize water use. HGV South is a model of compact development which expands the existing HGV Village core to become part of the same compact, walkable community that would be connected by an integrated network of multi-use trails and pathways, continuing those that were part of the HGV Specific Plan. The Project features the most intense uses within less than 0.5 mile of the adjacent HGV Village Center where HGV's highest densities are also located. The residents of these neighborhoods would be encouraged to walk to the amenities and services available at the HGV Village Center and the commercial/civic zone of HGV South, located within a 10-minute walk of each other by interconnected trails and pathways. As described above, it is also noted that the Project is consistent with the regional average trip length as identified by SANDAG. Adherence to these policies would reduce impacts associated with AB 32 compliance from Project implementation.

Potential Effects of Global Climate Change on the Proposed Project. To address potential effects of global climate change, the Proposed Project must apply policies from the COS Element. The relevant policies are also COS-15.1, COS-15.7, and COS-20.4 (refer to the County General Plan [County 2011a] for the text of these policies). The Project would be consistent with these policies by providing opportunities to utilize solar power and incorporating sustainability and efficiency design features into the Project as described above, and encouraging recycling by provision of space for recycled containers within the village. Adherence to these policies would reduce impacts associated with global climate change from Project implementation.

Conclusion. As indicated above, the Proposed Project is compliant with applicable General Plan goals and policies. Accordingly, based on Project design, impacts associated with the goals and policies of the County General Plan related to global climate change would be **less than significant**.

Amendment to the General Plan. A General Plan Amendment is required to achieve the densities which would support the expansion of the Village. The proposed General Plan Amendment includes amending the General Plan Regional Category and Land Use Designation(s) through re-designating a portion of the HGV South site from a Semi Rural Regional Category to a Village Regional Category, and changing a portion of the site from the Semi-Rural residential designation of 2 dwelling units per acre (SR-0.5) to a Village Residential designation of 10.9 dwelling units per acre (VR-10.9).

As the General Plan Amendment is incorporated into this Project and would occur as part of Project approval during Board of Supervisors consideration of the Project, the inconsistency with the current General Plan designation would be cured as part of Project approval, and modification to the General Plan would not result in a significant impact to plan conformance. No land use conformity impact would occur relative to implementation of the General Plan Amendment.

Elfin Forest and Harmony Grove Portion of the San Dieguito Community Plan

Land Use. The Land Use Element is divided into six issues, as presented below, and contains goals and policies relative to these issues.

Community Character. Policies applicable to the Project include LU-1.5.2, LU-1.6.1, LU-1.6.2, LU-1.7.1, LU-1.8.1, LU-1.9.1, LU-1.9.3, LU-1.9.7, LU-1.19.8, and LU-1.11.1 (refer to the Community Plan [County 2011b] for the text of these policies). The Project would be consistent with these policies by proposing a GPA as part of Project design to be included within the Village Boundary to allow for various lot sizes governed by a Specific Plan, providing an integrated system of multi-use trails and pathway that connect neighborhoods with the Center House and the Village Center at HGV, incorporating design guidelines contained in the Project Specific Plan that reinforce country themes, avoiding impacts to mature oak trees to the extent feasible, proposing a clustered residential development that would preserve large areas of on-site open space, mitigating a portion of the Project's impacts within the proposed on-site BOS and completing careful review for potential to mitigate with necessary off-site habitat within the Community Plan area, as possible, and informing potential home owners of the proximity to equestrian and other surrounding uses. In addition to public outreach in general, the Project would be subject to review by the San Dieguito Community Planning Group, which will provide a recommendation to the County.

Community Growth Policy. Policies applicable to the Project include LU-2.1.4 and LU-2.2.2 (refer to the Community Plan [County 2011b] for the text of these policies). The Project would be consistent with these policies by proposing a clustered residential development in accordance with the CDM that would preserve large areas of on-site open space and provide a transition from the Project, feathering into the existing surrounding community. Greenbelts in the form of large open space areas and buffers would be provided. The Project would implement a Specific Plan (and associated design guidelines within the Specific Plan) to reflect and maintain the community character of the area and consistent with HGV and to further reinforce the Project as an expansion of the existing village. Additionally, the Project would include pathways and a multi-use trail. The reader is also referred to the discussion of the "Amendment to the Community Plan" below.

Community Conservation and Protection. Policies applicable to the Project include LU-3.1.1, LU-3.2.1, LU-3.2.2, LU-3.2.3, and LU-3.2.4 (refer to the Community Plan [County 2011b] for the text of these policies). The Project would be consistent with these policies by maintaining a buffer from Escondido Creek consistent with RPO policies (see discussion in Subchapter 2.3) to preserve the riparian corridor and improving the road crossing over the creek, prohibiting off-road motorized vehicles within the proposed on-site open space areas, mitigating for Project impacts through a combination of on-site preservation and off-site preservation at approved mitigation banks, proposing a clustered residential development that would preserve large areas of on-site open space that connects to adjacent open space areas that function as wildlife corridors, and dedication of open space easement.

Areas of Change: Development Infill and Intensification. The Community Plan does not include associated policies for Harmony Grove. No impacts would occur.

Community Facilities. Goals applicable to the Project include LU-5.2 and LU-5.3 (refer to the Community Plan [County 2011b] for the text of these policies). The Project would be consistent with these goals in that the Project would not impact the Fellowship Hall of the Harmony Grove Spiritualist Association or the Elfin Forest/Harmony Grove Fire Station. The Project would provide public parks, as well as limited commercial retail uses to serve the community and provide central gathering spaces.

Other Topics/Issues. Policies applicable to the Project include LU-6.1.1 and LU-6.1.2 (refer to the Community Plan [County 2011b] for the text of these policies). The Project would be consistent with these policies by including limited commercial retail uses within the community center intended to serve the local community and incorporating design guidelines contained in the Specific Plan to govern signage and lighting.

Conclusion. Accordingly, impacts associated with the goals and policies of the Land Use Element of the Community Plan would be **less than significant** through Project design.

Circulation and Mobility. The Circulation and Mobility Element is divided into 10 issues, as presented below, and contains goals and policies relative to these issues. Refer to Subchapter 2.2 for additional information.

Integrated Mobility and Access. The Community Plan does not include associated policies for Harmony Grove. No impacts would occur.

Local Road Network. Policies applicable to the Project include CM-2.3.1 and CM-2.3.2 (refer to the Community Plan [County 2011b] for the text of these policies). The Project would be consistent with these policies by designing internal residential streets with sharrows as appropriate and generally curvilinear alignments. Concerns over equestrian uses along the road would be addressed through HGV South implementation of multi-use trail segments along public Country Club Drive, with the Project addressing the critical junction of Country Club Drive with Harmony Grove Road, as well as the crossing of Escondido Creek as part of the Project. Truck traffic would be limited to local deliveries at the Center House and WTWRF.

Fire Access/Egress Routes. Policies applicable to the Project include CM-3.1.1 and CM-3.2.2 (refer to the Community Plan [County 2011b] for the text of these policies). The Project would be consistent with these policies by naming internal roadways and installing appropriate street signage to facilitate navigation within the community for emergency vehicles. The Project would also implement roadway improvements along Country Club Drive to improve vehicle access south of Escondido Creek.

Local Transit. The Community Plan does not include associated policies for Harmony Grove. No impacts would occur.

Pedestrian. Policy CM-5.1.1 is applicable to the Project (refer to the Community Plan [County 2011b] for the text of this policy). Consistent with this policy, the Project would include an integrated public and private pathway/trail system that links residential neighborhoods with the HGV Village Core and on- and off-site open space areas and trails.

Bicycle and Trails. Policy CM-6.2.1 is applicable to the Project (refer to the Community Plan [County 2011b] for the text of this policy). The Project would comply with this policy by implementing roadway improvements on Country Club Drive to provide an improved crossing over Escondido Creek for bicyclists and pedestrians (as well as automobiles).

Aviation. The Community Plan does not include associated policies for Harmony Grove. No impacts would occur.

Trip Reductions. Policies applicable to the Project include CM-8.1.1 and CM-8.1.2 (refer to the Community Plan [County 2011b] for the text of these policies). The Project would be consistent with these policies by designing internal residential streets with two lanes and sharrows and generally curvilinear alignments. Project intersections would be stop-controlled. Policy CM-8.1.2 specifically encourages a shuttle system between the business park to the northeast (within Escondido) and the HGV Center. The Project would provide residential homes within close proximity to the business park which would enhance the potential viability of a shuttle system. The Project would not be inconsistent with these policies.

Parking. The Community Plan does not include associated policies for Harmony Grove. No impacts would occur.

Infrastructure and Utilities. Policy CM-10.1.1 is applicable to the Project (refer to the Community Plan [County 2011b] for the text of this policy). Consistent with this policy, the Project Specific Plan includes a landscape palette that emphasizes native, drought tolerant, and fire resistant plantings.

Conclusion. Accordingly, impacts associated with the goals and policies of the Circulation and Mobility Element of the Community Plan would be **less than significant** through Project design.

Conservation and Open Space Element. The COS Element is divided into three issues, as presented below, and contains goals and policies relative to these issues.

Resource Conservation and Management. Policies applicable to the Project include COS-1.1.1, COS-1.1.2, COS-1.1.3, COS-1.2.1, COS-1.3.1, COS-1.3.2, COS-1.6.1, and COS-1.7.1 (refer to the Community Plan [County 2011b] for the text of these policies). The Project would be consistent with these policies by including community gardens and allowing a farmer's market as an allowable use, use of reclaimed (recycled) water for general HOA irrigation and rain barrels for community gardens, and proposing a clustered residential development and preserving large areas of on-site open space that contains steeper topography and landforms that connects to adjacent open space areas. An adequate buffer from Escondido Creek would be maintained and the road crossing over the creek would be improved with a bridge. Additionally, the Project would incorporate features to encourage alternative energy use such as provision of 100 percent of the Project electricity needs through renewable resources (see Table 1-2~~ and Section 3.1.1~~) and providing an electrical vehicle charging area consistent with ~~2017~~ CALGreen requirements at the Center House for use by both Project residents and community neighbors.

Parks and Recreation. Policy COS-2.1.1 is applicable to the Project (refer to the Community Plan [County 2011b] for the text of this policy). Consistent with this policy, the Project would provide 13 parks, totaling approximately 4.1 acres, which connect to a system of multi-use trails.

Paved areas and lighting would be minimized within parks to include only that necessary for safety during hours of operation.

Community Open Space Plan. Policies applicable to the Project include COS-3.1.1, COS-3.2.1, COS-3.2.2, COS-3.2.3, and COS-3.2.4 (refer to the Community Plan [County 2011b] for the text of these policies). The Project would be consistent with these policies by proposing a clustered residential development and preserving large areas of on-site open space that contains steep slopes, ridgelines, and sensitive biological resources; implementing mitigation in accordance with County and Resource Agency requirements for impacts to biological resources; and maintaining adequate buffers from wetlands.

Conclusion. Based on Project design and mitigation measures specifically designed to address biological impacts (discussed above and in Subchapter 2.3), impacts associated with the goals and policies of the COS Element of the Community Plan would be **less than significant**.

Safety Element. The Safety Element is divided into three issues, as presented below, and contains goals and policies relative to these issues.

Hazards/Risk Avoidance and Mitigation. Policy S-1.1.1 is applicable to the Project (refer to the Community Plan [County 2011b] for the text of this policy). The Project would comply with this policy by implementing roadway improvements along Country Drive, and potentially contributing to or implementing construction of a bridge over Escondido Creek to improve access and eliminate flood hazard conditions associated with the existing at-grade crossing.

Emergency Preparedness and Response. The Community Plan does not include associated policies for Harmony Grove. No impacts would occur.

Other Topics – Law Enforcement. The Community Plan does not include associated policies for Harmony Grove. No impacts would occur.

Conclusion. Accordingly, impacts associated with the goals and policies of the Safety Element of the Community Plan would be **less than significant** through Project design.

Noise Element. The Noise Element is divided into three issues, including Noise Sources, Noise Standards and Mitigation, and Other Topics/Issues. The Noise Element, however, does not contain any policies that are applicable to the Project. Accordingly, **no impacts** associated with the goals and policies of the Noise Element of the Community Plan would occur.

Amendments to the Community Plan. As indicated previously in this section, community plans provide additional guidance that reflects the unique nature of each unincorporated community, but the General Plan has clearly delineated the relationship between the General Plan and the County's community plans. Community plans must be internally consistent with the General Plan's goals and policies and cannot be used to undermine the policies of the General Plan (General Plan LU-2.2). This means that community plans must be read and interpreted in the context of the goals and policies set forth in the General Plan. (This policy in particular should be used for guidance when addressing this Project's consistency with goals and policies of the Community Plan.)

HGV South proposes to amend the Community Plan to add the Project as an independent but compatible component of the HGV Specific Plan Area, amend Figures 1 and 3 of the Community Plan to adjust the Village Boundary Line, and revise related portions of the Community Plan.

Amendments to the Harmony Grove Village Specific Plan Area Section (Chapter 6) – This section of the Community Plan contains general goals and policies that pertain to HGV development to the north. HGV South would expand HGV Village pursuant to the requirements set forth in General Plan Policy LU-1.4, and would further implement the Community Development Model by concentrating the highest densities of uses closest to HGV while decreasing intensities adjacent to semi–rural land uses and nearby open space areas. The Project proposes to modify the text of Chapter 6 of the Community Plan to add the Project as an independent but compatible component of the HGV Specific Plan Area. The Project proposes to amend the Community Plan to insert text that will describe the Project and its relationship with HGV as an independently approved Specific Plan. Although the distribution, location, and uses of land within the Project would be controlled by its Specific Plan, the Project's design features and design guidelines would be compatible with similar provisions found in HGV's Specific Plan. Also, the Project would generally follow as appropriate the "concepts for land use" described in the Community Plan for HGV. Some additional policies would be added to Chapter 6 of the Community Plan to explain further its connection with HGV. Accordingly, **no impacts** associated with the goals and policies of the HGV Specific Plan Area Element of the Community Plan would occur.

Amend the Village Boundary Line – HGV South would amend Figures 1 and 3 of the Community Plan to incorporate HGV South within the Village Boundary. Although the Community Plan currently identifies the existing "Harmony Grove Village Boundary" as the only area in which development should be directed, the General Plan allows for the expansion of an existing village under the circumstances outlined in Policy LU- 1.4 (see primary discussion under *Land Use and Planning*, "Physical of an Established Community," above). Since community plans cannot be interpreted in a manner that would undermine the policies of the General Plan or limit the discretion of the Board of Supervisors to take those actions contemplated by General Plan policies, the current placement of the Village Boundary does not preclude amending the current Village Boundary to include HGV South. Specific to this Project, the Community Plan can be revised in a manner consistent with adopted General Plan policies that allow for new growth and village expansion under specific identified circumstances.

Revise Related Language in the Community Plan for Consistency – The Project proposes to amend Community Plan Policy LU-2.2.1 in order to achieve consistency with the modified Village boundary and General Plan policies. This amendment would not undermine the underlying intent of the Community Plan in that LU-2.2.1 was originally enacted to preserve the rural residential and equestrian character of Harmony Grove while still accommodating growth (see Goal LU-2.2). Rather, the amended language would clarify any ambiguities or potential conflicts between General Plan Policies related to accommodating future growth and the Community Plan. The new revised policy would require adherence to the CDM and the community character policies of the Community Plan; but would not freeze any future land use decisions or undermine General Plan Policies that are related to accommodating future growth, such as General Plan Policy LU-1.4.

HGV South is not proposing an urban, clustered or suburban designed development; rather HGV South is proposing to expand the existing HGV Village pursuant to the requirements set forth in General Plan Policy LU-1.4. This Policy permits new Village Regional Category designated land uses only when contiguous with an existing or planned Village, all of the criteria described in the Policy are met, and the CDM is implemented. Therefore, development under this General Plan Policy is consistent with the intent expressed within the Community Plan with respect to the growth boundary and Community Plan Policy LU-2.2.1. Compliance with General Plan Policy LU-1.4 prevents pockets of clustered urban or suburban development from occurring by ensuring that development be located contiguous to an existing village, thereby preserving the communities' surrounding semi-rural and open space land. The Project's designated open space would reduce visual effects along the Project's perimeter, provide views to natural areas, and contributes open space areas ensuring that the surrounding Harmony Grove community is maintained.

County Board of Supervisors Policies

As stated above, there are nine Board of Supervisors Policies applicable to the Proposed Project. Regarding Policy I-17, the Project would provide the public improvements, facilities, and the lands, easements and rights-of-way necessary to make the property suitable for the proposed zoning reclassification. The Proposed Project would provide infrastructure to handle the sewage generated by the new development through construction of a stand-alone WTWRF (see also potential treatment alternatives in Chapter 4.0 of this EIR). A SWMP would identify drainage improvements to ensure that the Proposed Project would be suitable for the increased development. Fuel modification zones would be implemented to assure proactive and effective fire protection. In addition, numerous improvements to roadways and intersections would be implemented. Therefore, the Proposed Project would be consistent with Policy I-17.

Project improvements to sewers, drainage, fire protection, and roads, as described above, would ensure that the Proposed Project would provide the public improvements, facilities, and the lands, easements and rights-of-way necessary to assure that the Project would not be materially detrimental to the public health, safety, or welfare. Therefore, the Proposed Project would be consistent with Policy I-18.

The Proposed Project would be expected to comply with Policy I-36, as the Project site would be required to be annexed through a LAFCO action into an existing Sanitation District for sewer service, as appropriate and as noted in the Permits matrix in Chapter 1.0 of this EIR. Construction and operation of improvements have been considered in this EIR, and the facilities would be built and operational prior to occupancy so that compliance with Policy I-36 will be assured. In order to implement the Project, annexation into an existing Sanitation District would be required to be completed consistent with Policy I-36. If the Project is not annexed into a Sanitation District, the Project could not be implemented and no impacts would occur.

The County sent notices to all property owners within 300 feet of the Project site when the Project application was received, and notices will be sent again prior to each public hearing. The San Dieguito Community Planning Group also receives notification of each Tentative Map resubmittal and prior to hearings. In addition, pursuant to the State CEQA Guidelines, an NOP was distributed on August 27, 2015, and a 30-day public review period was initiated in which

public agencies and private citizens commented on the Proposed Project (Appendix A). Therefore, the Project would be consistent with Policy I-49.

The Proposed Project would require a GPA to increase the Project's residential density. This amendment was initiated with an Initial Consultation and a Major Pre-Application conference pursuant to Government Code Section 65358, and the Proposed Project would thereby be consistent with Policy I-63.

As Project implementation would include a GPA, Rezone, and MUP as appropriate, PDS will provide a written report of past complaints and/or violations of the ZO to the Planning Commission and the Board. Therefore, the Proposed Project would be consistent with Policy I-70.

The Proposed Project contains development near hillsides. In accordance with Policy I-73, the Proposed Project would be planned and designed to minimize the permanent impact upon site resources including existing natural terrain, established vegetation, and portions of a site which have significant public or multiple-use value. The Proposed Project would not impact dominant landforms or topographic features in the immediate vicinity, such as Mount Whitney to the west-northwest, or other closer prominent ridgelines or hills to the south; all of which are beyond the Project boundaries. There are approximately 26.5 acres of RPO steep slopes on the property. Excluding slope addressed under exception or waiver, the Proposed Project would permanently encroach upon a total of approximately 0.88 acre of RPO steep slopes, which is less than one percent of the site overall. Therefore, the Proposed Project would be consistent with Policy I-73.

As previously stated, the Proposed Project would provide infrastructure to handle the sewage generated by the new development. Full construction of a WTWRF would be subject to all appropriate plans, ordinances, statutes, and regulations in the adopted population forecasts of the County General Plan, County General Plan's Land Use Element, County ZO, CEQA and County EIR Guidelines, and RWQCB rules and regulations. The WTWRF would follow the specific design criteria and standards developed by the County. The Project would meet the RWQCB's requirement for approximately 90 days of recycled water storage through the construction of wet weather storage. Through this EIR, the WTWRF would be reviewed and in compliance with CEQA and County EIR Guidelines. Therefore, the Proposed Project would be consistent with Policy I-78.

To ensure that adequate facilities would be provided concurrent with growth and development from the Project, Project Facility Availability Forms (PFAFs) have been submitted to Rincon MWD, Escondido Union High School District, Escondido Union School District and County Sanitation District (see Appendix O). An affirmative PFAF will be required from the County Sanitation District/sewer provider prior to hearing (also see Appendix O). Therefore, the Proposed Project would be consistent with Policy I-84.

County of San Diego Zoning Ordinance

The Project site is almost completely zoned A70 (Limited Agriculture), with a minimum lot size of 0.5 acre. A small sliver of land at the northern end of the property, adjacent to Escondido Creek, is also designated A70, but has a minimum lot size of 8 acres. The A70 zone is primarily

meant to create and preserve areas for agriculture. The very southwest portion of the site is zoned RR (Rural Residential) with a minimum lot size is 0.5 acre. The Rural Residential zone is intended to create and enhance residential areas where agricultural use, compatible with a dominant permanent residential use, is desired. While residential development is an allowable use within the A70 and RR zones, the proposed clustered development design would not be consistent with these existing zone use regulations.

In order for the Project to be found consistent with the County ZO, the Project would include a Rezone, which would rezone the entire site as Specific Plan Area (SPA; S88). The S88 use regulations are intended to accommodate SPAs and can create an unlimited variety of land uses in conformance with the General Plan. Uses established pursuant to an applicable Specific Plan shall be subject to the conditions and restrictions set forth in that Specific Plan. Approval of the GPA and Rezone would remedy current inconsistencies between the current and proposed use regulations, and land use impacts associated with the County ZO would be **less than significant**.

County of San Diego Resource Protection Ordinance

Applicable polices of the RPO include those that address wetlands, wetland buffers, sensitive habitat lands, floodplains, and steep slopes. No significant prehistoric or historic sites are located within the Project site.

Wetlands. Off-site impacts would occur to 0.72 acre RPO wetlands at the Country Club Drive low-water crossing over Escondido Creek. The anticipated improvements would include construction of a new bridge that would span the flood limits of the Creek and allow for safe passage for the existing residents and future residents of the Project that rely on Country Club Drive. The bridge span represents the least environmentally damaging alternative to crossing the Creek and impacts to wetland would be unavoidable. The bridge span would provide a superior condition to that which currently exists. The improvements would be restricted to only those necessary to provide a safe crossing and enhance the biological and hydrological functions and services of the reach. Limited temporary impacts would be related to the access of equipment and staging during bridge construction. Permanent impacts would be limited to bridge abutments, footings and bank stabilization. The impacts would be unavoidable but necessary to remove the existing substandard low-water crossing, construct the new span bridge, stabilize the channel embankment, and restore the riverine hydrology of the reach. Therefore, this RPO impact is allowed, and with mitigation as described in Subchapter 2.3 the Project would comply with the RPO wetland avoidance provisions.

Wetland Buffers. The Proposed Project would provide minimum 100-foot buffers around wetlands on and in the immediate vicinity of the site. Temporary encroachment into the buffer around Escondido Creek is required during construction for the anticipated removal of the existing low-water crossing, construction of the new span bridge, stabilization of the channel embankment, and restoration of riparian habitat and riverine hydrology within temporary impact areas. Construction activities within the buffer would be limited to the existing disturbed and developed areas in and around Country Club Drive. Temporary impacts within buffer areas would be restored to pre-project or superior conditions, subject to fuel modification requirements. Therefore, the Proposed Project would comply with the RPO wetland buffer provisions.

Sensitive Habitat Lands. Sensitive Habitat Lands in the Project area include lands supporting the core on-site population of wart-stemmed ceanothus in the southern portion of the site (an estimated 20,000 wart-stemmed ceanothus individuals). Also present in this area are summer holly (20 to 30 individuals), San Diego sagewort (four individuals), and ashy spike-moss (four small concentrations). This area is "unique" in that it supports rare plant species considered sensitive by CDFW.

The Project would preserve approximately 35 acres of the approximately 111-acre site that contains contiguous, high quality and intact habitat, including the southern mixed chaparral occupied by the major population of wart-stemmed ceanothus individuals in permanent BOS. This habitat is contiguous with the DDHP and would expand the existing regional core area. The Project would preserve the large majority of this species, including the major population of ceanothus, as well as the noted summer holly, San Diego sagewort, and ashy spike-moss. Therefore, the Proposed Project would comply with the RPO provisions with respect to sensitive habitat lands.

Floodplains. The northernmost portion of the site, as well as adjacent portions of the proposed off-site roadway/utility improvements along Country Club Drive and the related crossing of Escondido Creek, are within mapped floodplains are considered RPO floodways. However, no habitable structures would be constructed within these mapped floodplains. A potential WTWRF site would be constructed within mapped floodplains, but it would be elevated above the 100-year flood level and would not redirect or impede flood flows (PDC 2017a, 2015). Therefore, the Proposed Project would comply with the RPO floodway provisions.

Steep Slopes. There are approximately 44.3 acres of slopes on the property which meet or exceed 25 percent slope, and 26.5 acres that meet the preliminary definition of RPO steep slopes based on 25 percent slope and at least 50 feet of vertical rise. This means that approximately 24 percent of Project site is subject to analysis under the RPO. The areas in question include slopes located in the small northeast hills of the Project site, on the central slope where Project elevation begin rising above the valley floor, and in the southern third of the Project, where terrain is overall higher and more rugged.

The reason these slopes are considered for protection by the County is because, separate and distinct from engineering issues related to slope which are addressed in building and safety codes, RPO steep slopes can be important components of an area's visual character. As such, steep slopes that provide important components to a particular view are provided protection. Steep slopes that do not provide critical view elements may receive a waiver under County standards (i.e., the need to protect these visually unimportant slopes may be "waived") by following a specified analytical process identified in RPO Section 86.604(e)(3). This is discussed in detail in Subchapter 2.1 of this EIR relative to visibility and visual effect; including important existing condition baseline visual information, and potential Project-related changes to that existing condition. Other incursions into steep slopes are excluded if they meet specified exceptions within the ordinance, or are allowed if they fall within specified percentages of lot encroachment.

Of the approximately 7.7 acres of RPO steep slopes that would be impacted by the Project, the majority is either excepted (approximately 2.2 acres) or subject to waiver (approximately

4.7 acres). As indicated, analysis specifically related to visibility of slopes and assessment of some limited encroachment as occurring on insignificant slopes is detailed in Subchapter 2.1 of this EIR. Less than 1 acre overall (0.88 acre) of protected RPO steep slope area would be permanently encroached upon, and that encroachment would fall within the allowable 10 percent per lot. The remainder of this discussion details the analysis.

Access Exception. Section 86.604(e)(2)(bb)(ii) of the County RPO provides that local private roads and driveways that are necessary for primary or secondary access to the portion of the site to be developed on lands of less than 25 percent slope are allowed provided that no less environmentally damaging alternative exists. As described in the section, the initial determination of approval is made by the Director of PDS. The Board of Supervisors will make a final decision during evaluation of this Project. The following information provides analysis relevant to this decision. The reader is referred to EIR Figure 2.1-11d, for depiction of the location of areas proposed for the roadway exception.

Access Exception in Southern Portion of the Site – The private roadway exemption applies to Private Drives B and E, where the Project would abut the northern-most boundary of the DDHP and BOS.[3] The roadway would be adjacent to Lots 159, 162 and 163 near Private Drive B and Lots 92 and 96 along Private Drive E. The Project would grade into slope to create roadbed. Approximately half of the area encroached upon would be temporary as, following creation of the road(s), the area disturbed during construction but not necessary for final roadway would be revegetated and returned to open space.

The following text addresses the footprint proposed for the Project and why it is considered necessary (i.e., no less damaging alternative is available).

Development of the Project, including the location of the various lots and the roadways required to access the site, has been proposed such that no less damaging alternative is available. The Project has been designed to create a compact and efficient development footprint that would cluster development in a manner to result in the preservation of a large swath of open space in the southern portion of the Project site that contains high quality biological resources while providing development that is scaled to complement development within HGV, which is located contiguous to the Project site, and of which the Project would constitute a Village extension. As a result of clustering development within certain areas of the project, approximately 35 acres of continuous pristine BOS would be retained in the southern portions of the site, adjacent to DDHP. The Project design is also intended to minimize visual impacts from off-site views by placement of Project development below the iconic ridgeline surrounding the valley and clustering development on the site to decrease the development footprint to make the most efficient use of non-protected RPO steep slope areas. In addition, those open areas would allow for the improvement to on-site drainage control (and ultimate improvements over current runoff patterns into Escondido Creek). The Project design would provide a more natural drainage plan on the Project and provide for visual open space between residential uses. This would allow for greater conformity with existing community character than would result if the Project footprint were to utilize only non-steep slope land without regard to these design considerations. The site's

[3] Private Drives C and D are not addressed in this discussion. They are part of the on-site slopes proposed for Waiver under the RPO; see discussion in Subchapter 2.1 of this EIR.

proposed intensity also would implement the principles of sustainable development by allowing for a diversity of uses contiguous to HGV that would encourage walkable communities, increased efficiencies of public facilities, and provide opportunities for the Project to contribute to the funding of needed services that can serve the Project, HGV and the surrounding community. Thus, the Project's compact design is consistent with General Plan policies and the RPO, resulting in the most efficient use of environmentally sensitive lands rather than standard design that would need to develop every square foot of non-steep slope land.

The provision of visual open space and preference for lessened encroachment into steep slopes are considered for the same reasons (consistency with community character). Accordingly, the relative visual "weight" of the effect of development versus retention of untouched slope was evaluated. The value of additional on-site open space area is weighted more heavily in this evaluation because it would reduce visual impacts to off-site viewers from the north. Where the Project-modified slopes *might* be visible, the encroachment would be required for the construction period only, and would be remediated; i.e., contoured to appear natural and revegetated with native species, and retained as part of the Project permanent open space. The revegetated slopes would blend into the undisturbed slopes above them. Upon recommendation of approval of this encroachment by the Director of PDS, and based upon the rationale provided, these encroachments qualify for the exception, and no significant impact is identified. The ultimate decision to approve the exception request will be part of the discretionary action of the Board of Supervisors.

Access Exception in Northeastern Portion of the Site – For the same reasons described above, the access exemption under Section 86.604(e)(2)(bb)(ii), also applies to the area in the northeastern portion of the Project where a small stand-alone hillock is located, the slopes of which largely contain disturbed Diegan coastal sage scrub (see Figure 2.1-11d). In this area, Lots 1 and 2 would be aligned along the base and top of the hillock, along private drives J and K, respectively. Final encroachments fall within the 10 percent allowable percent of permanent encroachment for each lot (see discussion under Encroachment into RPO-protected Steep Slopes, below).

In order for the access road and driveways to conform to County design standards and to prepare adequate engineered pads both at the top and base of this hillock (and largely out of steep slope areas), grading is required across the slope that joins lots 1 and 2, resulting in a short-term visual impact. This would occur during the site construction period, and would be part of the visual impacts associated with the construction period (see analysis in Section 2.1). These intervening slopes would be fully remediated, however, and would appear "natural" following contour grading and revegetation. These slopes would be retained as part of the Project permanent landscaped open space. Upon recommendation of approval of this encroachment by the Director of PDS, and based upon the rationale provided, these encroachments qualify for the exception, and no significant impact is identified. The ultimate decision to approve the exception request will be part of the discretionary action of the Board of Supervisors.

RPO Steep Slope Waiver. A waiver from the restrictions of the RPO steep slopes and easement requirements (County Code Title 8, Division 6, Chapter 6) may be granted if the following four findings can be made (RPO Section 86.604[e][2][cc][3]):

aa. The slope is an insignificant visual feature and isolated from other landforms, or surrounding properties have been developed on steep slopes such that this project would be considered "infill"; and

bb. The property is zoned for 0.5 acre lots or smaller at the time the application was made, or a concurrent Rezone has been filed; and

cc. The greater encroachment is consistent with the goals and objectives of the applicable community plan; and

dd. Site Plan review is required to ensure consistency of design with these regulations.

Three areas in the south-central portion of the site are proposed for waiver of the easement requirements. The visual elements of the criteria (aa; visual significance, isolation, etc.) are detailed in Section 2.1 of this EIR. Land use conformity criteria (aa relative to infill, bb, cc, and dd) are addressed below.

- **Criterion aa.** As stated, analysis regarding insignificant visual features isolated from other landforms is addressed in Subchapter 2.1. Finding aa also provides an option to find that the surrounding properties have been developed on steep slopes such that this project would be considered "infill." This is considered less of a visual issue and more a land use planning issue specific to the RPO. As a result, it is discussed here.

  In the case of the Project, although many of the homes in the immediate vicinity are located near the valley floor, many are also sited on RPO steep slope sides as well as on ridgelines and hilltops, including the home currently being built adjacent to the Project's eastern boundary. A review of RPO steep slope locations against existing homes visible on Google Earth south of Harmony Grove Road shows that approximately 35 percent of the currently existing homes are sited within steep slope areas.[4] As shown on Figure 3.1.5-1, these homes are located to the northeast, southwest and west of the Project (there is no building due south of the Project due to the DDHP boundary, which is immediately adjacent to the Project.)

  To the north of Harmony Grove Road, the pattern continues. A number of existing homes along the western valley slopes also have been developed on steep slopes. In addition, although it is not yet fully present, HGV is building out. As shown on Figure 2.4-7, *Steep Slope Encroachment Map,* of that project's EIR; the 3,000,000 cubic yards of cut and 3,000,000 cubic yards of fill approved for that project have resulted in encroachment into RPO steep slopes. A number of that project's compounds, hillside farmhouses, and grove country house or farmhouses west of Country Club Drive, and village housing (hillside cottages) east of Country Club Drive, will encroach into RPO steep slopes; as has that project's water reclamation facility, located at the very visible intersection of Harmony Grove Road and Country Club Drive.

[4] This number does not include the non-conforming residential uses associated with the Harmony Grove Spiritualist Association, which is planning to rebuild structures destroyed in the 2014 Cocos Fire.

For purposes of this Finding, the proposed HGV South development can indeed be seen as an infill project, which would also—and separately—provide an important consideration of this waiver.

- **Criteria bb and dd.** The project is currently designated as SR (0.5) which fulfills criterion bb, and would be assigned a "D1" designator, which requires site plan review to ensure design consistency with the Project Specific Plan and Visual Impact Assessment (criterion dd).

- **Criterion cc.** Relative to criterion cc, the encroachments into these two areas would be consistent with the Community Plan. The following text is excerpted from the analysis contained within Appendix C, the Steep Slope Waiver.

  As noted above, HGV South is located within the Harmony Grove Community of the San Dieguito Community Plan. An important goal of the Plan is to preserve the rural residential lifestyle while accommodating growth. The Harmony Grove Community is designed consistent with the CDM whereby the most intense development is located within the Village and is generally, but not necessarily uniformly, surrounded by decreasing residential densities. HGV South is contiguous to HGV and is a logical extension of this Village. The Project would preserve open space and natural habitat, thereby contributing to the retention of the existing setting and lifestyle of the adjacent Harmony Grove community.

  The Harmony Grove Community "strongly supports conservation and protection of native species" (Community Plan 2011:20). The design concept for HGV South allows this to occur by focusing development within the least constrained areas of the site and making the most efficient use of the land. This compact and efficient development pattern reduces the building footprint and preserves the largest block possible of contiguous open space where sensitive biological resources are located. Although this development pattern would require some encroachment into insignificant RPO steep slopes, it is much more efficient than pushing development farther into the southern portion of the site in an effort to strictly remain on non-RPO steep slope land. If the Project design fully avoided all RPO-defined steep slopes, the BOS preserves could be much more fragmented, with substantially increased edge effects and more impacts to rare plants and sensitive species.

  The grading plan has been designed to closely follow the underlying existing topography, thereby retaining the existing overall shape of the landform and reflecting the topographic features of the terrain, including focused rise and fall in the northern and central portions of the site. Where no development is proposed, of course, the existing natural terrain would remain. The steepest on-site slopes and connections to the steep and rugged off-site slopes in the southeast and southernmost portions of the Project would be preserved. These lead to and merge seamlessly with the memorable and unique peaks that form the southern edge of the Harmony Grove Valley.

  The retention of BOS complies with Community Plan guidance regarding greater encroachment into steep slopes. As described in Subchapter 2.1, the Project would avoid impacts into the primary and locally known hill formations called out in the Community

Plan as critical to the setting of the community. Similarly, the Community Plan voices concern over development on ridgelines (2011:19). The Project would keep all development below the iconic ridgeline formations that rim the valley. No ridgelines (formed by connecting the highest peaks along a ridge) are located on site, and therefore no ridgelines would be impacted. The Project would preserve a large swath of native habitat in the south-central and southern portion of the Project as BOS. Preservation of this habitat would contribute to continued health of abutting habitat in the DDHP. This is consistent with the goal to preserve ridgelines in their native habitat (Community Plan 2011:44).

The most notable slopes of the Project would be retained in open space. Views to the steep slopes leading to the intact promontory just southeast of the central portion of the Project, and to the intact hills in the southern portion, would be retained. This is consistent with the goal to retain "unspoiled views to the intact hills" (Community Plan 2011:30). These undisturbed areas would continue to merge seamlessly into protected slopes in DDHP with nearby notable peaks reaching 960, 1,000, 1,080 and 1,200 feet amsl; and the slightly more distant peak at 1,320 feet amsl.

The Project would not contribute to any ongoing degradation of views toward the Lady of the Valley, called out as "threatened by urban sprawl" in the Community Plan (2011:30). The Project is located southerly of the peaks making up this formation, which are north of Harmony Grove Road and on the western side of the valley. The "Lady" is visible from portions of the Project site. Off-site views taking in both the Project and those peaks require the viewer to be at a distance. Viewers south of the Project would look over the Project to the notable higher peaks that form the "Lady," encompassing all the intervening development in Harmony Grove Valley, as well as Eden Valley and points well to the north. Viewers from the north would be closer to the "Lady" but would be looking westerly to see her. Views toward the Project would then be lateral, and the Project would appear as a smaller development in the distance without relationship to the Lady of the Valley. Implementation of the Project would not impact the importance, form, or visibility of this important community landmark.

It should also be noted that the Community Plan references the General Plan Goal COS-12 regarding the preservation of ridgelines (Community Plan 2011:30). The General Plan indicates that undeveloped ridgelines and steep hillsides should be protected through the application of semi-rural or rural designations on these areas. HGV South has maintained the SR-0.5 designation within the southern portion of the site where the most significant and steep on-site slopes would be preserved within permanent open space.

To protect community character, the Project has been designed to appear much less dense than the number of dwelling units would suggest. Approximately half of the proposed homes are planned for single-family residences. The remaining residences would be located within structures built to accommodate multiple dwellings, yet still appear like single-family homes or repurposed agricultural/rural structures. The site layout promotes a feeling of openness with substantial internal open space features such as a remnant drainage that would be restored to a naturalized state, wide landscaped areas between buildings, and an assortment of park and recreation areas including community gardens.

Together, natural open space, common area landscaping, and recreational areas are important framework elements and represent approximately 75 acres or 68 percent of the entire Project area.

Based on the steep slope analysis provided in Appendix C and Subchapter 2.1 of this EIR, combined with the infill analysis noted above, and the remainder of the land use consistency discussion, a waiver from the RPO steep slope easement restrictions is considered appropriate and consistent with RPO. As a result, **no significant impact** would result from permanent development encroachment into these slopes.

The remainder of this discussion addresses Project-proposed encroachment into steep slopes that are not removed from protection due to exception or waiver.

Encroachment into RPO-protected Steep Slopes. Ten lots (1, 2, 96, 116, 138, 142, 145, 158, 169, and 170) contain steep slopes that are not exempted or subject to waiver under the RPO. The RPO allows encroachment into RPO-protected steep slopes on a lot by lot basis. Where lots contain 75 percent or less steep slope, up to 10 percent permanent encroachment per lot is permitted.

Table 3.1.5-1, *Steep Slope Analysis by Lot*, identifies all Project lots that encroach permanently into on-site RPO-protected steep slopes. Excluding the areas either waived or excepted as described above, a total of approximately 38,060 square feet, or 0.88 acre of permanent encroachment would occur to protected on-site slopes. This totals less than one percent of the site overall. The lot by lot breakdown of these impacts includes a total of 10 lots (1, 2, 96, 116, 138, 142, 145, 158, 169, and 170). These range from the smallest encroachment of 0.15 percent of Lot 169 to the largest encroachment of 9.98 percent of Lot 2. Each of these encroachments is within the 10 percent allowable by lot. **No significant impact** would occur.

The purpose of the County RPO is to protect and preserve features, resources, and habitats unique to San Diego County. As discussed above, the Proposed Project is in conformance with the purpose and guidelines set forth in the RPO with regard to wetlands, wetland buffers, sensitive habitat lands, floodways, and steep slopes. Therefore**,** impacts associated with the RPO would be **less than significant**.

County of San Diego Park Land Dedication Ordinance

The Proposed Project would include the development of parks and other recreational facilities on site. Specifically, the Project would include multiple park areas and multi-use trails. A total of 13 parks (approximately 4.1 acres) are planned to be developed in HGV South (refer to Figures 1-6a and 3.1.9-1, *Proposed Public and Private Park Locations*, as well as to conceptual layouts/ landscaping plans presented in Figure 1-20c). Seven public parks (totaling approximately 1.86 acres) and six private parks (totaling approximately 2.23 acres) would be provided. Because private park acreage totals are calculated at 50 percent for purposes of PLDO satisfaction, the 2.23 acres of private parks would satisfy 1.12 acres of the required acreage. Combined with the public parks, 2.98 acres of the PLDO-required acres of park would be provided on site. The remaining requirement for PLDO compliance would be satisfied through

the payment of in lieu fees. Refer to Section 3.1.9 for more discussion on impacts to parks. Impacts associated with the PLDO would be **less than significant**.

Natural Community Conservation Planning Program

The Project site is located within the North County Subarea of the MSCP, for which the County is currently processing a Subarea Plan. Since this regional planning document is not yet approved, NCCP compliance would be required for upland impacts. Therefore, pursuant to Rule 4(d) of the federal ESA, impacts to coastal sage scrub are limited to 5 percent of the total acreage occurring within the County, and require an HLP pursuant to Habitat Loss Ordinance 8365. The Proposed Project would directly impact approximately 10.4 acres of the Diegan coastal sage scrub outside of adopted MSCP areas. The loss of these acres would not be in excess of the 5 percent habitat loss threshold, as defined by the Southern California Coastal Sage Scrub NCCP Guidelines. While the Proposed Project would remove coastal sage scrub habitat, impacts would be mitigated in accordance with Section 4.3 of the NCCP Guidelines. Development projects that are initiated before completion of this Plan are analyzed to determine consistency with the preliminary conservation objectives of Section 5 of the Wildlife Agencies Planning Agreement. The Project would provide for the protection of species, natural communities, and ecosystems; preserve the diversity of plant and animal communities throughout the surrounding areas; provide for the protection of threatened, endangered, or other special status plant and animal species, minimize and mitigate the take or loss of proposed Covered Species; identify and designate biologically sensitive habitat areas; preserve habitat and contribute to the recovery of Covered Species; help to reduce the need to list additional species; set forth species-specific goals and objectives; and set forth specific habitat-based goals and objectives expressed in terms of amount, quality, and connectivity of habitat.

Project implementation would not preclude or prevent finalizing and adoption of a subregional NCCP. Conserving habitat blocks within and maintaining unobstructed access between the DDHP, EFRR, and Escondido Creek corridor are key targets for the Draft North County MSCP Subarea Plan. The Project would contribute BOS to the existing habitat block preserved in DDHP and EFRR and would not have a substantial adverse impact on Escondido Creek or access to the Creek corridor.

The Project site is outside of the adopted MSCP but is within the boundary of the Draft North County Subarea Plan. The Project would not preclude the implementation of the Draft Subarea Plan and is consistent with Section 5 of the Wildlife Agencies Planning Agreement. Accordingly, Project impacts related to the NCCP would be **less than significant**.

County of San Diego Subdivision Ordinance

The Proposed Project is subject to the provisions and standards contained in Section 81.401 – Design of Subdivision, which includes 14 design regulations associated with lot size, orientation and configuration. Where waivers are requested, Subdivision Ordinance Section 81.401(o) states that if the Board approves a specific plan that provides subdivision design requirements contrary to the requirements in subsections (b), (d), (e), (h) or (i), the provisions of the approved specific plan shall govern. The Specific Plan explains why the proposed deviations are preferable to complying with the Subdivision Ordinance. Each of these waivers would be considered by the

decision-maker and, upon approval of the Vesting Tentative Map, the Proposed Project is determined to be in general conformance with the development standards within the County Subdivision Ordinance. The Proposed Project would comply with each of these design regulations upon Project approval.

The Proposed Project does not require modifications to the Subdivision Ordinance regulations. Impacts would be **less than significant**.

County of San Diego Light Pollution Code

Project-proposed lighting would include lights similar to or lesser in intensity than other developed areas in the County. Consistent with the rustic character of the Project site and surrounding area, street lighting would be minimal. Project lighting would include safety and accent lighting at Project entries, road intersections, the Center House, and the WTWRF consistent with the LPC. Although Project lighting would be expected to produce light levels brighter than currently exists on the Project site, all lighting would adhere to the County's Dark Sky Ordinance and ZO. Lighting design would include the use of full cut off light fixtures and glare louvers, ensuring that light rays are projected downward and that glare and spillage into the sky or onto adjacent property are limited.

The Project site is located approximately 25 miles from Palomar Observatory, in Zone B as identified by the LPC. Project lighting would not adversely affect nighttime views or astronomical observations because the proposed lighting would conform to the lamp type and shielding requirements as well as the hours of operation detailed in the LPC. Therefore, impacts associated with the LPC would be **less than significant**.

Congestion Management Program Update

As noted previously, the CMP requires an Enhanced CEQA Review for all large projects that are expected to generate more than 2,400 ADT or more than 200 peak hour trips. The Proposed Project is projected to generate 4,500 ADT and a total of 360 and 450 peak hour trips during the a.m. and p.m. peak hours, respectively. In conformance with this program, an enhanced CEQA review was completed for the Proposed Project (as incorporated into this EIR). Refer to Subchapter 2.2 for additional details on potential impacts. Therefore, **associated impacts would be less than significant**.

Community Character

Guideline for the Determination of Significance

A significant community character impact would occur if the Proposed Project would:

2. Conflict with the established community character, as defined by the Community Plan.

Guideline Source

The community character guideline is based on Appendix G of the CEQA Guidelines and County staff guidance. The guideline is intended to maintain and enhance the character, structure and dynamics of established communities in the Project vicinity.

Analysis

Community character/land use compatibility can be defined as those features of a neighborhood or community that give it an individual identity, as well as the unique or significant resources that comprise the larger community. Community character/land use compatibility are also functions of the existing land uses and natural environmental features based on a sense of space and boundaries, physical characteristics (e.g., geographic setting, presence of unique natural and man-made features, ambient noise, air quality, etc.), and qualitative psychological responses held in common (e.g., "rural," "friendly").

Determination of a proposed project's effect on existing community character is derived from evaluating and comparing the introduced development to the existing community character of the area. If the proposed land uses conflict with the nature and character of the existing setting of the community, a significant impact would be anticipated.

The Elfin Forest and Harmony Grove Community Plan describes the character of the Harmony Grove community as a primarily single-family rural residential community on estate lots sprawling over hillsides, along with agricultural uses and residential livestock keeping. Community values include open space, quiet, dark nighttime skies, and low traffic. The Community Plan identifies HGV as a rural village with a small commercial town center that should serve the local community and provide public gathering places. The Community Plan also recognizes that portions of Harmony Grove immediately adjoin urban areas of Escondido and San Marcos.

The Proposed Project would provide the same residential density as HGV in the same topographical and visual setting. The Project has been designed to be consistent with the County's General Plan policies and the CDM, whereby compact development is concentrated in and around a core area and then feathers out into lower density development and open space. Development would be clustered in the central and northern portions of the site, which would result in the preservation of a large area of open space in the southern portion of the property. A total of approximately 35 acres (approximately 31 percent) of the site would be protected within a BOS easement that is contiguous with designated open space within the DDHP. In addition to the BOS, the Project would provide other green space, including naturalized open space (i.e., areas which may be graded during construction but revegetated upon completion of construction), park areas, landscaped areas, common area open space, and multi-use trails that would, in combination, with the BOS, total approximately 75 acres or 68 percent of the site. These open space green areas, particularly the BOS, would provide a transition buffer between the proposed development footprint and surrounding open space and existing development.

Lots would be graded to reflect the natural topography of the site, where feasible and as projected in the cross sections shown in Figure 2.1-10 in Subchapter 2.1. Roadways and an

integrated network of multi-use trails and pathways would conform to the natural topography, and incorporate curvilinear elements. Surface drainage features also have been designed to appear natural, and where they would be located in subsurface vaults are proposed to have landscaped park uses above them. Existing drainage patterns generally would be maintained and a remnant drainage would be restored to a naturalized state. Paving and hardscape areas would be minimized to the extent possible to allow the landscape to retain more of its natural hydrological function.

The Project would include features and amenities to create a sense of community reflective of the existing character. Clustering of the residences would contribute to connections between residents, as well as emphasizing the undeveloped nature of the steeper hills to the south, which would also foster a sense of "place." To support a feeling of "belonging," the Project would include a central park with the Center House that would provide recreational opportunities for residents and also accommodate a coffeehouse or café that is open to the public. As feasible, an existing remnant fireplace chimney that is a local visual feature could be repaired and relocated within the park, establishing another focal point to tie in to the local character and values.

Proposed architecture would be compatible with the adjacent HGV Specific Plan, which identified a Western Farmhouse/Cottage architectural theme. The theme for the Proposed Project is based on the Western Farm Village architecture tradition. This style is consistent with the rural character and history of the Project area, incorporating small-scale commercial and visually referencing agribusiness/industrial structures. This theme includes Western Farmhouse/Cottage as well as other farm building references such as granary, barn and mill and supports a rural, utilitarian style that reflects both historical and current uses of the site and surrounding area; specifically, the agricultural and equestrian traditions of the surrounding community.

The conceptual landscape plan developed for the Proposed Project has been designed to incorporate existing natural landforms and local conditions. The landscape design concept reflects the natural setting in and around the site, and references steep hillsides with rock outcroppings to the east and south, as well as the dense riparian corridor that edges the northern Project boundary. Informal arrangements of plant materials would be combined with more formal landscapes near residential areas to define a more rural landscape effect. Several distinct landscape zones would be incorporated into the Project that reflect on-site conditions; these include Valley, Hillsides, Riparian, Transitional, BOS, Special Use Area, and Wastewater Treatment Area (see Figures 1-20a and 1-20b). Architectural and landscaping guidelines contained in the Specific Plan and depicted in Chapter 1.0 of this EIR provide general design criteria.

While the Project site is located in the semi-rural Elfin Forest and Harmony Grove portion of the San Dieguito CPA, this portion of the CPA is located in close proximity to a major freeway (I-15), a major highway (SR-78), and two major city jurisdictions (Escondido and San Marcos). The areas along the I-15 and SR-78 corridors contain more intense uses by design and have been planned for large-scale residential and commercial/industrial uses. The Project site is surrounded on all sides by a series of hills and canyons except to the immediate northwest, which consists of the broader portion of the Harmony Grove Valley (of which the Project site is part of the southern extent, see Figure 1-5). The Project is located contiguous with the HGV project. That project started home sales in May 2015. HGV is constructing 742 homes; and recreational and

equestrian uses; as well as small commercial/retail/office uses within a pedestrian-oriented Village Core. The Project would complement and support the HGV Village Core through expanding the mix of housing opportunities and providing limited commercial/civic uses that are compatible with the existing and planned contiguous HGV. Residents are encouraged to walk to amenities and services as all residences would be within 0.5 mile and less than a 10-minute walk from the Project's commercial and community center or the HGV Village Core. Project design elements, such as lighting, signage, walls, fences, and architecture, are intended to be as consistent as possible with those of HGV while referencing the character of the surrounding area. Taken together with HGV, the Proposed Project would be part of the developed area along the western side of I-15 and southern side of SR-78.

In sum, although the character of the site would change from existing conditions to single- and multi-family residential uses interspersed with open space, Project development would be generally consistent with the relative scale of development planned in the area. The Proposed Project would be compatible with existing and planned surrounding uses, as well as surrounding topographic features. For instance, some proposed residential types would include a common driveway and courtyard, which mimics the compound formations on HGV. Height and architectural projections on other residential buildings would reference the steep and pointed peaks around the valley. Community character compatibility, therefore, would result from the diversity of elements that would be consistent throughout the Project site based on conformance with the Project Specific Plan, as well as neighboring development (particularly nearby residential portions of the abutting HGV project) that will include a similar residential development pattern. Additionally, preservation of the highest on-site existing topographic forms in the southern portion of the Project site, retention of sight lines to surrounding mountains and ridgelines, and revegetation with native and/or locally compatible plants would further reinforce the existing character.

Given that the Proposed Project would preserve large contiguous open space areas, incorporate design elements that are compatible with the surrounding areas, and include development patterns similar to neighboring developing land, **less than significant** impacts to community character are identified.

Division of an Established Community

Guideline for the Determination of Significance

A significant land use impact would occur if the Proposed Project would:

3. Physically divide an established community.

Guideline Source

The division of an established community guideline is based on Appendix G of the CEQA Guidelines and County staff guidance. The guideline is intended to maintain and enhance the character, structure and dynamics of established communities in the Project vicinity.

Analysis

The Project would not result in division of an established community. For such a division to occur, Project elements would need to separate existing residents from currently available facilities/community services. This can occur, for instance, where a highway is installed between residences and schools, shopping or churches.

In this instance, the Project site is located in a semi-rural area that is currently undergoing development associated with the HGV project. The Project site itself is undeveloped and surrounded by hillsides and mountains on three sides with some interspersed residences and an institutional facility (the Harmony Grove Spiritualist Association) within 0.25 mile. The Project would be placed against an existing road, and into currently undeveloped land. No access would be blocked. To the contrary, Country Club Drive would be improved to accommodate non-vehicular users (Project path along the east side of the street), and the Escondido Creek crossing would be upgraded to accommodate/avoid 100-year flood events (which can currently close access to existing residents). The very few homes located between Country Club Drive and the City of Escondido boundary east of that road would attain upgraded access through the Project property on paved and standard roads, which is not currently the case.

No public services (schools, post office, churches, retail, or government offices) would be blocked for any existing residents by Project implementation.

The Project would be an expansion of HGV and has been designed to integrate with, connect to, and be compatible with the adjoining HGV community. The Project would include roadway improvements to Country Club Drive that would improve access across Escondido Creek to provide a multi-modal connection between the Project and HGV for automobiles, pedestrians, bicyclists, and horse riders. The Center House and a number of public parks would be located near the Project entry close to commercial and community facilities within HGV, including those directly across the street at the HGV Equestrian Ranch. The Project would complement and support the HGV Village Core through expanding the mix of housing opportunities and providing limited commercial/civic uses that are compatible with the existing and planned contiguous HGV. Project design elements, such as lighting, signage, walls, fences, and architecture, are intended to be as consistent as possible with those of HGV.

The Project would not construct new major roadways and no pathways or travel routes would be eliminated. The planned public facilities proposed by the Project (parks and trails) may provide a point of cohesion and a place for surrounding residents to gather. All major water and sewer lines would be located underground and within existing/proposed roadways, while other utilities (gas and electric, etc.) would tie in to existing off-site facilities and be located underground within the Project site. Based on the described conditions, **no impacts** would occur related to physical division of a community.

3.1.5.3 *Cumulative Impact Analysis*

Cumulative land use and planning impacts may occur when project-specific impacts evaluated in an EIR are combined with the effects of other projects which, when examined individually, may not be considered to be significant. All of the projects depicted on Figure 1-23 in Chapter 1.0 of

this EIR were included in review of the potential for significant cumulative land use impacts. As noted in Table 1-3, six projects (four in the unincorporated County and two in the City of San Marcos), in addition to the Proposed Project, include GPAs. The inclusion of all projects from Figure 1-23 and Table 1-3 in the following analysis was based on the location of these projects in the general site vicinity and the possibility that these projects, in combination with the Proposed Project, would conflict with their respective land use plans and policies. Particular attention was paid to those other projects that include GPAs that may, in combination with the Proposed Project, contribute to increased land use density not envisioned in the general or community plans.

Completion of these various residential projects is anticipated to increase the intensity of development in the area, which may alter the overall community character and land use compatibility of the area over the long-term. A total of approximately 15,494 residences would be constructed by the Proposed Project and the other related projects listed in Table 1-3. Approval of the seven GPA projects, involving a total of 2,432 dwelling units (16 percent of the total cumulative residential units), would potentially result in a significant cumulative impact to the existing land use densities and character of the region. For the Proposed Project and cumulative projects, including the GPA projects, to be approved, each one must be found consistent with the goals and policies of the County General Plan and any applicable community plans. Accordingly, cumulative impacts associated with land use and planning would **be less than significant**.

3.1.5.4 *Significance of Impacts*

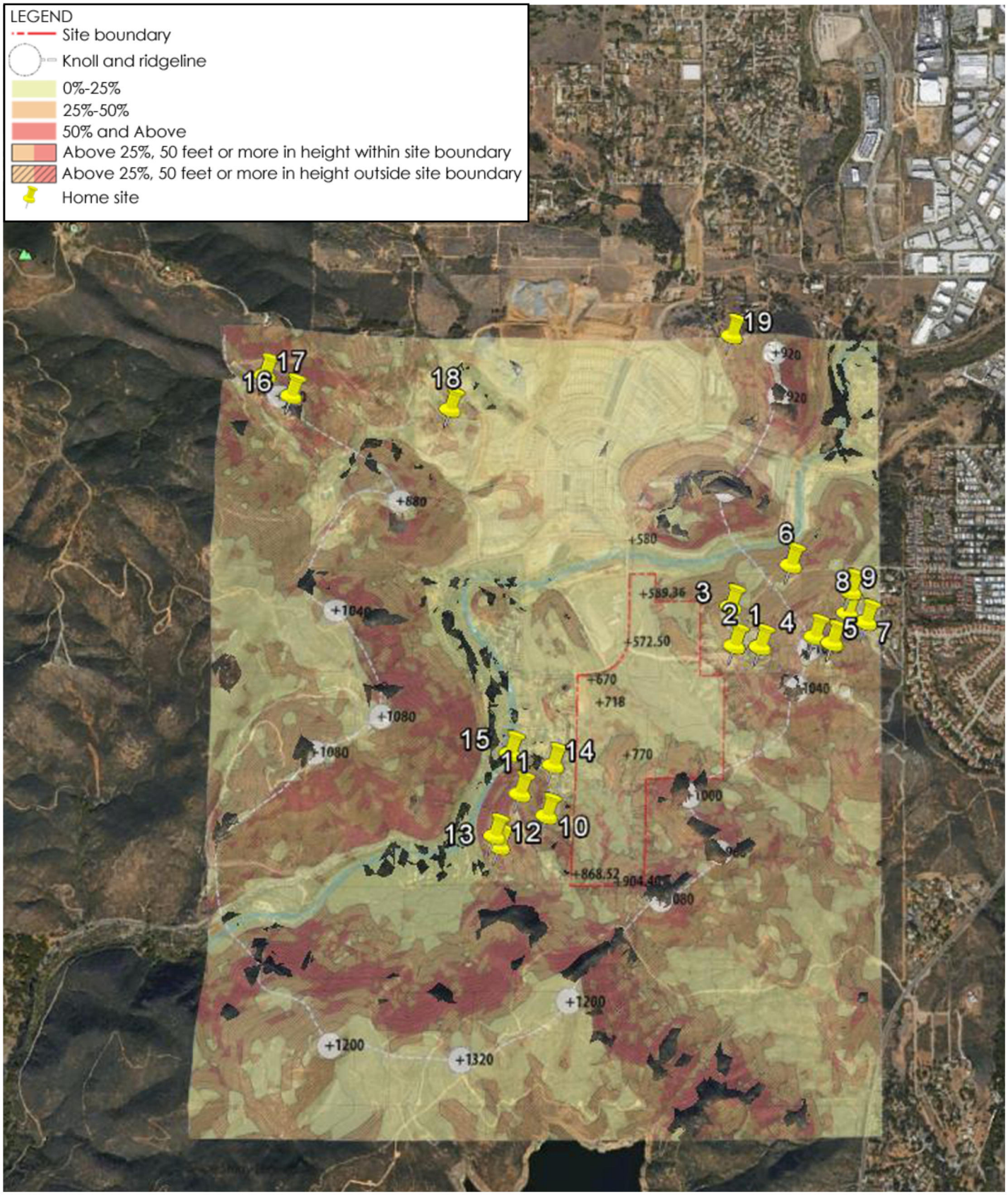
Based on the analysis provided above, the Proposed Project would have less than significant impacts related to land use and planning.

3.1.5.5 *Conclusion*

Based on the Project design features and above analysis, the Proposed Project would have less than significant Project-specific or cumulative impacts related to land use and planning.

Table 3.1.5-1
STEEP SLOPE ANALYSIS BY LOT

Lot Number	Lot Area (sf)	Encroachment (sf)	Encroachment Percentage (%)	Waiver Requested?
1	205,194	19,926	9.71%	NO
2	147,794	14,754	9.98%	NO
96	8,729	710	8.13%	NO
115	10,037	1,630	16.24%	YES
116	10104	333	3.30%	NO
117	5,413	1,481	27.36%	YES
118	6,579	6,547	99.51%	YES
119	9,802	6,198	63.23%	YES
120	11,647	1,662	14.27%	YES
138	6,252	151	2.42%	NO
139	3,908	1,345	34.42%	YES
141	11,025	1,111	10.08%	YES
142	7,218	487	6.75%	NO
145	17,586	980	5.57%	NO
146	5,471	2,081	38.04%	YES
147	3,522	3,523	100.03%	YES
148	8,944	2,015	22.53%	YES
149	14,031	1,460	10.41%	YES
150	4,938	4,851	98.24%	YES
151	3,897	3,897	100.00%	YES
152	16,030	7,099	44.29%	YES
153	11,403	11,129	97.60%	YES
154	5,966	5,966	100.00%	YES
155	3,526	3,502	99.32%	YES
156	8,945	8,945	100.00%	YES
157	11,544	6,213	53.82%	YES
158	5,348	149	2.79%	NO
160	6,550	2,625	40.08%	YES
161	3,533	3,533	100.00%	YES
162	3,577	3,577	100.00%	YES
163	5,731	5,731	100.00%	YES
164	5,566	5,566	100.00%	YES
165	6,241	6,241	100.00%	YES
166	26,009	15,489	59.55%	YES
167	24,198	24,198	100.00%	YES
168	29,502	9,121	30.92%	YES
169	42,661	65	0.15%	NO
170	23,257	655	2.82%	NO
TOTAL	**741,678**	**194,946 (4.48 acres)**		



Source: PDC 2016

Residences in Steep Slope Areas

HARMONY GROVE VILLAGE SOUTH

Figure 3.1.5-1

HELIX Environmental Planning

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3.1.6 Paleontological Resources

This section describes the existing paleontological conditions within the Project site and vicinity, identifies regulatory requirements associated with paleontological issues, and evaluates potential impacts related to implementation of the Proposed Project.

This analysis is based on geologic mapping and descriptions provided in a geotechnical information prepared for the Proposed Project by Geocon (2015a). Relevant portions of the investigations are summarized below along with other applicable information, with the complete Geocon information included in Appendix I of this EIR.

3.1.6.1 *Existing Conditions*

Paleontology is the science dealing with prehistoric plant and non-human animal life. Paleontological resources (or fossils) typically encompass the remains or traces of hard and resistant materials such as bones, teeth, or shells, although plant materials and occasionally less resistant remains (e.g., tissue or feathers) can also be preserved. The formation of fossils typically involves the rapid burial of plant or animal remains and the formation of casts, molds, or impressions in the associated sediment (which subsequently becomes sedimentary rock). As a result, the potential for fossil remains in a given geologic formation can be predicted based on known fossil occurrences from similar (or correlated) geologic formations in other locations. Accordingly, while there are no recorded fossil occurrences or collection efforts known from the Project site, paleontological resource potential can be inferred from on-site geology and off-site fossil occurrences in similar materials, as outlined below.

Geologic Formations

Based on the geotechnical investigations conducted for the Proposed Project, as well as review of regional geologic mapping (CGS 2007), surficial materials and geologic formations observed or expected to occur within the Project site and the off-site roadway and potential utility improvement areas include historic (recent) fill deposits; Quaternary-age topsoil, alluvium and colluvium; and Cretaceous-age igneous intrusive (granitic) rocks commonly referred to as Escondido Creek Granodiorite. Summary descriptions of these materials and formations, as well as any paleontological resource sensitivities associated with these deposits are provided below.

Historic Fill Deposits

Fill deposits within the Project site include three relatively small fill embankments located along the west-central, northern and southeastern site boundaries Fill materials along the west-central and eastern boundaries are apparently associated with existing horse corrals (resulting from abutting property owners encroaching onto the property) and a (breached) embankment in the eastern portion of the property, with fill in the northern area of unknown origin (and located outside of proposed development areas (Geocon 2015a). Fill deposits exhibit no potential for the occurrence of significant paleontological resources, due to their recent age and the destructive nature of their origin (i.e., they are mechanically processed through methods such as crushing and screening).

Quaternary Topsoils

Native topsoil deposits occur throughout much of the site and generally exhibit depths ranging up to 1 foot. Topsoil deposits do not exhibit any potential for significant paleontological resource values for similar reasons as noted above for fill materials. Specifically, this includes their relatively recent age and high-energy methods of formation and deposition (i.e., physical and chemical weathering to produce soil; and transport/deposition by methods such as water, wind, and gravity).

Quaternary Alluvium

Quaternary alluvial materials occur within a number of drainage courses located throughout the Project site. Alluvial materials on site are assigned a low paleontological resource sensitivity due to their relatively recent age, high-energy formation/deposition environment, and the fact that, with rare exceptions, significant fossil occurrences are unknown from such deposits in San Diego County (Deméré and Walsh 1993).

Quaternary Colluvium

Colluvial deposits are present on-site along the base of several steeper granitic rock slopes located above the alluvial drainages. These materials exhibit no potential for significant paleontological resource values, due primarily to the fact that they are derived from igneous rocks (as described below).

Cretaceous Igneous Intrusive Granitic Rocks

Igneous intrusive rocks are exposed in many of the steeper portions of the Project site, and underlie the remainder of the site at variable depths. Granitic rocks exhibit no potential for the occurrence of paleontological resources due to their molten origin.

Regulatory Setting

State Standards

Under CEQA, lead agencies are required to consider impacts associated with the direct or indirect destruction of unique paleontological resources or sites that are of value to the region or State (County 2009c).

Section 5097.5 of the California Public Resources Code (PRC) states:

> No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological, or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands.

County Standards

The County Guidelines for Determining Significance – Paleontological Resources (County 2009c) provide direction for evaluating environmental effects related to paleontological resources, pursuant to related CEQA standards. The Guidelines give an overview of paleontological resources and their occurrence in San Diego County, and provide guidance for assessing resource values, identifying the nature and extent of impacts, and establishing attenuation/reporting requirements.

Section 87.430, Paleontological Resources, of the San Diego County Code of Regulatory Ordinances (Grading Ordinance) states:

> The County Official may require that a qualified paleontologist be present during all or selected grading operations, to monitor for the presence of paleontological resources. If fossils greater than twelve inches in any dimension are encountered, then all grading operations in the area where they were found shall be suspended immediately and not resumed until authorized by the County Official. The permittee shall immediately notify the County Official of the discovery. The County Official shall investigate and determine the appropriate resource recovery operations, which the permittee shall carry out prior to the County Official's authorization to resume normal grading operations.

Goal COS-9 (Educational and Scientific Uses) in the San Diego County General Plan Conservation and Open Space Element is intended to conserve paleontological resources and unique geologic features (which may encompass paleontological resources). Associated policies include:

- **Policy COS-9.1, Preservation** – Require the salvage and preservation of unique paleontological resources when exposed to the elements during excavation or grading activities or other development processes.

- **Policy COS-9.2, Impacts of Development** – Require development to minimize impacts to unique geological features from human related destruction, damage, or loss.

3.1.6.2 *Analysis of Project Effects and Determination as to Significance*

Guideline for the Determination of Significance

The Proposed Project would have a potentially significant environmental impact to paleontological resources if it would:

1. Directly or indirectly damage a unique paleontological resource or site, or include grading or excavation that would disturb the substratum or parent material below the major soil horizons in any paleontologically sensitive area of the County, as shown on the San Diego County Paleontological Resources Potential and Sensitivity Map.

Guideline Source

This guideline is taken from the County Guidelines for Determining Significance – Paleontological Resources (2009c).

Analysis

On-site and Off-site Resources

As described above, surficial and underlying deposits in the Project area include historic fill; Quaternary-age topsoil, alluvium and colluvium; and Cretaceous-age granitic rocks. These deposits exhibit either low (alluvium) or no potential (all other Project area materials) for the occurrence of significant paleontological resources. Project elements are also outside areas requiring paleontological monitoring on the San Diego County Paleontological Resources Potential and Sensitivity Map (County 2009f). As a result, **potential impacts to paleontological resources from Project implementation would be less than significant.**

3.1.6.3 *Cumulative Impact Analysis*

As noted above, all potential Project-specific paleontological impacts would be less than significant, based on the fact that areas subject to potential Project-related disturbance contain surficial and formational deposits that exhibit either low or no potential for the occurrence of significant paleontological resources. Accordingly, **a less than considerable Project-related contribution to regional paleontological resources impacts would be less than significant.**

3.1.6.4 *Significance of Impacts*

Based on the analysis provided above, the Proposed Project would have less than significant impacts related to paleontological resources.

3.1.6.5 *Conclusion*

Based on the analysis provided above, no significant Project-specific or cumulative impacts related to paleontological resources would result from implementation of the Project.

3.1.7 Population and Housing

3.1.7.1 *Existing Conditions*

There are no residential structures suitable for occupation currently located within the Proposed Project boundaries. There are no applicable regulations that pertain directly to the environmental consequences of displacement of housing or people for the Proposed Project.

3.1.7.2 *Analysis of Project Effects and Determination as to Significance*

Guidelines for the Determination of Significance

A significant impact to population and housing would occur if the Proposed Project would:

1. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

2. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Issues related to potential growth inducement associated with the construction of additional housing in the area surrounding the Proposed Project are addressed in Subchapter 1.8 of this EIR in Chapter 1.0.

Guidelines Source

The above identified significance guidelines are based on CEQA Guidelines Appendix G, issue XIII, thresholds (b) and (c).

Analysis

This analysis evaluates the Proposed Project as a whole. Proposed off-site activities are limited to minor modifications along existing roadways to upgrade local access, accommodate Project access points, and install Project utilities; these would have no impacts on population or housing and are not addressed separately.

Due to the lack of current on-site housing, the Proposed Project would not displace any existing housing. To the contrary, the Project would provide new housing opportunities, resulting in a gain of 453 du, in an area accessible to employment, shopping, and recreational opportunities. Consistent with this, the Project would not result in the displacement of any residents. As a result, **no impacts** would occur relative to displacement of substantial numbers of housing or people.

3.1.7.3 *Cumulative Impact Analysis*

It is expected that all of the cumulative projects identified in Table 1-3 would be built in accordance with the updated General Plan, which is based on Smart Growth principles. Some of those cumulative projects would result in displacements of residences or people, and would substitute a greater number of new dwelling units, resulting in a net housing gain. Therefore, it is assumed that

there would not be a significant regional impact from cumulative projects on population and housing. Regardless, as the Project would have absolutely no impacts on this issue, the Project contribution to any cumulative effect would be less than considerable and **no impacts** to population and housing would occur.

3.1.7.4 *Significance of Impacts*

No Project-related impact to population and housing would occur.

3.1.7.5 *Conclusion*

Based on the analysis provided above, no Project-specific or cumulative impacts on population and housing would result from implementation of the Project.

3.1.8 Public Services

The following section addresses schools, fire protection, and police protection. Information for schools and police protection is based in part with contacts with the respective districts or agency. The Project FPP (Dudek 2018, Appendix L of this EIR, and additionally discussed in Section 3.1.3), provided information for the fire service discussion. Project Facility Availability Forms are provided in Appendix O of this EIR for school and fire services. Please refer to Section 3.1.9, *Recreation,* for discussion of parks.

3.1.8.1 *Existing Conditions*

Service Facilities, Capacities, Standards and Timing

Schools

The Project site is located within the service area of the Escondido Union School District (EUSD) for K-8 education, and the Escondido Union High School District (EUHSD) for grades 9-12. EUHSD serves the major portion of the City of Escondido and portions of the surrounding unincorporated area.

EUSD currently operates 18 elementary school and 6 middle schools. There are three charter schools operating in the EUSD including Classical Academy, Heritage K-8 Charter, and Heritage Digital Academy Charter Middle.

The EUHSD currently operates three comprehensive high schools in addition to Valley and the Escondido Community Day School. There is one independently operated, public charter high school.

All students generated by Project development would attend existing or new schools within the Escondido area. HGV South would be served by the new Bernardo School for K-5 and students in grades 6-8 would attend Del Dios Middle School (Del Dios Academy of Arts and Sciences); located approximately 4.7 and 2.9 miles from the Project site, respectively. High school students would attend San Pasqual High School, located approximately 7.8 miles from the Project site.

The current enrollment and capacities of these schools are presented in Table 3.1.8-1*, Enrollment and Capacity of Schools that Would Serve the Project*. As shown in this table, both Bernardo Elementary and Del Dios Middle schools have capacity. San Pasqual High School is operating over capacity.

Fire Protection

The Project site is located within County Service Area 107 (CSA 107) and State Responsibility Area (SRA). At Project initiation, the fire agency having jurisdiction (FAHJ) was the San Diego County Fire Authority (SDCFA), responsible for providing emergency services to the project through the Elfin Forest/Harmony Grove Volunteer Fire Department. Currently, the Project will be served by the Rancho Santa Fe Fire Protection District (RSFFPD; see Section 3.1.3 of this EIR).

Table 3.1.8-2, *Summary of Responding Fire Stations for the Project,* presents a summary of the location, equipment, staffing levels, maximum travel distance, and estimated travel time for the nearby station that would respond to a fire or medical emergency at HGV South. Travel distances are derived from SANGIS Geographic Information System (GIS) road data, while travel times are calculated using nationally recognized National Fire Protection Association (NFPA) 1710 and Insurance Services Office (ISO) Public Protection Classification Program's Response Time Standard.

The closest fire protection for the Project would be provided from the new fire station approved for construction as part of HGV. The lot has been transferred to the County and a request for design-build services for the permanent station was issued in March 2017 (Huff 2017: pers. comm.). This station will be less than 1.3 miles away from any proposed HGV South structure. The Project would support funding for fire and emergency medical response through participation in a Community Facilities District (CFD) or similar developer agreement, or through fire assessments and fees, depending on the final fire station jurisdiction. It is anticipated that the new station will be staffed by career personnel provided by the RSFFPD.

The RSFFPD has submitted a request to the LAFCO to annex CSA 107 into the RSFFPD and it has been approved; expanding the RSFFPD to cover the Project area. Career personnel provided by the RSFFPD would staff a temporary station until the new permanent station is constructed in HGV (current resources include a three-person medic engine company, which includes a paramedic and a Type I fire engine). Emergency ambulance service for CSA 107 is outsourced to a private vendor. As indicated above, the proposed new fire station site is less than 1.3 miles to every structure proposed on the HGV South site and the engine can respond within three minutes travel time. Further, requirements described in the FPP and design features in Table 1-2 of this EIR are intended to aid firefighting personnel and minimize the demand placed on the existing emergency service system.

HGV South can also be largely covered within an approximately five-minute travel time by existing Escondido Fire Station #6. Truck coverage from Escondido Station #1 is within eight-minutes travel time throughout the Project. These resources could be provided through automatic and mutual aid agreements, depending on the final configuration of the new fire station and the FAHJ.

Generally, in San Diego County each agency is responsible for structural fire protection and CAL FIRE typically provides wildland fire protection within their area of responsibility. Mutual aid agreements, however, enable non-lead fire agencies to respond to fire emergencies outside their district boundaries. In the Project area, fire agencies cooperate on a statewide master mutual aid agreement for wildland fires. There are voluntary mutual aid agreements in place with neighboring fire agencies (north zone agencies and San Diego City).

Police Protection

As described in the Project Specific Plan and noted in the Project Facility Availability Forms, the entire 111-acre HGV South site lies within San Diego County Sheriff's master beat number 367, which is serviced from the San Marcos Sheriff's Station located at 182 Santar Place in San Marcos. This station is approximately 4.5 miles from the Project. Police protection services for

the Proposed Project therefore would be provided through the San Diego County Sheriff's Department, under contract with the City of San Marcos. The station on Santar Place serves a population of more than 111,000 residents located in the station's service area of over 100 square miles (San Diego County Sheriff's Department 2015). The Sheriff's San Marcos Station provides law enforcement services to the City of San Marcos as well as the unincorporated communities surrounding the station including parts of Escondido, Harmony Grove, Elfin Forest, Lake San Marcos, Mountain Meadows and San Pasqual Valley.

Services are available 24 hours a day, seven days a week and include general patrol, traffic enforcement, criminal investigation, crime prevention, juvenile services, communication and dispatch and various management support services. Law enforcement services include Community Oriented Police and Problem Solving (COPPS) teams, traffic enforcement, criminal investigation, canine handlers, juvenile diversion, narcotics and gang investigations and crime prevention. In 2014, staffing at the San Marcos substation included 90 sworn officers, 10 non-sworn employees/professional staff, and 66 senior volunteers, or retired officers, as well as 5 "explorers," who can perform a limited variety of duties (such as event support) for the Sheriff's Department (Clark 2015: pers. comm.).

The County General Plan Safety Element's goals and policies focus on provision of comprehensive services at levels consistent with substantially similar areas of the County, and suggest that sheriff facilities should be located to best serve existing and planned development and the corresponding demand for services. A preference is noted for location of future sheriff facilities in commercial, industrial, or mixed-use areas unless other factors such as geography, proximity to demand, etc., would impact the practical provision of services.

The Sheriff's Department currently utilizes a four-level priority dispatch system. Call priorities are assigned from greatest urgency (Priority 1) through non-emergencies. Priority 1 calls include serious injury traffic collisions, "officer needs help" calls, and foot or vehicular pursuit. Examples of Priority 2 calls include injured persons, robbery in progress, bomb threats, carjacking, rape, and stolen vehicles. Priority 3 calls include assault, prowlers, disturbances, tampering with vehicles, and burglar alarms. Security checks, animal noise disturbances, traffic stops, harassing phone calls, illegal dumping, abandoned vehicles, and numerous other calls are included in Priority 4.

Average travel times for the San Marcos Station of the San Diego County Sheriff's Department to all unincorporated areas of the County (such as the area of the Proposed Project as well as areas more urban and more rural) through 2014 were: 7.9 minutes for Priority 1 calls, 21.5 minutes for Priority 2 calls, 29.9 minutes for Priority 3 calls and 65.2 minutes for Priority 4 calls.

Regulatory Setting

San Diego County Board of Supervisors Policy I-84. County Board of Supervisors Policy I-84 establishes procedures for using Project Facility Availability forms, and in certain cases, Project Facility Commitment forms, for the processing of major and minor subdivisions and certain other discretionary land use permits. The standardized procedural forms are used to: (1) obtain information from special districts and other facility providers regarding facility availability for

public sewer, water, school and fire services; (2) ensure that this information is reviewed by the appropriate decision-making body; and (3) provide data to the facility provider in order to determine what capital improvements are required to serve the Proposed Project.

Schools

Senate Bill 50/CA Government Code Section 65995. SB 50 was signed into law in 1998, imposing limitations on the power of cities and counties to require mitigation of school facilities' impacts as a condition of approving new development. It also authorizes school districts to levy statutory developer fees at a higher rate for residential development than previously allowed. SB 50 amended Government Code Section 65995(a) to provide that only those fees expressly authorized by law (Education Code Section 17620 or Government Code Sections 65970, et seq.) may be levied or imposed in connection with or made conditions of any legislative or adjudicative act by a local agency involving planning, use, or development of real property.

County of San Diego School Facilities Mitigation Ordinance (7966). This ordinance requires mitigation of school facilities impacts prior to legislative action on a project. "Legislative Action" for the purposes of this ordinance includes adoption of a Specific Plan; a General Plan Amendment, including a Community Plan Update; and/or adoption of a Rezone, etc. The ordinance requires execution of a binding agreement between an applicant and the affected school district prior to those legislative approvals. Such an agreement can consist of a statement by the affected district that fees routinely assessed at the building permit stage are sufficient to mitigate impacts, and that no agreement is necessary.

Fire Protection

California Code of Regulations Title 24, Part 2 and Part 9. Part 2 of Title 24 of the CCR refers to the California Building Code which contains complete regulations and general construction building standards of State adopting agencies, including administrative, fire and life safety and field inspection provisions. Part 2 is preassembled with the 2012 International Building Code with necessary California amendments. Part 9 refers to the California Fire Code, which contains fire safety-related building standards referenced in other parts of Title 24, and is described in Section 3.1.3 of this EIR under Regulatory Setting.

County of San Diego Consolidated Fire Code. The reader is referred to discussion of the Code in Section 3.1.3 of this EIR, under Regulatory Setting.

Safety Element of the 2011 County General Plan. The Safety Element states that for unincorporated "Village" areas and limited Semi-Rural Residential Areas, the maximum travel time for emergency response is five minutes for single-family uses (County 2011a).[1] Travel time for a fire suppression incident for the Project would be within three minutes with construction of the new Harmony Grove Fire Station. As noted above, currently, services already provided by this station include a three-person medic engine company, which includes a paramedic and a Type I fire engine.

[1] Total response time would add call processing and deployment time. Because these elements can be variable, they are not included in the standard.

Police Protection

There are not many regulations that specifically pertain to the issue of law enforcement facilities. The Law Enforcement Facilities Master Plan was prepared in 2005 by the San Diego County Sheriff's Department to guide facility decisions and development over the next 15 years. New or expanded facilities proposed under the County's jurisdictional authority are typically required to obtain a Site Plan or MUP. These permit types must comply with applicable regulations protecting environmental resources, such as the Zoning Ordinance, the County Noise Ordinance, the RPO, and the Watershed Protection Ordinance. In addition, any future facility development for San Diego County Sheriff's Department law enforcement services would be required to conduct environmental review pursuant to CEQA prior to approval.

3.1.8.2 *Analysis of Project Effects and Determination as to Significance*

Public Services

Guideline for the Determination of Significance

A significant impact to public services (schools, fire protection and police protection) would occur if the Proposed Project would:

1. Result in the need for altered or new governmental facilities in order to maintain acceptable service ratios, response times, or other performance service measures, the construction of which could cause significant environment effects.

Guideline Sources

The identified guideline for significance is based on Appendix G of the CEQA Guidelines and the Safety Element of the County General Plan, and is intended to ensure that adequate public services are available for local residents.

Analysis

Schools

The Proposed Project would generate new school-aged students. School districts use student generation rates to help estimate potential loading associated with new residential projects. Student generation rates used by EUSD and EUHSD are shown on Table 3.1.8-3, *Anticipated Numbers of New Students from the Project*. Applying these rates from EUSD and EUHSD and considering that the Proposed Project would include 453 single-family detached and attached units combined, the Project would generate approximately 54 new elementary school students, 19 new middle school students, and 64 new high school students, for a total of 137 students.

Based on cited enrollment figures and available capacity, Bernardo Elementary and Del Dios Middle Schools could have 240 and 260 seats available, respectively, to serve projected students; and the Project's projected 54 elementary and 19 middle school students can be accommodated. Based on projected future enrollment, however, EUSD anticipates that there will be

overcrowding at one or both of the elementary and junior/middle schools. The schools may require additional portable or permanent classrooms to serve Project students.

At buildout, the Project would generate 64 high school students. Based upon current enrollment and exceedance of capacity, San Pasqual High School may require additional portable or permanent classrooms to serve Project students. Based on the State standard loading of 27 students per secondary classroom, two to three classrooms could be needed.

Pursuant to Government Code Section 65995 and the California Education Code Section 17620, the Applicant would pay developer fees at the time building permits are issued; payment of the adopted fees would provide full and complete mitigation of school impacts. Additionally, as described above, the County has a School Facilities Mitigation Ordinance (7966), which requires completion of the binding agreement regarding mitigation of anticipated school facilities impacts prior to legislative action on the Project. This agreement would ensure that school services and adequate facilities would be available concurrent with the number of students generated by the Project**.** Impacts on school services, therefore, would be **less than significant**.

Fire Protection

Additional information on fire issues related to Project design (e.g., specific features related to roadway access, premises identification, gates, water supply, fire sprinklers, ignition-resistant construction, vegetation management, and fuel modification zones, etc.) is provided in Section 3.1.3. Details as to road widths and travel lanes are provided in Chapter 1.0, of this EIR, as well as the FPP for the Project. The discussion below focuses on the issue of fire department response time only.

As previously stated, the required travel time for Village areas and limited Semi-Rural Residential areas, per the Safety Element of the County General Plan, is five minutes or less. According to the FPP prepared for the Project (Dudek 2018; included as Appendix L of this EIR), the Project is well within the critical travel time. Travel time to the HGV South site for the first responding engine from the new station to the most remote area of the Project would be within three minutes. Secondary response would arrive within approximately five minutes from Escondido Station 6.

The FPP estimated that the Project would generate up to 115 emergency calls per year (0.3 call per day), most of which would be expected to be medical-related calls, consistent with typical emergency call statistics. These estimates are likely overly conservative due to the per capita call factors, which are based on an average of all demographics and sociological populations, including dense, urban areas which, on average, result in higher call volumes. A development like HGV South would typically include a demographic that results in fewer calls per capita. Populations associated with HGV and other surrounding neighborhoods would be expected to generate similar per capita call volumes. The station would not be considered a busy station until it averaged a call load of up to 7 to 10 calls per day. The Project's anticipated contribution of 0.3 call per day is considered minimal.

Additional Project features provided in the FPP that enhance Project fire protection include the following:

- **HGV South Annual Fire Operation Contribution.** The Project would contribute funding annually toward fire operations through participation in the CFD or similar developer agreement, and/or through fire assessments.

- **HGV South Automatic- And Mutual-Aid Agreements.** Automatic and mutual aid agreements with neighboring fire agencies would enable truck company response to the site's three and four story structures, if needed. Escondido's truck company (Station #1) is a calculated 7 minutes 52 seconds from the most remote portion of the Project.

- **Fire Flow Exceeds County Requirement.** Rincon MWD would provide water service for HGV South and requires that new developments must design the water system to deliver two simultaneous 2,500 gpm fire demands in the area of the Project. The water system would therefore be designed to deliver 5,000 gpm during fire demands.

The Project would be served by the fire station located within the developing HGV project. A temporary Harmony Grove Fire Station is currently operational and the permanent station should be operational by March 2019, which is currently planned to be staffed by RSFFPD (Appendix L and Huff 2017: pers. comm.). The new station will be less than 1.3 miles from the site, with an estimated travel time of less than three minutes to the most distant on-site structure. HGV South would receive very fast travel time from this fire station and could also be largely covered by approximately five-minute travel time from existing Escondido Fire Station #6. In addition, the Project would provide fire protective measures noted above and other measures discussed in the FPP and summarized in Section 3.1.3. As a result, the Project would not generate a significant direct impact to fire protection. Accordingly, potential Project impacts to fire protection services would be **less than significant**.

Police Protection

As previously stated, the nearest Sheriff's Department substation is located at 182 Santar Place in San Marcos, CA. Officers respond depending on such factors as type of call, call priority, previous calls pending, time of day, location of the responding squad car and amount of traffic. The average travel times for the San Marcos Station of the San Diego County Sheriff's Department to unincorporated areas of the County (such as the area of the Project) for 2014 ranged from approximately 7.9 minutes to 65.2 minutes, depending on the priority of the call.

The provision of sheriff department personnel is funded through the County's general fund, revenues for which come largely from property taxes. Service demand would be likely to increase with implementation of the Project, but it is anticipated that expanded police protection services would be funded, as necessary, from increased property taxes and other revenues to the County resulting from the Project. The law enforcement services information provided to the Project by the San Marcos Command states that physical facilities are adequate and that no new staff would be required to serve the Project (see Appendix O). As a result, the Project would not generate a significant direct impact to police protection. Accordingly, potential Project impacts to police protection services would be **less than significant**.

3.1.8.3 *Cumulative Impact Analysis*

Schools

Several cumulative development projects have been recently completed or are planned for development in the vicinity of the Proposed Project, as listed in Table 1-3 of this EIR. These future projects also include other types of development, such as a hospital facility, a light recycling processing facility, and offices. For the cumulative school analysis, only residential projects that would be served by the same schools as the Proposed Project are included. The significance guidelines used to evaluate Project-specific impacts, described above in Section 3.1.8.2, also are applicable here.

Based on the location and type of projects listed on Table 1-3, and shown on Figure 1-23 of this EIR, it appears that the cumulative projects that would be most likely to contribute to cumulative effects on the same schools at the Project would include HGV with 742 residences, the Valiano project with 326 residences, the Proposed Project with 453 residences (all in the County), and the Oak Creek project with 64 new residences (in the City of Escondido). Valiano would send elementary students to a different school (County 2015c). Those students are not further considered. For the purposes of this analysis, it is assumed that HGV, HGV South, and Oak Creek would send all their students to the same schools as the Proposed Project, and that Valiano would also contribute middle school and high school students to the same schools (see Table 3.1.8-4, *Anticipated Numbers of New Students from Cumulative Projects*.)

Overall, a total of 819 students of varying ages would be expected to be generated by the cumulative projects. Some of these students, such as the HGV students, are expected to already be accounted for in overall school counts due to prior Project approvals and ongoing buildout. Regardless, as described throughout this section, development projects are required to address student loading as they move forward through the approval process via development fees.

Specifically, the State Legislature provided authority for school districts to assess impact fees for both residential and nonresidential development projects. Those fees, as authorized under Education Code Section 17620(a) and Government Code Section 65995(b), are collected by municipalities at the time building permits are issued and conveyed to the affected school district in accordance with a defined fee structure. The Legislature has declared that the payment of those fees constitutes full mitigation for the impacts generated by new development.

Additionally, development within the County of San Diego is subject to the School Facilities Mitigation Ordinance (7966). The ordinance requires execution of a binding agreement between applicants and affected school districts prior to legislative approvals on any proposed projects. Projects in the County routinely are required to execute an agreement between the developer and the affected school districts in order to set forth the methodology for providing school services to students generated by the development. These agreements ensure that school services and adequate facilities become available concurrent with the number of students generated by each project. Cumulative impacts to area schools would be **less than significant.**

Fire Protection

Despite the generally low increase in the anticipated number of calls per year from the HGV South site and fire protective Project features detailed in the FPP (such as those related to fire sprinklers, fire-resistant construction, vegetation management, etc.), the Project would contribute to the cumulative impact on fire services, when considered with other anticipated projects within the primary response area.

Without additional resources over time, the cumulative impact may result in a situation where the response capabilities would erode and service levels decline. The Project's contributions to fire resources through building fees, along with State fire fees, combined with the same contributions from future development in the area are expected to result in funding that would be used for enhancing response capabilities and at least maintaining the current standards for firefighting and emergency response (if not improving them). The approved fire station in HGV would be additionally supported by developer fees for annual operating costs. It is anticipated that the approval of the Project would be conditioned on approval of a multi-jurisdictional agreement for equitable funding and operation of that new fire station. Over the long term, it is anticipated that fire response in the area will be improved from its current status and RSFFPD will be able to perform its mission into the future at levels consistent with the County Consolidated Fire Code and General Plan.

As noted above, Project-related development fees and property taxes would benefit RSFFPD. Paying these fees, meeting the design requirements, and implementing fire protective measures in the FPP would result in less than significant impacts to fire protection. If so allocated, the Project fees and taxes would support the approved HGV Fire Station, which would ultimately result in an increase in service availability and a reduction in the travel times for fire service calls in the cumulative project area.

Development of other projects in the vicinity would be required to pay developer fees to their respective fire districts and property taxes to the County, and incorporate similar design measures to avoid significant fire service impacts. Compliance with County and State regulations ensure that impacts of cumulative Project development on fire protection **would be less than significant.**

Police Protection

It is anticipated that expanded police protection services would be funded from increased property taxes and other revenues to the County resulting from the Project, as well as from other cumulative developments in the area surrounding the Project site (that also would be served by the San Diego County Sheriff's Department or the San Marcos Sheriff's station) that have contributed or will contribute to the increased demands on police protection services. Accordingly, potential cumulative impacts to police protection would be **less than significant.**

3.1.8.4 *Significance of Impacts*

Based on the analysis above, the Project would have less than significant impacts for public service issues related to schools, fire protection, or police protection.

3.1.8.5 *Conclusion*

Development of HGV South is not expected to result in significant impacts to schools or fire and police protection services beyond the incremental impacts usually addressed through the payment of developer fees, taxes or service fees. These would reduce the proposed Project's impacts to below a level of significance because these requirements would ensure that the districts would have adequate funds to provide for upgraded facilities in accordance with their improvement plans in a timely manner, and allow for retention of emergency services provision at levels of service consistent with comparable areas in the County.

Table 3.1.8-1
ENROLLMENT AND CAPACITY OF SCHOOLS
THAT WOULD SERVE THE PROJECT

School District	School (Grade Range)	Distance from Project Site (miles)	Enrollment (number of students)	Capacity (number of students)	Available Capacity (number of students)
Escondido Union School District	Bernardo Elementary School	4.7	600	840	240
	Del Dios Middle School	2.9	850	1,110	260
Escondido Union High School District	San Pasqual High School	7.8	2,265	2,217	(48)

Sources:
Capacity – San Pasqual HS - 2014 EUHSD Residential Development School Fee Justification Study Prepared by Dolinka Group LLC, April 16, 2014, Exhibit A.
Bernardo ES - 2014 EUSD Residential Development School Fee Justification Study Prepared by Dolinka Group LLC, April 4, 2014, Exhibit B.
Del Dios MS - Personal Communication with Cecilia Fernandez. August 23, 2013.
Enrollment - California Department of Education Educational Demographics Unit, Enrollment by Grade 2013-14 school year. Web Retrieved March 6, 2015.
Distance - Google Maps; all distances measured from the intersection of Cordrey Lane & Cordrey Drive via Harmony Grove Road.

Table 3.1.8-2
SUMMARY OF RESPONDING FIRE STATIONS FOR THE PROJECT

Station	Location	Equipment	Staffing	Maximum Travel Distance*	Travel Time**
New Harmony Grove Station	2604 Overlook Point Dr., Escondido, CA 92029	Type 1 Engine currently available. Full staffing	3 including a medic. Full staffing	1.28 miles	2 min 50 sec
Escondido FD Station 6	1735 Del Dios Hwy Escondido, CA 92029	Type 1 Engine Brush Engine Ambulance	15	2.76 miles	5 min 21 sec
Escondido FD Station 1	310 North Quince Escondido, CA 92029	Paramedic Engine Truck Company Brush Engine Ambulance	27	4.24 miles	7 min 52 sec

Table 3.1.8-2 (cont.)
SUMMARY OF RESPONDING FIRE STATIONS FOR THE PROJECT

Station	Location	Equipment	Staffing	Maximum Travel Distance*	Travel Time**
Elfin Forest/ Harmony Grove	20223 Elfin Forest Rd. Elfin Forest, CA 92029	2 type 1 Engines 2 Brush Engines BLS Ambulance	9	4.97 miles	9 min 6 sec

Source: Dudek 2018
* Distance measured to most remote portion of Project site.
** Assumes travel to the primary Project's furthest structure in the southeast, and application of the Insurance Services Office (ISO) formula, T=0.65+1.7D (T = time and D = distance). The ISO response travel time formula discounts speed for intersections, vehicle deceleration and acceleration, and does not include turnout time.
TBD = To be determined by serving Fire Authority

Table 3.1.8-3
ANTICIPATED NUMBERS OF NEW STUDENTS FROM THE PROJECT

Dwelling Type	Number of DUs	Education Level	Student Generation Rate (Students/DU)	Number of Students
Single-family Detached	193	Elementary School Grades K-5	0.1190	23
		Middle School Grades 6-8	0.0435	8
		High School Grades 9-12	0.1384	27
Single-family Attached	260	Elementary School Grades K-5	0.1196	31
		Middle School Grades 6-8	0.0433	11
		High School Grades 9-12	0.1429	37
TOTAL EUSD (GRADES K-8)				**73**
TOTAL EUHSD (GRADES 9-12)				**64**

Sources:
Dwelling Unit Assumptions. HGV South Specific Plan, 2018.
Student Generation Rates: 2014 Escondido Union School District School Facility Needs Analysis. Prepared by Dolinka Group LLC, March 44, 2014, pg. 7.
2014 Escondido Union High School District Residential Development School Fee Justification Study Prepared by Dolinka Group LLC, April 16, 2014, pg. 9.

Table 3.1.8-4
ANTICIPATED NUMBERS OF NEW STUDENTS
FROM CUMULATIVE PROJECTS

Number of DUs[1]	Education Level	Projected Number of Cumulative Students w/o Project[2]	Projected Number of Cumulative Students w/Project[3]
1,259	Elementary School Grades K-5	261	315
1,585	Middle School Grades 6-8	168	187
1,585	High School Grades 9-12	253	317
		TOTAL	**819**

Source/Assumptions:
[1] Dwelling unit numbers assume all residential units from HGV, HGV South and Oak Creek for K-5 and additionally assume all residential units from Valiano for 6-12.
[2] Valiano numbers taken from the 2015 Draft EIR (51 HS students, 31 MS students). HGV numbers taken from the 2007 certified EIR (253 ES students, 134 MS students, 193 HS students). Oak Creek numbers based on the multipliers shown on Table 3.1.8-3.
[3] HGV South numbers taken from Table 3.1.8-3 have been added to column 2 numbers.

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3.1.9 Recreation

3.1.9.1 *Existing Conditions*

Existing Parks and Recreational Facilities

The County Parks and Recreation Department provides parks and recreational opportunities for residents and visitors in the vicinity of the Proposed Project. There are more than 48,000 acres of recreational facilities within the County including local and regional parks (active and passive), campgrounds, 350 miles of trails, fishing lakes, recreation centers and sports complexes, ecological preserves, and open space preserves.

The closest public parks/preserves to the Project site include the 774-acre DDHP and the associated 784-acre EFRR. These large open space reserves contain a total of approximately 1,558 acres (including the Olivenhain dam and reservoir) with an associated 12.5 miles of trails. These trail areas are located within 0.3 mile at their closest point (the Del Dios Highland Trail in DDHP, which abuts the Project southern and southeastern boundary) and are connected to the Project by an existing rugged primitive trail (County trail nomenclature) that extends to the Del Dios Highlands Trail. Del Dios Community Park (on Lake Hodges, with open space and views to the lake) is approximately 1.3 miles to the southeast.

Two recreational facilities are currently under construction as part of Phase 1 of the HGV project. South Creek Park will be a 2.9-acre public community park south of Harmony Grove Road with active play/turf areas, and a landscape palette incorporating vegetative references to the creek (including native oaks and sycamores). A 2.8-acre public day use equestrian park will be located just east of the community park and north of the creek on the southwest side of the Harmony Grove Road and Country Club Drive intersection. These two facilities are within approximately 1,000 feet and 400 feet of the Project boundary, respectively. These parks will be open to the public prior to Project occupancy.

Additional public parks within 3 miles of the Project site are located within the City of San Marcos and include: (1) Jack's Pond Park (23 acres), located approximately 2.3 miles north of the Project site, which is developed with a trail, picnic area, restroom, tot lot and nature center; (2) Montiel Park (8 acres), which is located approximately 2.4 miles northeast of the Project site and is developed with a dog run, basketball half-court, picnic tables, open play grass area, nine-hole disc golf course, and portable restrooms; and (3) Knob Hill Park (2.8 acres), located approximately 2.9 miles northeast of the Project site, which is developed picnic facilities, restrooms, a tot lot and turf play area.

In addition, the Ridgeline Trailhead is also located approximately 3 miles northwest of the Project site in San Marcos, and a circuit-training trail is open to the public in the vicinity of the Palomar Hospital medical center in Escondido, approximately 1.5 miles to the north.

Future parks are planned in conjunction with the development of nearby HGV. Finally, although not necessary to address recreational needs of the Project, following development, the approved and adjacent private HGV Equestrian Ranch would be expected to host equestrian events open to the public that could be attended by future Project residents and would be accessible via Project-connecting trails and a pathway.

Known planned trails under construction include mixed-use trails (pedestrian, bike and equestrian) under construction by HGV, located north and west of the Project. That project is constructing multi-use fenced trails along Country Club Drive (part of County Trail 04 in Harmony Grove, to the vicinity of Mt. Whitney Road on the north), and extending southerly along Country Club Drive to the Equestrian Ranch sited just west (across the street) from the Proposed Project. A similar trail is being constructed by HGV along Harmony Grove Road project footage, north of Escondido Creek.

Regulatory Setting

Quimby Act

The Quimby Act of 1975 (California Government Code Section 66477, adopted 1975 and amended 1982), part of the Subdivision Map Act, was intended to require developers seeking subdivision approvals to assist in mitigating the potential impacts resulting from improvements that may directly or indirectly increase the need for recreational facilities or park lands within a given city or county. In 1982, the Quimby Act was amended to allow local governments to be held accountable for imposing park development fees. The 1982 amendment to AB 1600 requires that agencies demonstrate a reasonable relationship between the public need for a recreational facility or park land and the development upon which the fee is being imposed. Cities and counties were required to show a strong direct relationship (or nexus) between park fees imposed and a proposed development. As a result, local ordinances are required to include specific standards for identifying the percentage of a subdivision to be dedicated and/or the relative fee that is required based on standards for local jurisdiction park lands. The Act establishes a maximum of 3 acres of park land dedication/fee per 1,000 residents unless the amount of existing neighborhood and community park land exceeds that limit (at the time of adoption). If the 3 acre per 1,000 residents standard is exceeded, a greater standard of 5 acres per 1,000 residents may be adopted by the jurisdiction in order to meet anticipated park land needs.

County General Plan

The Project site is located within the boundaries of the San Diego County General Plan. The Land Use Element (Chapter 3) and the Conservation and Open Space Element (Chapter 5) of the General Plan provide background information, policies, and measures aimed at the acquisition, provision, and maintenance of public recreational resources within San Diego County. Goals and policies given in the Land Use Element (LU-Chapter 7) and Conservation and Open Space Element (COS-Chapter 5) of the General Plan are applicable to the proposed Project with regard to recreation and are each addressed in Section 3.1.5 of this EIR. The General Plan contains additional policies, goals, and implementation measures that are more general in nature and not specific to development such as the Project.

Goal COS-21: Park and Recreational Facilities states that park and recreation facilities that enhance the quality of life and meet the diverse active and passive recreational needs of County residents and visitors, protect natural resources, and foster an awareness of local history, with approximately 10 acres of local parks and 15 acres of regional parks provided for every 1,000 persons in the unincorporated County. Policies addressing diversity of facilities, their location in the heart of the community, relation to community character and identity, connections to pedestrian

and bicycle networks, co-location with preserve areas where compatible and availability to the public, are each addressed in Section 3.1.5 of this EIR.

Per the County General Plan EIR (County 2011a), the current estimated population for the unincorporated County area is 678,270; therefore, the General Plan requirement would be satisfied by approximately 6,780 acres of local park land and 10,170 acres of regional parkland. (County park demand increases as the County residential population increases.)

Zoning Ordinance Section 4900 – Usable Open Space Regulation

These regulations promote the availability of outdoor areas for leisure and recreation throughout San Diego County by establishing requirements for minimum areas of usable open space for residential developments with three or more dwelling units per lot or building site. The provisions for usable open space include standards for surfacing, location, size and shape, accessibility, openness, screening, and maintenance of the required usable open space.

Community Trails Master Plan (Subdivision Ordinance Sec. 81.706.1 through 81.707 and Regulatory Code Sect 812.201 et seq.)

The Board of Supervisors adopted the County Trails Program (CTP) on January 12, 2005 and incorporated the CTP into the General Plan. The CTP has various components, including the Community Trails Master Plan (CTMP). The CTMP contains the 22 individual community trail and pathway maps. The Project is located in the Eden Valley/Harmony Grove area.

A number of proposed community trails are located along public rights-of-way and over private property in the vicinity of, or on, the Project, consistent with the CTMP (County 2005). These facilities are designed to be located in close proximity to residents, and to provide transportation, recreation, access, infrastructure, linkages and safe routes throughout a community. As shown on Figure 1-17, in the immediate vicinity of the Project, the County has identified four proposed trails, three of which are identified as "first priority," as indicated by asterisks below:

1. *Country Club Drive Trail (04), extending along that roadway from roughly the northern extent of HGV, southerly to cross Harmony Grove Road and enter the Project where Country Club Drive begins to trend toward the west;

2. *Lake Hodges Trail (11), extending across the Project approximately 0.5 mile from Country Club Drive east to the County/Escondido line;

3. *Summit Trail (12), extending southerly approximately 0.2 mile from the Lake Hodges Trail into the heart of the Project; and

4. Elfin Forest Trail (13), trending west and then south from the Summit Trail along the western Project boundary to the County/Escondido line.

Each of the trails connecting into Escondido continues into that jurisdiction, and on to the trail destination point or to another connection. In addition, the CTMP identifies the Escondido Creek Trail (14), just north of the Project, trending along the Escondido Creek drainage. This trail is identified as approximately 2.2 miles long; no priority is identified.

County of San Diego Park Land Dedication Ordinance

Section 66477 of the Government Code enables local governments to require the dedication of land or the payment of an in lieu fee, or a combination of both, for neighborhood and community park or recreational purposes. The PLDO (County Code sections 810.101 through 810.114) provides the mechanism for implementing Section 66477 of the Government Code in San Diego County. It is the intent of this ordinance to ensure the construction of recreational facilities to adequately serve the residents of the County as well as ensure consistency with the Quimby Act.

The Project would be subject to the requirements of the PLDO, for the Escondido Local Park Planning Area (LPPA), which specifies a minimum of 373.74 s.f. of park space per DU for developments of 50 DUs or more. The PLDO establishes several methods by which developers may satisfy their park requirements. Options include the payment of park fees, the dedication of a park land, or a combination of these methods. PLDO funds from payment of in-lieu fees must be used for the acquisition, planning, and development of local parkland and recreation facilities. Up to 50 percent of the total acreage of private active recreation areas provided by a development may be used to satisfy up to 50 percent of the PLDO public park land requirement for a development. The balance of the PLDO requirement would need to be satisfied by payment in-lieu if the combination of public and private acreage does not satisfy the requirement.

All PLDO-required parks must be large enough and physically suitable to accommodate amenities typically associated with neighborhood parks and "active recreational uses" as defined in Section 810.102(a) of the PLDO. They must provide adequate off-street parking, restroom facilities, maintenance facilities, and other infrastructure such as utility connections and storm water drainage. Parking lots, retention/detention basins and slopes do not count toward the PLDO acreage requirements.

All park sites must be fully developed to comply with PLDO dedication requirements, and require identification of ownership and maintenance responsibilities and related funding mechanisms. Park design and amenities must reflect County development standards.

3.1.9.2 *Analysis of Project Effects and Determination as to Significance*

Guidelines for the Determination of Significance

A significant impact to recreation would occur if the Project would:

1. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

2. Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment.

Guidelines Source

The identified guidelines are based on Appendix G of the CEQA Guidelines, and are intended to ensure that adequate parks and recreational facilities are available for local residents.

Analysis

The Project proposes a combination of public and private parks, trails, and improvements to existing trails, which would provide recreational opportunities for new and existing residents. Recreational amenities proposed by the Project are described below, followed by an analysis of PLDO requirements.

Proposed Project Recreational Amenities

Thirteen parks (approximately 4.1 acres) are planned to be developed in HGV South (refer to Figures 1-6a and 3.1.9-1, *Proposed Public and Private Park Locations*, as well as to conceptual layouts/landscaping plans presented in Figure 1-20b and 1-20c). Parks would be funded through mechanisms described in the Project Specific Plan on Table 7. All Project parks except for the facilities provided at the Center House or with underlying detention basin uses/wet weather storage accommodated in underground vaults would be public parks.

Seven public parks are planned, which would total 1.86 acres and range from approximately 0.08 to 0.54 acre in size. A dog park is planned to be developed within the community as well as a basketball court adjacent to the Center House. Other public park uses are anticipated to include a horse shoe pit, barbeque areas, picnic tables, and/or informal play areas. A fitness circuit consisting of various exercise stations would connect the parks both within HGV South and HGV. Public parks would be dedicated to the County for park and recreation purposes only.

HGV South also includes six private parks, which would total 2.23 acres and range from approximately 0.1 to 0.82 acre in size. The Center House property would include an approximately 0.82-acre private park with a private clubhouse facility. The park may contain a reinforced and relocated chimney, restored to act as an outdoor wood burning fireplace. Other currently planned elements include a barbeque/picnic area, a play field, and restrooms. Other private parks would be developed as dual use (subsurface vault) storm water storage and treatment areas or wet weather storage under recreational areas and community gardens. Private parks would be operated and maintained by the HOA.

In addition to the park facilities described above, the Project proposes approximately 71 acres of other open space. A system of public/private trails would link key open space features of the Project site and connect to off-site areas and planned public trails (Figure 1-17). Public multi-use trail easements would be dedicated to the County; private trails internal to the Project would be maintained by the Project HOA. Note that although many Project trails would be open to the public, the associated acreage would not be counted towards PLDO requirements.

The primary public multi-use trail on site would connect to the future HGV multi-use trail. At the southern Project entry, the trail would cross over Country Club Drive and end on the Project at another trail intersection (Trail 13). A 5 to 6-foot pathway would be provided by the Project along the east side of Country Club Drive, from Harmony Grove Road to the southern Project entry. This Project element would provide off-road connections to HGV residential and commercial uses, as well as to Community/Equestrian park uses west of Country Club Drive, supporting the goal of a "walkable" community.

On-site portions of two County trails (Trails 11 and 13), would be built as 6- to 8-foot trails, as depicted on Figure 1-17. These trails would be variously located along internal Project streets, adjacent to planned community gardens in non-BOS open space, and along the western Project boundary within the overall development-modified footprint. These trail segments would include portions of the:

- Lake Hodges Trail (11), extending across the Project approximately 0.5 mile from Country Club Drive east to the County/Escondido line.

- Elfin Forest Trail (13), trending west and then south from the Summit Trail along the western Project boundary to the County/Escondido line.[1]

Beyond the residential development footprint, the route identified for Trail 12 would enter open space, and would be retained in its current (undeveloped) condition. Trail 13, also largely located within the Project parcel in open space, is routinely used by the existing local community and would be retained within a 20-foot trail easement. This currently unimproved primitive trail (County trail nomenclature) continues south to meet the east-west trending Del Dios Highlands Trail in the DDHP. It would be improved by the Project from its current 2-to-6-foot width to 4 to 6 feet in width to the DDHP boundary, as necessary; and dedicated to the County.

Park Land Dedication Ordinance Compliance

The Project would include a maximum of 453 residences. As noted above, the Project would be subject to the requirements of the PLDO, as amended, for the Escondido LPPA. This ordinance specifies a minimum of 373.74 s.f. of park space per DU for developments of 50 DUs or more. This would require that the Project provide approximately 3.9 acres of parkland for the use and benefit of members of the public and future Project residents within an effective service radius (considered to be a maximum of 0.25 mile for pocket parks, and a maximum of 0.5 mile for neighborhood parks).

To fulfill the requirements of the PLDO, HGV South proposes approximately 1.86 acres of public parks and 2.23 acres of private parks within the Project site, for a total of 4.1 acres of proposed park space. Because private park acreage totals are calculated at 50 percent for purposes of PLDO satisfaction, the 2.23 acres of private parks would satisfy 1.12 acres of the required acreage. Combined with the public parks, 2.98 acres of the PLDO-required acres of park would be provided on site. The remaining PLDO requirement would be satisfied through the payment of in lieu fees.

With the provision of the new parks and recreational facilities to serve the Project and the public, combined with the additional PLDO payment, the Project would not increase the use of existing neighborhood parks, regional parks or other recreational facilities such that substantial physical deterioration of these facilities would occur or be accelerated.

With regard to Threshold 2, the new recreational facilities constitute Project features that are analyzed as part of the Project footprint throughout this EIR. As discussed in Chapter 2.0 of this EIR, the "footprint" impacts associated with Project features, including new recreational facilities,

[1] The Trails Master Plan also identifies the Escondido Creek Trail (14), just north of the Project, trending along the Escondido Creek drainage for approximately 2.2 miles. That trail is off site, and no modifications are planned.

would be mitigated. The proposed facilities would result in minimal construction activities beyond that already proposed as part of the overall Project, and would serve the local residents, already on the local roads. Therefore, the new recreational facilities would not have an adverse physical effect on the environment.

Taking all of the above into consideration, recreation demands generated by the Project would be satisfied through the inclusion of on-site private recreational facilities, dedication of on-site public park land and recreational amenities, and payment of PLDO fees. Impacts to recreation would be **less than significant**.

3.1.9.3 *Cumulative Impact Analysis*

Several related cumulative development projects have been recently completed or are planned for development in the vicinity of the Proposed Project, as listed in Table 1-3. These future projects include residential developments totaling approximately 15,494 DUs, as well as other types of development, such as industrial, commercial, office space, medical facilities, group housing, and others. Cumulative impacts to recreation of these development projects are discussed below. The significance guidelines used to evaluate Project-specific impacts, described above in Section 3.1.9.2, also are applicable here.

Regarding use of existing parks, it was determined that implementation of the Proposed Project would not have a significant impact on parks and recreational facilities because it would conform to the PLDO, as do other projects in the County. Similar to the Proposed Project, the cumulative projects would be required to comply with the PLDO in proportion to their potential impact on the demand for parks and recreational facilities, as required by the County (or similar requirements of other corresponding jurisdictions). Since mitigation for potential project effects would be required prior to granting of building permits for all cumulative projects approved by area lead agencies, and a number of mitigation avenues exist (e.g., payment of park fees, the dedication of park land, or a combination of these methods), the cumulative projects would not increase the use of existing neighborhood parks, regional parks or other recreational facilities such that substantial physical deterioration of these facilities would occur or be accelerated. No cumulative regional impact would occur. As noted above, the Project contribution to any regional effect also would be addressed through design and PLDO consistency. Resulting contributions to the less than significant cumulative effect would be less than considerable, and therefore less than significant.

The adverse impacts of any new or expanded recreational facility required for the cumulative projects would be location specific and associated with the companion development, and impacts would be analyzed and mitigated separately in a project-level CEQA analysis. Therefore, the Project's new recreational facilities would not contribute to a cumulative recreational impact.

As a result, cumulative parks and recreation impacts would be **less than significant**.

3.1.9.4 *Significance of Impacts*

Based on the analysis provided above, the Proposed Project would have less than significant impacts related to parks and recreation.

3.1.9.5 *Conclusion*

Based on the analysis provided above, no significant Project-specific or cumulative impacts related to recreation would result from implementation of the Project.

PARK AREA DATA TABLE			
AREA DESIGNATION	USES	AREA	
		PUBLIC	PRIVATE
1	DOG PARK	0.37	
2	FITNESS GREEN	0.08	
3	FITNESS GREEN	0.21	
4	REC CENTER W/POOL		0.82
5	COMMUNITY GARDENS		0.25
6	COMMUNITY GARDENS		0.14
7	COMMUNITY GARDENS		0.10
8	EQUESTRIAN STAGING	0.21	
9	BASKETBALL COURT	0.54	
10	FITNESS GREEN	0.26	
11	FITNESS GREEN	0.19	
12	DUAL USE SW-REC		0.64
13	DUAL USE SW-REC		0.28
	TOTAL	1.86	2.23
	PLDO TOTAL	2.98	

EXCLUDES TRAILHEADS / STAGING AREAS WHICH ARE NOT COUNTED AS ACTIVE RECREATION

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Source: PDC 2016

Proposed Public and Private Park Locations

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

Figure 3.1.9-1

3.1.10 Utilities and Service Systems

This section addresses water and wastewater services required for Project development, as well as service providers and facilities needed to meet the demands. The discussion is based on the following reports prepared for the Project: Harmony Grove South Potable Water Study (Dexter Wilson Engineering 2015) included as Appendix P, and the Harmony Grove Village South Sewer Master Plan (Dexter Wilson Engineering 2016) included as Appendix Q. The Sewer Master Plan provides the basis for the description of the proposed on-site WTWRF. A completed Project Facility Availability – Sewer form has been received from San Diego County Sanitation District, and a completed Project Facility Availability – Water form has been received from Rincon MWD. These forms are included in Appendix O, and the information within them is also summarized below.

San Diego Gas & Electric (SDG&E) would provide ~~natural gas and~~ electricity for the Project. SDG&E has anticipated growth within the area, and adequate gas and electric facilities can be made available to serve the proposed development. In addition, 100 percent of the Project electrical need would be provided by renewable sources, as described in Chapter 1.0 and Subchapter 2.7 of this EIR. A detailed analysis of the energy demands of the Project compared to existing energy production and consumption conditions is provided in Section 3.1.1 of this EIR and is not discussed further in this section.

3.1.10.1 *Existing Conditions*

Water Supply

Rincon MWD provides water service to areas within the cities of Escondido, San Marcos, and San Diego. Service is also provided to customers within the unincorporated area of San Diego County. Rincon MWD delivers potable and recycled water to a population of 30,000 through nearly 8,000 connections representing residential, agricultural, landscape, and commercial/ industrial water users. Rincon MWD was annexed into SDCWA and Metropolitan Water District of Southern California (Metropolitan Water District) in 1954 for the purpose of securing additional water supplies. Rincon MWD is a retail water supplier and does not routinely sell wholesale water supplies to any entity (Rincon MWD 2016). The water district's potable water distribution system includes approximately 117 miles of water main (8 inches or larger in diameter), 10 reservoirs with a total storage capacity of 25.7 million gallons (MG), and four pump stations; with average distribution calculated at approximately 10 mgd.

Rincon MWD prepared an Urban Water Management Plan (UWMP) in 2015 in compliance with state law, to restructure its then-existing 2010 UWMP (adopted on June 28, 2011) in order to comply with the California Department of Water Resources' review process. The 2015 UWMP contains a comparison of projected supply and demands within the district's existing boundaries through the year 2040. Projected potable water resources to meet planned demand primarily would be supplied with imported water purchased from SDCWA.

Rincon MWD also prepared a Water Master Plan Update (approved in 2014) to identify facilities, supplies, and capital funding needed to continue providing reliable water and recycled water service to its customers through 2035. The district has set a strategic goal to offset all new

potable water demands through the development of local supplies. The 2014 Water Master Plan Update (Atkins 2014) found that supply and demand conditions changed substantially since Rincon MWD last updated their Master Plan. Water demands have declined significantly in recent years due to conservation, water price increases, economic recession, and the mandatory use restrictions in effect during 2009 and 2010. The Master Plan projects potable demands will increase modestly in future years in response to population growth, but will remain below historical highs, and substantially below the levels projected in previous master plans. Rincon MWD currently supplies approximately 10,000 acre-feet of water per year to serve customer demands. Of this amount, approximately 70 percent is potable treated water supply purchased from the SDCWA, and the balance of approximately 30 percent is non-potable recycled water purchased from the City of Escondido. Rincon MWD expects to continue to be dependent on these two main water suppliers, but will seek to offset new customer demands with new local supplies, such that there will be no increase in water purchases from the SDCWA.

The Project site is located entirely within the boundaries of the Rincon MWD service area. The Project would be supplied from the R-1A and R-1B reservoirs, which have a high water level of 959 feet amsl (Appendix P).

Specifically, the Project would be served by the Improvement District 1 (ID 1) South water system. ID 1 South includes existing development generally south of SR-78 and west of I-15. The ID 1 South system includes four reservoirs with varying high water levels, the highest being R-1A and R-1B reservoirs at 959 feet. The R-1A Reservoir (3.1 MG capacity) is planned to be converted from potable water storage to the recycled water system to serve the planned HGV development (Atkins 2014). The R-1B Reservoir has a storage capacity of 3.7 MG.

The Water Master Plan Update assumes a new 3.0 MG R-7 Reservoir will be implemented in Rincon MWD by 2035 to meet storage needs resulting from: (1) the need to meet existing and future dual fire flows in the western area of ID-1; (2) increase in water demands with planned development; and (3) the conversion of the R-1A Tank to recycled water. Rincon MWD has acquired the property for the R-7 Reservoir and a preliminary site lay-out was prepared as part of the Water Master Plan Update. In addition, the district's existing recycled water system is being expanded to interconnect with the water reclamation plant and distribution system in HGV.

Wastewater Management

The Project site is not located within a current sanitation district. It is, however, located immediately south of (within approximately 550 feet of) the HGV WRF that is being incorporated into the CSD, and is being constructed in conformance with County requirements. HGV South is even closer to public HGV park facilities south of Harmony Grove Road that would be served by the CSD.

The County provides sewer service for approximately 50,000 customers within the unincorporated communities of the County of San Diego. The CSD was consolidated in 2011 and includes nine County sewer service areas. Collectively, the County's wastewater collection and conveyance system includes approximately 432 miles of pipeline, 8,200 manholes, and 12 lift stations. As noted above, the Project site is not located in any of these sanitation or maintenance districts; it is, however, proposed to be annexed into the district serving HGV, as it

is located immediately south of the HGV Sewer Service Area. Accordingly, the option of utilizing the HGV WRF for the Proposed Project's wastewater treatment needs is discussed in Subchapter 4.7, *Analysis of the Off-site and Combined On-/Off-site Sewer Options Alternative*, along with a combined on- and off-site option, for the provision of sewer service in lieu of the proposed on-site WTWRF and related facilities.

Regulatory Setting

Water supply issues are continuously evolving; they are affected by regulations, policies and the plans and resources of regional agencies, as discussed below.

Water Supply

Senate Bills 610 and 221

Senate Bill (SB) 610 (PRC Section 21151.9 and California Water Code Sections 10631, 10656, 10657, 10910, 10911, 10912, and 10915) requires preparation of a Water Supply Assessment (WSA) when a project subject to CEQA exceeds 500 residential units or the equivalent. The Project does not exceed the specified size threshold of 500 residential units or equivalent, and thus, preparation of a WSA is not required.

SB 221, a companion bill approved at the same time as SB 610, requires verification of water supplies as a condition of tentative map approval for residential subdivisions of 500 units or more. Consistent with the above discussion, the Project vesting tentative map shows fewer than 500 residential units or equivalent; SB 221 is, therefore, not applicable to the Project.

Executive Orders B-29-15 and B-37-16

On April 1, 2015, Governor Brown signed Executive Order B-29-15, mandating state water restrictions for a 25 percent mandatory potable water reduction through February 28, 2016. These restrictions required California water suppliers to California cities and towns to reduce usage as compared to the amounts used in 2013. On May 18, 2016, the State Water Board adopted an emergency conservation regulation which replaced the statewide mandatory potable water reduction with a localized "stress test" approach, effective June 2016 through January 2017. Under the new regulation, local water agencies are required to adopt necessary conservation measures to ensure a three-year supply under drought conditions similar to what the State of California experienced from 2012 to 2015 (SWRCB 2016b). The State Water Board has been directed by Executive Order B-37-16 to make some of the requirements in the emergency conservation regulation permanent. Although San Diego County water conservation will continue to be directed by San Diego local water providers, Governor Brown declared an end to the drought on April 7, 2017.

San Diego County General Plan Policies

The San Diego County General Plan includes a Land Use Element that contains policies regarding water supply. These policies are analyzed in the Section 3.1.5 of this EIR.

Rincon MWD Drought Ordinance

The Rincon MWD Drought Ordinance, entitled "An Ordinance of the Rincon del Diablo Municipal Water District Finding the Necessity For and Adopting a Drought Response Plan," was most recently updated on November 12, 2014 to address the current drought in California. The ordinance contains different "Drought Stages," from Level 1 – Drought Watch to Level 4 – Drought Emergency. The different levels represent target reductions in Rincon MWD water use; at Level 1, water use cuts are voluntary while at Levels 2 through 4 water use cuts are mandatory. Rincon MWD's Board of Directors rescinded a Level 2 – Drought Alert in place from May 27, 2015 and returned to Level 1 – Drought Watch on June 28, 2016, after meeting the State Water Resources Control Board's (State Board) stress test requirements for drought conditions. Level 1 – Drought Watch, requires that customers meet voluntary water use reductions up to 10 percent and follow Permanent Water Use Restrictions addressing such items as number of days and time of day for use of potable water, etc.

Regional Water Supply Agency Plans

SDCWA's 2015 UWMP provides for a comprehensive planning analysis at a regional level and includes water use associated with accelerated forecasts of residential development as part of its municipal and industrial sector demand projections. SDCWA utilizes the SANDAG 2050 Regional Growth Forecast (Series 13) to calculate future demands within their service area. This provides for consistency between County planning efforts and SDCWA demand projections, thereby ensuring that adequate supplies are being planned for existing and future water users. The demand associated with accelerated forecasted growth is intended to account for SANDAG's land use development currently projected to occur between 2035 and 2050, but with the likely potential to occur on an accelerated schedule. SANDAG estimates that accelerated residential development could occur within the planning horizon of the 2015 UWMP update. These residential units are not yet included in local jurisdictions' general plans, so their projected demands are incorporated at a regional level. When necessary, this additional demand increment can be used by member agencies (including Rincon MWD), which will provide water service for the Project to meet the demands of development projects not identified in the general land use plans, as part of general plan amendments, and/or new annexations.

As documented in the 2015 UWMP, the SDCWA is planning to meet future and existing demands, which include the demand increment associated with the accelerated forecasted growth. The SDCWA will also assist its member agencies in tracking certified EIRs provided by the agencies that include water supply assessments that utilize the accelerated forecasted growth demand increment, to demonstrate adequate supplies for the development.

Wastewater Management

San Diego County General Plan Policies

The County General Plan includes a Land Use Element that contains policies regarding wastewater treatment and facilities expansion (timing, sizing and location). These policies are analyzed in Section 3.1.5 of this EIR.

3.1.10.2 *Analysis of Project Effects and Determination as to Significance*

Water Supply

Guideline for the Determination of Significance

A significant impact to utilities would occur if the Proposed Project would:

1. Create a demand for potable water that cannot be met with the current projected water supplies and/or that requires significant alterations to the existing water pipelines and infrastructure that is needed to convey potable water to the site.

Guideline Source

The identified guideline for significance is based on Appendix G of the CEQA Guidelines and is intended to ensure that adequate public utilities and services are available for local residents.

Analysis

As noted above, Rincon MWD would provide potable and recycled water for the Project. Rincon MWD's current potable water supply is dependent on the SDCWA as the wholesale water supplier. The Project does not exceed the specified size threshold of 500 residential units or equivalent, and thus, preparation of a WSA per SB 610 is not required. The following assessment of water supply for the Project is based on the Rincon MWD 2015 UWMP (Rincon MWD 2016).

Regional Potable Water Supply and Demand in Normal Year Conditions

Water service would be provided to the Project site by Rincon MWD. A completed Project Facility Availability – Water dated March 7, 2018 has been received from Rincon MWD (Appendix O). The form notes that the Project is in the district and facilities to serve the Project are reasonably expected to be available within the next five years based on the capital facility plans of the district. The form also notes that the district will submit conditions at a later date, and provided a letter discussing possible restrictions that may occur if the current drought continues.

Table 3.1.10-1, *Rincon MWD Supply and Demand Summary for Normal-year Conditions*, presents a supply summary for normal-year conditions from the Water Master Plan Update (Atkins 2014). Potable water supply obtained from SDCWA from 2015 to 2035 is projected to remain the same at 7,000 acre-feet/year (afy). Recycled water purchases from Escondido are projected to total 3,030 afy through 2020, increase to 3,180 afy by 2025, and remain at this level to 2035. Recycled water supply from the Harmony Grove WRF is projected to total 220 afy starting in 2020. New local supplies are projected to increase from 280 afy in 2020 to 900 afy in 2035. Total supplies are estimated to increase from 10,080 afy in 2015 to 11,300 in 2035. The Water Master Plan Update states that for that portion of new water demand that cannot be directly supplied with recycled water, Rincon MWD plans to implement offsetting amounts of other new local supply development, which could consist of additional increments of non-potable recycled water delivered to existing customers via expansion of Rincon MWD's recycled

water distribution system, groundwater, indirect-potable recycled supplies, or a combination of these. Through this offsetting, Rincon MWD intends that there will be no increase in water purchases from SDCWA over time.

Table 3.1.10-1 also presents Rincon MWD projected demands. The estimates are based on data and projections contained in the most recent Regional Growth Forecast prepared by SANDAG, and incorporate projected increased use of recycled water due to (a) the HGV development, (b) conversions of existing potable customers serviceable from the existing recycled distribution system; and (c) one or more projected additional future development projects that the district will condition to require recycled water use (including Harmony Grove Meadows, a previous, 200-residential unit development proposed by others for the Project site).

The potable water demands in Table 3.1.10-1 reflect per capita demands that decrease over time from 207 gpd per person in 2015 to 200 gpd per person in 2035. Per capita potable water use is expected to continue to decline due to conservation efficiencies and the expanded use of recycled water. Use will remain below and in compliance with the target levels established by California Senate Bill X7-7, the "20 percent by 2020" legislation enacted into law in 2009, which set a goal of 218 gpd per person for 2020 (Atkins 2014).

The Water Master Plan Update concludes that because demands will remain below their historical highs, the existing water distribution and storage system generally will be adequate to serve future average day conditions. Nevertheless, capital spending will be required to:

1. replace aging infrastructure;

2. increase system redundancy;

3. provide for new more rigorous fire flow requirements; and

4. serve limited areas of new development.

Water Code Section 10635 requires that every urban water supplier assess the reliability of its water services during normal, dry and multiple dry water years. Based on the Rincon MWD 2015 UWMP (Rincon MWD 2016), if Metropolitan Water District, SDCWA, and Rincon MWD supplies are developed as planned, no shortages are anticipated within the Rincon MWD service area in a normal year through 2040. Regionally, SDCWA's water supply and demand assessment contained in their 2015 UWMP compared the total projected water use with expected water supply in normal, dry, and multiple dry years. The normal water year assessment showed no water shortages through 2040. Single and multiple dry year assessments showed some years over the next 20 years where management actions, such as additional conservation due to drought, would be required to maintain supply (SDCWA 2016). Overall, the assessment projected water reliability through the next 25 years to correspond with population growth forecasted by SANDAG.

As documented in their 2015 UWMP, SDCWA is planning to meet future and existing demands, including the demand increment associated with accelerated forecasted growth. SDCWA also assists its member agencies in tracking the certified EIRs provided by the agencies that include water supply assessments that utilize the accelerated forecasted growth demand increment, to

demonstrate adequate supplies for the development. Also as part of preparation of its 2015 UWMP, SDCWA confirmed Rincon MWD demands.

Project Water Supply and Demands in Normal Year Conditions

The Project would be consistent with the ~~2016~~ Title 24 Energy Code in effect at time of building permit issuance ~~(which went into effect January 1, 2017)~~. The 2016 and 2022 CALGreen Building Code targets reduction of both potable water use and wastewater generation by 20 percent. The Project incorporates measures such as a drought-tolerant landscaping plan; high efficiency drip irrigation systems; weather-based smart irrigation control systems, and use of reclaimed water for outdoor irrigation. In addition, the Project commits to installation of low-flow water fixtures, including low-flow bathroom fixtures,

The estimated water demands (estimated from planned land uses, using unit use factors specific to the primarily residential land use in the current Project plan) were included in the Project's Specific Plan. The total average water demand was estimated to be 181,200 gpd as detailed in Table 3.1.10-2, *Project Potable Water Demands.* The maximum anticipated single-day demand was estimated to be 308,000 gpd, with a peak hour demand of 365 gallons per minute (gpm).

The total average potable water demand of 181,200 gpd estimated for the Project is equivalent to approximately 200 afy, which represents approximately three percent of Rincon MWD's projected potable water supply from SDCWA. As described in the "Recycled Water" discussion below, this is a number that would be notably lowered through use of recycled water.

As a point of reference, single-family homes assumed for the Project parcels under the General Plan (one dwelling unit per 0.5 acre), could be anticipated to use 510 gpd per unit, or 113,220 gpd, with none of that water being returned to sewer and used to produce recycled water. As noted above, the Rincon MWD UWMP assumed three large projects totaling approximately 1,500 additional residential units in its future projections. Based on projects identified in Rincon MWD's Water Master Plan, these projects include HGV, Valiano and the Project site. Based on the approximately 215 units proposed by an earlier project for the HGV South site, that would total an estimated modeled use of 109,650 gpd. Even if the modeled number only assumed "approximately 200 units" for Harmony Grove Meadows, as cited in the Water Master Plan, the assumption could have been 102,000 gpd.

As noted above, the HGV South Project assumes 400 gpd per unit, resulting in a total of 181,200 gpd, for a project pulling potable water from agency stores and not assuming use of recycled water.[1]

Recycled Water

The primary source of recycled water for the Proposed Project would be the on-site WTWRF. This treated effluent would meet Title 22 standards and provide a source of recycled water that

[1] This is based on a per capita use of a Project population of 1,205 (2.66 persons per dwelling unit times 453 dwelling units) and projected to be 150 gpd per person, which is well below the goal of 218 gpd per person by 2020, the goal set by Senate Bill X7-7, and Rincon MWD's service area projections of approximately 200 gpd per person. The difference in use rate is associated with the proposed 453 units at a higher density.

would irrigate approximately 36 acres (Appendix Q). The WTWRF, and a return of 200 gpd to the sewer to be recycled, would result in a commensurate reduction in daily need rate of potable water. This would result in a net potable water use of 200 gpd per unit, or 90,600 gpd. Comparing this to the 102,000 to 109,650 gpd per unit numbers possible for Harmony Grove Meadows shows that the Project would fall into the amount of potable water assumed in water agency modeling for the Project site.

Drought Condition Issues

According to the Rincon MWD 2015 UWMP (Rincon MWD 2016), coordinated regional planning for future drought situations has resulted in both Metropolitan Water District and SDCWA developing drought management plans to fairly and adequately deliver water to their member agencies. SDCWA has invested in carryover storage supplies to assist in achieving reliability in dry years as discussed in its 2015 UWMP. SDCWA's carryover supplies include regional surface water storage and groundwater storage in the California Central Valley. This has been supported by the 2014 Rincon MWD Drought Ordinance, with voluntary, and potential mandatory, use rate cuts.

In years where shortages are experienced after expenditure of SDCWA carryover supplies, Rincon MWD would respond to allocations in water demands as mandated by Metropolitan Water District and/or SDCWA. Additionally, Rincon MWD has developed a Drought Response Plan which identifies the thresholds and actions to support conservation, whether short or long-term. The Plan provides for four levels of drought conditions and corresponding response actions: Drought Watch, Drought Alert, Drought Critical, and Drought Emergency.

The Rincon MWD 2015 UWMP (Rincon MWD 2016) also notes that quantities of supplies derived from recycled water or brackish desalination projects are relatively unaffected by a dry year. SDCWA's existing and planned supplies from the Imperial Irrigation District transfer, seawater desalination, and canal lining projects are considered verifiable, or substantially sure supply sources, as discussed in Section 4 of the SDCWA 2015 UWMP. Information contained in Metropolitan Water District's 2015 UWMP also shows that previous normal or wet years prior to a dry year would cover potential shortfall in core supplies. Metropolitan Water District would have enough water in storage and would not need to allocate its supplies.

For both single and multiple dry year events, Rincon MWD would actively promote a "voluntary 10 percent reduction in use" message, and expects this will counteract the tendency for demands to be higher than normal during dry conditions such that its dry year demands will be the same as its projected normal year demands. Accordingly, from a regional planning perspective, no shortage of supplies would be anticipated in Rincon MWD's service area during either single or multiple dry year events. While multiple dry year scenario shortages are not likely due to the existence of carryover storage supplies, Rincon MWD has plans in place to deal with such an occurrence, including the aforementioned Drought Response Plan.

Reclaimed water would be produced for irrigation of parks, parkways, manufactured slope areas, and other common area landscaping; consistent with the County's Water Efficient Landscape Design Manual, the County of San Diego's Water Conservation in Landscaping Ordinance, and the State of California's Model Water Efficient Landscape Ordinance (MWELO). Permanent

irrigation with potable water for newly constructed development would be delivered by drip or microspray systems.

As noted above, Rincon MWD has provided the Project with a Project Facility Availability – Water form stating that at this time the Project is eligible to receive water for fire and normal domestic use from Rincon MWD. Water availability, however, is subject to changes in the critical water issues throughout the State. If drought occurs, Rincon MWD may impose restrictions such as the suspension of new potable water availability certifications and the rescinding of outstanding certifications. Accordingly, the water availability for the Project will be re-evaluated when plans are submitted.

In summary, the Proposed Project has been found to create a demand for potable and recycled water that would be met by water supplies that are planned for and intended to be available over a 20-year planning horizon, under normal conditions through 2040. In addition, regional and local water supply actions are in place to respond to drought conditions in both single and multiple dry years with some years potentially requiring management actions (e.g., conservation), to maintain supply (SDCWA 2016). The Project's anticipated need for potable water is consistent with (or lower than) the modeled assumptions in the 2015 UWMP based on use of recycled water. Such water would be available through either the on-site WTWRF – or, if connection to the HGV WRF is chosen as a sewage treatment option, through the WRF. Therefore, impacts associated with the Project's water supply demand would be **less than significant**. Although not part of Project modeling, it is also noted that continued reductions in California goals for indoor potable water use are expected to play a role in continued lowering of residential water use below currently modeled draw.[2]

Water Supply Facilities

Specifics regarding the water supply system for the Proposed Project are described in Section 1.2.2.2, under the heading *Utilities/Institution,* of this EIR, and in the Specific Plan (PDC 2018). Figure 1-10 illustrates the proposed water system for the Project.

As noted above, the Project site is located entirely within the boundaries of Rincon MWD, which would provide water service for fire protection and residential use.

A Potable Water Study (Appendix P to this EIR) has been prepared to determine the potable facility requirements to serve the new development and integrate it with the existing system (Dexter Wilson Engineering 2015). As noted above, a recycled water system would be designed

[2] Actual water use rates are lower than projections identified above (San Jose Mercury News 2018), and proposed new legislation in California (SB 606 and AB 1668), would result in overall reductions in indoor use to 50 gpd per person (or here, approximately 133 gpd per unit) by 2030. This would lower the "baseline" potable water draw to 60,249 for indoor use. As cited in the article addressing Governor Brown's new water legislation, Tracy Quinn, water conservation director for the Natural Resources Defense Council, stated that the framework of the new laws. "… strikes the right balance between local control and necessary state oversight," and added that "most cities and water districts in California already are close to, or under, a standard of 55 gallons per person per day for indoor use."

to serve all irrigation of common areas such as parks, open space and parkways. This would notably reduce the on-site demand for potable water.

The potable water supply system facilities would be sized to provide the capacity required, and would not necessitate significant alterations to existing systems beyond those assumed as part of Project design. As discussed in Section 1.2.2.2, potable water service for the Project site would be primarily provided by a connection to an existing 12-inch potable water pipeline in Harmony Grove Road. For purposes of redundancy, the Project would connect with an existing 8-inch water pipeline near the western terminus of Country Club Drive (near the Harmony Grove Spiritualist Center). The 12-inch pipeline would connect to two points on the Project following the 90-degree turn in Country Club Drive. On-site water pipelines would be installed in Project roadways. The recycled water supply system is shown in Figures 1-6b and 1-12.

New water facilities, including connections, pipelines, and fire hydrants would be designed to satisfy Project needs and requirements of Rincon MWD. No modifications to Rincon MWD facilities have been noted as required in the Potable Water Study. Therefore, impacts to water service facilities would be **less than significant.**

Wastewater Management

Guidelines for the Determination of Significance

A significant impact to utilities would occur if the Proposed Project would:

2. Generate wastewater that cannot be treated by an existing or proposed facility and/or requires significant alterations to existing sewage systems and infrastructure.

3. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

Guidelines Source

The identified guidelines for significance are based on Appendix G of the CEQA Guidelines and are intended to ensure that adequate public utilities and services are available for local residents.

Analysis

A completed Project Facility Availability – Sewer form dated March 7, 2018 has been received from the San Diego CSD (Appendix O). The form notes that the Project is not in the CSD and is not within its Sphere of Influence boundary, but facilities to serve the Project are reasonably expected to be available within the next five years and would be available subject to the conditions in the attachment provided with the form. The conditions in the attachment include the following:

- The Project must evaluate all potential sewer service providers/agencies and demonstrate that the CSD would be the superior provider based on economic and operational considerations.

- The Project must be annexed into the CSD through LAFCO action.
- The CSD must approve the Project Sewer Master Plan.
- The Project must fund and construct required facilities.
- The Project would be responsible for satisfying all future conditions that may be required by the CSD.
- The Project must satisfy all conditions of map approval and improvement agreements, including construction by the Project and acceptance by the CSD of any necessary on-site or off-site sewerage facilities, property, and easements.

A Sewer Master Plan has been prepared for the Project to provide an overall sewer service plan and determine the requirements for an on-site collection system (Dexter Wilson Engineering 2016). Specifics regarding the sewer system scenarios are provided in Section 1.2.2.2 and 4.7 of this EIR and in the Sewer Master Plan contained in Appendix Q.

Projected wastewater flows for the Project are based on the sewage generation factor contained in Appendix Q and summarized in Table 3.1.10-3, *Wastewater Generation Estimates*. A use rate of 215 gpd per unit is consistent with the factor for the approved HGV WRF. The average wastewater flow using this generation factor is projected to be 97,395 gpd.

Peak design flow factors, which do not vary with conservation, are summarized in Table 3.1.10-4, *Peak Flow Factors*. Peak wastewater flows from the Project calculated using the peaking factor of 2.11 and the highest average flows of 97,395 gpd would be 205,503 gpd, or approximately 143 gpm.

As described in detail in Section 1.2.2.2 of this EIR, wastewater treatment facilities appropriate to the proposed HGV South development would be built by the Project.

The Project WTWRF would be one of two different plant styles as described in Chapter 1.0, Section 1.2.2.2 of this EIR, under the heading "*Utilities/Institution*." It could be either an Aeromod facility similar to the existing HGV WRF, or a pre-packaged membrane bioreactor (e.g., Ovivo Package Plant) and would be designed to meet the reliability requirements in accordance with Title 22 of the California Code of Regulations. The HGV WRF was designed to produce disinfected tertiary recycled water meeting the requirements of Section 60304(a) of Title 22 of the California Code of Regulations. In order to utilize all of the recycled water generated from wastewater from the HGV South project, approximately 36 irrigated acres would be needed. Section 1.2.2.2 of this EIR also identifies Project areas for which irrigation would be required and which could use recycled water. Gravity sewer lines 12-inches in diameter and smaller would be designed to convey peak dry weather flows while not flowing at more that 50 percent full by depth (see sewer lines locations on Figure 1-6b). Gravity sewer lines would be designed to flow at a minimum velocity of 2.0 feet per second during peak flow conditions or have to have a minimum slope of 1.0 percent to prevent the deposition of solids.

This collection and treatment system would have the appropriate capacity for the proposed HGV South development. Additionally, in accordance with the completed Project Facility Availability – Sewer form from the CSD, it is anticipated that the sewer service area within the Project could be annexed into the San Diego CSD, subsequent to LAFCO approval of an amendment to the sphere of influence for this district. Since the treatment system could be owned and operated by the County, it would be designed to County standards. When a final wastewater treatment scenario is selected, a more detailed design report outlining the specific design requirements and associated infrastructure would be prepared and submitted to the County as a Condition of Project approval. Based on these considerations, wastewater generated by the Project would be treated appropriately without requiring significant alterations to existing sewage systems and infrastructure or substantially reducing the capacity of existing facilities. Thus, impacts related to wastewater management would be **less than significant.**

3.1.10.3 *Cumulative Impact Analysis*

Several related cumulative development projects have been recently completed or are planned for development in the vicinity of the Proposed Project, as listed in Table 1-3. Combined, all 66 cumulative projects would result in the addition of approximately 15,494 housing units to this area of the County. Specifically within County jurisdiction, the cumulative projects (including the Proposed Project) would result in a total of 2,403 units in the Project site vicinity. Cumulative impacts of these development projects are analyzed below within the context of comprehensive regional planning and forecasting of water supplies and facility needs. The significance guidelines that were used to evaluate Project-specific impacts also are used here to evaluate cumulative impacts.

Water Supply and Facilities

As discussed previously, the SDCWA's 2015 UWMP provides for a comprehensive planning analysis at a regional level and includes water use associated with accelerated forecasts of residential development as part of its municipal and industrial sector demand projections. The demand associated with accelerated forecasted growth is intended to account for SANDAG's land use development currently projected to occur between 2035 and 2050, but which has the likely potential to occur on an accelerated schedule. When necessary, this additional demand increment can be used by member agencies to meet the demands of development projects not identified in the general land use plans or for new annexations.

As documented in the 2015 UWMP, the SDCWA is planning to meet future and existing demands which include the demand increment associated with the accelerated forecasted growth. Part of the SDCWA tool kit in these projections consists of WSAs prepared by applicable projects. Excluding the Proposed Project, 65 projects are listed in Table 1-3, showing cumulative projects relevant to this Project. Of these, a total of 21 projects shown on Figure 1-23 would require, or have the potential to require, a WSA. Five projects (numbers 15, 23, 31, 42, and 54) are residential, one project (47) is a commercial office development, and two projects (46 and 48) are mixed-use. Two projects (49 and 65) are hospitals or medical facilities of over 1,000,000 s.f. Five projects (19, 21, 25, 37, and 50) are considered likely to demand an amount of water equivalent to, or greater than, the amount of water required by a 500-DU project. This is due to the combination of those projects' high number of dwelling units with other uses such as

parks, golf courses, and schools. An additional six projects have the potential to require a WSA. Two projects (52 and 64) involve the development of schools with unknown square footage. Four projects (30, 43, 55, and 56) have an unspecified amount of office, retail, or industrial square footage. SDCWA will assist its member agencies in tracking the certified EIRs provided by the agencies that include water supply assessments that utilize the accelerated forecasted growth demand increment, to demonstrate adequate supplies for the development. Therefore, cumulative impacts on water supply and water facilities would be **less than significant**.

Wastewater Management

A collection and treatment system with the appropriate capacity for the Proposed Project would be constructed as part of the Project. All other cumulative developments that would generate sewage would be required to provide adequate wastewater collection and treatment facilities. Therefore, the Project's contribution to cumulative impacts on wastewater treatment services would be **less than significant.**

3.1.10.4 *Significance of Impacts*

In consideration of the above information, impacts to public utilities would be less than significant.

3.1.10.5 *Conclusion*

Based on the analyses provided above, implementation of the Proposed Project would not result in any significant impacts related to utilities and service systems

Table 3.1.10-1
RINCON MWD SUPPLY AND DEMAND SUMMARY FOR NORMAL-YEAR CONDITIONS

Year	2015	2020	2025	2030	2035
Supply Source					
SDCWA (potable	7,000	7,000	7,000	7,000	7,000
Recycled - Total	3,030	3,250	3,400	3,400	3,400
-Escondido Purchases	3,030	3,030	3,180	3,180	3,180
-Harmony Grove WRP	0	220	220	220	220
New Local Supply*	50	280	550	790	900
Total Supply	**10,080**	**10,530**	**10,950**	**11,190**	**11,300**
Demand Projection					
Population	30,400	31,500	33,000	34,500	35,200
Potable Water Demand**	7,050	7,280	7,550	7,790	7,900
Recycled Water Demand	3,030	3,250	3,400	3,400	3,400
Total Water Demand	**10,080**	**10,530**	**10,950**	**11,190**	**11,300**

Source: Atkins 2014
*New Local Supply may be recycled water, groundwater, indirect or direct potable recycled supplies, or a combination.
**The increase in annual potable demand is projected to be offset by new local supplies, defined above.
Water supply and demand units are in acre-feet per year (afy)

Table 3.1.10-2
PROJECT POTABLE WATER DEMANDS

Site	Units	Unit Demand (gpd/DU)	Average Demand (ADD)		Max Day Demand (1.7 x AAD)		Peak Hour Demand (2.9 x AAD)
			(gpd)	(gpm)	(gpd)	(gpm)	(gpm)
Residential	453	400	181,200	126	308,000	214	365
Total	**453**	**--**	**181,200**	**126**	**308,000**	**214**	**365**

Source: Dexter Wilson Engineering 2015

Table 3.1.10-3
WASTEWATER GENERATION ESTIMATES

Unit Rate Factor	Residential Units	Unit Rate (gpd/DU)	Average Flow (gpd)	Peaking Factor	Peak Flow
HGV South	453	215	97,395	2.11	205,503

Source: Dexter Wilson Engineering 2016
gpd = gallons per day; DU = dwelling unit

Table 3.1.10-4
PEAK FLOW FACTORS

Flow	gpd
24 Hour Total	
Average Dry Weather Flow	97,395
Peak Monthly Dry Weather Flow (1.2 x average)	116,874
Peak Wet Weather Flow (2.11 x average)	205,503
1 Hour Peak	
Dry Weather (2.42 x average)	235,696
Wet Weather (4 x average)	389,580

Source: Dexter Wilson Engineering 2016
gpd = gallons per day

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SUBCHAPTER 3.2

EFFECTS FOUND NOT SIGNIFICANT DURING INITIAL STUDY

3.2 Effects Found Not Significant During Initial Study

Two resource areas were found to have less than significant effects as detailed in the County Environmental Checklist for the Project (refer to Appendix A, which contains the CEQA Initial Study – Environmental Checklist Form), incorporated by reference into this EIR. Prior to approval of the 2011 County General Plan, the site was specifically subject to environmental review associated with a then-proposed project. Detailed environmental evaluation was undertaken for a number of environmental issues. For all topics related to two of those resource issues, agriculture and minerals, review was accepted as complete in a 2007 County Assessment Letter. For both of those issues, on-site resources were identified as less than significant. The on-site conditions supporting those assessments have not changed since that evaluation–the surface soils/geologic formations generally have not been disturbed. Additional review also has been undertaken as part of the current Project, as addressed below and in Appendix A to this EIR. The following text addresses data in brief, consistent with the County EIR Report Format and General Content Requirements (County 2006). The reader is also referred to the County CEQA Checklist Form (noted above as part of Appendix A to this EIR).

3.2.1 Agricultural Resources

County Guidelines for Determining Significance – Agricultural Resources (2007k), provide specific thresholds for review of potential agriculture impacts. County thresholds for identification of significant agricultural resources include (not only) current use, but also characterization of Project soils and availability of water. Each of these criteria is discussed below.

Direct Impacts

The majority of on-site Project site soils are mapped as low-fertility soils such as the Las Posas Fine Sandy Loams (LpD2, LrG, and LpE2), Escondido Very Fine Sandy Loam (EsE2), and Cieneba-Fallbrook Rocky Sandy Loam (CnG2), with Classifications IV, VI, and VII and Storie Indexes of between 8 and 33. These low fertility and poor soil types comprise over 100 acres (approximately 91 percent) of the Project site. Class IV through VII soils have limitations that restrict the choice of crops and are generally only suitable for grazing or wildlife habitat (NRCS 1973).

Class II or better soils comprising only 10 acres of the Project site (RECON 2006). The Class II soils consist of 0.54 acre of Visalia Sandy Loam (VaB), located in a small pocket along the northern border, and 9.5 acres of Wyman Loam, (WmB & WmC) located in the northwestern portion of the Project site (approximately nine percent of the Project site). Wyman and Visalia soils are generally considered to be of high fertility and useful for a wide variety of crops such as citrus, truck crops, field crops, tomatoes, flowers, and specialty crops.

The Project site does not contain Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. According to the State Farmland Mapping and Monitoring Program (FMMP), only Farmland of Local Importance (approximately 20 acres) and "Other" (approximately 91 acres) are present. Farmland of Local Importance is land that meets all the characteristics of prime and statewide farmland, with the exception of irrigation. "Other" includes timber, brush, wetlands,

riparian habitats not suitable for cattle grazing, vacant and non-agricultural land surrounded by development, etc.

Based on a site visit and a review of historic aerial photography, as well as a prior agricultural report prepared for the property (RECON 2006), there is no evidence of agricultural use on the project site for over 65 years. In order to qualify for the Prime Farmland, Unique Farmland, Farmland of Statewide or Local Importance designations, land must have been cropped at some time during the four years prior to the last FMMP mapping date. Given the lack of agricultural use on the site, the Farmland of Local Importance designation of this area according to the State is incorrect. As noted in Appendix A, the Farmland designation was likely misapplied as a result of the large scale of the Statewide mapping effort–which assigns Farmland designations based on aerial photography and limited ground verification.

The Project site also has a "low" rating for water under the County guidelines, based on the associated criteria provided in Table 3 in the Guidelines for Determining Significance – Agricultural Resources (2007k). Specifically, Table 3 identifies a low rating for water under several applicable criteria, including a scenario where both of the following conditions apply:

1. County Water Authority Service Status: The site is outside or inside the County Water Authority, but infrastructure connections are not available at the site and no meter is installed.

2. Groundwater Aquifer Type and Well Presence: The site is located in an alluvial or sedimentary aquifer, but has no existing well.

With respect to condition No. 1, the Project site is within the County Water Authority service area, but no water-related infrastructure or meter is available at the site. The closest known water supply infrastructure includes the following two facilities owned by Rincon MWD: (1) an existing 12-inch potable water line in Harmony Grove Road approximately 500 feet north of the site; and (2) an existing 8-inch potable water line located in Country Club Drive approximately 800 feet west of the project site near the Harmony Grove Spiritualist Association.

With respect to condition No. 2, there are no known existing or previous groundwater wells located within the site or immediate vicinity. This conclusion is based on field investigations conducted as part of the current EIR analysis, as well as a number of previous and current technical studies prepared for the Project site (ASM 2016; Geocon 2009, as amended 2014; RECON 2006). From the above information, it is likely that groundwater was not used for historical agricultural operations at the site. Accordingly, as noted above and pursuant to Table 3 of the County Agricultural Guidelines, the Project site is assumed to have a low water rating.

Therefore, due to lack of on-site water, generally poor identified soil quality, and lack of a recent history of agricultural production (leading to lack of Prime, Unique or Statewide Importance farmlands), the Project Checklist identified direct impacts to agricultural resources as **less than significant.**

Indirect Impacts

The 2006 RECON study also evaluated indirect impacts related to a (then ongoing) agricultural operation (the De Raadt Dairy on the former Kesting Dairy site), and consisting of edge effects which can occur where residences from a development are located close to agricultural operations and impacts occur (e.g., trespassing, crop pilfering, heavy traffic, noise or odor complaints, or other nuisances). The De Raadt Dairy was located across Country Club Drive from the Project, where the HGV future Equestrian Ranch is now proposed. During technical review regarding potential development of the Harmony Grove Meadows project, that project was preliminarily identified as having a potential impact due to the proximity of planned residential units to the approximately 30 head cow/calf operation. The agricultural use of the (current) HGV parcel west of Country Club Drive is now defunct. The feeding and milking areas have been removed and the site is currently in use as a staging area for the larger HGV construction north of Harmony Grove Road. The area is, however, identified as an Equestrian Ranch (with some horse boarding, a mare motel, riding rings, etc.) in the Final HGV approved project. As a result, noise or odor complaints or other nuisances could still occur.

When edge effects are likely to occur, agricultural buffers between 50 and 1000 feet are usually recommended in order to minimize these effects. Country Club Drive would provide some separation between these two uses as the existing road right-of-way width of 60 feet would provide a buffer. Adjacent properties to the west of the Project currently have, and may continue to have, horses as part of their residential use. These are residential properties with large-animal keeping activities, however, and are not characterized as an agricultural operation that could be converted. Regardless, there is a potential for nuisance effects related to large-animal keeping. These potential nuisance effects would be reduced to below a level of significance through the use of an environmental design feature. Disclosure statements would be included in sales documentation for all proposed residential units. The statements would notify potential owners that the adjacent property could potentially be used for agricultural operations and that there could be associated issues such as odors, noise, and vectors. Indirect impacts were found less than significant with the inclusion of this environmental design feature. The small potential number of large animals associated with abutting residential lots, the buffer provided by Country Club Drive and associated landscaping that would provide a buffer between the future Equestrian Ranch and HGV South, and the disclosure statement regarding the future equestrian ranch required as an environmental design feature (see Table 1-2 and Chapter 7.0), all combine to render indirect Project impacts to agricultural resources as **less than significant**.

Conflicts with Agricultural Zoning or Williamson Act Contracts

The Project would not result in a significant conflict in zoning for agricultural use, because the site is designated Semi-rural Residential 0.5 in the County's General Plan. Additionally, the Project site's land is not under a Williamson Act Contract. Similarly, the County does not have any existing Timberland Production Zones and the Project is not located in the vicinity of forest resources. Therefore, Project implementation would not conflict with existing zoning for, or cause rezoning of, forestland, timberland or timberland production zones. Therefore, impacts to County zoning would be **less than significant,** with **no impact** to lands under existing Williamson Act contract or forest lands.

Cumulative Impacts

The area surrounding the Project site has limited grove uses associated with an estate residential use within 0.25 mile of the Project. Active agricultural operations consisting of avocado and/or citrus orchards commonly operate among residential uses and create minimal land use conflicts due to the nature of the agricultural use. In addition to this general compatibility, in this case, the active agricultural operations are separated from proposed land uses on the Project site and by other developed residential parcels. Therefore, there would be **no impacts** related to cumulative-level conversion of Prime Farmland, Unique Farmland, Farmland of Statewide Importance, or Farmland of Local Importance would occur as a result of Project implementation.

3.2.2 Mineral Resources

A Mineral Resources Evaluation was prepared for the Proposed Project (Geocon 2015b, Appendix R). Several quarries were active directly north of the site from 1923 through the 1950s; the nearest aggregate mine is the "Harmony Grove Quarries," located in granitic rock approximately 0.5 mile north of the site that was last mined in 1994. The Project site is underlain in part by Quaternary-age alluvium/colluvium, primarily consisting of silty sand to sandy clay, and has been classified by the California Department of Conservation – Division of Mines and Geology as an area of "Potential Mineral Resource Significance" (MRZ-3). The alluvium/ colluvium is further underlain by Cretaceous-age granitic rock.

The Mineral Resources Evaluation determined the alluvium/colluvium that underlies the Project site would not meet the minimum requirements for commercially viable sand products such as Sand Equivalent 30 (SE-30). With respect to the potential for aggregate resources, the air-percussion borings performed on site indicate that the granitic rock that underlies the alluvium/colluvium is deeply weathered to depths of at least 40 to 50 feet below the ground surface and would not be viable for aggregate production. In addition, the Project site is adjacent to existing and proposed residential areas, which would be incompatible with future extraction of mineral resources on the Project site. A future mining operation at the Project site would likely create a significant impact to neighboring properties for issues such as noise, air quality, and traffic. Therefore, since the material that underlies the Project site would not be economically viable to extract and since incompatible land uses are adjacent to the project, implementation of the Project would result in **less than significant impacts** to the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.

The Project site is not located in an area that contains MRZ-2 designated lands, nor is it located within 1,300 feet of such lands. Therefore, the Proposed Project would not result in the loss of availability of locally important mineral resource(s). Therefore, **no impacts** from the loss of availability of a known mineral resource of locally important mineral resource recovery (extraction) site delineated on a local general plan, specific plan or other land use plan would occur as a result of the Proposed Project.

CHAPTER 4.0

PROJECT ALTERNATIVES

CHAPTER 4.0 – PROJECT ALTERNATIVES

4.1 Rationale for Alternative Selection

4.1.1 CEQA Alternatives

Section 15126.6(a) of the State CEQA Guidelines requires the discussion of "a reasonable range of alternatives to a project, or the location of a 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, and evaluate the comparative merits of the alternatives." The Proposed Project was determined to result in potentially significant and unmitigable short-term impacts related to aesthetics. The Project also was determined to result in potentially significant and unmitigated direct and/or cumulative impacts for transportation/ traffic and air quality. (Although appropriate mitigation is identified to reduce these impacts to less than significant levels, and it is fully anticipated that mitigation will appropriately occur, the mitigation would be implemented by another lead CEQA agency. Therefore, the County is unable to guarantee mitigation implementation. As a result, for the purposes of this document, these impacts are identified as significant and unmitigated.) The Project was also determined to have significant (or potentially significant) direct, indirect and/or cumulative but mitigated impacts to aesthetics, biological resources, cultural resources, noise, transportation/traffic, and greenhouse gas emissions.

Section 15126.6(f) of the CEQA Guidelines states that "the range of alternatives in an EIR is governed by the 'rule of reason' that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice." The State CEQA Guidelines provide several factors that should be considered in regard to the feasibility of an alternative. Those factors include: (1) site suitability; (2) economic viability; (3) availability of infrastructure; (4) general plan consistency; (5) other plans or regulatory limitations; (6) jurisdictional boundaries; and (7) whether the project applicant can reasonably acquire, control, or otherwise have access to the alternative site (if an off-site alternative is evaluated).

This EIR analyzes a total of six alternatives; the No Project/No Development Alternative, as well as a total of four full development alternatives and two sewer options (combined under one alternative), are evaluated in Subchapters 4.3 through 4.8 of this chapter, and briefly summarized below.

The CEQA Guidelines require the evaluation of a No Project Alternative. The discussion of the No Project Alternative may proceed along two lines:

1. If the project is a development proposal, the No Project Alternative is the circumstance under which the project does not proceed, and

2. When the project is the revision of an existing land use or regulatory plan, the No Project Alternative is the continuation of the existing plan.

In the case of the Project described in this EIR, both types of No Project Alternative apply and are discussed. The first No Project Alternative is the circumstance under which the Project does not proceed. The second No Project Alternative is addressed as the two General Plan Consistent

alternatives described below. The No Project/No Development Alternative allows retention of the site as it currently exists and thereby avoids both construction-period and long-term unmitigable or unmitigated impacts (i.e., to aesthetics, air quality and transportation/traffic) associated with development of the Proposed Project.

The General Plan Consistent alternatives (General Plan Consistent with Septic Alternative [49 SFR]; and General Plan Consistent with Sewer Alternative [119 SFR]) would not require a GPA relative to residential density. They also comply with County RPO requirements for wetlands and wetland buffers, as well as avoiding steep slopes, to a greater extent than the Proposed Project. Most steep slopes and sensitive biological resources would be preserved within open space easements. These development alternatives also reflect lower intensity development on site close to a County Scenic Highway (Harmony Grove Road) and Escondido Creek.

The Senior Care Traffic Reduction Alternative is intended to provide a development pattern that would increase density adjacent to the existing HGV Village through a GPA, while being able to substantially reduce impacts associated with traffic. This alternative incorporates the unique design requirements for this type of development.

The Biologically Superior Alternative was included to reduce direct and indirect impacts to sensitive biological resources and provide increased connectivity for local wildlife movement, as well as reduce Project footprint and related grading.

The Off-site and Combined On-/Off-site Sewer Options Alternative was included to disclose the impacts that would occur if either of these two sewer options were to be approved instead of constructing a stand-alone plant within the Project. The analysis of these two options includes all of the issue areas that are needed to allow the decision maker to adopt either of the options in lieu of the stand-alone plant without the need for additional analysis. The adoption of either of these options would eliminate the need for, or reduce the scale of, an on-site WTWRF and, therefore, reduce potential environmental effects associated with potential land use conflicts and noise. This sewer service alternative includes one potential off-site option (connection to the HGV WRF in lieu of the proposed on-site WTWRF and related facilities, as well as a combined on-/off-site treatment option. The on-/off-site option includes on-site treatment at a scaled-down WTWRF and off-site solids treatment at the Harmony Grove WRF.

These alternatives represent a reasonable range of alternatives, as defined in the State CEQA Guidelines, because they present feasible alternate development patterns that would reduce and/or eliminate significant impacts associated with the Proposed Project, would improve existing Village function and use to the community, or were designed to be responsive to community interest in inclusion of only single-family residential uses on a minimum lot size. These alternatives are compared to the impacts of the Proposed Project (with an overview of Proposed Project and alternative impacts provided in Table 4-1, *HGV South Full-build Alternative*s *Comparison of Impacts*), and are assessed relative to their ability to meet the basic objectives of the Proposed Project.

4.1.2 Project Objectives

The underlying purpose of the Project is to accommodate a portion of the projected population growth and housing needs in San Diego County by expanding an existing village that will further enhance and support the success of that village and create a complete and vibrant pedestrian-oriented sustainable community that provides a variety of housing types for a diverse range of incomes and lifestyles. As described in Subchapter 1.1 of this EIR, the Proposed Project includes the following overall objectives.[1]

1. Efficiently[2] develop property in close proximity to an existing village consistent with the Community Development Model to create one complete and vibrant community that would enhance and support the economic and social success of the village and Project by increasing the number and diversity of residential opportunities.

2. Contribute to the establishment of a community that encourages and supports multi-modal forms of transportation, including walking and bicycling, by locating near regional employment and transit centers.

3. Preserve and enhance sensitive biological resources, habitats, and landforms in dedicated open space easements.

4. Provide a variety of passive and active recreational opportunities in support of the County's goals to encourage healthy and active lifestyles through the creation of public and private parks, pathways, and trails that provide connectivity to the area's preserved natural lands and nearby village uses.

5. Provide a mix of residential uses that will provide a broad range of housing choices which support a diversity of resident and land uses within the Project.

6. Create a mixed-use development that is compatible with existing and planned development in the immediate vicinity of the property while optimizing the operational effectiveness of public facilities and services of the Project and the existing village by increasing the number and diversity of residents within the Project.

7. Create a destination gathering place that provides a variety of land uses that encourage walkability, social interaction and economic vitality for the Project, and with the existing village and the surrounding areas.

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[1] Although a lead agency may not give a project's purpose an artificially narrow definition, a lead agency may structure its EIR alternative analysis around a reasonable definition of underlying purpose and need not study alternatives that cannot achieve that basic goal. For example, if the purpose of the project is to build an oceanfront resort hotel (Goleta, supra, 52 Cal.3d at p. 561) or a waterfront aquarium (Save San Francisco Bay Assn. v. San Francisco Bay Conservation etc. Com. (1992) 10 Cal. App. 4th 908, 924–925 [13 Cal. Rptr. 2d 117]), a lead agency need not consider inland locations.

[2] Merriam-Webster defines "efficiently" as: "in a way that achieves maximum productivity with minimum wasted effort or expense."

8. Encourage adaptive grading, whenever feasible, that utilizes grading techniques such as selectively placing development in a manner that visually and physically responds to the site's physical variables (such as steep slopes, views, streams, etc.), preserving significant topographic features and taking advantage of existing site features.

4.1.3 Alternatives Considered But Rejected from Further Study

Alternative Location

In accordance with CEQA Guidelines Section 15126.6(f)(2), an alternative project site location should be considered if development of another site is feasible, and if development of another site would avoid or substantially lessen significant impacts of the proposed project. Factors that may be considered when identifying an alternative site location include the size of the site, its location, the General Plan (or Community Plan) land use designations, and availability of infrastructure. CEQA Guidelines Section 15126.6(f)(2)(A) states that a key question in looking at an off-site alternative is "…whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location." Further, CEQA Guidelines Section 15126.6(f)(1) states that among the factors that may be taken into account when addressing the feasibility of alternative locations are whether the project proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent).

An effort was made to identify an alternative location for the Project. The selection criteria were developed to identify potential alternative project sites that would be fairly easy to acquire, and large enough to accommodate the proposed uses. When looking for the alternative sites, the following criteria were used:

- Alternative site had to be within the identified market area
- Land had to be privately owned
- Alternative site had to feasibly accomplish most of the basic objectives of the project

The Project objectives require that the Project be sited in an area adjacent to an existing village consistent with the CDM and in proximity to employment opportunities and transit options; and that it would also offer amenities to the surrounding existing and planned residential uses and development.

No other similarly sized, undeveloped, property was known to be available for development within the County adjacent to an existing village, and near existing major transportation routes and employment centers. At the time that the property was purchased, the search covered Harmony Grove, Elfin Forest, Eden Valley, Bonsall, Fallbrook and Ramona areas, as well as locations in southern San Diego County. This condition continues as of early 2017. Specific to the Harmony Grove area, given the semi-rural nature of the valley, if one were to become available, development would be likely to result in impacts similar to those identified for the Proposed Project. This includes effects resulting from development of an open space parcel, including the issues of aesthetics, biological resources, cultural resources, noise, transportation/traffic, and anticipated utilities upgrades. In fact, the impacts related to agriculture and cultural resources in particular

could potentially be greater as remaining undeveloped parcels in this part (as well as other areas with potential for large parcel development) of the County often have some active agricultural feature or ability to retain cultural resources.

Therefore, an alternative location was considered but rejected because: (1) it is unlikely that an alternative site in the County would substantially reduce significant environmental effects relative to the Proposed Project given the size of the parcel and type of development; and (2) the property was purchased with the intention of completing the existing HGV village. Therefore, the need for additional evaluation of an off-site alternative was rejected from further consideration.

Steep Slope Avoidance Alternative

During the planning phase beginning in 2014, a number of potential project footprints were evaluated. A primary initial plan laid out site uses consistent with schematic representations of development patterns; i.e., incorporating denser uses in the heart of the site and less-dense uses on the site perimeters. This alternative also largely avoided all encroachment into RPO-defined steep slope areas, regardless of whether exceptions or waiver under the ordinance might be applicable. As a result, the development footprint of that plan was less consolidated than the ultimate Proposed Project–it extended through lower elevations throughout the site. Planned uses included a central recreational/limited commercial area, 427 lots, and sewer elements. The development would have had sewage treated by an on-site WTWRF located in the northernmost portion of the site.

Although all terrain exceeding 25 percent slope and the majority of coast live oak woodland would have been avoided, residential lots would have been located in the southern third of the site, within approximately 200 feet of the southern property boundary, which is shared with the DDHP. Under that plan, the potential for preservation of on-site biological open space was diminished due to the "fingers" of development extending southerly, which also would have resulted in edge effects. Large swaths of sensitive biological resources would not have been conserved by setting aside land within a planned and integrated preserve area through clustering development within the Project site. In addition, and based on the proposed number of lots, traffic impacts (with any associated traffic-related noise effects) were preliminarily projected to be roughly commensurate with those of the Proposed Project.

The ability to avoid steep slopes while still providing development density necessary to enhance the Village Core, contribute to the economic and social success of the Project and help support public service facilities used by residents of both the Project and HGV, were considered positive elements of this potential alternative design. Those aspects, however, were not assessed as outweighing the combination of encroachment closer to DDHP, anticipated traffic impacts, and satisfying the underlying elements of the Project to provide a pedestrian-oriented sustainable community that complements the natural environment, protects the community character.

The potential to design alternatives with development located further from preserve areas located south of the site, and minimizing potential edge effects through clustering of development out of the southern third of the site (while still providing the housing counts necessary to support on-site sewage treatment) led to rejection of the Steep Slope Avoidance Alternative.

4.2 Analysis of the No Project/No Development Alternative

In accordance with Section 15126.6(e) of the State CEQA Guidelines, a "no project" alternative shall be evaluated, along with its impact. The No Project/No Development Alternative assumes the proposed development would not occur and the existing conditions at the Project site as of the date that the NOP was published would continue over the long-term.

4.2.1 No Project/No Development Alternative Description and Setting

Under the No Project/No Development Alternative, the Project site would remain in its current condition. The native and non-native habitat throughout the site would remain intact. The above-ground transmission line that currently bisects the property, the paved and dirt roads providing access to single-family residential uses east of the Project, and the unimproved trail access to DDHP, would continue to exist. Some encroachment into the property by abutting parcels along Cordrey Drive, with related uncontrolled runoff into Escondido Creek, also would be likely to continue.

The Proposed Project residential and commercial uses would not be constructed; nor would supporting infrastructure such as improved road elements, the WTWRF, and other utility upgrades. In addition, the Project-proposed BOS preserve, and HOA-maintained landscaped areas (as well as larger community serving amenities such as pathway and trail connections and the destination gathering location at the Center House and multiple park areas) would not be created.

4.2.2 Comparison of the Effects of the No Project/No Development Alternative to the Proposed Project

The anticipated environmental effects resulting from the No Project/No Development Alternative are described below, along with comparisons of these impacts to the Proposed Project (refer to Table 4-1).

Aesthetics

Under the No Project/No Development Alternative, the Project site would continue to appear as a disturbed, but primarily undeveloped, area. Significant and unmitigable short-term adverse visual impacts would be avoided under this alternative. In addition, significant but mitigable aesthetic impacts related to fresh-cut rock would not occur. When compared to the Proposed Project, impacts to aesthetics would be less under this alternative.

Transportation/Traffic

No existing trips are associated with this disturbed, but undeveloped, parcel, and therefore no significant transportation/traffic impacts would occur with implementation of the No Project/No Development Alternative. This alternative would thus avoid the significant (but mitigable) direct and cumulative transportation impacts identified for the Proposed Project within the County and the conservatively-identified significant (but unmitigated) direct and cumulative transportation impacts within the City of Escondido. When compared to the Proposed Project, impacts to transportation/traffic would be less under this alternative.

Biological Resources

The No Project/No Development Alternative would avoid the significant direct impacts to biological resources identified for the Proposed Project. In summary, specific biological impacts identified for the Proposed Project, which would be avoided by this alternative include: (1) loss of sensitive habitats including Diegan coastal sage scrub (supporting one California coastal gnatcatcher nest), southern mixed chaparral (including some wart-stemmed ceanothus), coast live oak woodland, southern [willow] riparian forest, and non-native grassland; (2) potential loss of least Bell's vireo birds/habitat; (3) loss of habitat for raptors (foraging habitat); (4) potential for substantial noise impacts during construction that could significantly impact coastal California gnatcatcher, least Bell's vireo and raptors; (5) loss of USACE, CDFW and County RPO wetlands/ waters; and (6) displacement of nesting migratory birds during their breeding season.

The No Project/No Development Alternative would be expected to generally retain biological resources in their existing condition; therefore, there would be no direct impacts and overall impacts to biological resources associated with this alternative would be less than with the Project.

Cultural Resources and Tribal Cultural Resources

As discussed in detail in Subchapter 2.4, no known significant impacts would occur within the Project site or off-site road/utility upgrade areas proposed as part of the Project. As a result, no known impacts associated with the Proposed Project would occur. Unknown subsurface resources could be present, but because no grading activities (which might uncover unknown resources) at all would occur on the Project site with the No Project/No Development Alternative, no significant impacts to cultural resources would occur. When compared to the Proposed Project, impacts to cultural resources could be less under this alternative.

Noise

The lack of current activities on the site results in a lack of site-generated noise that could affect off-site sensitive noise receptors. Accordingly, no significant noise effects would occur as a result of the No Project/No Development Alternative. This alternative would therefore avoid the potentially significant but mitigable noise impacts projected to occur during on-site Project construction (associated with potential blasting and noticing issues). It also would avoid the mitigable operational impacts identified for the site in one location (Lots 123 and 124), relative to transportation noise and potential noise associated with the WTWRF generator.

Noise effects associated with bridge construction over Escondido Creek currently would not be expected to occur. This construction activity would result in significant noise related to the potential for pile driving for bridge supports. Noise impacts associated with bridge construction would be greater for the Proposed Project as they would not occur under the No Project/ No Development Alternative. When compared to the Proposed Project, impacts to noise would be less under this alternative.

Air Quality

The elimination of development on, or new uses of, the Project site would result in no new air quality impacts. The site would remain empty and would, therefore, not have homes placed upon

it that would exceed projections in the 2011 General Plan. Significant and unmitigated air quality impacts associated with exceedance of the 2016 RAQS due to proposed placement of more lots on site than are currently anticipated under the adopted General Plan would not occur. When compared to the Proposed Project, impacts to air quality would be less under this alternative.

Greenhouse Gas Emissions

The elimination of development on, or new uses of, the Project site would result in no new GHG emissions impacts. The site would remain empty, and would therefore not have homes placed upon it. As described for the Proposed Project, however, all cumulative impacts associated with Project emissions would be mitigated to net zero through on-site reductions and implementation of M-GHG-1 (addressing construction ~~period emissions) and M-GHG-2 (addressing~~ and operational emissions exceeding reductions achieved through Project PDFs). Because no cumulative impacts would occur under the No Project Alternative, and because the Project would be mitigated to carbon neutral net zero (equivalent to No Project), when compared to the Proposed Project, cumulative GHG emissions impacts would be similar under this alternative.

Conclusions

The No Project/No Development Alternative would avoid a number of significant impacts associated with the Proposed Project, including: (1) significant and unmitigated aesthetics, air quality and transportation/traffic impacts; and (2) significant but mitigated impacts related to aesthetics, biological resources, cultural resources, noise, and transportation/traffic. The No Project/No Development Alternative would fail to meet all of the Proposed Project objectives listed above in Subchapter 4.1, however, relative to provision of housing and support of facilities and services provided by HGV, provision of mixed residential uses to support diversity of resident and land uses, or creation of a mixed-use development (Objectives 1, 5 and 6, respectively). It also would not provide any of the amenities offered to the community at large relative to support of multi-modal transportation options, provision of a variety of passive and active recreational opportunities, or provision of a destination gathering place for the Project and surrounding areas (Objectives 2, 4 and 7, respectively). Permanent set aside of important and managed biological resources that would contribute to the block of preserved habitat located in the DDHP and EFRR, also would not occur, contrary to Objective 3. Specifically, the long-term preservation of resources could not be assured as would occur under the Project, which would include dedication of land in permanent open space. Also, the management of conservation values including large segments of coast live oak woodland and southern mixed chaparral (containing wart-stemmed ceanothus), that would result from the permanent preservation of open space on the site, would not occur under this alternative. Improvements to potential wildlife movement by Project implementation of the bridge over Escondido Creek (allowing wildlife to pass under the bridge rather than crossing the vehicular travel way), as well as improvements to creek water quality resulting from removal of the at-grade crossing and underlying culverts and re-creation of a free-flowing creekbed, also would not be expected to occur. In addition, improvement of Country Club Drive roadbed and pathway and related improvement of emergency access to areas south of the creek would not occur, and off-sets to the north and south approaches to the Harmony Grove Road and Country Club Drive intersection would continue, retaining this awkward formation.

4.3 Analysis of the General Plan Consistent with Septic Alternative

4.3.1 Description of the General Plan Consistent with Septic Alternative

The General Plan Consistent with Septic Alternative would be consistent with the existing General Plan land use designation of Semi-Rural. As shown on Figure 4-1, *General Plan Consistent with Septic Alternative,* this alternative includes 49 single-family residential homes on 1-acre or greater lots. Larger lot sizes are needed in order to meet the County's septic system requirements with respect to the Project's unique geologic/soils characteristics. The residential lots would have approximately 5,000-square foot pads that would be sited throughout the property in a dispersed, rather than consolidated, pattern that is based upon the soils characteristics found on the site. This alternative assumes an advanced on-site wastewater treatment septic system, requiring approximately 3,500 sf per lot.

The manufactured slope located along Country Club Drive south of the WTWRF would not be built, and grading quantities overall are expected to total approximately 660,000 cubic yards (22 percent less than the Proposed Project grading of 850,000 cy). This alternative would initially grade approximately 56 acres (50 percent of the site), and develop on approximately 56 acres (or 50 percent of the site). Approximately 55 acres (also approximately 50 percent of the site) would be placed into open space set-aside containing some steep slopes and biological resources associated with each lot. This open space would not be placed into a preserve managed by an independent land manager, but would be restricted in use on each individual lot.

This alternative would not include any commercial, parks, or other recreational uses, including a community gathering locale, given the small number of residential units on site. While there are fewer homes under this alternative, larger lots spread over the entire site would still require an extensive road system and utility lines (e.g., potable water).

The purpose of this alternative would be to provide consistency with the existing general plan land use designation and to reduce traffic and air quality impacts.

4.3.2 Comparison of the Effects of the General Plan Consistent with Septic Alternative to the Proposed Project

The anticipated environmental effects resulting from the General Plan Consistent with Septic Alternative are described below. A comparison of the impacts identified for this alternative as compared to the Proposed Project is shown in Table 4-1.

Aesthetics

The alternative would grade individual residence pads, and place structures in general consistency with the underlying topography. The lot sizes would be compatible with some immediately abutting parcels to the west and east, and less compatible with HGV development patterns to the north. The views to this alternative would show fewer, and more widely spaced individual structures than would occur under the Proposed Project. There would be a range of structure size, with some being larger and some being smaller than under the Proposed Project. Because the units are dispersed throughout the site, however, some lots would be located at higher elevations than the Proposed Project, thereby increasing the potential to alter distant off-site views.

The General Plan Consistent with Septic Alternative would result in a reduction in initial grading quantity and surface disturbance. As a result, this alternative would conform more closely to existing site topography than the Proposed Project (i.e., the smaller amount of soil movement would allow for greater retention of existing topography). As noted above, however, the alternative would ultimately place 50 percent of the site into lots and streets, compared with 29 percent of the site being in lots and streets under the Proposed Project. Therefore, the alternative would not be perceived as visibly having less grading, and would appear to modify a greater part of the site. The dispersed development pattern of the alternative would site building pads closer to the southern Project boundary with the DDHP, and would introduce additional grading for pads and roads, with associated removal of native habitat, into a portion of the site identified for BOS under the Proposed Project. Visual open space connecting to DDHP without pads and homes interspersed within it would be less than under the Proposed Project, where a solid 34.8-acre block of habitat south of the development footprint would be protected.

Although a substantial amount of the site (approximately 55 acres) would be placed into open space easements under the alternative, the fragmentation of the habitat would result in additional visual changes to the southern slope that would not occur under the Project. The placement of the easement on those parcels also would result in the extent of the residential development remaining visible over the long term. Even if substantial landscaping/vegetative screening is provided on the pad, the requirement to maintain the interspersed open space in its natural state would result in homes being placed within areas of low-growing scrub habitats, and therefore always remaining highly visible. This would be visually consistent with development in the area, but also would minimize the perception of topographic feature preservation, and would encroach further into the feature of existing site open space preserved under the Project.

Similar to the Proposed Project, this alternative would be anticipated to result in significant short-term visual effects related to the construction period and for some years of Project use. The intensity of those adverse effects could be greater when compared to the Proposed Project, because the placement of a number of lots would be at a higher elevation than the Proposed Project and therefore more visible. Similar to the Proposed Project, there would not be significant long-term impacts. Overall, when compared to the Proposed Project, this alternative would result in similar impacts to aesthetics.

Transportation/Traffic

This alternative assumes 12 daily trips per residence, based on SANDAG's 2002 *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*, which identifies use rates by type of use/density. The 49 units proposed for this alternative, therefore, would generate a total of 588 ADT. This is 87 percent fewer trips than the 4,350 ADT projected for the Proposed Project. Based on these figures, potential transportation/traffic impacts from this alternative would have lower overall a.m. and p.m. peak period volumes and lighter distribution overall to the area roadway system than under the Proposed Project.

Seven impacts identified for the Proposed Project would not occur under this alternative. In addition, four segment impacts would not occur. These segments include direct and cumulative impacts to Country Club Drive between Auto Park Way to Hill Valley Drive in the City of Escondido. They also include cumulative impacts to Harmony Grove Road between Harmony

Grove Village Parkway and Kauana Loa Drive, and to Harmony Grove Village Parkway between Harmony Grove Road and Citracado Parkway, as well as Country Club Drive Hill Valley Drive and Kauana Loa Drive. Only two segments of Harmony Grove Road would experience CEQA-significant impacts (cumulative only) from traffic generated by 49 residential units. These impacts would occur between Country Club Drive and Harmony Grove Village Parkway, and between Kauana Loa Drive and Enterprise Street, both within County jurisdiction. Mitigation is available, and cumulative impacts would be addressed through payment into the TIF program and/or direct improvements, as described in Section 2.2 of this EIR.

Cumulative impacts to two intersections within City of Escondido jurisdiction assessed to the Proposed Project also would not occur under this alternative, which would eliminate significant and unmitigated impacts identified for the Proposed Project due to the inability to ensure implementation of proposed mitigation within this neighboring jurisdiction. Similarly, the Proposed Project cumulative impact to the unsignalized intersection at Harmony Grove Road and Kauana Loa Drive would not occur under this alternative. The Proposed Project direct impact at the Country Club Drive and Harmony Grove Road signalized intersection that is being cured through M-TR-2a (incorporated into Project design for the Proposed Project), would be addressed through a similar mitigation measure requiring a new lane and dedicated right-turn lane with an overlap phase, as described for the Project. The cumulative impact would be addressed through M-TR-2b, TIF payment, and that would also be required for this alternative.

Overall, the transportation impacts associated with the General Plan Consistent with Septic Alternative would be less than the Proposed Project due to a notable reduction in project ADT.

Biological Resources

Due to reduced grading and surface disturbance, the General Plan Consistent with Septic Alternative would impact fewer acres of habitat than the Proposed Project. It would include lots further to the south than the Proposed Project, however, would result in additional impacts to wart-stemmed ceanothus and potentially coast live oak woodland, and would bring residential units closer to DDHP. This alternative would result in a greater level of fragmentation to preserved open space than the Proposed Project. This is because the retained habitats would contain dispersed housing and roads to access them, resulting in fingers of preserve being located within and throughout the alternative development scenario. These interspersed preserve areas would be subject to greater levels of edge effects than under the Proposed Project, where the BOS would consist of contiguous open space abutting development on only one side, and that limited to the southern extent of the development bubble.

Off-site impacts to Escondido Creek jurisdictional wetlands would be similar to the Proposed Project because a bridge would be installed over Escondido Creek. Construction-period effects also would occur due to potential for on-site blasting in non-rippable areas during grading and potential for pile-driving requirements at the Escondido Creek bridge. Another creek-related issue would be potential failure of the planned alternative septic system. Review of the County's Environmental Health website (http://www.sandiegocounty.gov/content/sdc/deh/lwqd/lu_septic_systems.html) indicates that issues with leach fields and failure of other septic system elements are known to result in groundwater contamination. If such failure occurred under this alternative, downstream pollution also could occur in Escondido Creek.

Overall, impacts to biological resources under this alternative could be considered less than those of the Proposed Project due to the reduction in the grading quantity and initial surface disturbance, resulting in fewer habitat impacts. The increased fragmentation of that habitat, however, would result in reduced biological function and an overall assessment of greater biological impact when compared to the Proposed Project.

Cultural Resources and Tribal Cultural Resources

As discussed in detail in Subchapter 2.4, no known significant impacts would result from Project implementation. Although considered unlikely, there is potential for significant direct impacts related to discovery of unknown buried archaeological resources or burials. As with the Proposed Project, impacts to cultural resources under this alternative would be reduced below a level of significance through applicable mitigation measures requiring an archaeological monitoring and data recovery program, described in Subchapter 2.4 under M-CR-1 and 2. When compared to the Proposed Project, this alternative would result in similar impacts to cultural resources.

Noise

Although there would be a reduced amount of grading required for the General Plan Consistent with Septic Alternative, the further encroachment to the south could require additional blasting.

Construction noise associated with potential blasting in non-rippable areas could result in significant construction-period noise impacts, similar to the Proposed Project. If such activities are identified within these thresholds during final design, design considerations as described in Chapter 1.0, and mitigation as described in Subchapter 2.5, would be required, which would lower these construction-period noise effects to less than significant levels. Noise effects associated with bridge construction over Escondido Creek would remain.

Off site, the reduction in number of residences associated with this alternative would result in a related smaller number of vehicle trips due to the reduced generation of vehicle trips per day (588 ADT for this alternative versus the 4,530 ADT for the Proposed Project). The reduced trip generation would result in a decrease in traffic-related noise impacts to two on-site residences. Potential operational effects associated with the Proposed Project WTWRF would not occur as sewage would be dealt with on the individual lots, further reducing impacts related to noise.

Overall, impacts to noise under this alternative would be less than those of the Proposed Project due to the decrease in vehicle trips per day and a reduction in associated off-site noise impacts.

Air Quality

Short-term construction-related air quality impacts associated with the General Plan Consistent with Septic Alternative would be less than the (less than significant) effects associated with the Proposed Project, because of the reduced amount of required grading. Impacts also would be less than the (less than significant) Proposed Project's operations, due to fewer associated vehicular trips. In addition, the significant and unmitigable air quality impact associated with the Proposed Project's exceedance of the 2016 RAQS would not occur for this alternative as the RAQS modeling assumes land uses proposed under the 2011 General Plan and this alternative proposes fewer homes than allowed under the adopted General Plan.

As a result, impacts to air quality under the General Plan Consistent with Septic Alternative would be reduced compared to the Proposed Project.

Greenhouse Gas Emissions

This alternative would have a smaller grading footprint, would not implement an on-site WTWRF, and would have substantially fewer residences with associated vehicular trips. As it is assumed these homes would be built in accordance with the General Plan and compliance with the Climate Action Plan,[3] this alternative would not have a significant cumulative impact. As described for the Proposed Project, however, all cumulative impacts associated with Proposed Project emissions would be mitigated to carbon neutral net zero through implementation of M-GHG-1 (addressing construction ~~period emissions) and M-GHG-2 (addressing~~ and operational emissions exceeding reductions achieved through PDFs) as well as on-site reductions and sequestration provided through the landscaping plan. Although initial GHG emissions under the General Plan Consistent with Septic Alternative would be less than those of the Proposed Project, implementation of mitigation identified in Subchapter 2.7 for the Proposed Project would result in similarly less than significant cumulative impacts.

Conclusions

The General Plan Consistent with Septic Alternative would result in reduced impacts to transportation/traffic, noise and air quality when compared with the Proposed Project. Impacts would be similar for long-term aesthetics, cultural resources, and GHGs. As explained above, biological resources impacts would be less for habitat impacts and greater for biological function.

Although this alternative would reduce some impacts and be consistent with the General Plan, it would not achieve the underlying purpose of the Project of accommodating a portion of the projected population growth and housing needs in San Diego County by expanding an existing village that will further enhance and support the success of that village. Also, the alternative would not meet the Project objectives to the same degree as the Proposed Project, as described below.

The low density, dispersed pattern of development provided in this alternative would limit the ability to fully meet Objective 1 because it would not provide an efficient development pattern in close proximity to an existing village consistent with the Community Development Model (CDM). The General Plan Consistent with Septic Alternative has a limited ability to support the economic and social success of the existing village (Objective 1) when compared to the Proposed Project because the substantial decrease in number of residents would not provide the same level of support to HGV's commercial uses and the alternative would lack the diversity in land uses needed to promote social interaction. Similarly, the General Plan Consistent with Septic Alternative's land use pattern (dispersed large-lot single-family) is inferior to the Proposed Project in meeting Objectives 5 and 6 which encourage a mix of residential units and a broad range of housing choices which result in a diversity of residents and land uses. With substantially fewer units, this alternative

[3] In late February 2018, the County adopted the Climate Action Plan (CAP). For purposes of this analysis, it is assumed that because this alternative is General Plan compliant, implementation of this alternative would be able to rely on the CAP Checklist compliance rather than ~~purchase of offsets in addition to being consistent with the CAP~~,mitigation as ~~is~~ proposed for the Proposed Project. Regardless, the GHG conclusions remain the same: the Proposed Project would result in similarly less than significant cumulative impacts.

would be less effective in optimizing the operational effectiveness of public facilities and services of the alternative or the existing village.

The low density dispersed land use pattern represented in this alternative is contrary to Objective 2 because the auto-dependent development pattern proposed would not contribute to the establishment of a community that encourages and supports multi-modal transportation including walking or bicycling. Similarly, this alternative would not meet Objective 7 because it would not create a destination gathering place with a variety of land uses, such as the Project's Center House, that encourages walkability, social interaction and economic vitality. When compared to the full range of passive and active recreational opportunities provided by the Proposed Project, this alternative would be less effective in meeting Objective 4. The alternative appears to better realize the Objective 8 goal of physically responding to the site's physical variables through use of less grading, but would encroach into visible areas that would be retained as open space by the Proposed Project as a site feature. On balance, and for different reasons, the alternative is considered to achieve Objective 8 to the same extent as the Project.

Similar to the Proposed Project, the General Plan Consistent with Septic Alternative would meet Objective 3 because it does preserve and enhance biological habitat and landforms in dedicated open space easements. It would not, however, enhance sensitive biological resource function to the same extent as the Proposed Project.

4.4 Analysis of the General Plan Consistent with Sewer Alternative

4.4.1 Description of the General Plan Consistent with Sewer Alternative

The General Plan Consistent with Sewer Alternative would allow development in accordance with the General Plan Land Use designation of the Semi-Rural Regional Category. Approximately 110 acres is designated Semi-Rural Residential (SR-0.5) and the remaining portion of the Project site is designated Rural Lands (RL-20). This alternative would implement the County's Conservation Subdivision Program (CSP) over the 110 acres designated as SR-0.5 in conjunction with Planned Development Regulations. The remaining approximately 1 acre would remain outside the CSP and be maintained as open space.

The intent of the CSP is to encourage residential subdivision design that improves the preservation of sensitive environmental resources and community character. Planned Development Regulations allow for reductions in lot size and other design restrictions for conservation subdivisions when a certain percentage of open space is provided. Under Planned Development regulations, all properties within SR designations must contain a minimum of 40 percent of conservation/group open space. In addition, each lot must contain a minimum of 1,000 s.f. of private usable open space.

As shown on Figure 4-2, *General Plan Consistent with Sewer Alternative*, the CSP and PD Regulations would apply to the 110 acres designated as SR-0.5. This alternative would yield 119 single-family homes constructed on minimum 6,500-s.f. lots and sited to preserve sensitive biological resources and steep slopes. Some lots in the north of the alternative, all along the eastern and southern extents, and along the western site boundary south of the curve in Country Club Drive, would be larger, ranging from approximately 0.5 acre to 2.0 acres in size. Approximately

738,000 cy of cut and fill soil would be required for this alternative. This is approximately 13 percent less than the 850,000 cy assumed for the Proposed Project. This alternative would grade approximately 62 acres (59 percent of the site) and develop approximately 49 acres (approximately 44 percent). Approximately 44 percent of the site (49 acres of open space) also would be dedicated for conservation/preservation, and each of the lots would be required to include 1,000 s.f. of private open space. Although steep natural slopes outside the development footprint would be preserved to a greater degree than under the Proposed Project, a waiver for encroachment into insignificant RPO steep slopes as well as an exception for roadways would be required, similar to the Proposed Project.

Due to the fewer number of units, this alternative would not include trails, a community center or commercial mixed use. Six parks would be provided, however, consistent with the County PLDO and Subdivision Ordinance requirements. Because of the efficient footprint within the heart of the alternative, benching and retaining walls would be required to support alternative pads. All internal roadways would be private and would be constructed to the same standard as the Proposed Project.

The General Plan Consistent with Sewer Alternative would require connection to a WRF because the smaller lot sizes make individual septic units impossible. Because the HGV Specific Plan and Community Plan currently require that HGV's WRF be used only for HGV to provide sewage service to Village homes, this alternative would require a GPA to allow for connection to the HGV sewage treatment facility and also would require an amendment to the HGV Specific Plan and an Elfin Forest/Harmony Grove Community Plan Amendment to allow sewer services to be provided to Semi-rural designated areas beyond the HGV Village boundaries.

The purpose of this alternative would be to avoid or reduce impacts to sensitive resources (steep slopes and biology) in the block of open space surrounded on two sides by DDHP, as well as steep slope impacts in the northeast portion of the alternative, traffic impacts, and aesthetic impacts associated with the Proposed Project. It also would provide consistency with the existing general plan land use designation with a greater number of units through utilization of the CSP and PD regulations.

4.4.2 Comparison of the Effects of the General Plan Consistent with Sewer Alternative to the Proposed Project

The anticipated environmental effects resulting from the General Plan Consistent with Sewer Alternative are described below. A comparison of the impacts identified for this alternative and the Proposed Project is shown in Table 4-1.

Aesthetics

Similar to the Proposed Project, implementation of the General Plan Consistent with Sewer Alternative would introduce structures to the valley floor and slopes of the hills in the northerly portion of the property. This is the area that is most visible from off-site locations, and as such, would contain visible built uses.

Within the building envelope, and similar to the Proposed Project, homes aligned north-south in the northern part of the property would turn to follow a more east-west direction around the curve of the hill where lots would be smaller. This alternative would result in fewer residential dwelling

units than the Proposed Project. Larger lots (each approximately 0.5 acre in size) would be located within the northern portion of the alternative close to Harmony Grove Road, along most of the western perimeter, and along the southern portion of the development footprint. Lots ranging up to 2.0 acres in size would be aligned along the northeastern portion of the property. These residences would be the closest on-site uses to the estate lots located east of the property in the County. Placing the larger lots along the perimeter would provide a softer transition to adjacent open space and existing residences on abutting parcels. Within the heart of the alternative, benching and retaining walls would be required to support alternative lots. Those cut slopes would be potentially steeper and more abrupt than the adaptive grading implemented under the Proposed Project. Their modified nature may remain visible, even after landscaping, due to the more engineered design and the required use of additional retaining walls over those proposed for the Proposed Project. This would somewhat counteract the visual benefits provided by the reduced grading along the southern perimeter. The larger lots also allow for flexibility and avoidance of steep slope impacts related to grading. As shown on Figure 4-2, the alternative is very responsive to RPO-protected steep slope avoidance. Where protected slopes cannot be avoided, no more than 10 percent of the lot would be encroached upon, consistent with the ordinance. As a result, portions of steep slopes in the northeastern part of the alternative that the Proposed Project would impact for road right-or-way or residential lots (as part of Lot 2), would be less affected by this alternative.

As indicated above, this alternative would allow a reduction in grading quantity and initial visible footprint of approximately 13 and 8 percent, respectively, when compared to the Proposed Project. The reduced grading quantity and footprint would result in reduced views to modified slopes in certain locations, with smaller amounts of raw soil and broken rock being visible in the short term during project grading. As cut slopes would be fewer than under the Proposed Project, issues with raw cut rock could be commensurately less as well. The Proposed Project, however, would only develop on approximately 29 percent of the site, preserving the remaining areas into open space, parks and landscaped areas as compared to this alternative that would develop on approximately 44 percent of the site.

Similar to the Proposed Project, the General Plan Consistent with Sewer Alternative would be anticipated to result in significant short-term visual effects related to the construction period and for some years of Project use. The intensity of those short-term adverse effects would be less when compared to the Proposed Project because of the smaller footprint. Because a bridge would be built over Escondido Creek, the loss of vegetation (and subsequent revegetation) would be expected to be similar for both the Project and this alternative.

In conclusion, balancing the more intensive in-development building pattern, including additional benching and retaining walls, against the fewer number of dwelling units and reduced footprint to the south, and the size of the northeastern residential lots (which may be considered more visually consistent with off-site single-family residential uses to the east), the aesthetic impacts under this alternative would be incrementally less than the Proposed Project.

Transportation/Traffic

Assuming an ADT of 10 per DU (based on SANDAG's 2002 *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*, which identifies use rates by type of use/density), this alternative would generate a total of 1,190 ADT, which is approximately

26 percent of the 4,530 ADT that would be generated by the Proposed Project, or a reduction of 74 percent. Potential transportation/traffic impacts from this alternative are therefore anticipated to be less than those identified for the Proposed Project; with lower overall a.m. and p.m. peak period volumes and lighter distribution overall to the area roadway system. Seven significant impacts identified for the Proposed Project would not occur under this alternative. These segments include direct and cumulative impacts to Country Club Drive between Auto Park Way to Hill Valley Drive in the City of Escondido. They also include cumulative impacts to Harmony Grove Road between Harmony Grove Village Parkway and Kauana Loa Drive, and to Harmony Grove Village Parkway between Harmony Grove Road and Citracado Parkway, as well as Country Club Drive Hill Valley Drive and Kauana Loa Drive.

Only two segments of Harmony Grove Road would experience impacts (cumulative only) from traffic generated by 119 residential units. These cumulative impacts would occur on Harmony Grove Road between Country Club Drive and Harmony Grove Village Parkway, and between Kauana Loa Drive and Enterprise Street, both within County jurisdiction. As for the Project, mitigation is available, and cumulative impacts would be addressed through payment into the TIF program and/or direct improvements, as described in Section 2.2 of this EIR. Direct and cumulative impacts identified for the Proposed Project on Country Club Drive between Auto Park Way and Hill Valley Drive, on Harmony Grove Road between Harmony Grove Village Parkway and Kauana Load Drive, and on Harmony Grove Village Parkway between Harmony Grove Road and Citracado Parkway, all would be avoided under this alternative.

Similarly, significant cumulative impacts identified for the Proposed Project would not be triggered at the signalized intersections of Country Club Drive and Auto Park Way or Valley Parkway and Citracado Parkway in the City of Escondido; or at the unsignalized County intersection of Harmony Grove Road and Kauana Loa Drive, under this alternative. Mitigation measure M-TR-2a would mitigate the Proposed Project's direct impact to the Country Club Drive and Harmony Grove Road intersection; similar mitigation would be implemented under this alternative requiring a new lane and dedicated right-turn lane with an overlap phase. The cumulative impact would be addressed through M-TR-2b, TIF payment, and that would also be required for this alternative.

Overall, the transportation/traffic impacts under this alternative would be less than the Proposed Project due to the fewer number of units and reduced traffic generation.

Biological Resources

Due to the reduced grading and initial surface disturbance, this alternative would impact fewer biological resources than the Proposed Project.

Differences between this alternative and the Proposed Project focus on upland habitat impacts. Impacts to Escondido Creek jurisdictional wetlands would be similar because a bridge would be installed over Escondido Creek.

The grading footprint for this alternative would total approximately 62 acres, which would be less than the Proposed Project at approximately 71 acres. All areas not within lots would be conserved as part of this conservation subdivision, and placed into BOS under this alternative. The solid block

of preserved habitat in the southern extent of the property would be larger than that preserved under the Proposed Project at approximately 49 (approximately 44 percent of the site) rather than approximately 35 acres.

Impacts to habitat on the east side of the property would be generally the same as for the Proposed Project. This alternative would impact a portion of Intermediate Value Diegan coastal sage scrub habitat known to support one California gnatcatcher breeding pair recorded along the eastern boundary of the site in 2014. These impacts would be significant and would be mitigated through the mitigation identified in Subchapter 2.3.

Although homes would be set further to the west compared to the Project, lessening potential for indirect noise and light impacts, there could be reduced on-site area for wildlife movement. A direct, north-south connection of core scrub and chaparral habitat between DDHP and Escondido Creek does not exist through the Project site due to patchy habitat and some existing development; but areas along the eastern boundary of the site could facilitate north-south movement to and from Escondido Creek. (Areas farther to the east of the site also are less constrained, where a direct connection of scrub and chaparral habitat occurs along West Ridge.) Because the eastern portion of the alternative layout would be in lots commensurate with the larger single-family homes under this alternative, area under the Proposed Project provided as on-site corridor would not occur under this alternative. The existing corridor would continue off site, with a width of approximately 700 feet (the corridor would be approximately 1,000 feet in width under the Proposed Project).

As noted above, the General Plan Consistent with Sewer Alternative would provide additional preserved open space along the south side of the development footprint when compared to the Proposed Project. This would allow for increased preservation of chaparral habitat that has notable sensitive plant species, such as wart-stemmed ceanothus and summer holly. The additional acreage in conserved open space would contribute to the open space set-aside that connects directly to the DDHP on both its east and south side, providing a larger block of contiguous habitat next to this existing preserve. Also, although the Proposed Project would not directly impact on-site (non-RPO) jurisdictional waters, some brush management impacts south of the Project build footprint are anticipated to occur. These would not occur under this alternative, which has a southern development boundary slightly further to the north.

Similar to the Proposed Project, design features identified in Table 1-2 for biological resources would be applicable to this alternative. Also similar to the Proposed Project, all CEQA-identified biological impacts under this alternative would be reduced below a level of significance through mitigation measures M-BI-1a through M BI-9 such as construction timing restrictions, and appropriate habitat preservation (through purchase of off- site properties or existing credits) and/or creation.

Overall, the biological impacts under this alternative would be generally similar to the Proposed Project. This is based on balancing the similar impacts to Diegan coastal sage scrub and associated species, the increased open space to the south, and the narrower wildlife movement corridor.

Cultural Resources and Tribal Cultural Resources

As discussed in detail in Subchapter 2.4, no known significant impacts would result from Project implementation. Although considered unlikely, there is potential for significant direct impacts related to discovery of unknown buried archaeological resources or burials. As with the Proposed Project, impacts to cultural resources under this alternative would be reduced below a level of significance through applicable mitigation measures requiring an archaeological monitoring and data recovery program, described in Subchapter 2.4 under M-CR-1 and 2. When compared to the Proposed Project, this alternative would result in similar impacts to cultural resources.

Noise

Short-term construction-related noise impacts associated with this alternative would be less than those associated with the Proposed Project, because of the reduced amount of grading and smaller footprint. Regardless, construction noise associated with potential blasting in non-rippable areas could result in significant construction-period noise impacts, similar to the Proposed Project. The likelihood of such impacts would be less than for the Proposed Project, because the southern boundary of the construction envelope would be located farther north than under the Proposed Project, and therefore farther away from some existing homes along the western Project parcels. If such activities are identified within these thresholds during final design, design considerations as described in Chapter 1.0, and mitigation as described in Subchapter 2.5, would be required, which would lower these construction-period noise effects to less than significant levels. Noise effects associated with bridge construction over Escondido Creek would remain.

The proposed 119 homes under the alternative generate fewer vehicle trips per day (1,190 ADT for this alternative [assuming 10 ADT per home] versus 4,530 ADT for the Proposed Project). The reduced trip generation would result in a decrease in off-site traffic-related noise impacts.

Overall, the construction and operations noise impacts under this alternative would be less than the Proposed Project due to the reduced footprint and fewer vehicular trips.

Air Quality

Short-term construction-related air quality impacts associated with the General Plan Consistent with Sewer Alternative would be less than the (less than significant) effects associated with the Proposed Project, because of the reduced amount of required grading. Impacts also would be less than the (less than significant) Proposed Project's operations, due to fewer associated vehicular trips. The significant and unmitigated air quality impact associated with exceedance of the 2016 RAQS would not occur for this alternative as the RAQS modeling assumes land uses proposed under the 2011 General Plan and this alternative proposes fewer residential lots than allowed under the adopted General Plan.

As a result, impacts to air quality under the General Plan Consistent with Sewer Alternative would be reduced compared to the Proposed Project.

Greenhouse Gas Emissions

This alternative would have a smaller grading footprint, would not implement an on-site WTWRF, and would have substantially fewer residences with associated vehicular trips. As it is assumed these homes would be built in accordance with the General Plan and compliance with the CAP,[4] this alternative would not have a significant cumulative impact. As described for the Proposed Project, however, all impacts associated with Proposed Project emissions would be mitigated to carbon neutral net zero through implementation of M-GHG-1 (addressing construction ~~period emissions) and M-GHG-2 (addressing~~ and operational emissions exceeding reductions achieved through PDFs) as well as on-site reductions and sequestration provided through the landscaping plan. Although initial GHG emissions under the General Plan Consistent with Sewer Alternative would be less than those of the Proposed Project, implementation of mitigation identified in Subchapter 2.7 for the Proposed Project would result in similarly less than significant cumulative impacts.

Conclusions

The General Plan Consistent with Sewer Alternative would result in less aesthetic, transportation/traffic, air quality, and noise impact than the Proposed Project. Impacts to biological resources, cultural resources, and GHGs would be similar.

Although this alternative would reduce impacts it does not achieve all of the Project objectives to the same degree as the Proposed Project. The alternative would not meet Objective 1 because it would not provide an efficient development pattern in close proximity to an existing village consistent with the CDM that creates one complete and vibrant village community and enhances and supports the economic and social success of the existing village and the alternative. The low density single-family pattern represented in this alternative has limited ability to support the economic and social success of the existing village and the alternative because it would not increase the number and diversity of residents and land uses when compared to the Proposed Project.

The single-family land use pattern represented in this alternative, as evidenced by developing on approximately 44 percent of the site, would be contrary to Objective 2 because the reduced number of units and auto-dependent development pattern (no trails and pathways) would not contribute to the establishment of a community that encourages and supports multi-modal transportation. Similarly, this alternative's land use pattern (single family) is inferior to the Proposed Project in meeting Objectives 5 and 6 which encourage a mix of residential units and a broad range of housing choices which result in a diversity of residents. Also as a result of having substantially fewer units when compared to the Project, this alternative is less effective in optimizing the operational effectiveness of public facilities and services of the existing village. When compared to the full range of passive and active recreational opportunities provided by the Proposed Project, including the Center House community area and multiple parks throughout the Proposed Project, as well as trail heads and trails, the alternative would be less effective in meeting Objective 4. This alternative would not meet Objective 7 because it would not create a destination gathering place

[4] See footnote 3, above.

with a variety of land uses, such as the Project's Center House, that would encourage walkability, social interaction and economic vitality.

Relative to Objective 8, within the development footprint in the heart of the alternative, the more intensive engineered nature of the grading–with additional benching and retaining walls, and lessened contour/adaptive grading–would not respond to the site's physical variables to the extent of the Proposed Project. Topographic variation and visibility to existing site characteristics would be lessened from that achieved by the Proposed Project. Views to developed lots and streets would be increased under the alternative and sight-lines into the site and between structures afforded by the Proposed Project would be reduced, although balanced somewhat by a reduction in building on steep slopes in the northeastern portion of the property, and the potential for some sight-lines between homes on the larger lots on the central bench. Overall, this alternative would not be as responsive to Objective 8 as the Proposed Project in selectively placing development in a manner that visually and physically responds to the site's physical variables.

This alternative would meet Objective 3 because it does preserve and enhance biological resources. A larger conservation area adjacent to DDHP would result under this alternative than under the Proposed Project.

4.5 Analysis of the Senior Care Traffic Reduction Alternative

4.5.1 Description of the Senior Care Traffic Reduction Alternative

The Senior Care Traffic Reduction Alternative is intended to substantially reduce impacts associated with traffic in the context of providing a development pattern that would increase density adjacent to the existing HGV Village through a GPA. As shown on Figure 4-3, *Senior Care Traffic Reduction Alternative*, this alternative consists of a senior citizen community made up of 266 single-family age-restricted residences and five two-story structures totaling 120 units of managed care facility. The trip generation rates for-age restricted residential units and a managed care facility are substantially less than non-age-restricted residential units. The Proposed Project is projected to result in 4,530 ADT based on 10 trips per residence (based on SANDAG's 2002 *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*, which identifies use rates by type of use/density). The trip rates for age-restricted and managed care facilities are 4 trips per residence and 2.5 trips per unit, respectively. Using this generation rate, development under the Senior Care Traffic Reduction Alternative would result in 1,364 ADT, or 3,166 (70 percent) fewer trips than the Proposed Project per day.

This alternative would incorporate the unique design requirements for this type of development. All 266 single-family residences would be one story due to the age-related nature of the development. Also, given the demand for security features in such projects, the single-family residential units as well as the managed care units would be clustered into discrete gated neighborhoods. Public pedestrian access between the neighborhoods and provision of a sense of connection between the neighborhoods and HGV would be provided. Each of the neighborhoods, including the numerous **(**17) small parks, would be located in a manner that complies with the County's PLDO requirements and allows accessibility to the public.

No commercial uses or community gathering locale would be provided because the fewer number of single-family dwelling units in this alternative would not be able to support such uses on site. This alternative would include an on-site WTWRF and all roads within the community would be private, similar to the Proposed Project. A landscaping plan would be implemented as part of this alternative. Due to the lower-density design (generally single-story residences that appeal to the age-restricted market) the grading footprint would be greater than the Proposed Project. This alternative would grade approximately 82 acres (74 percent of the site), and develop on approximately 66 acres (60 percent) of the site. This alternative also would have greater grading quantities (1,450,000 cy) than the Proposed Project, or approximately 71 percent more than the Proposed Project at 850,000 cy.

Area retained in undisturbed open space would be approximately 30 acres, or 27 percent, of the site. Adding this to the park and other internal open space (approximately 15 acres overall) would result in a total of approximately 45 acres (41 percent of the site) in open space. In order to accommodate the alternative's more dispersed development design, two of the gated neighborhoods would be extended into a small portion of the area that is preserved as open space by the Proposed Project and on the portion of the project that contains insignificant RPO steep slopes; this would extend into a large block of open space in the southern part of the site that would be avoided by the Proposed Project. The alternative would also require a waiver under RPO. Similar to the Proposed Project, the Senior Care Traffic Reduction Alternative would require a GPA, rezone and approval of a Specific Plan.

4.5.2 Comparison of the Effects of the Senior Care Traffic Reduction Alternative to the Proposed Project

Aesthetics

This alternative would primarily consist of 266 single-family homes of a consistent height. The building heights of these homes would be compatible with existing development in the Project vicinity generally located to the west (generally one story in height) and less so to the east of the site (generally estate housing exceeding one story). The uniform small lots with the individual homes would appear less consistent in lot size with uses to the west, east and north (HGV) of the site; excluding the HGSA, approximately 0.25 mile to the west. Although the managed care facility would introduce a different land use to the surrounding area, the 120 units of managed care facility would be located in two-story buildings which would be similar in height to some of the structures located in HGV immediately adjacent to the alternative and with some of the large estate-style homes with multiple stories that surround portions of the project site. These two-story structures would be sited generally more internal to the alternative, with only one structure aligned along nearby Country Club Drive.

As indicated above, this alternative would result in increased grading quantity and footprint when compared to the Proposed Project, including homes sited in the area preserved as open space by the Proposed Project, as well as a small increased number of homes on the northeastern knoll.

Similar to the Proposed Project, the Senior Care Traffic Reduction Alternative would be anticipated to result in significant short-term and unmitigable visual effects related to construction and for some years of Project use until the landscaping required as part of alternative design

reaches maturity. At that time, temporary visual impacts associated with views to raw soil and immature landscaping would be reduced to less than significant levels. Although the CEQA impact would be the same, the intensity of those short-term adverse effects, would be greater for this alternative because of the larger footprint.

The increased grading quantity and footprint also could result in increased views to modified slopes in certain locations, with larger amounts of raw soil and broken rock potentially being visible from certain locales. Impacts relative to broken rock would be mitigated similar to the Proposed Project as described in M-AE-1, in Subchapter 2.1 of this EIR. Because a bridge would still be installed over Escondido Creek, the loss of vegetation (and subsequent revegetation) would be expected to be similar for both the Project and this alternative.

It is expected that upon buildout and full vegetative maturity of both HGV and HGV South, this alternative would blend with the village to the north, similar to the Proposed Project. Overall, this alternative would be similar to the Proposed Project relative to encroachment into steep slopes. As noted above, however, and as indicated in a comparison of Figure 4-3 for this alternative with Figure 1-6a depicting the Proposed Project, the alternative would have a larger grading footprint, and, ultimately, develop on more area in long-term lots and streets than the Proposed Project. This alternative would grade more area (approximately 74 percent of the site), and ultimately build approximately 60 percent of the site out in lots and streets, with less space allotted to exterior or interior revegetated slopes. Adding the area retained in undisturbed open space (approximately 30 acres) to the park uses and other internal open space (approximately 15 acres overall) would result in a total of approximately 45 acres (41 percent of the site) in open space; much less than the 75 acres (68 percent of the site) under the Proposed Project.

Structural development would be generally lower (one- versus two-to-three-story structures for single-family residential uses when compared to the limited three- to four-story multi-family uses under the Proposed Project), which may result in some increased visibility over the development to hills southerly of the alternative. The surrounding heights of rimming ridge lines and topographic features to the southeast and south, however, would minimize the visual difference in these heights (refer to Figure 2.1-8a). The more regular lot layout (more consistent lot sizing and distribution over the site relative to more traditional single-family detached subdivision design and grouped rectangular care units) would not provide open sight lines into the site's interior slopes. This would contrast with the Proposed Project interior slopes, which, due to wider swaths of undeveloped area, would allow for substantial vegetation, and a greater visible link to the underlying topography along these open areas. The amount of topographic variation and visibility to existing site characteristics would be lessened from that achieved by the Proposed Project due to the substantially greater grading quantities, greater acreage allotted to lots and streets under the alternative, the obscuring of site soils with structures, and the reduced sight-lines into the site and between structures afforded by the Proposed Project.

Overall, the alternative would provide greater contiguous structural massing and less visual open space from off-site locations, but the visual effect of the larger footprint would be off-set over the long-term by the lower height of the residences, and implementation of the landscape plan combined with set back of the lots from public Country Club Drive. As a result, the ultimate aesthetic impacts under this alternative overall would be different from, but an equal level to, impacts assessed to the Proposed Project.

Transportation/Traffic

As described above, the Senior Care Traffic Reduction Alternative would result in 1,364 ADT, or 3,166 (70 percent) fewer trips than the Proposed Project per day. The decrease in the numbers of trips would be substantial, and as a result, the related transportation/traffic impacts under this alternative would be anticipated to be substantially less than those of the Proposed Project. There would be lower overall a.m. and p.m. peak period volumes and lighter distribution overall to the area roadway system. Five significant impacts would be eliminated.

The cumulative traffic impacts to Harmony Grove Road between Harmony Grove Village Parkway, and Kauana Loa Drive, and to Country Club Drive between Hill Valley Drive and Kauana Load Drive, would be eliminated under this alternative. Even where significant impacts remain, they would be reduced from the Proposed Project. County segments remaining significant would be mitigated to below a level of significance as described under M-TR-3, -4, -6, and -7 through focused improvements or TIF payments. Similar to the Proposed Project, the segment of Country Club Drive within the City of Escondido's jurisdiction would be mitigated to below a level of significance through physical improvements as described under Subchapter 2.2 M-TR-1a and -1b (including widening and re-striping) for direct impacts and through reduced fair-share fees for the cumulative impact.

Proposed Project cumulative impacts to the signalized intersections of Country Club Drive/Auto Park Way and Valley Parkway/Citracado Parkway in the City of Escondido and to the unsignalized County intersection at Harmony Grove Road and Kauana Load Drive, would be eliminated under this alternative. The direct impact at the Country Club Drive and Harmony Grove Road intersection that is being cured through M-TR-2a (incorporated into Project design for the Proposed Project), would be addressed through a similar mitigation measure requiring a new lane and dedicated right-turn lane with an overlap phase, as described for the Project. The cumulative impact would be addressed through M-TR-2b, TIF payment, and that would also be required for this alternative.

All impacts in the County would be fully mitigated. Relative to the City of Escondido, the City is the lead agency under CEQA for impacts within their jurisdiction, and has responsibility for approval/assurance of implementation of those improvements. As such, the County cannot guarantee ultimate implementation or timing of City of Escondido-approved mitigation in this County EIR. As a result, and similar to the Proposed Project, although mitigation identified in Subchapter 2.2 (M-TR-1a and -1b) has been identified to lower the single segment within the City with significant impacts to less than significant levels under CEQA, impacts within Escondido are identified as remaining significant and unavoidable pending City action.

Overall, the transportation/traffic impacts under this alternative would be less than the Proposed Project due to the lower ADT generation rates attributed to this land use category.

Biological Resources

Due to increased grading and surface disturbance, the Senior Care Traffic Reduction Alternative would impact more biological resources than the Proposed Project. Although some of the southern portion of the site would be avoided by this alternative and placed in BOS, the alternative's

dispersed development plan would result in the need for a greater grading footprint than the Proposed Project; resulting in an impact to the large block of open space in the southern part of the Project area that would be avoided by the Proposed Project. This area includes a number of resources as shown on Figure 2.3-1, including chaparral containing numerous sensitive wart-stemmed ceanothus and limited San Diego sagewort. Although some areas containing wart-stemmed ceanothus and ashy spike-moss would be avoided in the alternative that would be impacted by the Proposed Project, the alternative would impact other areas preserved under the Proposed Project (see Figure 2.3-5 for areas impacted and retained in open space under the Proposed Project) and would additionally fragment retained open space as a result of necessary access roads.

This alternative would initially grade approximately 11 acres more than the Proposed Project, and also would preserve associated less acreage than the Proposed Project in open space. For the Proposed Project, 34.8 acres, or 31 percent of the site would be placed into BOS. For the alternative, approximately 30 acres, or 27 percent of the site, would be placed into open space containing BOS and steep slopes.

Differences between this alternative and the Proposed Project focus on upland habitat impacts, and specifically to chaparral impacts in areas containing wart-stemmed ceanothus. Similar to the Proposed Project, this alternative would impact intact Diegan coastal sage scrub habitat where a coastal California gnatcatcher breeding pair was observed in 2014. Impacts to Escondido Creek jurisdictional wetlands would be similar because a bridge would still be installed over Escondido Creek. Similar to the Proposed Project, this alternative would require design features such as open space set-aside containing wart-stemmed ceanothus and other construction and operational measures identified on Table 1-2 of this EIR, as well as mitigation measures M-BI-1a through M-BI-9.

Following implementation of the design considerations and mitigation measures, all impacts would be mitigated to less than significant levels, similar to the Proposed Project. Overall, however, the biological impacts under this alternative would be greater than the Proposed Project due to the increased footprint and limited biological resource conservation area, as well as additional fragmentation of open space set aside.

Cultural Resources and Tribal Cultural Resources

As discussed in detail in Subchapter 2.4, no known significant impacts would result from Project implementation. Although considered unlikely, there is potential for significant direct impacts related to discovery of unknown buried archaeological resources or burials. As with the Proposed Project, impacts to cultural resources under this alternative would be reduced below a level of significance through applicable mitigation measures requiring an archaeological monitoring and data recovery program, described in Subchapter 2.4 under M-CR-1 and 2. When compared to the Proposed Project, impacts to cultural resources under this alternative would be similar.

Noise

Short-term construction-related noise impacts associated with this alternative would be greater than those associated with the Proposed Project, because of the increased amount of grading and

larger footprint. Construction noise associated with potential blasting in non-rippable areas could result in significant construction-period noise impacts, similar to the Proposed Project. The likelihood of such impacts would be greater than for the Proposed Project, because the southern boundary of the construction envelope would be located farther south than under the Proposed Project, and therefore closer to some existing homes along the western Project boundary. If such activities are identified within these thresholds during final design, design considerations as described in Chapter 1.0 in Table 1-2, and mitigation as described in Subchapter 2.5 M-N-4 through -6 related to rock breaking and blasting, would be required, which would lower these construction-period noise effects to less than significant levels. Noise effects associated with bridge construction over Escondido Creek would remain.

The proposed 266 homes and managed care facility under this alternative would generate fewer vehicle trips per day (1,364 ADT for this alternative versus 4,530 ADT for the Proposed Project). The reduced trip generation would result in a decrease in off-site traffic-related noise impacts, which would eliminate need for the on-site sound wall. Similar to the project, interior noise levels would comply with Title 24 standards, and be documented through application of mitigation measure M-N-2, that would require interior testing.

The construction noise impacts under this alternative would be greater than the Proposed Project due to the increased footprint. Operational noise impacts would be less, however, than the Proposed Project for off-site traffic related noise due to a substantial reduction in ADT. Operational noise effects associated with the WTWRF would be similar and also would be addressed through implementation of M-N-3 as discussed for the Proposed Project. Overall, the noise impacts for this alternative would be less than the Proposed Project because the potentially greater construction noise impacts would be short term and the lesser vehicular noise impacts would be long term.

Air Quality

Although grading emissions would be restricted per day and would be less than significant, short-term construction-related air quality impacts associated with the Senior Care Traffic Reduction Alternative would be greater than the less-than-significant effects associated with the Proposed Project, because of the additional amount of required grading. Operational impacts would be less than the (less than significant) Proposed Project, due to fewer associated vehicular trips. The significant and unmitigated air quality impact associated with exceedance of the 2016 RAQS also would occur for this alternative as the RAQS modeling includes the 2011 General Plan assumptions for site development (approximately 220 lots), but not the GPA associated with the Project or the alternative. Ultimately, it is expected that implementation of Subchapter 2.6 M-AQ-1 requiring transmittal of a revised forecast to SANDAG, followed by updates to the RAQS and SIP would lower this impact to less than significant levels.

Overall, impacts to air quality under the Senior Care Traffic Reduction Alternative would be increased during the construction period, but reduced over the long-term compared to the Proposed Project. Impacts to air quality impacts under this alternative would be less than those under the Proposed Project.

Greenhouse Gas Emissions

This alternative would have substantially fewer residences and a population with fewer associated vehicular trips. It would, however, exceed the General Plan development assumptions for the property. Nonetheless, as described for the Proposed Project, all impacts associated with Proposed Project emissions would be mitigated to carbon neutral net zero through implementation of M-GHG-1 (addressing construction~~-period emissions) and M-GHG-2 (addressing~~ and operational period emissions exceeding reductions achieved through PDFs) as well as on-site reductions and sequestration provided through the landscaping plan. Although initial GHG emissions under the Senior Care Traffic Reduction Alternative would be less than those of the Proposed Project, implementation of mitigation identified in Subchapter 2.7 for the Proposed Project would result in similarly less than significant impacts as both the Project and the alternative would be mitigated to net zero.

Conclusions

Overall, the Senior Care Traffic Reduction Alternative reduces several impacts, but also increases several impacts, in comparison to the Proposed Project. The alternative would result in substantially less transportation/traffic, which would have related decreases in noise, and reduced air quality and GHG emissions, from the Proposed Project. Biological resources impacts would be greater than the Proposed Project. Cultural resources and aesthetic impacts would be similar for this alternative in comparison to the Proposed Project.

The Senior Care Traffic Reduction Alternative does not achieve all of the Project objectives to the same degree as the Proposed Project. The alternative would not fully meet Objective 1. The alternative would not provide an efficient development pattern in close proximity to an existing village because of its dispersed development pattern. Also, when compared to the Proposed Project, the alternative offers a substantially fewer number of units and a singular product type, which limits the ability to fully support the economic and social success of the existing village and this alternative. Although the alternative would be located near regional employment and transit centers, the lower density and dispersed land use pattern represented in this alternative would not meet Objective 2. The auto-dependent development pattern proposed by this alternative would not contribute to the establishment of a community that encourages and supports multi-modal transportation through walking and bicycling. Similarly, the alternative's limited product offering would not meet Objectives 5 and 6, which encourage a mix of residential units and a broad range of housing choices. The alternative would not support a greater diversity of residents or provide a wider range of housing opportunities to complement the adjacent village's land uses. Also, with substantially fewer units, the alternative is less effective in optimizing the operational effectiveness of public facilities and services of the existing village. When compared to the full range of passive and active recreational opportunities provided by the Proposed Project, this alternative also is less effective in meeting Objective 4. The increased grading footprint for the alternative is inferior to the Proposed Project in achieving Objective 3 because there would be reduced preservation and enhancement of biological resources, as well as increased fragmentation of that open space when compared to the Proposed Project.

This alternative would not meet Objective 7 because it would not create a destination gathering place with a variety of land uses, such as the Project's Center House, that would encourage

walkability, social interaction and economic vitality. Finally, relative to Objective 8, the alternative would require modification of 600,000 cy of soil more than the Proposed Project, have a larger grading footprint, and, ultimately, result in more area developed long-term in lots and streets than the Proposed Project. As a result, the amount of topographic variation and visibility to existing site characteristics would be lessened from that achieved by the Proposed Project due to the greater acreage allotted to lots and streets under the alternative, the obscuring of site soils with structures, and the reduced sight-lines into the site and between structures afforded by the Proposed Project.

4.6 Analysis of the Biologically Superior Alternative

4.6.1 Description of the Biologically Superior Alternative

As shown on Figure 4-4, *Biologically Superior Alternative*, this alternative utilizes the densities of the Village designation while addressing the issues relative to Diegan coastal sage scrub and Diegan coastal sage scrub-dependent species that were raised by the wildlife agencies during Project batching meetings and an on-site meeting held in 2015. The alternative does not extend the development footprint as far to the east as the Proposed Project, and would preserve a larger portion of Diegan coastal sage scrub than would be preserved by the Proposed Project.

In order to accommodate the densities of the Village designation within a restricted development footprint, the Biologically Superior Alternative would locate 425 multi-family residential units within 54 three-story buildings. The westernmost of the buildings would be sited closer to Country Club Drive than the Proposed Project. Particularly along the northern portion of the Project, there would be a correspondingly lesser breadth of landscaping between the public street and alternative structures. All of the 54 buildings would be similar in height to the tallest buildings in the Proposed Project. An HOA building (including a pool and small structure) is located in the center of the development footprint and would only be available to the residents of the alternative. Landscaping would be provided throughout the alternative site. Public parks would be located within this alternative, and would be consistent with the County PLDO and Subdivision Ordinance, but no public destination gathering space would be provided because of the lack of space afforded this development footprint. All internal roads would be private, the same as the Proposed Project. Assumptions for the WTWRF and off-site utilities also would be the same as for the Proposed Project. Approximately 46.5 acres of BOS (approximately 42 percent of the site) would be permanently preserved under this alternative.

This alternative would also reduce steep slope impacts from those of the Proposed Project due to the footprint eliminating some northeastern portions of the Project, and generally being north of most on-site RPO steep slope areas. Despite this, a waiver for encroachment into insignificant RPO steep slopes as well as an exception for roadways would be required, similar to the Proposed Project. Grading would require cut and fill of approximately 710,000 cy (approximately 16 percent less than the Proposed Project). This alternative would grade approximately 65 acres (59 percent of the site), and develop approximately 50 acres (45 percent) of the site. Under this alternative, specific development locales would be additionally graded to provide the most efficient use of the limited development footprint on the site. As a result, topographic variation would remain, but not to the same extent as under the Proposed Project. Although this alternative could additionally modify more steep slopes within the development footprint than the Project, the encroachment per

lot could be restricted to 10 percent. Similar to the Proposed Project, this alternative would require a GPA, rezone and approval of a Specific Plan.

4.6.2 Comparison of the Effects of the Biologically Superior Alternative to the Proposed Project

Aesthetics

In order to be able to accommodate the 425 residential units in a smaller footprint, this alternative would place fewer but more uniform structures within the development area, all of which would be similar in massing and height. The consistent height and uniform massing of structures under this alternative and their proximity to public roadway would directly contrast with the existing community as well as the variable height and massing of the homes proposed under the Proposed Project.

As indicated above, this alternative would allow a reduction in grading quantity and surface disturbance of approximately 16 and 5 percent, respectively, when compared to the Proposed Project. This alternative, however, would be graded to provide for a more efficient use of the limited footprint and specific areas would not conform to the existing site topography to the same level as the Proposed Project. This is because within the development footprint, larger building pads of uniform elevation would be graded to support the larger structures. However, the overall reduced grading quantity and footprint would result in reduced views to modified slopes in certain locations, with smaller amounts of raw soil and broken rock being visible in the short term during alternative grading. As cut slopes would be minimized from the Proposed Project, potential issues with raw cut rock could be commensurately minimized as well. Because ultimately a bridge would be built over Escondido Creek, the loss of vegetation (and subsequent revegetation) would be expected to be similar for both the Project and this alternative.

Similar to the Proposed Project, this alternative would result in significant short-term and unmitigable visual effects related to construction and for some years of Project use until the landscaping required as part of alternative design reaches visual maturity. At that time, temporary visual impacts associated with views to raw soil and immature landscaping would be reduced to less than significant levels. Although the CEQA impact would be the same, the intensity of those adverse effects could be lesser for the alternative because of the smaller footprint.

The more dominant massing of the alternative's structures could seem more visually consistent with the regimented and tight village core design and geometric grid layout of HGV that are visible from elevated viewpoints to the south.

It would, however, have a notable difference from the Proposed Project's visual continuity with the existing less dense development to the west and east of the site. Under the Proposed Project, single-family residences would be placed so as to transition into the less dense existing development to the west and east. "Feathering" would also be accomplished through the use of open space swaths within the Project, providing notable swaths of landscaped area between housing groupings. The Biologically Superior Alternative would not provide the same feathering as the Proposed Project because of the consistent massing created by its three-story structures. Therefore, aesthetic impacts to existing development to the east and west of the site would be

slightly greater than the Project. The alternative also would be less consistent with HGV than the Proposed Project, due to the uniform nature of all alternative structures. Long-term visual impacts also would be increased from those of the Proposed Project due to structural massing sited adjacent to a public roadway (Country Club Drive) at grade, and the thinner swaths of intervening landscaping along this area.

The increase in developed area (lots and streets) under this alternative over the acreage allotted to development by the Proposed Project (respectively, approximately 45 percent versus 29 percent) would render the alternative less visually open than the Proposed Project. Although landscaping controls would soften the visual impacts of these alternative structures, limitations on the type and placement of landscaping in this area would affect the ability of the alternative to visually shield the developed areas. The lack of massing variation between structures, the limited landscaping area, and the need to provide spacing between canopies and plants within a narrow band that does not allow for shielding through depth of planting, would result in greater long-term aesthetic impacts relative to the dominance, scale and diversity as viewed from the public roadway than compared to the Proposed Project.

Transportation/Traffic

The Proposed Project is projected to result in 4,530 ADT based on 10 trips per residence (based on SANDAG's 2002 *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region*, which identifies use rates by type of use/density). Using this same generation rate, the Biologically Superior Alternative would result in 4,250 ADT, or 280 (six percent) fewer trips per day less than the Proposed Project. Distributed over the roadway network, the decrease in the number of trips would be negligible.

The transportation/traffic impacts associated with this alternative would be similar to the Proposed Project. As described in Subchapter 2.2, roadway segment impacts within the County would include one direct and five cumulative impacts to five roadway segments, one direct and one cumulative impact at a signalized intersection, and one cumulative impact at an unsignalized intersection. The direct impact at the Country Club Drive and Harmony Grove Road intersection that is being cured through M-TR-2a (incorporated into Project design for the Proposed Project), would be addressed through a similar mitigation measure requiring a new lane and dedicated right-turn lane with an overlap phase, as described for the Project. The cumulative impact would be addressed through M-TR-2b, TIF payment, and that would also be required for this alternative.

All remaining impacts within County jurisdiction would be cumulative in nature and would be mitigated to less than significant levels through payment of the TIF or through focused road improvements (M-TR-3 through -7, and M-TR-10).

One direct and cumulative segment impact, as well as two cumulative intersection impacts, would occur in the City of Escondido. Mitigation has been identified for each of these impacts in Subchapter 2.2 (M-TR-1a and -1b, and M-TR-8 and -9), which, if implemented, would lower the impacts to less than significant levels. Because these impacts and mitigation would occur in the City of Escondido, the City is the lead agency under CEQA for impacts within their jurisdiction, and has responsibility for approval/assurance of implementation of those improvements. As such, the County cannot guarantee ultimate implementation or timing of City of Escondido-approved

mitigation in this County EIR. As a result, and similar to the Proposed Project, although mitigation identified in Subchapter 2.2 has been identified to lower all Project-related impacts within the City to less than significant levels under CEQA once implemented, impacts within Escondido are identified as remaining significant and unavoidable pending City action.

Overall, traffic impacts under this alternative would be similar to those described for the Proposed Project.

Biological Resources

Due to reduced grading and surface disturbance, this alternative would impact fewer biological resources than the Proposed Project. Based on comments received from CDFW and USFWS, the alternative was specifically designed to protect a stand of Intermediate Value habitat (sage scrub) in the eastern portion of the site that included one breeding pair of California Gnatcatchers found along the eastern boundary of the site in 2014. Therefore, differences between this alternative and the Proposed Project primarily focus on upland habitat impacts, and specifically to the Intermediate Value habitat (sage scrub), in the eastern portion of the site. The alternative also provides a broader on-site corridor for wildlife movement as described below. Impacts to Escondido Creek jurisdictional wetlands would be similar because a bridge would be installed over Escondido Creek. Approximately 46.5 acres (42 percent) would be placed in permanently preserved and managed BOS under this alternative, as opposed to approximately 34.8 acres, or 31 percent of the Project under the Proposed Project.

The Biologically Superior Alternative would have the same impact neutral (areas where impacts are not assessed, but the area cannot be included as mitigation or to off-set impacts) and off-site impacts as the Proposed Project (see Subchapter 2.3). On-site impacts, however, would be lessened. The lesser impacts resulting from this alternative are depicted on Figure 4-5, *Biologically Superior Alternative Vegetation and Sensitive Resources/Impacts* (c.f., Figure 2.3-5 of this EIR). On-site impacts would total 64.6 acres: 0.1 acre of coast live oak woodland, 2.7 acres of coastal sage-chaparral transition, 7.3 acres of Diegan coastal sage scrub, 3.0 acres of disturbed habitat, 8.7 acres of southern mixed chaparral, 41.1 acres of non-native grassland, 0.8 acre of non-native vegetation, and 0.8 acre of urban/developed.

Approximately 6.3 acres of on-site Diegan coastal sage scrub is identified as being of Intermediate Value because it is characterized by intact stands and a portion was confirmed to be used for breeding by a single pair of gnatcatcher. It also facilitates dispersal and movement functions, along with the surrounding scrub and chaparral located along the eastern edge of the site and additional habitat extending off site to the east. Although the Project site overall is located in a disturbed area, this alternative would preserve 3.5 acres of the Intermediate Value sage scrub habitat in this eastern area, and would avoid impacts to a portion of the habitat supporting the gnatcatcher nest location and surrounding foraging and dispersal habitat. The Biologically Superior Alternative would, however, impact 4.1 acres of coastal sage scrub, most of which consists of small, fragmented and isolated stands.

As noted, the Proposed Project identifies a significant impact for loss of Diegan coastal sage scrub supporting the nesting pair. Implementation of mitigation measure M-BI-1b in Subchapter 2.3 would reduce that impact to less than significant levels. This alternative would reduce impacts to

on-site Diegan coastal sage scrub in this same area by approximately 66 percent (2.8 acres impacted versus 6.3 acres) from those expected under the Proposed Project. Remaining impacts would be mitigated through the mitigation identified in Subchapter 2.3 but would still be significant.

Similar to the Proposed Project, the Biologically Superior Alternative would separate open space from the homes by cut slopes that would discourage the residents from approaching the open space, and would be protected by fencing and signage. The Biologically Superior Alternative could improve wildlife movement along the northeastern boundary by providing an additional 200 feet of on-site BOS (i.e., up to 500 feet wide as opposed to 300 feet wide under the Proposed Project); including the majority of the chaparral, coastal sage scrub, and coastal sage-chaparral habitat on that side of the site.

Core habitat for gnatcatcher does not exist on or in the vicinity of the Project. Previous human activity eliminated much of the coastal sage scrub, and the upland habitat that remains is mostly chaparral and grassland. The limited number and scattered locations of documented gnatcatcher occurrences in the area would indicate that the area does not support a critical, self-sustaining population of gnatcatchers, and that gnatcatcher movement through the area is limited because there is not an abundance of coastal sage scrub habitat to support multiple breeding territories. Also, a direct, north-south connection of core habitat between DDHP and Escondido Creek does not exist through the Project site due to the large area of non-native grassland, which serves as an exposed break in the scrub and chaparral. Areas along the eastern boundary of the site could facilitate north-south movement to and from Escondido Creek, although the habitat is patchy and constrained by existing development. Areas along further to the east of the site are less constrained, where a direct connection of scrub and chaparral habitat occurs along West Ridge. By preserving the coastal sage-chaparral habitat found along the slopes in BOS, however, the alternative could provide an additional 200 feet for gnatcatcher movement between the DDHP and Escondido Creek, relative to the Proposed Project. (The corridor would be about 1,200 feet wide at the widest point, versus 1,000 feet with the Proposed Project.)

Similar to the Proposed Project, design features identified in Table 1-2 for biological resources would be applicable to this alternative. Also similar to the Proposed Project, all CEQA-identified biological impacts under this alternative would be reduced below a level of significance through mitigation measures M-BI-1a through M BI-9, and described in Subchapter 2.3. These include mitigative measures such as construction timing restrictions, and appropriate habitat preservation (on site for chaparral impacts, and through purchase of off- site properties or existing credits) and/or creation for impacts to other habitats.

Although the Project would reduce all CEQA-identified biological impacts to below a level of significance through mitigation measures M-BI-1a through M BI-9, the biological impacts under this alternative would be less than the Proposed Project due to the reduced footprint relative to Diegan coastal sage scrub and associated California gnatcatcher impacts and wider wildlife movement corridors.

Cultural Resources and Tribal Cultural Resources

As discussed in detail in Subchapter 2.4, no known significant impacts would result from Project implementation. Although considered unlikely, there is potential for significant direct impact related to discovery of unknown buried archaeological resources or burials. As with the Proposed Project, impacts to cultural resources under this alternative would be reduced below a level of significance through applicable mitigation measures requiring an archaeological monitoring and data recovery program, described in Subchapter 2.4 under M-CR-1 and 2. When compared to the Proposed Project, this alternative would result in similar impacts to cultural resources.

Noise

Short-term construction-related noise impacts associated with this alternative would be less than those associated with the Proposed Project, because the smaller footprint would result in a reduced amount of grading and associated rock breaking. Regardless, construction noise associated with potential blasting in non-rippable areas could result in significant construction-period noise impacts, similar to the Proposed Project. The likelihood of such impacts would be less than for the Proposed Project, because the eastern boundary of the construction envelope would be located farther west than under the Proposed Project, and therefore farther away from some existing homes near the northeastern Project boundary. Design considerations as described in Chapter 1.0 on Table 1-2, and mitigation as described in Subchapter 2.5 in M-N-4 through -6 relative to rock breaking and blasting, would be implemented if required, which would lower these construction-period noise effects to less than significant levels, similar to the Proposed Project. Noise effects associated with bridge construction would remain. The construction noise impacts under this alternative would be less than the Proposed Project due to the reduced footprint.

The proposed 425 homes under this alternative would generate similar vehicular ADT as the Proposed Project. Because the alternative would build multi-family housing, however, the threshold for CEQA-significant exterior impacts would be higher (65 dBA CNEL as opposed to 60 dBA CNEL for single-family residences.) The higher threshold would not be attained because the number of trips that would be generated by this alternative would result in six percent fewer trips per day less than the Proposed Project. Therefore, no long-term operational effects to exterior use areas would occur. Title 24 interior noise levels, however, would still require confirmation and mitigation, resulting in a similar mitigation measures for interior noise effects related to vehicular noise and WTWRF noise. These impacts would be mitigated to less than significant (similar to the Proposed Project) through implementation of M-N-2 and -3, respectively. Similar to the Proposed Project, long-term noise impacts would be significant but mitigated.

Overall, impacts to noise under this alternative would be less when compared to the Proposed Project.

Air Quality

Short-term construction-related air quality impacts associated with the Biologically Superior Alternative would be less than the less-than-significant effects associated with the Proposed Project, because of the reduced amount of required grading. Operational impacts also would be incrementally less than the (less-than-significant) Proposed Project's operations, due to

incrementally fewer associated vehicular trips. The Project's significant and unmitigable air quality impact associated with exceedance of the 2016 RAQS also would occur for this alternative as the RAQS modeling includes the 2011 General Plan assumptions for site development (approximately 220 lots), but not the GPA associated with the Project or the alternative. Ultimately, it is expected that implementation of Subchapter 2.6 M-AQ-1 requiring transmittal of a revised forecast to SANDAG, followed by updates to the RAQS and SIP would lower this impact to less than significant levels. Overall, impacts to air quality under the Biologically Superior Alternative would be slightly reduced compared to the Proposed Project.

Greenhouse Gas Emissions

This alternative would have slightly fewer residences and a smaller grading footprint with additional retained existing vegetation. As described for the Proposed Project, however, all impacts associated with Proposed Project emissions would be mitigated to net zero through implementation of M-GHG-1 (addressing construction ~~period emissions) and M-GHG-2 (addressing~~ and operational emissions exceeding reductions achieved through PDFs) as well as on-site reductions and sequestration provided through the landscaping plan. Although initial GHG emissions under the Biologically Superior Alternative could be slightly less than those of the Proposed Project, implementation of mitigation identified in Subchapter 2.7 for the Proposed Project would result in similarly less than significant cumulative impacts as both the Project and the alternative would be mitigated to net zero.

Conclusions

The Biologically Superior Alternative would result in fewer impacts to biological resources, noise and air quality than the Proposed Project. Impacts to cultural resources would remain the same (unlikely but mitigable if occurring), as would GHG impacts. Aesthetic impacts would be greater for this alternative in comparison to the Proposed Project.

The Biologically Superior Alternative would not achieve all of the Project objectives to the same degree as the Proposed Project. The number of units and clustering provided in this alternative meets Objective 1 to some extent because it would provide an efficient development pattern by utilizing a compact form of development adjacent to an existing village. However, the alternative would not comply with the Community Development Model because of the consistent massing created by its three-story structures and the lack of notable swaths of landscaped areas, providing no transition into the less dense existing development to the west and east. The alternative also would provide only a singular product type (stacked multi-family flats), with no commercial uses incorporated into the HOA building. Therefore, this alternative would not encourage development of a complete and vibrant community that would enhance and support the economic and social success of HGV village and the Project by providing a diversity of residents and land uses to the same extent as the Proposed Project.

The Biologically Superior Alternative may contribute to some extent to supporting Objective 2 due to the higher density clustered development pattern, which is one attribute of a community that encourages and supports multi-modal transportation. It would be inferior to the Proposed Project, however, due to the lack of alternative trails or inclusion of a commercial component into the HOA building that would provide additional incentives for biking and walking within the

community. This alternative would not meet Objective 5 because it does not provide a mix of residential uses that would which encourages a broad range of housing choices to support a diversity of residents and land uses.

This alternative may contribute to some extent to Objective 6 by optimizing the operational effectiveness of public facilities and services of the existing village through increasing the number of residents. The alternative would not meet the Objective 6 element of increasing the diversity of its residents, however, because it would provide only one type of housing product. Nor would it be compatible with existing development to the east and west of the site. The massing created by the alternative's three-story structures would not provide the same transition into existing uses as the Proposed Project. Long-term visual impacts also would result due to the structural massing of buildings located immediately adjacent to Country Club Drive that would be visible from the immediate vicinity of the property.

When compared to the full range of passive and active recreational opportunities provided by the Proposed Project (reduced recreation facilities to accommodate the smaller construction footprint), this alternative is less effective in meeting Objective 4. This alternative would not meet Objective 7 because it would not create a destination gathering place with a variety of land uses, such as the Project's Center House, that would encourage walkability, social interaction and economic vitality. Relative to Objective 8, although the alternative would have a smaller footprint than the Proposed Project, the alternative would have less topographic variation and visibility of existing site characteristics than the Proposed Project. This is the result of greater acreage allotted to development under the alternative, the need for focused additional grading to attain the most efficient development pattern within the reduced site envelope, and the reduced sight-lines into the site and between structures.

The Biologically Superior Alternative would meet Objective 3 because although all biological impacts under the Proposed Project would be addressed through Project design measures identified in Table 1-2 and mitigation measures identified in Subchapter 2.3, this alternative would preserve and enhance biological resources to a greater extent than the Proposed Project.

4.7 Analysis of the Off-site and Combined On-/Off-site Sewer Options Alternative

This alternative provides two sewer scenarios for the Project. Each of the scenarios described below would require annexation into a sewer district with ability to serve the Project, as described in Chapter 1.0 of this EIR. The Off-site and Combined On-/Off-site Sewer Options Alternative was included to disclose the impacts that would occur if either of these two sewer options were to be approved instead of constructing a stand-alone plant within the Project. The analysis of these two options includes all of the issue areas that are needed to allow the decision maker to adopt either of the options in lieu of the stand-alone plant without the need for additional analysis under CEQA.

The existing conditions, methodology, and significance determination information for the environmental analysis below is the same as was used for the Proposed Project (see Chapter 2.0). Both of these scenarios analyze the differences of the stand-alone plant within the Project with the options proposed under the alternative. The analyses are based on information obtained for the Project that is applicable for the alternative, including site visits and technical reports.

4.7.1 Off-site and Combined On-/Off-site Sewer Options Alternative Description and Setting

The Off-site and Combined On-/Off-site Sewer Options Alternative includes an optional design scenario for the provision of off-site sewer service, in lieu of the proposed on-site WTWRF and related facilities (as described in Subchapter 1.2 of this EIR), as well as an optional design scenario to provide a combined on- and off-site wastewater treatment program. All other components of the Proposed Project would remain the same, and the wastewater treatment options would be incorporated within the overall build program. These potential options are summarized below, with the off-site pipeline/utility options as well as the location of the approved HGV lift station west of Country Club Drive and the approved HGV WRF immediately to the north of Harmony Grove Road shown on Figures 4-6, *Off-site Connection to the HGV WRF*, and 4-7, *Off-site Connections of Combined On-/Off-site Wastewater Treatment to HGV*, respectively.

Regardless of treatment location, approach to biosolids and reclaimed water would be the same as identified for the Proposed Project. Biosolids are a byproduct of wastewater treatment. Due to the small size of HGV South, it is likely that the Project would truck liquids solids to another wastewater treatment plant for dewatering regardless of sewer option selected. This would require transport to that facility by an estimated one truck per week. Once biosolids are dewatered, they would be trucked to a landfill for final disposal, estimated to require one truck per month. Similar to the Proposed Project, and regardless of the location of treatment facility, all Project wastewater is proposed to be reclaimed and reused for irrigation of on-site parks, parkways, and common areas (excluding the community gardens) in accordance with standards set by Rincon MWD.

Connection to the HGV WRF

HGV's facility is located at the northeast corner of Harmony Grove Road and Country Club Drive, only approximately 550 feet north of the Project's northern boundary. The existing HGV WRF could be used to serve the Proposed Project if actual use rates at the HGV WRF demonstrate that it could accommodate the flows from both the Proposed Project and HGV as it is currently built. There are two conditions under which the HGV South wastewater flows could be accommodated by the existing HGV WRF:

- Scenario A: The original design of the plant is based on an estimate of future flows. If these flows turn out to be lower than the original estimate based on actual use rates, there may be additional permitted capacity for accommodation of HGV South flows.

- Scenario B: Based on the ability of the facility to treat the flows received, it may become apparent that the WRF as designed could appropriately and safely handle additional flows, and the permit could be updated to specify that the plant has increased capacity.

Because the option would only be exercised if one of the above scenarios occurs (less sewage is being treated at HGV than was expected, or the capacity of that plant proves to be greater than originally expected) the sizing of the existing HGV facility, or its site, would not be increased. This option would only be utilized if it could accommodate both projects under its current design. In order to utilize the same wastewater treatment facility, HGV South would either annex into HGV's existing community financing district or establish another financing mechanism that would

provide additional funding to support the services required for HGV and this project. More payers would result in savings for the rate payers of both projects during facility operations.

The full Project WTWRF (approximately 0.4 acre in size) would not be constructed under these scenarios. Project sewage would be transferred to the HGV pump station located west of Country Club Drive on the south side of Harmony Grove Road. An 8-inch gravity-flow pipeline would be extended from the Project within Country Club Drive to Harmony Grove Road. The lines would cross Escondido Creek via installation into a bridge structure to be built commensurate with the Project. Incorporation into the bridge structure would occur from pavement on either side of the bridge, and would not require entry into the drainage.

At the junction of Country Club Drive with Harmony Grove Road, the lines would turn west to the HGV pump station, all within Harmony Grove Road and Country Club Drive road sections, and sited between two existing force main sewer lines in Harmony Grove Road. The construction period would require excavation and installation within existing roadbed followed by re-cover of the pipeline and removal of any excess soil along the pipeline right-of-way. Construction activities would move along the right-of-way (cut, install, cover) as installation occurs.

The HGV pump station was designed for 500 gpm. That facility sizing also would accommodate the Project. The existing emergency generator is also considered large enough to accommodate any additional Project flow. No changes are proposed to the emergency generator at the pump station. From the existing HGV pump station, an existing redundant system (two force mains, only one of which would be active at any one time) extending from the pump station within Harmony Grove Road to Country Club Drive and then northerly along Country Club Drive to enter the Harmony Grove WRF on the east side of Country Club Drive would be utilized.

As for the Proposed Project, 8,127,000 gallons of wet weather storage may be needed. This storage would be provided through use of the on-site storage proposed for the Project. Alternatively, other scenarios could be explored in the future, as appropriate, such as expanding the existing wet weather storage on HGV, or it could be on another site. The existing storage utilized by the HGV is a reconditioned quarry modified for use as a reservoir. The reservoir is designed to hold 84 days of recycled water from the HGV project. It is likely that reassessment of the reservoir would allow for additional storage as only a portion of the available volume available in the reconditioned quarry will be utilized by that project. If that facility is used, the emergency outflow outlet would be raised through use of a riser pipe. This pipe would be located within the existing reservoir footprint and would not expand the horizontal footprint. It is possible that this would also require an amendment to the permit or a permit from the California Division of Dams. As noted, storage also could be provided at other facilities as deemed necessary by Rincon MWD. As an example, Rincon MWD has a 3-million gallon tank on the hill just north of the Village Road, east of Country Club Drive. That facility currently only stores up to one million gallons. Pipes to access it are in Country Club Drive.

Combined On-/Off-site Wastewater Treatment

Each of the specifics described above regarding the HGV WRF existing facilities and capacities applies to this scenario as well. This design scenario would integrate HGV South facilities into the existing HGV WRF, but not assume full transfer of all operations to the existing facility. It would

increase the efficiencies of both facilities by avoiding redundancies that would result in constructing identical facilities that would not be needed to serve the additional sewage generated by the Project, such as an operations or administration building. Thus, the Project would construct only those facilities that would complement the existing system in place at HGV and that may be needed to serve the additional sewage generated by the Project.

This approach would be able to utilize existing solids processing facilities on the HGV site, reducing the volume of solids to be delivered by truck elsewhere. Under this option, the existing laboratory at the Harmony Grove WRF would also be utilized by the on-site facility (similar to the Proposed Project). A pump station would be included within the on-site facilities, and off-site utilities would include the gravity feed lines to the existing pump station on Harmony Grove Road, as well as a sewage solids line and potential fiber optics line extending from the Project north along Country Club Drive into the HGV WRF. The fiber optics line is conservatively assumed – it would not be necessary if a radio-based system is implemented.

Additional operational studies, as well as design plans and specifications, would be required for all of the facilities described above. These studies and plans are not expected to affect the environmental analyses below. The Proposed Project analyzed the largest potential facility, with the associated largest footprint. As such, it represents a worst-case footprint and potential alternative elements adequate to complete environmental analyses on site, and otherwise would place lines into already disturbed paved street (also affected by placement of Proposed Project utilities). Refinement of the alternative scenarios would not worsen environmental impacts associated with these lesser design scenarios.

4.7.2 Comparison of the Effects of the Off-site and Combined On-/Off-site Sewer Options Alternative to the Proposed Project

Aesthetics (Less than Significant Impact)

Connection to the Harmony Grove WRF

As described above, the WTWRF would not be constructed on site, and the less than significant long-term visual effects assessed to the Proposed Project would be eliminated under this scenario. Construction activities associated with the connecting pipelines would be visible along short segments of Country Club Drive (south of Harmony Grove Road only) and Harmony Grove Road during the installation process. These effects would vary from the existing condition, but would be temporary in effect. Once installed within Country Club Drive and Harmony Grove Road, there would be no surficial elements that would modify area views. Based on (1) the temporary nature of the construction impact; (2) the small footprint of the linear construction right-of-way; and (3) the lack of permanent visual change associated with the pipelines and tie-in to the Harmony Grove pump station, less than significant visual impacts would result. When compared to the Proposed Project full WTWRF, impacts to aesthetics would be incrementally less under this design scenario.

Combined On-/Off-site Treatment

On-site elements would be minimized compared to the facilities described for the Proposed Project. Some functions would remain at facilities on the HGV South site, others would be

transferred to existing facilities at the HGV WRF. Regardless of final build decisions and including an additional small pump station, this scenario would be expected to build fewer or smaller facilities at HGV South, which would lessen the already less than significant long-term visual effects assessed to the Proposed Project for the WTWRF. Screening landscaping would be required as described in Section 1.2.2.5, *Landscape*, and on Table 1-1 specific to shrubs and vines.

Construction activities associated with the connecting pipelines would be visible along a short segment of Country Club Drive from the Project to the HGV WRF entrance, as well as along Harmony Grove Road during the installation process. These effects would vary from the existing condition, but would be temporary in effect. Once installed within the roadways, there would be no surficial elements that would modify area views. Based on (1) the temporary nature of the construction impact; (2) the small footprint of the linear construction right-of-way; and (3) the lack of permanent visual change associated with the pipelines and tie-in to the Harmony Grove pump station and WRF, less than significant visual impacts would result. When compared to the Proposed Project full WTWRF, impacts to aesthetics would be incrementally less under this design scenario.

Transportation/Traffic (Less than Significant Impact)

Connection to the Harmony Grove WRF

Construction and operation of off-site pipelines would not contribute additional long-term ADT to analyzed roadways and intersections above the ADT calculated for the Proposed Project. It could, however, cause additional traffic congestion along Country Club Drive and Harmony Grove Road due to temporarily reduced road capacity during pipeline installation. As with the Project, potential short-term construction effects under this sewer option would be addressed by a Traffic Control Plan identified for the Proposed Project as a Project Design Feature and described in Table 1-2 of this EIR. The Traffic Control Plan would be prepared by the Construction Contractor and approved by County DPW prior to initiation of construction. Among other controls, it would include measures to reduce traffic delays and minimize public safety impacts, such as the use of flag persons, traffic cones, detours and advanced notification signage. Implementation of this plan would address this traffic effect during construction of the pipeline and associated facilities. When compared to the Proposed Project full WTWRF, impacts to transportation/traffic in the long-term would be similar under this design scenario.

Combined On-/Off-site Treatment

Construction and operation of off-site pipelines and related utility (fiber optic) lines would not contribute additional ADT to analyzed roadways and intersections above the ADT calculated for the Proposed Project. It could, however, cause additional traffic congestion along Country Club Drive and Harmony Grove Road due to temporarily reduced road capacity during pipeline installation. As with the Project, potential short-term construction effects under this sewer option would be addressed by a Traffic Control Plan identified for the Proposed Project as a Project Design Feature and described in Table 1-2 of this EIR. The Traffic Control Plan would be prepared by the Construction Contractor and approved by County DPW prior to initiation of construction. Among other controls, it would include measures to reduce traffic delays and minimize public safety impacts, such as the use of flag persons, traffic cones, detours and advanced notification

signage. Implementation of this plan would address this traffic effect during construction of the pipeline and associated facilities. When compared to the Proposed Project full WTWRF, impacts to transportation/traffic in the long-term would be similar under this design scenario.

Biological Resources (No Impact and Significant Mitigated Impact)

Connection to the Harmony Grove WRF (No Impact)

The infrastructure required to construct this sewer option would be located completely within existing County roadways and areas identified as impacted by the Proposed Project. Where sewage lines associated with this option would cross Escondido Creek immediately south of the Harmony Grove Road/Country Club Drive intersection, they would do so within a bridge structure. The sewage lines would be added to water lines integrated into the base of the bridge deck, and would not result in separate or increased impacts to either habitat or jurisdictional waters during stream crossing. No new biological impacts would be expected to result from placement of additional off-site facilities into existing disturbed and paved roadway. If not constructed commensurate with bridge construction, once construction specifics are identified, a qualified biologist would be required to review those plans to confirm if nesting season timing restrictions would be required for alternative modifications of the bridge, consistent with seasonal avoidance identified in Subchapter 2.3.

There also would be no treatment plant elements on site. Space allocated to a plant facility on site under the Proposed Project could be retained in its existing condition. Accordingly, this sewer option would be expected to result in a reduced impact to on-site non-native grassland impacts than the Proposed Project. When compared to the Proposed Project full WTWRF, impacts to biological resources would be less under this design scenario.

Combined On-/Off-site Treatment (Significant Mitigated Impact)

Under this option, potential impacts to biological resources would be essentially the same as the Proposed Project (significant but mitigable), based on the following considerations: (1) the disturbance footprint for the on-site treatment elements would be similar to but smaller than the Proposed Project full WTWRF; and (2) the pipelines/utility lines would be confined to previously developed/disturbed areas, with no new associated impacts to biological resources. Utility lines associated with this option (sewage, fiber optic, etc.) would be placed into existing roadway. No biological impacts are anticipated from placement of additional off-site facilities into existing disturbed and paved roadway. If not constructed commensurate with bridge construction, once construction specifics are identified, a qualified biologist would be required to review those plans to confirm if nesting season timing restrictions would be required for alternative modifications of the bridge, consistent with seasonal avoidance identified in Subchapter 2.3.

Accordingly, this sewer option would be expected to result in a reduced impact to on-site non-native grassland and any associated species. The reduced impact would be mitigated in accordance with mitigation measure M-BI-2b in Subchapter 2.3 of this EIR, including a mix of potential on- and off-site preservation (or purchase of credits) at an approved bank of grassland habitat and/or other like-functioning habitat at a 0.5:1 ratio. Full details are provided in Subchapter 2.3 in

Section 2.3.5. When compared to the Proposed Project full WTWRF, impacts to biological resources would be incrementally less under this design scenario.

Cultural Resources and Tribal Cultural Resources (Significant Mitigated Impact)

Connection to the Harmony Grove WRF

The infrastructure required to construct this sewer option would be located completely within existing County roadways, or the Proposed Project disturbance footprint (which is included in the Project site impacts). No previously recorded sites are located within the proposed alignment, and the sewer lines would be located between existing lines in Harmony Grove Road. Given the amount of disturbance (including existing sewer, water, etc. utilities) under these new roads, the potential for identification of new cultural resources or burials is considered unlikely, but possible, similar to the Proposed Project. As identified for the Proposed Project, these potential impacts would be significant but mitigable. This alternative would implement mitigation measure M-CR-1 and 2 (a combined measure) in Subchapter 2.4 that provides for (among other specifics) monitoring of construction activities by a qualified archaeologist and Luiseño monitor, halting of excavation in case of a find, retrieval of artifacts or human remains, coordination with the most likely descendant, etc. in accordance with state law to reduce significant impacts to below a level of significance. Full details are provided in Subchapter 2.4 in Section 2.4.5. When compared to the Proposed Project full WTWRF, impacts to cultural resources could be incrementally less under this design scenario.

Combined On-/Off-site Treatment

Potential impacts to cultural resources under this alternative would be slightly greater than those identified for the Proposed Project, as there would be additional ground disturbance within Country Club Drive north of the Harmony Grove Road intersection. Undiscovered archaeological resources could be located beneath the off-site force main corridors in Harmony Grove Road and in Country Club Drive. No previously recorded sites are located within the proposed alignments, and the sewer/utility lines would be located either between, or in the immediate vicinity of, existing lines in Harmony Grove Road and in Country Club Drive. Given the amount of disturbance (including existing sewer, water, etc. utilities) under these new roads, the potential for identification of new cultural resources or burials is considered possible, but unlikely, similar to the Proposed Project. As identified for the Proposed Project, these potential impacts would be significant but mitigable. M-CR-1 and 2 (a combined measure) in Subchapter 2.4) provides for (among other specifics) monitoring of construction activities by a qualified archaeologist and Luiseño monitor, halting of excavation in case of a find, retrieval of artifacts or human remains, coordination with the most likely descendant, etc. in accordance with state law to reduce significant impacts to below a level of significance. Full details are provided in Subchapter 2.4 in Section 2.4.5. When compared to the Proposed Project full WTWRF, impacts to cultural resources could be incrementally greater under this design scenario.

Noise (Less than Significant Impact and Potential Significant Mitigated Impact)

Connection to the Harmony Grove WRF (Less than Significant Impact)

Because the Proposed Project WTWRF would not be constructed, mitigable noise associated with the WTWRF would not occur under this sewer option; operational noise impacts associated with this sewer option would be less than the mitigable impact identified for the Proposed Project.

Construction noise could increase as the Proposed Project does not propose off-site construction of sewer lines. Under this alternative scenario, lines would be installed in short segments of Country Club Drive (south of Harmony Grove Road only) and Harmony Grove Road adjacent to the County Equestrian Park located at the southwest side of those roads' intersection. Construction-noise related to these short-term cut and cover activities would not be expected to be in excess of the County allowed levels, and if necessary, could be shielded by temporary barriers. Overall, these impacts would be considered less than significant due to compliance with the County noise ordinance and very temporary nature, as described for utility line installation in Subchapter 2.5, Section 2.5.2.3. When compared to the Proposed Project full WTWRF, impacts to long-term noise would be less under this design scenario.

Combined On-/Off-site Treatment (Potential Significant Mitigated Impact)

Although only a portion of the Proposed Project WTWRF would be constructed under this scenario, the combined facility may include the on-site generator. If the generator is not part of the on-site components, potential noise associated with that element would be less than the noise of the Proposed Project. If a generator is placed on site, similar to the Proposed Project, associated noise levels could exceed the nighttime allowable limit and therefore could require mitigation. Mitigation would be the same as for the Proposed Project – this alternative would implement Mitigation Measure M-N-3, requiring a final noise impact analysis as part of facilities design demonstrating that exterior noise levels from all stationary WTWRF elements combined would not exceed the one-hour exterior noise level at the property line based on implementation of a 6-foot on-site sound wall at the facility. Additional information is provided in Subchapter 2.5, Section 2.5.2.4.

As described for utility line installation in Subchapter 2.5, Section 2.5.2.3, construction noise could increase as the Proposed Project does not propose off-site construction of sewer lines. Under this alternative scenario, sewer/utility lines would be installed in short segments of Country Club Drive and Harmony Grove Road adjacent to the County Equestrian Park located at the southwest side of those roads' intersection, as well as for a short section in Country Club Drive north of Harmony Grove Road in order to tie directly into the HGV WRF. Construction-noise related to these short-term cut and cover activities would not be expected to be in excess of the County-allowed levels, and if necessary, could be shielded by temporary barriers where adjacent to the park. North of Country Club Drive, the use on the east side of the road primarily would be the HGV WRF, which is not a noise-sensitive use. On the west side of the road, some HGV slopes and homes would be sited, but the homes would be behind an existing permanent noise wall installed by HGV, which would be expected to block the construction noise. Overall, potential impacts would be considered less than significant due to compliance with the County noise ordinance and very temporary nature. Impacts to long-term noise would be similar or incrementally less under this design scenario.

Air Quality (Less than Significant Impact)

For both sewer scenarios, short-term construction-related air quality impacts would be expected to be similar or less than the less-than-significant effects associated with the Proposed Project. This is because the on-site grading footprint would be smaller than assessed as part of the Project for the full-sized plant, and potential off-site roadway disturbance generally would occur within streets already being impacted for other Project utilities. Operational impacts also could be incrementally less than the (less-than-significant) Proposed Project's operations, due to incrementally fewer associated vehicular trips. The Project's significant and unmitigable air quality impact associated with exceedance of the 2016 RAQS would not be associated with either of the sewer alternatives. That impact is associated with exceeding the 2011 General Plan assumptions for site development (approximately 220 lots) and the associated modeling completed for the RAQS, but is not directly related to utilities provision. Conformance or non-conformance with the RAQS is addressed above for each of the full-build alternatives, and is not further addressed here. Overall, when compared to the Proposed Project full WTWRF, impacts to air quality under either of the sewer options would be similar or incrementally reduced under these design scenarios.

Greenhouse Gas Emissions (Less than Significant Impact)

Connection to the Harmony Grove WRF

Construction impacts to Country Club Drive would already be occurring as improvements (including other pipelines) would be installed at that location. With respect to installing pipe within Harmony Grove Road, the GHG emissions would be less than what was analyzed for Project implementation of the WTWRF. Cumulative GHG emissions would be less-than-significant, associated only with emissions resulting from implementing the connection point from Project lines to off-site utility lines, and excavation and placement of utility lines within existing roads. Operational impacts would not occur because there would be no additional facilities and the existing facilities would remain the same at the HGV WRF and there would not be new vehicular trips made on an intermittent basis to the WRF. Accordingly, there would be no additional cumulative GHG impacts and no additional mitigation measures would be required.

Combined On-/Off-site Treatment

Construction impacts to Country Club Drive would already be occurring as improvements (including other pipelines) would be installed at that location south of Harmony Road, but also would include pipelines into the HGV WRF north of Harmony Grove Road. While there would still be some level of construction on site, it would still be a smaller facility. Therefore cumulative construction GHG emissions would be expected to be less than analyzed for the Proposed Project. Operational impacts also could be less because there would be smaller and shared facilities and the existing facilities would remain the same at the HGV WRF. Because of the shared facilities, it is possible that existing trips would be split between the two facilities. If there are additional trips, they would be minimal, associated with intermittent employee checks. Accordingly, there would be no additional cumulative GHG impacts and no additional mitigation measures would be required.

Growth Inducement (Less than Significant Impacts)

Connection to Harmony Grove WRF

This option would result in the construction of a sewer pipeline off site and extending north and west that would connect to the HGV WRF pump station, which would not be expanded. The Proposed Project would only be allowed to connect if there is capacity available at this site without requiring expansion. The presence of a Project-related sewer line adjacent to entitled and building out portions of HGV would not encourage growth. Future projects would be required to conform to the density within the County's General Plan or to obtain a GPA and would be limited due to the capacity of the HGV WRF. Regardless, future projects would be required to complete additional studies regarding impacts to the environment, including growth inducement.

Combined On-/Off-site Treatment

This option would result in the construction of a sewer pipeline off site and extending north and west to connect to HGV WRF facilities, which would not be expanded. The option would only be allowed to connect if there is capacity available at this site without requiring expansion. The presence of a Project-related sewer lines adjacent to entitled and building out portions of HGV would not encourage growth. Future projects would be required to conform to the density within the County's General Plan or to obtain a GPA and would be limited due to the capacity of the HGV WRF; the shared nature of the facility and the facility on site would be sized only to serve the Project in light of its sharing the existing HGV WRF. Regardless, future projects would be required to complete additional studies regarding impacts to the environment, including growth inducement.

Conclusions

Potential impacts of the sewage treatment options would be largely short-term (construction-related) in nature and otherwise subsidiary to the larger impacts of the development alternatives. The off-site sewer option, which would replace the on-site WTWRF, as well as the combined on-site/off-site option, would be expected to result in generally similar impacts to those described for the Proposed Project when combined with the residentially related portions of the Project. Specifically, this would include potentially significant and unmitigable impacts related to aesthetics, traffic and air quality, as well as significant (or potentially significant) but mitigated impacts for the issues of aesthetics, biological resources, cultural resources, noise, and transportation/traffic.

Potential operational impacts identified for noise associated with operation of the WTWRF, and to non-native grassland impacts, would be eliminated for the off-site option included under this alternative, but would remain for the combined on-/off-site option. Unlikely, but potential cultural resources impacts would remain for both options. A number of these impacts may vary slightly from those identified for the Proposed Project; however, these variations would be relatively minor and would not alter overall Project impact levels or associated need for mitigation or implementation of specified Project Design Features. Both of the sewer options identified under this alternative would meet the identified Project objectives when combined with the Proposed

Project, and would differ from the Proposed Project to the same level as each of the three development alternatives addressing sewer, if combined with those development alternatives.

4.8 Environmentally Superior Alternative

Although the No Project alternative would result in reduced environmental impacts, Section 15126.6(e)(2) of the State CEQA Guidelines requires identification of an alternative other than the No Project as the environmentally superior alternative.

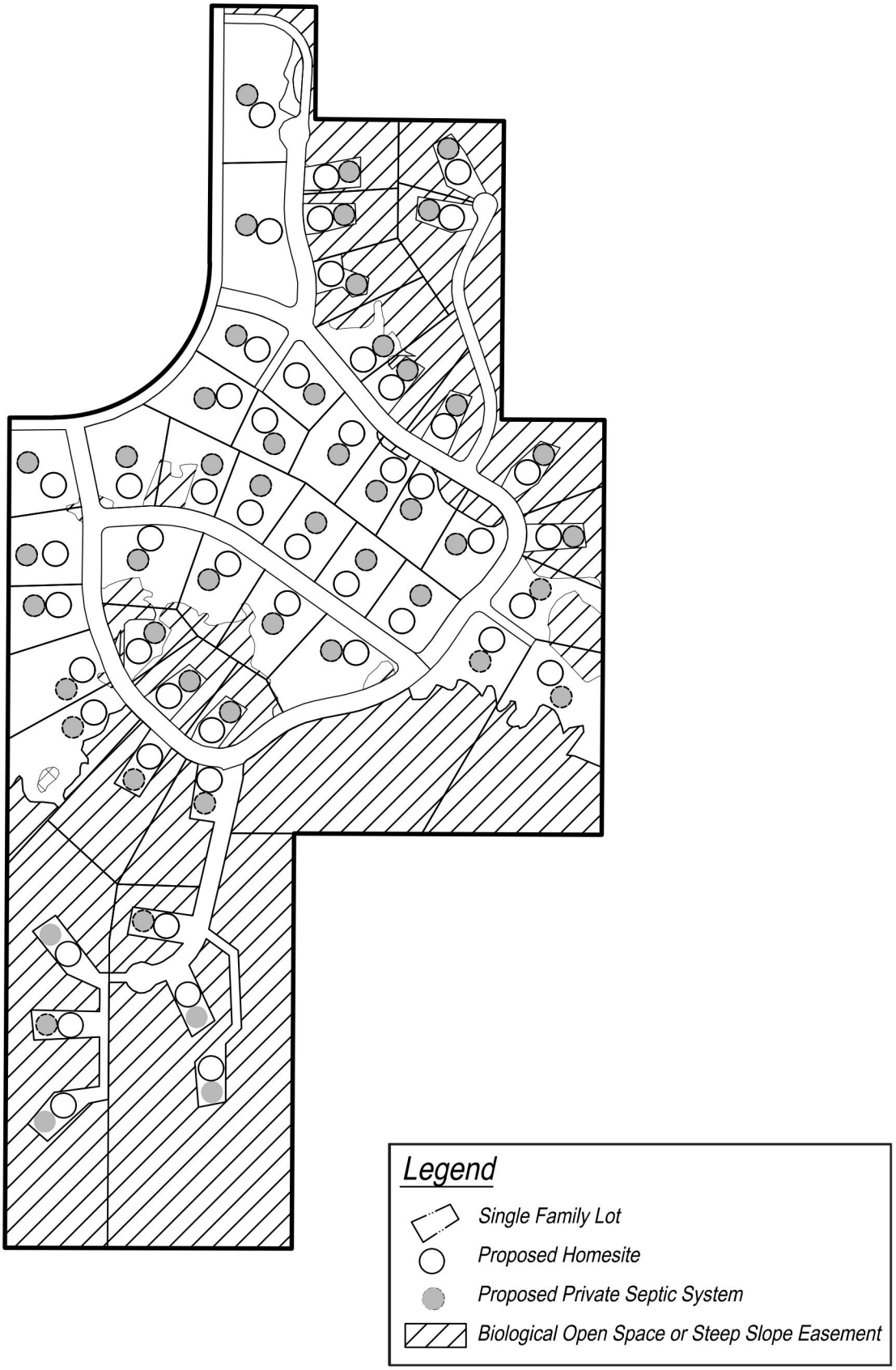
Based on the above CEQA requirement, the General Plan Consistent with Sewer Alternative is identified as the environmentally superior alternative. When compared to the Proposed Project this alternative would have similar or reduced impacts to aesthetics, biological resources, transportation/traffic, cultural resources and tribal cultural resources, noise, air quality and GHGs; it would also reduce the Proposed Project's significant and unavoidable impact to traffic and air quality. This is the result of the lessened encroachment into sensitive biological habitat both on the southern extent of the Project, minimization of steep slopes impacts associated with eastern and southern extents of the Project, conformance with the RAQS, and fewer projected daily vehicular trips associated with the alternative, resulting in no significant and unmitigated traffic impacts in the City of Escondido and fewer significant and mitigable impacts in the County.

4.9 Summary of Alternatives

Table 4-1, below, summarizes the potential impacts identified for alternatives in comparison with those identified for the Proposed Project. The table addresses each of the full-build alternatives (i.e., those alternatives that would result in substantially different development patterns and uses as a whole for the Project property). As detailed above, the potential sewer treatment design scenarios are limited in geographic scope, and only would be implemented as part of one of the full-build alternatives. As such, they are not included in the table below.

Table 4-1
HGV SOUTH FULL-BUILD ALTERNATIVES COMPARISON OF IMPACTS

Environmental Issue	Proposed Project (453 SFR and MFR)	No Project/ No Development	General Plan Consistent with Septic Alternative (49 SFR)	General Plan Consistent with Sewer Alternative (119 SFR)	Senior Care Traffic Reduction Alternative (386 units)	Biologically Superior Alternative (424 MFR)
Aesthetics	SU Construction Period, SM Long-term	Less	Similar	Less	Similar	Greater
Transportation/Traffic	SU (City of Escondido), SM (County of San Diego)	Less	Less	Less	Less	Similar
Biological Resources	SM	Less	Greater	Similar	Greater	Less
Cultural Resources and Tribal Cultural Resources	SM	Less	Similar	Similar	Similar	Similar
Noise	SM	Less	Less	Less	Less	Less
Air Quality	LTS Construction Period, SU Long-term	Less	Less	Less	Less	Less
Greenhouse Gas Emissions	SM	Similar	Similar	Similar	Similar	Similar



Source: PDC 2016

General Plan Consistent with Septic Alternative

HARMONY GROVE VILLAGE SOUTH

Figure 4-1

HELIX Environmental Planning

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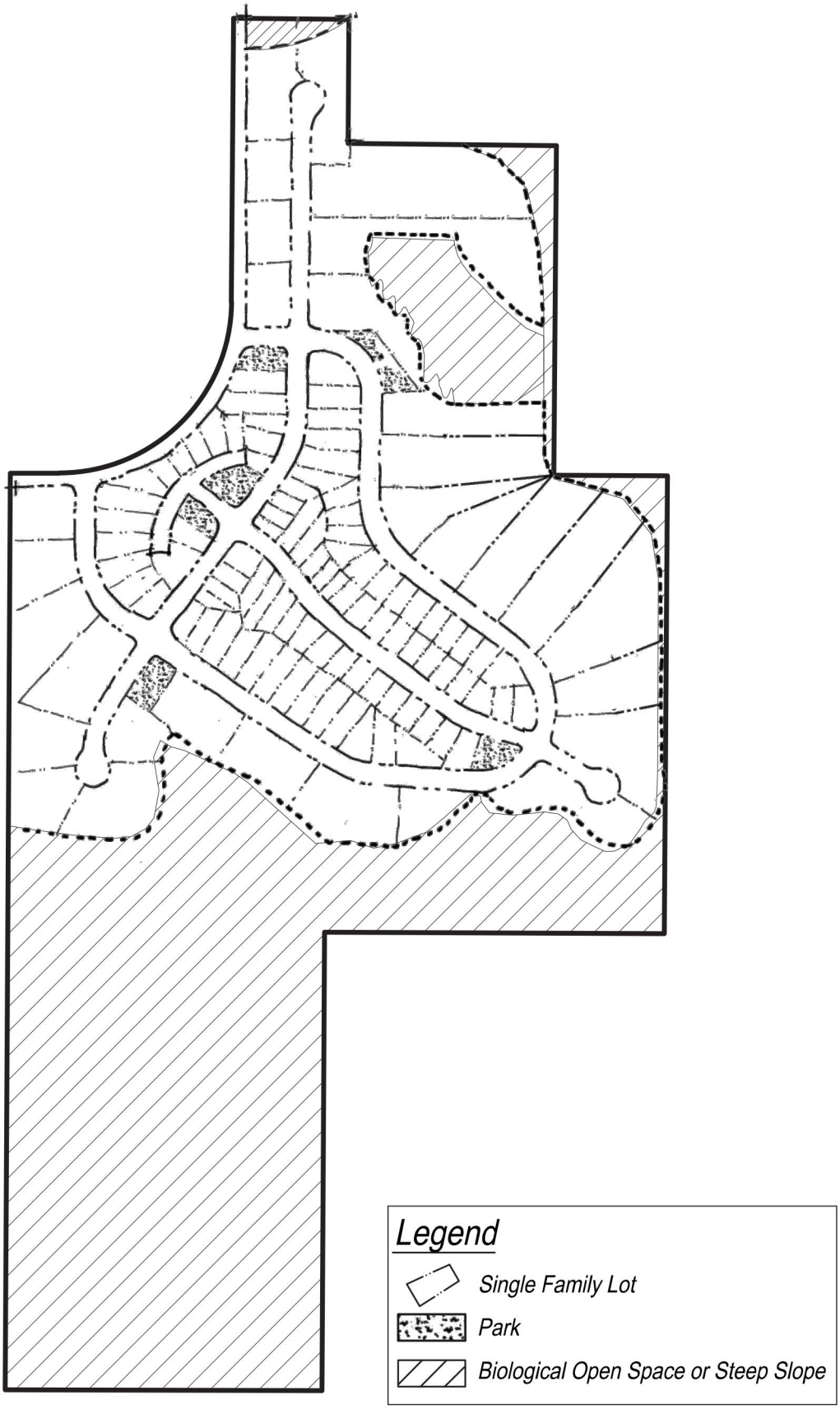


Source: PDC

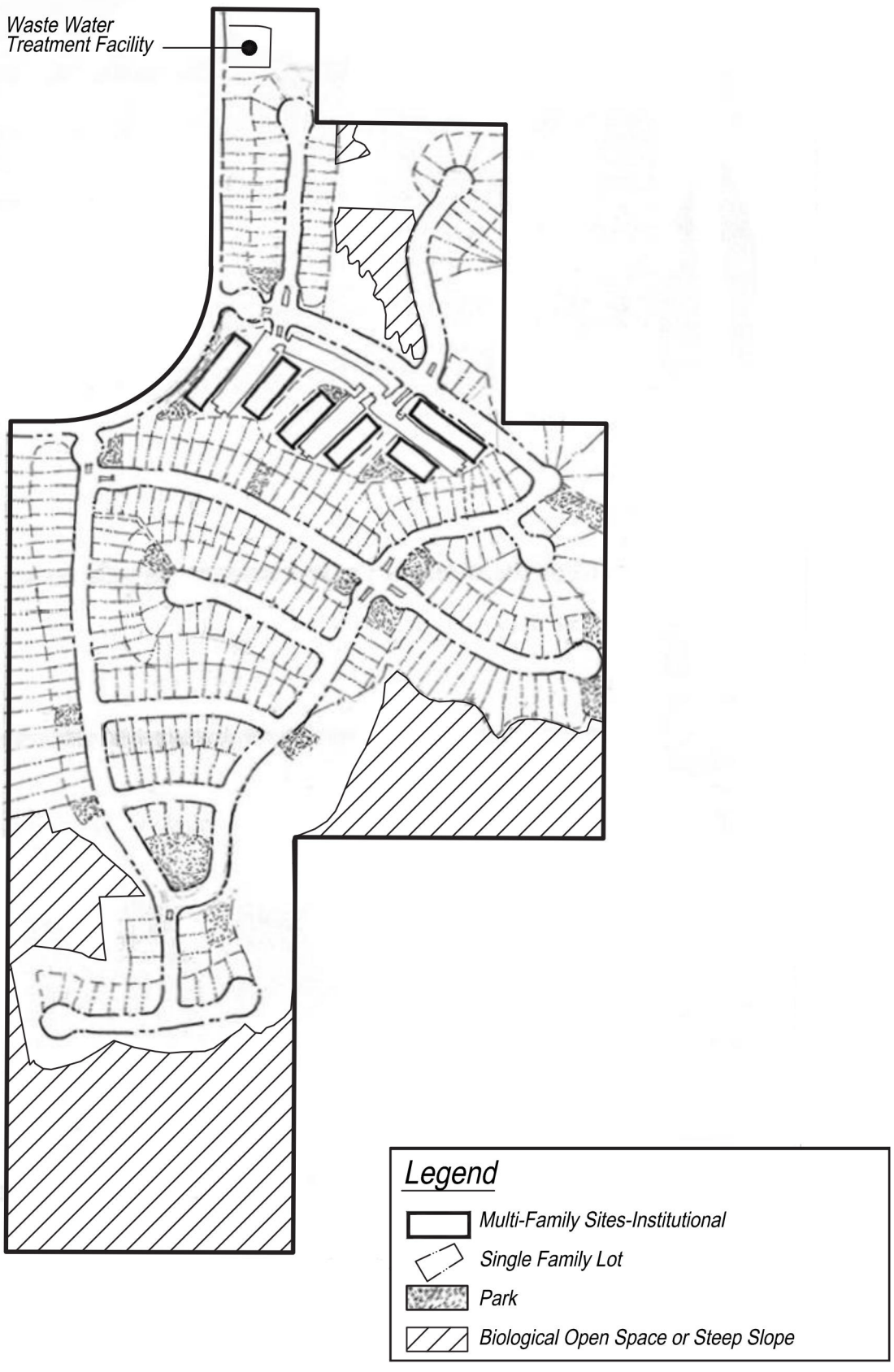
General Plan Consistent with Sewer Alternative

HARMONY GROVE VILLAGE SOUTH

Figure 4-2

HELIX Environmental Planning

I:\PROJECTS\K\KOV\KOV-01_HarmonyGroveSE\Map\ENV\EIR\Fig4-2_SewerAlt.indd KOV-01 5/01/18 - RK



Source: PDC 2016

Senior Care Traffic Reduction Alternative

HARMONY GROVE VILLAGE SOUTH

Figure 4-3

HELIX Environmental Planning

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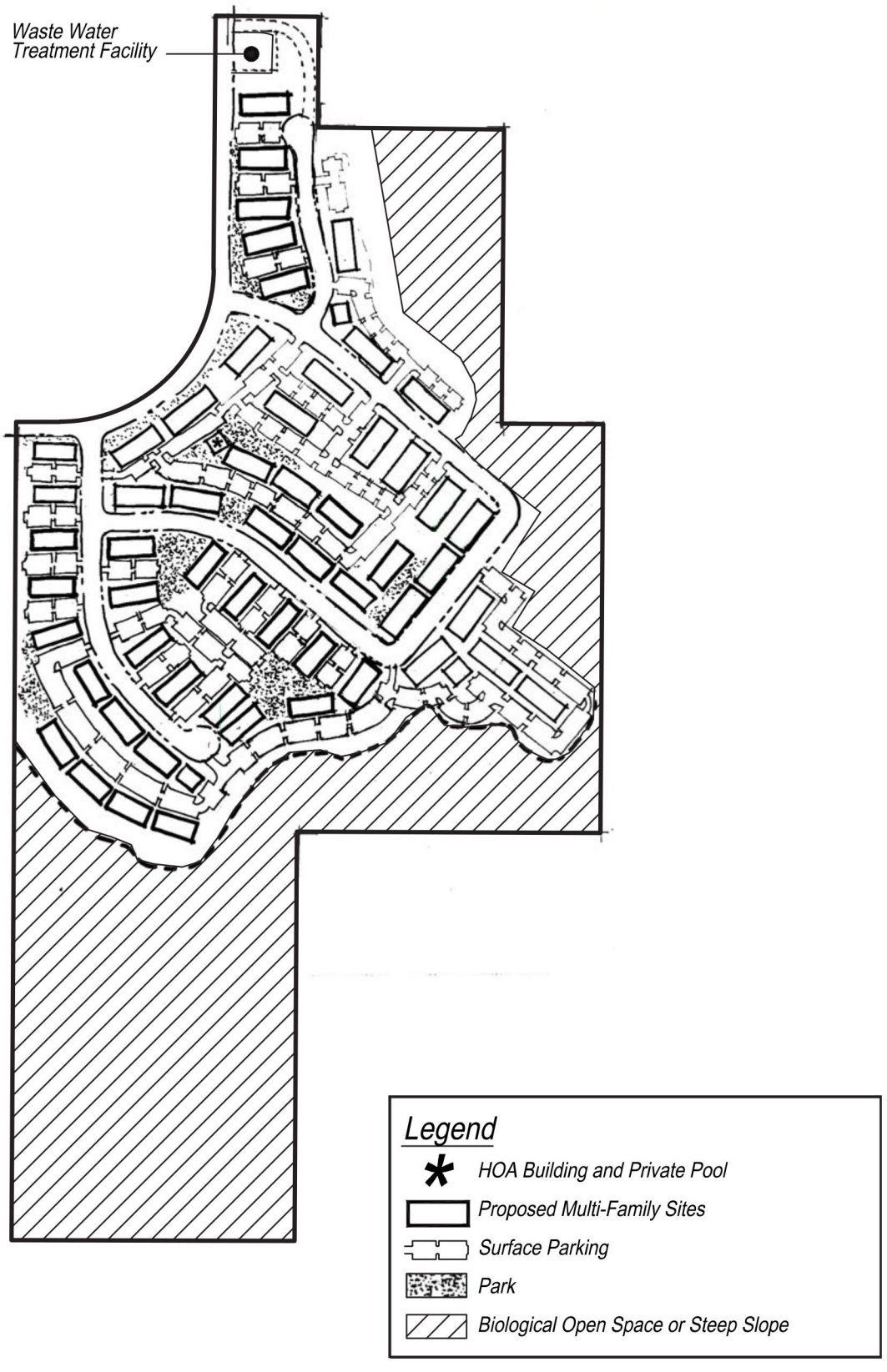


Source: PDC 2016

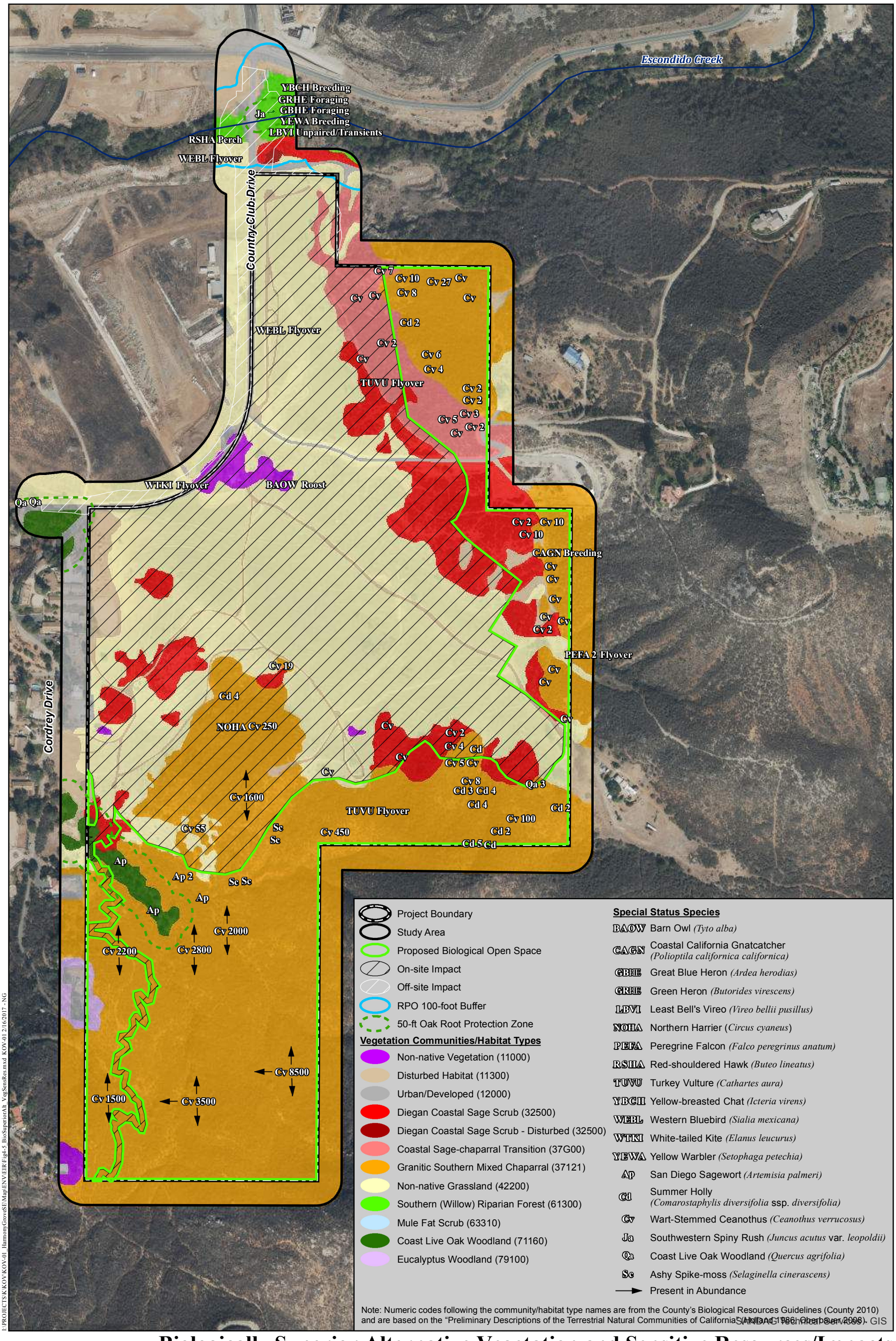
Biologically Superior Alternative

HARMONY GROVE VILLAGE SOUTH

Figure 4-4

HELIX Environmental Planning

I:\PROJECTS\K\KOV\KOV-01_HarmonyGroveSE\Map\ENV\EIR\Fig4-4_BioSuperiorAlt.indd KOV-01 2/16/2017 - NG



Project Boundary
Study Area
Proposed Biological Open Space
On-site Impact
Off-site Impact
RPO 100-foot Buffer
50-ft Oak Root Protection Zone

Vegetation Communities/Habitat Types

- Non-native Vegetation (11000)
- Disturbed Habitat (11300)
- Urban/Developed (12000)
- Diegan Coastal Sage Scrub (32500)
- Diegan Coastal Sage Scrub - Disturbed (32500)
- Coastal Sage-chaparral Transition (37G00)
- Granitic Southern Mixed Chaparral (37121)
- Non-native Grassland (42200)
- Southern (Willow) Riparian Forest (61300)
- Mule Fat Scrub (63310)
- Coast Live Oak Woodland (71160)
- Eucalyptus Woodland (79100)

Special Status Species

- BAOW Barn Owl *(Tyto alba)*
- CAGN Coastal California Gnatcatcher *(Polioptila californica californica)*
- GBHE Great Blue Heron *(Ardea herodias)*
- GRHE Green Heron *(Butorides virescens)*
- LBVI Least Bell's Vireo *(Vireo bellii pusillus)*
- NOHA Northern Harrier (*Circus cyaneus*)
- PEFA Peregrine Falcon *(Falco peregrinus anatum)*
- RSHA Red-shouldered Hawk *(Buteo lineatus)*
- TUVU Turkey Vulture *(Cathartes aura)*
- YBCH Yellow-breasted Chat *(Icteria virens)*
- WEBL Western Bluebird *(Sialia mexicana)*
- WTKI White-tailed Kite *(Elanus leucurus)*
- YEWA Yellow Warbler *(Setophaga petechia)*
- Ap San Diego Sagewort *(Artemisia palmeri)*
- Cd Summer Holly *(Comarostaphylis diversifolia* ssp. *diversifolia)*
- Cv Wart-Stemmed Ceanothus *(Ceanothus verrucosus)*
- Ja Southwestern Spiny Rush *(Juncus acutus* var. *leopoldii)*
- Qa Coast Live Oak Woodland *(Quercus agrifolia)*
- Sc Ashy Spike-moss *(Selaginella cinerascens)*
- Present in Abundance

Note: Numeric codes following the community/habitat type names are from the County's Biological Resources Guidelines (County 2010) and are based on the "Preliminary Descriptions of the Terrestrial Natural Communities of California" (Holland 1986, Oberbauer 2008).

SANDAG Technical Services - GIS

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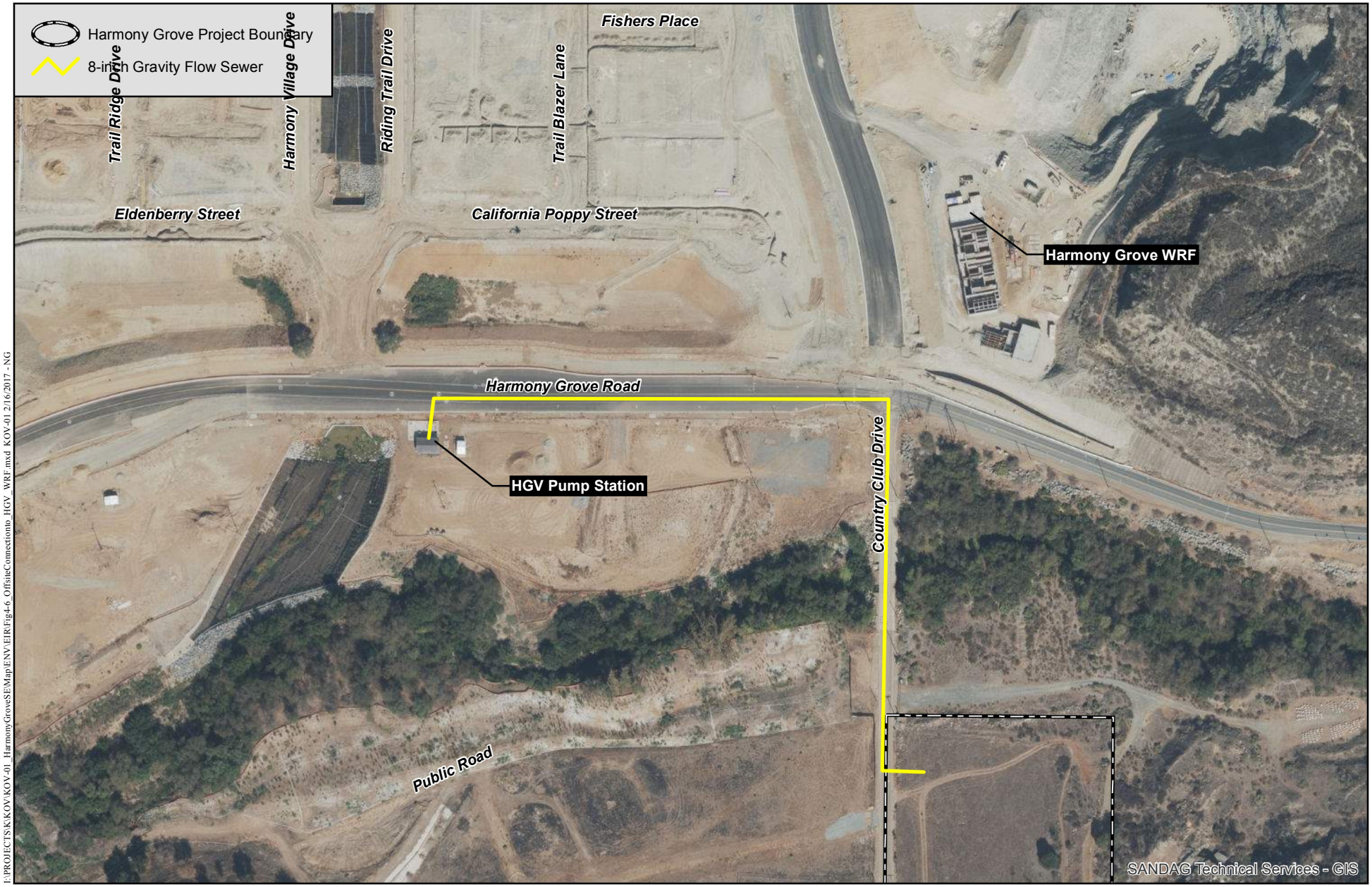
Biologically Superior Alternative Vegetation and Sensitive Resources/Impacts

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

N 0 350 Feet

Figure 4-5



I:\PROJECTS\K\KOV\KOV-01_HarmonyGroveSE\Map\ENV\EIR\Fig4-6_OffsiteConnectionto_HGV_WRF.mxd KOV-01 2/16/2017 - NG

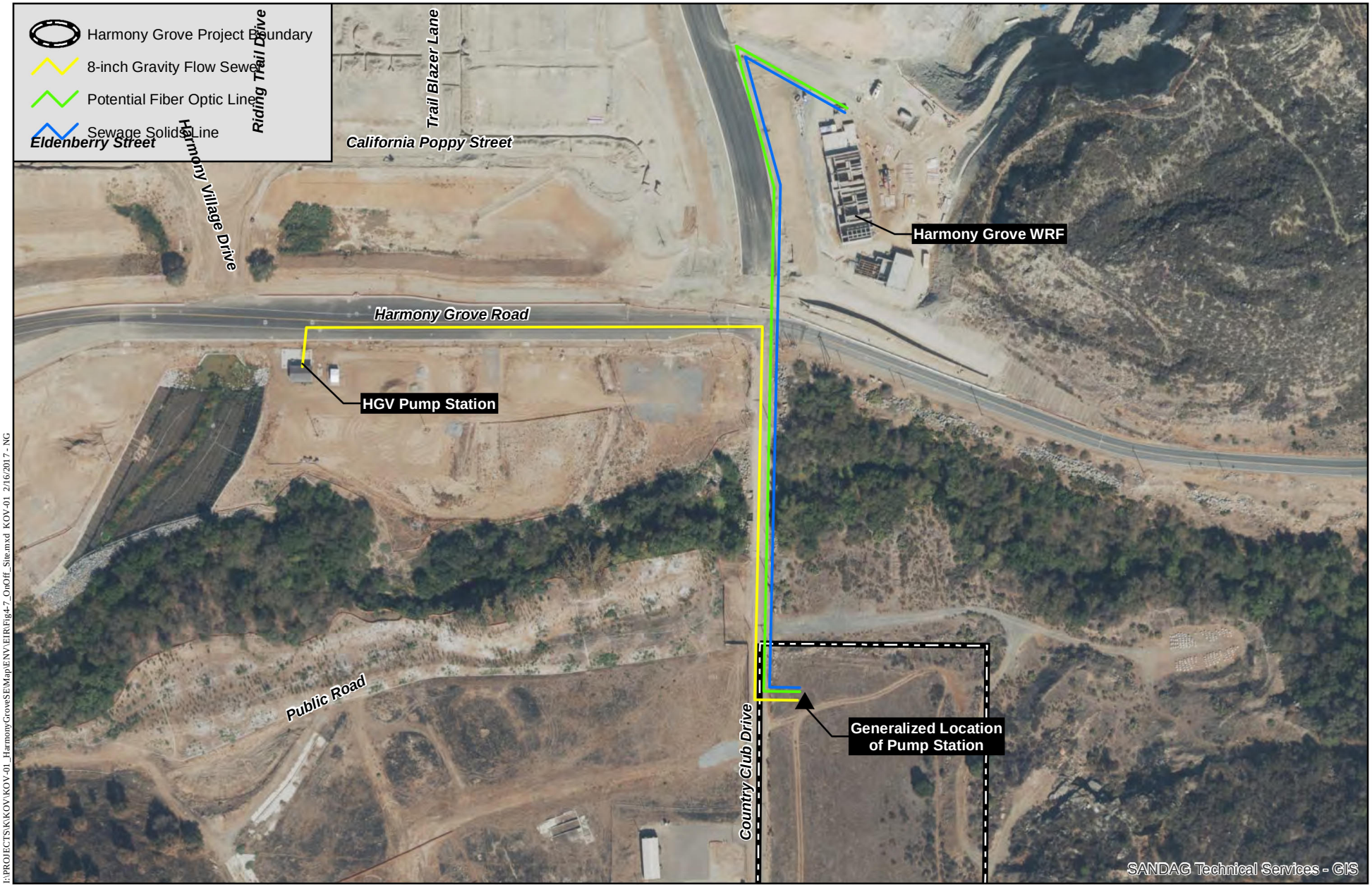
Off-site Connection to the HGV WRF

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

N 0 200 Feet

Figure 4-6



Off-site Connections of Combined On-/Off-site Wastewater Treatment to HGV

HARMONY GROVE VILLAGE SOUTH

HELIX Environmental Planning

N 0 200 Feet

Figure 4-7

CHAPTER 5.0

LIST OF REFERENCES

CHAPTER 5.0 – LIST OF REFERENCES

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CHAPTER 6.0

LIST OF EIR PREPARERS AND PERSONS AND ORGANIZATIONS CONTACTED

CHAPTER 6.0 – LIST OF EIR PREPARERS AND PERSONS AND ORGANIZATIONS CONTACTED

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CHAPTER 7.0

LIST OF MITIGATION MEASURES AND PROJECT DESIGN FEATURES

CHAPTER 7.0 – LIST OF MITIGATION MEASURES AND PROJECT DESIGN FEATURES

7.1 Comprehensive Listing of Mitigation Measures

7.1.1 Mitigation for Aesthetics Impacts

M-AE-1 Exposed newly cut rocks and horizontal drainage features shall be stained in earth tones (through spraying or dripping onto fresh rock face) to soften their contrast on Project cut slopes. Staining of rock shall occur during slope landscape installation and shall be in colors that match the surrounding rock. Application of stain shall be overseen by a qualified expert. Before staining, several test sections will be completed on the rock cut to determine the type of stain that will create the best match with the surrounding rock (i.e., pigmented stains, or creation of new color by leaching minerals from the rock or through photo-reactivity). The slope shall be dry and all loose material and vegetation shall be removed before stain is applied. If necessary, the slope face will be pressure-washed to remove fine-grained particles that could inhibit the stain penetration. Horizontal hillside drainage features will contain color-integrated cement as part of the installation.

7.1.2 Mitigation for Transportation/Traffic

Roadway Segments

City of Escondido

M-TR-1a and 1b Prior to occupancy of 80 Project units, Country Club Drive shall be widened to provide a paved width of 36 feet consisting of two travel lanes and a 10-foot striped center turn lane starting 220 feet southwest of Auto Park Way for a length of approximately 830 feet. Improvements will include connecting the existing sidewalk along the northern side of this roadway section with a 5-foot sidewalk complete with a 6-inch curb and gutter and providing a 4-foot decomposed granite pathway along the south side of this segment with a 6-inch asphalt berm. With the additional 12 feet added to the paved width, the roadway capacity of this Local Collector would increase to 15,000 ADT.[1]

County

M-TR-3 Prior to occupancy of 80 Project units, the Project shall widen Country Club Drive at the Country Club Drive/Eden Valley Lane intersection to provide a dedicated northbound left-turn lane onto Eden Valley Lane.

[1] Because this mitigation would be located in the City of Escondido it is currently identified as significant and unmitigated (infeasible) as described in Subchapter 2.2, Section 2.2.7.

M-TR-4 The Project shall make a payment toward the County of San Diego TIF program to address cumulative impacts to the segment of Harmony Grove Road between Country Club Drive and Harmony Grove Village Parkway.

M-TR-5 The Project shall make a payment toward the County of San Diego TIF program to address cumulative impacts to the segment of Harmony Grove Road between Harmony Grove Village Parkway and Kauana Loa Drive.

M-TR-6 Project payment toward the County of San Diego TIF program as part of mitigation provided under M-TR-10, below, will mitigate impacts to this segment of Harmony Grove Road between Kauana Loa Drive and Enterprise Street.

M-TR-7 Prior to occupancy of 135 Project units, the Project shall provide a northbound to eastbound right-turn overlap phase at the Harmony Grove Road/Harmony Grove Village Parkway signalized intersection.

Intersections

City of Escondido

M-TR-8 Prior to occupancy of 293 Project units, the Project shall restripe the eastbound approach of the Auto Park Way/Country Club Drive intersection to provide one left-turn lane, one shared left-turn/through lane, and one right-turn lane with a signal timing modification to change the east/west approach to "split" phasing.[2]

M-TR-9 Prior to occupancy of 54 Project units, the Project shall pay a fair share toward the approved Citracado Parkway Extension Project, which would improve the intersection operations with an additional through lane in the southbound direction.[3]

County

M-TR-2a and 2b Prior to occupancy of 23 Project units, the Project shall widen the northbound approach of Country Club Drive to Harmony Grove Road to provide one left-turn, one through lane, and one dedicated right-turn lane with an overlap phase in order to mitigate this direct and cumulative impact to the Harmony Grove Road Country Club intersection. In addition, the Project shall make a payment toward the County of San Diego TIF program.

[2] Because this mitigation would be located in the City of Escondido it is currently identified as significant and unmitigated (infeasible) as described in EIR Subchapter 2.2, Section 2.2.7.

[3] Because this mitigation would be located in the City of Escondido and there is no current funding mechanism, the impact is currently identified as significant and unmitigated (infeasible) as described in EIR Subchapter 2.2, Section 2.2.7.

M-TR-10 The Project shall make a payment toward the County of San Diego TIF program to address cumulative impacts to the Harmony Grove Road/Kauana Loa Drive unsignalized intersection.

7.1.3 Mitigation for Biological Resources

M-BI-1a Prior to issuance of a grading permit, the Project Applicant shall preserve 34.8 acres of on-site biological open space (BOS) determined to support sensitive species and habitat functions and values contiguous with the Del Dios Highlands Preserve to the south through the establishment of a conservation easement and the preparation of an RMP approved by the County and Wildlife Agencies (U.S. Fish and Wildlife Service and California Department of Fish and Wildlife) to address long-term monitoring, maintenance, management, and reporting directives, in perpetuity, by a qualified entity approved by the County and Wildlife Agencies.

The 34.8-acre BOS is depicted on Figure 1-9 and Figure 2.3-5. The habitat types within the BOS are summarized within Table 11 of Appendix E. The RMP shall address the location of the mitigation sites that meet the specific mitigation requirement for the type of habitat (e.g., in-kind habitat preservation, no net loss, presence of special status species, etc.) within the Project site. The open space easement shall be owned by a conservancy, the County, or other similar, experienced entity subject to approval by the County. Funding shall be provided through a non-wasting endowment, Community Facility District or other finance mechanism approved by the County. Should a regional entity to manage biological open space be formed, the natural habitat areas within the Project site could be dedicated to that entity and managed as part of an overall preserve system for northern San Diego County.

M-BI-1b Prior to issuance of a grading permit, mitigation for 10.4 acres of impacts to Diegan coastal sage scrub occupied by coastal California gnatcatcher shall occur at a 2:1 ratio for a total of 20.8 acres of occupied habitat through a combination of on-site preservation of 0.5 acre, on-site restoration and preservation of 1.8 acres, and off-site preservation of 18.5 acres through land acquisition and/or purchase of conservation bank credits, as specified below and approved by the County and Wildlife Agencies as part of the required HLP process.

An additional 18.5 acres of occupied, Intermediate Value or High Value coastal sage scrub, and/or other like-functioning habitat as approved by the County and Wildlife Agencies, shall be provided through one or a combination of the following:

- Off-site preservation of mitigation land, through the recordation of a BOS easement, and preparation of an RMP to address long-term monitoring, maintenance, management, and reporting directives, in perpetuity, approved by the County and Wildlife Agencies. To the extent the land is available for preservation, off-site mitigation shall occur within land designated as PAMA in the Draft MSCP North County Plan and located in the Elfin Forest-Harmony Grove Planning Area, northern coastal foothills ecoregion. The location shall

be deemed acceptable by the County and Wildlife Agencies. Long-term management shall be funded through a non-wasting endowment in an amount determined through preparation of a Property Assessment Record (PAR) or similar method for determining funding amount. The open space easement shall be owned by a conservancy, the County or other similar, experienced entity subject to approval by the County. Should a regional entity to manage biological open space be formed, the natural habitat areas within the Project site could be dedicated to that entity and managed as part of an overall preserve system for northern San Diego County.

- If demonstrated to the satisfaction of the County and Wildlife Agencies that off-site preservation of mitigation land is not feasible to fulfill all or a portion of mitigation obligations, then the Project shall include purchase of occupied coastal sage scrub credits at an approved conservation bank, such as the Red Mountain Conservation Bank, Buena Creek Conservation Bank, or other bank deemed acceptable by the County and Wildlife Agencies.

To further prevent inadvertent direct impacts to coastal California gnatcatcher individuals during construction, no grading or clearing shall occur of occupied Diegan coastal sage scrub during the species' breeding season (February 15 to August 31). All grading permits, improvement plans, and the final map shall state the same. If clearing or grading would occur during the breeding season for the gnatcatcher, a pre-construction survey shall be conducted to determine whether gnatcatchers occur within the impact area(s). To avoid take under the federal ESA, impacts to occupied habitat shall be avoided. If there are no gnatcatchers nesting (includes nest building or other breeding/nesting behavior) within that area, grading and clearing shall be allowed to proceed. If, however, any gnatcatchers are observed nesting or displaying breeding/nesting behavior within the area, construction in that area shall be postponed until all nesting (or breeding/ nesting behavior) has ceased or until after August 31. (See also M-BI-4 for mitigation for indirect noise effects.)

M-BI-1c Prior to issuance of a grading permit, mitigation for impacts to less than 0.01 acre of mule fat scrub and 0.71 acre of southern riparian forest suitable for least Bell's vireo shall occur at a 3:1 ratio through one or a combination of the following: on- and/or off-site establishment, re-establishment, rehabilitation, enhancement and preservation of riparian habitat and/or other like-functioning habitat; and/or off-site purchase of riparian habitat mitigation and/or other like-functioning habitat at an approved mitigation bank in the local area, such as the Brook Forest Mitigation Bank, San Luis Rey Mitigation Bank, or other location deemed acceptable by the County and Regulatory Agencies (USACE, RWQCB, and CDFW), as applicable. The establishment/creation component must be at least 1:1 while the remaining 2:1 can be restoration and enhancement.

To further prevent inadvertent direct impacts to least Bell's vireo individuals during construction, no grading or clearing shall occur within riparian habitat during the breeding season of the least Bell's vireo (March 15 to September 15). All grading permits, improvement plans, and the final map shall state the same. If clearing or

grading would occur during the breeding season for the least Bell's vireo, a pre-construction survey shall be conducted to determine whether vireos occur within the impact area(s). To avoid take under the federal and California ESAs, impacts to occupied habitat shall be avoided. If there are no vireos nesting (includes nest building or other breeding/nesting behavior) within that area, grading and clearing shall be allowed to proceed. If, however, any vireos are observed nesting or displaying breeding/nesting behavior within that area, construction shall be postponed until all nesting (or breeding/nesting behavior) has ceased or until after September 15. (See also M-BI-4 for mitigation for indirect noise effects.)

M-BI-2a Prior to issuance of a grading permit, mitigation for impacts to seven summer holly and 1,963 wart-stemmed ceanothus individuals shall occur at a minimum ratio of 3:1 for summer holly and 1:1 for wart-stemmed ceanothus through the preservation of at least 21 summer holly and 1,963 wart-stemmed ceanothus within the BOS easement (which includes preparation of an RMP and monitoring, maintenance, management, and reporting directives) described above in M-BI-1a.

M-BI-2b Prior to issuance of a grading permit, mitigation for impacts to 44.2 acres of non-native grassland that provides suitable nesting and foraging habitat for several bird species, including raptors, shall occur at a 0.5:1 ratio through the preservation of 0.2 acre on site within the BOS easement (which includes preparation of an RMP and monitoring, maintenance, management, and reporting directives) as required by M-BI-1a, in addition to one or a combination of the following: off-site preservation of 21.9 acres of grassland habitat and/or other like-functioning habitat through the recordation of a BOS easement, and the preparation of an RMP to address long-term monitoring, maintenance, management, and reporting directives, in perpetuity, approved by the County and Wildlife Agencies. To the extent the land is available for preservation, off-site mitigation shall occur within land designated as PAMA in the Draft MSCP North County Plan and located in the Elfin Forest-Harmony Grove Planning Area, or northern coastal foothills ecoregion. The location shall be deemed acceptable by the County and Wildlife Agencies. The proposed open space easement shall be owned by a conservancy, the County or other similar, experienced entity subject to approval by the County. Should a regional entity to manage BOS be formed, the natural habitat areas within the Project site could be dedicated to that entity and managed as part of an overall preserve system for northern San Diego County. If demonstrated to the satisfaction of the County and Wildlife Agencies that off-site preservation of mitigation land is not feasible to fulfill all or a portion of mitigation obligations, then the Project shall include purchase of 21.9 acres of grassland credits or like-functioning habitat at an approved conservation bank such as the Brook Forest Conservation Bank or other location deemed acceptable by the County. (See also M-BI-9 addressing breeding season avoidance.)

M-BI-2c Prior to issuance of a grading permit, mitigation for impacts to yellow-breasted chat nesting and foraging habitat, including less than 0.01 acre of mule fat scrub and 0.71 acre of southern riparian forest, shall be provided at a 3:1 ratio through

implementation of mitigation M-BI-1c. (See also M-BI-9 addressing breeding season avoidance.)

M-BI-3a Prior to issuance of a grading permit, mitigation for loss of foraging area that could impact long-term survival of County Group 2 animals shall be provided through implementation of mitigation for impacts to 44.2 acres of non-native grassland at a 0.5:1 ratio, as described in M-BI-2b.

M-BI-3b Prior to issuance of a grading permit, mitigation for impacts to yellow warbler nesting and foraging habitat, including less than 0.01 acre of mule fat scrub and 0.71 acre of southern riparian forest at a 3:1 ratio, shall be provided through implementation of mitigation M-BI-1c. (See also M-BI-9 addressing breeding season avoidance.)

M-BI-3c Prior to issuance of a grading permit, mitigation for loss of raptor foraging habitat shall be provided through implementation of mitigation for impacts to 44.2 acres of non-native grassland at a 0.5:1 ratio, as described in M-BI-2b.

M-BI-4 If operation of construction dozers, excavators, rock crushers, pile drivers or cast-in-drilled-hole equipment occurs during the breeding seasons for the coastal California gnatcatcher (February 15 to August 31), nesting raptors (January 15 to July 15), or least Bell's vireo (March 15 to September 15), pre-construction survey(s) shall be conducted by a qualified biologist as appropriate prior to issuance of a grading permit, to determine whether these species occur within the areas potentially impacted by noise. If it is determined at the completion of pre-construction surveys that active nests belonging to these sensitive species are absent from the potential impact area, construction shall be allowed to proceed. If pre-construction surveys determine the presence of active nests belonging to these sensitive species, then operation of the following equipment shall not occur within the specified distances from an active nest during the respective breeding seasons: a dozer within 400 feet; an excavator within 350 feet; rock crusher equipment within 1,350 feet; a breaker within 500 feet; a pile driver within 2,600 feet; and cast-in-drilled holes equipment within 350 feet. All grading permits, improvement plans, and the final map shall state the same. Operation of construction dozers, excavators, rock crushers, pile drivers, cast-in-drilled-hole equipment and other noise-generating activities shall: (1) be postponed until a qualified biologist determines the nest(s) is no longer active or until after the respective breeding season; or (2) not occur until a temporary noise barrier or berm is constructed at the edge of the development footprint and/or around the piece of equipment to ensure that noise levels are reduced to below 60 dBA or ambient. Decibel output will be confirmed by a County-approved noise specialist and intermittent monitoring by a qualified biologist to ensure that conditions have not changed will be required. If pre-construction surveys identify coastal California gnatcatcher, nesting raptors, or least Bell's vireo, blasting will be restricted to the non-breeding season for the identified birds (September 1 to February 14 for coastal California gnatcatcher; July 16 to January 14 for nesting raptors; and September 16 to March 14 for least Bell's vireo) or be completed using wholly chemical means.

M-BI-5a Prior to issuance of a grading permit, mitigation for impacts to less than 0.01 acre of mule fat scrub and 0.71 acre of southern riparian forest shall occur at a 3:1 ratio with at least 1:1 creation as specified in M-BI-1c, above.

M-BI-5b Prior to issuance of a grading permit, mitigation for 10.4 acres of impacts to occupied Diegan coastal sage scrub shall occur at a 2:1 ratio as specified in M-BI-1a and M-BI-1b, above.

M-BI-5c Prior to issuance of a grading permit, mitigation for 4.5 acres of impacts to coastal sage-chaparral transition shall occur at a 2:1 ratio through one or a combination of the following: off-site preservation of 9.0 acres of coastal sage-chaparral scrub and/or other like-functioning habitat, through the recordation of a BOS easement, and the preparation of an RMP to address long-term monitoring, maintenance, management, and reporting directives, in perpetuity, approved by the County and Wildlife Agencies. To the extent the land is available for preservation, off-site mitigation shall occur within land designated as PAMA in the Draft MSCP North County Plan and located in the Elfin Forest-Harmony Grove Planning Area, or northern coastal foothills ecoregion. The location shall be deemed acceptable by the County and Wildlife Agencies. The open space easement shall be owned by a conservancy, the County or other similar, experienced entity subject to approval by the County. Should a regional entity to manage biological open space be formed, the natural habitat areas within the Project site could be dedicated to that entity and managed as part of an overall preserve system for northern San Diego County. If demonstrated to the satisfaction of the County and Wildlife Agencies that off-site preservation of mitigation land is not feasible to fulfill all or a portion of mitigation obligations, then the Project shall include purchase of 9.0 acres of coastal sage-chaparral scrub credits or like-functioning habitat at an approved mitigation bank such as the Red Mountain Conservation Bank, Buena Creek Conservation Bank, Brook Forest Conservation Bank, or other location deemed acceptable by the County and Wildlife Agencies.

M-BI-5d Prior to issuance of a grading permit, mitigation for 15.6 acres of impacts to southern mixed chaparral shall occur at a 0.5:1 ratio through the preservation of a minimum 7.8 acres on site within BOS easement (which shall include preparation and implementation of an RMP and monitoring, maintenance, management, and reporting directives), as required by M-BI-1a.

M-BI-5e Prior to issuance of a grading permit, mitigation for 44.2 acres of impacts to non-native grassland shall occur through implementation of M-BI-2b, above.

M-BI-5f Prior to issuance of a grading permit, mitigation for 0.2 acre of impacts to upland coast live oak woodland shall occur at a 3:1 ratio through the preservation of 0.6 acre on site within BOS easement (which shall include preparation and implementation of an RMP and monitoring, maintenance, management, and reporting directives) as required by M-BI-1a.

M-BI-6a Prior to issuance of a grading permit, demonstration that regulatory permits from the USACE and RWQCB have been issued or that no such permits are required shall be provided to the County. Impacts to 0.31 acre of USACE/RWQCB-jurisdictional wetland waters of the U.S./State shall be mitigated at a 3:1 ratio as described in M-BI-1c, above, unless otherwise required by the USACE and RWQCB. Impacts to 0.03 acre of USACE/RWQCB-jurisdictional non-wetland waters of the U.S./State shall be mitigated at a 1:1 ratio through the preservation of a minimum 0.03 acre on site within BOS easement (which shall include preparation implementation of an RMP and monitoring, maintenance, management, and reporting directives) as described in M-BI-1a, unless otherwise required by the USACE and RWQCB. If required by the USACE and/or RWQCB during regulatory permitting for the Project, alternative mitigation shall be provided through purchase of mitigation credits at the Brook Forest Mitigation Bank, San Luis Rey Mitigation Bank, or other location deemed acceptable by the USACE and RWQCB.

M-BI-6b Prior to issuance of a grading permit, demonstration that regulatory permits from CDFW have been issued or that no such permits are required shall be provided to the County. Impacts to 0.80 acre of CDFW-jurisdictional areas will be mitigated as follows. Impacts to less than 0.01 acre mule fat scrub and 0.71 acre southern riparian forest shall be mitigated at a 3:1 ratio, as described in M-BI-1c, unless otherwise required by CDFW. Impacts to 0.05 acre of CDFW-jurisdictional coast live oak woodland and 0.04 acre of CDFW-jurisdictional streambed shall be mitigated at a 1:1 ratio through the preservation of a minimum 0.05 acre of CDFW-jurisdictional coast live oak woodland and 0.04 acre of CDFW-jurisdictional streambed on site within BOS easement (which shall include preparation of an RMP and monitoring, maintenance, management, and reporting directives) as described in M-BI-1a, unless otherwise required by CDFW. If required by CDFW during regulatory permitting for the Project, alternative mitigation shall be provided through purchase of mitigation credits at the Brook Forest Mitigation Bank, San Luis Rey Mitigation Bank, or other location deemed acceptable by CDFW.

M-BI-6c Prior to issuance of a grading permit, impacts to 0.72 acre of RPO wetland (less than 0.01 acre mule fat scrub, 0.71 acre southern riparian forest, and 0.01 acre RPO-jurisdictional coast live oak woodland) shall be mitigated at a 3:1 ratio with at least 1:1 creation. Impacts to mule fat scrub and southern riparian forest shall be mitigated as described in M-BI-1c, above. Impacts to 0.01 acre RPO coast live oak woodland shall be provided through purchase of establishment or re-establishment mitigation credits at the Brook Forest Mitigation Bank, San Luis Rey Mitigation Bank, or other location deemed acceptable by the County.

M-BI-7 Prior to issuance of a grading permit, impacts to 0.31 acre of federal wetlands shall be mitigated at a 3:1 ratio as described in M-BI-1c, M-BI-5a and M-BI-6a, above, unless otherwise required by USACE.

M-BI-8 Prior to issuance of a grading permit, impacts to 0.72 acre of RPO-protected wetland shall be mitigated at a 3:1 ratio as described in M-BI-1c, M-BI-5a and M-BI-6c, above.

M-BI-9 No grubbing, clearing, or grading shall occur during the general avian breeding season (February 15 to August 31). All grading permits, improvement plans, and the final map shall state the same. If grubbing, clearing, or grading would occur during the general avian breeding season, a pre-construction survey shall be conducted by a qualified biologist to determine if active bird nests are present in the affected areas. If there are no nesting birds (includes nest building or other breeding/nesting behavior) within this area, clearing, grubbing, and grading shall be allowed to proceed. If active nests or nesting birds are observed within the area, the biologist shall flag the active nests and construction activities shall avoid active nests until nesting behavior has ceased, nests have failed, or young have fledged.

7.1.4 Mitigation for Cultural Resources and Tribal Cultural Resources

M-CR-1 and 2 An archaeological monitoring and data recovery program would be implemented to mitigate potential impacts to undiscovered buried archaeological resources on the Project site to the satisfaction of the Director of PDS. This program shall include, but shall not be limited to, the following actions:

- Pre-Construction
    - Provide evidence that a County approved archaeologist has been contracted to implement the Archaeological Monitoring program.
    - The Project Archaeologist shall contract with a Luiseño Native American monitor.
    - The pre-construction meeting shall be attended by the Project Archaeologist and Luiseño Native American monitor to explain the monitoring requirements.
- Construction
    - Monitoring. Both the Project Archaeologist and Luiseño Native American monitor are to be on site during earth disturbing activities. The frequency and location of monitoring of native soils will be determined by the Project Archaeologist in consultation with the Luiseño Native American monitor. Monitoring of previously disturbed soils will be determined by the Project Archaeologist in consultation with the Luiseño Native American monitor.
    - If cultural resources are identified:
        - Both the Project Archaeologist and Luiseño Native American monitor have the authority to divert or temporarily halt ground disturbance operations in the area of the discovery.

- The Project Archaeologist shall contact the County Archaeologist.
- The Project Archaeologist in consultation with the County Archaeologist and Luiseño Native American shall determine the significance of discovered resources.
- Construction activities will be allowed to resume after the County Archaeologist has concurred with the significance evaluation.
- Isolates and non-significant deposits shall be minimally documented in the field. Should the isolates and non-significant deposits not be collected by the Project Archaeologist, the Luiseño Native American monitor may collect the cultural material for transfer to a Tribal curation facility or repatriation program.
- If cultural resources are determined to be significant, a Research Design and Data Recovery Program shall be prepared by the Project Archaeologist in consultation with the Luiseño Native American monitor and approved by the County Archaeologist. The program shall include reasonable efforts to preserve (avoid) unique cultural resources of Sacred Sites; the capping of identified Sacred Sites or unique cultural resources and placement of development over the cap if avoidance is infeasible; and data recovery for non-unique cultural resources. The preferred option is preservation (avoidance).

o Human Remains

- The Property Owner or their representative shall contact the County Coroner and the PDS Staff Archaeologist.
- Upon identification of human remains, no further disturbance shall occur in the area of the find until the County Coroner has made the necessary findings as to origin.
- If the remains are determined to be of Native American origin, the Most Likely Descendant (MLD), as identified by the Native American Heritage Commission (NAHC), shall be contacted by the Property Owner or their representative in order to determine proper treatment and disposition of the remains.
- The immediate vicinity where the Native American human remains are located is not to be damaged or disturbed by further development activity until consultation with the MLD regarding their recommendations as required by Public Resources Code Section 5097.98 has been conducted.

- Public Resources Code §5097.98, CEQA §15064.5 and Health & Safety Code §7050.5 shall be followed in the event that human remains are discovered.

- Rough Grading
  - Upon completion of Rough Grading, a monitoring report shall be prepared identifying whether resources were encountered.
- Final Grading
  - A final report shall be prepared substantiating that earth-disturbing activities are completed and whether cultural resources were encountered.
  - Disposition of Cultural Material
    - The final report shall include evidence that all prehistoric materials have been curated at a San Diego curation facility or culturally affiliated Tribal curation facility that meets federal standards per 36 CFR Part 79, or alternatively has been repatriated to a culturally affiliated Tribe.
    - The final report shall include evidence that all historic materials have been curated at a San Diego curation facility that meets federal standards per 36 CFR Part 79.

7.1.5 Mitigation for Noise

On-site Exterior Noise

M-N-1 On-Site Noise Barriers: Noise levels at exterior use areas for the proposed residences identified as R9 and R10 on Figure 2.5-1 shall be reduced to the most restrictive County Noise Element threshold of 60 CNEL or below. Noise reduction for on-site exterior traffic noise impacts, which could lead to interior noise impacts, could be accomplished through on-site noise barriers. One 5-foot-high sound wall along the northern perimeter of the affected lot would be installed, with approximately 20-foot long return walls along the western perimeter of the western residence (R9) and the eastern perimeter of the eastern residence (R10).

The sound attenuation fence or wall must be solid. It can be constructed of masonry, wood, plastic, fiberglass, steel, or a combination of those materials, as long as there are no cracks or gaps through or below the wall. Any seams or cracks must be filled or caulked. If wood is used, it can be tongue and groove and must be at least one-inch total thickness or have a density of at least 3.5 pounds per square foot. Where architectural or aesthetic factors allow, glass or clear plastic ⅜ of an inch thick or thicker may be used on the upper portion, if it is desirable to preserve a view. Sheet metal of 18 gauge (minimum) may be used, if it meets the other criteria and is properly supported and stiffened so that it does not rattle or create noise itself from vibration or

wind. Any door(s) or gate(s) must be designed with overlapping closures on the bottom and sides and meet the minimum specifications of the wall materials described above. The gate(s) may be of one-inch thick or better wood, solid-sheet metal of at least 18-gauge metal, or an exterior-grade solid-core steel door with prefabricated doorjambs.

On-site Interior Noise

M-N-2 Exterior-to-Interior Noise Analysis: In accordance with standard County requirements, additional exterior-to-interior noise analysis shall be conducted for the residential units identified as R9 and R10 (where exterior noise levels may exceed 60 CNEL within the second stories) to demonstrate that interior levels do not exceed 45 CNEL. The information in the analysis shall include wall heights and lengths, room volumes, window and door tables typical for a building plan, as well as information on any other openings in the building shell. With this specific building plan information, the analysis shall determine the predicted interior noise levels at the planned on-site buildings. If predicted noise levels are found to be in excess of 45 CNEL, the report shall identify architectural materials or techniques that could be included to reduce noise levels to 45 CNEL in habitable rooms. Standard measures such as glazing with Sound Transmission Class (STC) ratings from a STC 22 to STC 60, as well as walls with appropriate STC ratings (34 to 60), should be considered.

Appropriate means of air circulation and provision of fresh air would be provided to allow windows to remain closed for extended intervals of time so that acceptable interior noise levels can be maintained. The mechanical ventilation system would meet the criteria of the International Building Code (Chapter 12, Section 1203.3 of the 2001 California Building Code).

On-site Operational Noise

M-N-3 WTWRF Final Design Noise Shielding: The WTWRF shall be enclosed by a solid 6-foot high wall. Final design for the WTWRF and the noise wall shall demonstrate that exterior noise levels generated from all stationary WTWRF equipment combined shall not exceed the one-hour exterior noise level of 45 dBA L_{EQ} at the property line.

The Applicant shall be required to provide a final noise impact analysis as part of the facilities design submittal package for the WTWRF and noise wall prepared by a County-approved noise consultant. The final noise impact analysis shall demonstrate compliance with the County 45 dBA L_{EQ} property line nighttime limit completed to the satisfaction of the County PDS.

Construction Noise

M-N-4 Breaker Equipment Operation Limit: If a breaker is required as part of Project construction, then it shall not generate maximum noise levels that exceed 82 dBA L_{MAX} when measured at the property line for 25 percent of a one-hour period, or be used within 125 feet of the property line for any occupied residence. Material that would

require a breaker shall be moved a minimum distance of 125 feet from the nearest residence.

M-N-5 Rock Crusher Operation Limit: If a rock crusher is required as part of Project construction, then it shall not be used within 250 feet of the property line for any occupied residence until a temporary noise barrier or berm is constructed at the edge of the development footprint or around the piece of equipment to reduce noise levels below 75 dBA L_{EQ} at the property line for the occupied residences. If a barrier or berm is used, decibel output will be confirmed by a County-approved noise specialist. Otherwise, a rock crusher shall be moved a minimum distance of 250 feet from the nearest residence before use.

M-N-6 Blasting Measures: The following measures would be implemented to reduce impacts from blasting:

- The number of blasts would be limited to three blasting events per week.
- The Project would also include a blasting management plan due to the blasting that is likely to occur on site. All blast planning must be done by a San Diego County Sheriff approved blaster, with the appropriate San Diego County Sheriff blasting permits, in compliance with the County Consolidated Fire Code Section 96.1.5601.2 (County 2014a), and all other applicable local, state, and federal permits, licenses, and bonding. The blasting contractor or owner must conduct all notifications, inspections, monitoring, and major or minor blasting requirements planning with seismograph reports, as necessary.
- If boulders must be reduced in size with blasting within 200 feet of the closest residence, the use of chemical expansion via a chemical cracking agent shall be performed instead.

7.1.6 Mitigation for Air Quality Impacts

M-AQ-1 The County shall provide a revised housing forecast to SANDAG to ensure that any revisions to the population and employment projections used by the SDAPCD in updating the RAQS and SIP will accurately reflect anticipated growth due to the Proposed Project.

7.1.7 Mitigation for Greenhouse Gas Emissions Impacts

M-GHG-1 Prior to issuance of the first grading permit for the Project, compliance with M-GHG-1 shall be as follows:

a. Solar panel(s), capable of generating a total of 1,720 KW, shall be installed on an existing building(s) that does not currently utilize solar energy, located within the County of San Diego, that is not otherwise required by law or regulation through statute, regulation, existing local program, or requirement to install such solar panels. The building shall have an estimated life of at least

30 years as verified by a third-party building inspector. The solar system installation shall be completed by a licensed, bonded and insured installer; and equipped with a monitoring system to notify the property owner upon which the building is located (property owner), the installer, and the HGV South Homeowners Association (HOA) with monitoring data. The solar panels will be registered with an extended warranty for the maximum period of time feasible, not less than 30 years and the panels will be dated at the time of installation. Consistent with the North American Board of Certified Energy Practitioners (NABCEP) standards, the installation company shall have a minimum of three years' experience.

b. The identified building(s) shall be located within the County boundaries. A Covenant shall be recorded against the property, for the benefit of the Project site, stating that the Project-installed solar panel(s) must remain on the building(s) and operational for a period of 30 years. This Covenant runs with the land, not the owner, and will pass with the parcel in the event of a sale. The Covenant shall also require the property owner to allow the HOA or representative (including the County) to conduct annual baseline maintenance inspections, monitor, repair or replace the system as described in e), below, during that 30-year period. The Covenant shall also include the following provisions:

   i) the property owner shall allow the HOA or County to access the system if maintenance is indicated by the monitoring system or when issues are otherwise noted by the property owner;

   ii) the property owner shall notify the HOA and County if any repair or maintenance events become known to the property owner;

   iii) the property owner shall maintain a policy of insurance (or include the addition of such panels to the coverage limits of the building's current insurance policy) to cover against the repair or replacement of the solar system resulting from physical damage (e.g., caused by severe weather conditions, vandalism, fire and other events) and name the HOA and County as additional insureds;

   iv) the property owner shall maintain and/or replace such panels with an equivalent or higher rated panel as necessary if the repair work is not completed by the HOA;

   v) if the identified building is vacated or abandoned, or the building is demolished before the 30-year period, the property owner shall be required to install an equivalent unit (and provide insurance for the same) on one or more existing buildings that meet the same criteria identified in a); within the County, that would generate an equivalent amount of solar power for the remaining term of the 30-year period. The property owner shall be required to record a Covenant with the same provisions against the property upon which the new building with the replacement solar unit is located, for the remaining term of

the 30-year period and notify the HOA and the County of the same, prior to the vacation, abandonment, or demolition of the existing building; and

vi) any new purchaser of the property shall notify the HOA and County that it has acquired the site and acknowledge its obligations under the Covenant, including allowing access for solar panels maintenance for the duration of the 30-year term.

c. The Applicant is required to fund and provide a report to the County that provides the following information:

i) the address of the specific building(s) upon which the installation of the solar panels required by 2024 M-GHG-1 have been installed;

ii) evidence that the building(s) is/are not required by law or regulation through statute, regulation, existing local program, or requirement to install such solar panels (i.e., additional);

iii) the amount of GHG emissions that will be reduced by the installation of such panels;

iv) a copy of the Covenant recorded against the property that includes the information required by M-GHG-1 b) above;

v) a copy of the third-party building inspector (verification) that the life of the building be at least 30 years; and

vi) a copy of the Project "Covenants, Conditions, and Restrictions" (CC&Rs or Declaration) of the HOA that include the provisions identified in paragraph e) below, including the HOA's budget that shows the reserve set aside for the purposes described in paragraph f) below, and

vii) a copy of the solar installation contract with a licensed and bonded installer, and warranty and insurance policy along with the approved solar permit. The report shall include calculations conducted by a technical GHG expert using County-approved models and/or methodologies.

d. The Applicant shall comply with County Code Section 6954, Solar Energy Systems, and obtain any required permits. The installation of such PV system shall be required to qualify for a CEQA exemption, such as PRC 21080.35 at the time of application for installation.

e. The CC&Rs for the Project shall be submitted to the County for its review prior to the approval of the first grading permit that includes the following provisions:

1. The HOA shall monitor the solar system using the module-level monitoring application described above for a 30-year period that commences from the

Project's start of operations. The HOA shall keep records of solar power production during this period.

2. If any solar equipment is found to need repair or replacement, the HOA shall be responsible for such work being completed as needed in order to maintain the equivalent amount of solar power generated by such panels. The HOA shall work with the property owner, installation company and/or insurance entity to ensure that the repairs are completed in a timely manner. If the repair work is not covered by the warranty or paid for by the insurance carrier, the HOA shall be responsible for ensuring that the repair work is completed.

3. An annual maintenance and monitoring program shall be conducted by a licensed and bonded solar company (the Covenant requires the property owner to allow this annual inspection). A report shall be prepared by the solar company with the results of the inspection, including whether any repairs are needed and the amount of solar power generated by such panels. The report will be provided to the HOA, property owner, and County.

4. During maintenance, the HOA or representative shall replace (with an equivalent or higher rated panel) or repair any of the solar panels as needed in order to maintain the equivalent amount of solar power generated by such panels.

5. Any revisions to the above-described provisions of the CC&Rs shall be approved by the County, require the consent of 100 percent of the holders of first mortgages or the property owners within the HOA, and require the HOA to retain the same amount of funds set aside by this mitigation measure for the same purposes for the 30-year period.

6. The County shall be named as a party to said Declaration authorizing the County to enforce the terms and conditions of the Declaration in the same manner as the HOA or any owner within the subdivision.

7. The HOA shall maintain the budgeted reserve described in paragraph f) below for the exclusive uses described below. The County may use such funds should it decide to enforce said obligations.

8. These CC&Rs shall be confirmed by the County prior to recording the first subdivision map.

f. Applicant shall submit the initial HOA budget, subject to Department of Real Estate (DRE) rules, for review and approval by the County, that includes a set aside fund of $300,000.00, for the purpose of repairing or replacing any solar panels (see Appendix J1), should such work not be eligible for reimbursement from the property owner's insurance policy or warranty. The set aside funds may also be used to enforce the provisions of the Covenant and any insurance claim if needed. The amount of the set aside funds shall be adjusted each year

by the HOA, based on the annual indexed increases in construction costs and expenses consistent with the California Construction Cost Index or similar construction industry standard index, through a reserve study prepared by a qualified consultant, hired by the HOA as required by the DRE, provided however, in no event shall the reserve fund be increased more than three percent (3 percent) in a given year. This budgeted reserve amount shall be designated and restricted exclusively for the sole purposes set forth herein and may be used by the County should it decide to enforce the obligations of the property owner. If any amount of the set aside is used by the HOA or County for such purposes, the HOA shall replenish the fund in an amount equal to what has been withdrawn.

~~_____ the Applicant shall provide evidence to the County PDS that they have purchased and retired carbon credits, in the amount of 4,411 MT CO_2e (note: this number reflects all the construction-related GHG emissions after applying all Project design features and reductions along with a one-time vegetation loss) pursuant to the performance standards and requirements described below. Construction emissions include all grading, site preparation, vegetation removal, worker trips, building construction and architectural coatings related to GHG emissions.~~

~~The carbon offsets that are purchased to reduce GHG emissions shall achieve real, permanent, quantifiable, verifiable, and enforceable reductions as set forth in Cal. Health & Saf. Code Section 38562(d)(1).~~

~~One carbon offset credit shall mean the past reduction or sequestration of one metric ton of carbon dioxide equivalent that is "not otherwise required" (CEQA Guidelines Section 15126.4[c][3]).~~

~~Carbon offsets shall be purchased through a CARB-approved registry, such as the Climate Action Reserve, American Carbon Registry, or Verified Carbon Standard, or any registry approved by CARB to act as a registry under the State's cap-and-trade program. If no CARB-approved registry is in existence, then the Applicant or its designee shall purchase off-site carbon offset credits from any other reputable registry or entity, to the satisfaction of the Director of PDS.~~

~~The County will consider, to the satisfaction of the Director of PDS, the following geographic priorities for GHG reduction features, and off-site carbon offset projects: (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.~~

~~**M-GHG-2** Prior to the County's issuance of building permits for each implementing Site Plan ("D" Designator), the Project Applicant or designee shall provide evidence to PDS (consisting of documentation from the issuing registry or a County-approved third party verifier) that the Project Applicant or designee has purchased and retired carbon offsets for the incremental portion of the Project within the Site Plan in a quantity~~

~~sufficient to offset, for a 30-year period, the operational GHG emissions from that incremental amount of development to net zero, consistent with the performance standards and requirements set forth below. The amount of carbon offsets required for each implementing Site Plan shall be based on the GHG emissions for each land use within the implementing Site Plan, as identified in the Table 2.7-4, *Operational GHG Emissions and Off-Site Carbon Offsets Per Land Use*.~~

~~The Project's operational emissions would be 5,222 MT CO_2e at the time of full buildout.[4] Therefore, the Project shall be required to reduce the annual emissions by 5,222 MT CO_2e/year for a 30-year period (project life) or a total of 156,660 MT CO_2e. The "Project life" is 30 years, which is consistent with the methodology used by the South Coast Air Quality Management District's GHG guidance (SCAQMD 2008). The Project Applicant shall include in each implementing Site Plan a tabulation that identifies the overall carbon offsets required to mitigate the entire Project's GHG emissions, the amount of carbon offsets purchased to date, and the remaining carbon offsets required to reduce the Project's emissions to net zero.~~

~~The carbon offsets that are purchased to reduce GHG emissions shall achieve real, permanent, quantifiable, verifiable, and enforceable reductions as set forth in Cal. Health & Saf. Code Section 38562(d)(1).~~

~~One carbon offset credit shall mean the past reduction or sequestration of one metric ton of carbon dioxide equivalent that is "not otherwise required" (CEQA Guidelines Section 15126.4[c][3]).~~

~~Carbon offsets shall be purchased through a CARB-approved registry, such as the Climate Action Reserve, American Carbon Registry, or Verified Carbon Standard. or any registry approved by CARB to act as a registry under the State's cap-and-trade program. If no CARB-approved registry is in existence, then the Applicant or its designee shall purchase off-site carbon offset credits from any other reputable registry or entity to the satisfaction of the Director of PDS.~~

~~The County will consider, to the satisfaction of the Director of PDS, the following geographic priorities for GHG reduction features, and off-site carbon offset projects: (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.~~

7.2 Project Design Features/Conditions of Approval

All Project Design Features (PDFs) identified below will be included as Conditions of Approval on the Project plans issued for construction bid, will be monitored during construction by monitors identified as qualified by the County, will have plans prepared as stated, and will have review and approval by County staff prior to implementation. The Applicant will provide the County with the

~~[4] As stated above, this is a conservative number as it does not take into account CO_2e reductions associated with required Project landscaping and native habitat purchase.~~

applicable HOA documentation demonstrating implementation of all PDFs related to homeowner association activities/compliance as appropriate and set forth in the PDFs to follow. Sign-off on infrastructure placement will occur prior to vertical building, and sign-off on final construction requirements will occur prior to occupancy.

7.2.1 Design Considerations for Aesthetics – Construction

1. In compliance with the approved conceptual landscape plans, the Landscape Plans shall require:

    - Final landscape (including container/box plant sizes) along Country Club Drive, at entries, along Project streets, and on manufactured slopes, shall be installed immediately following completion of grading and installation of irrigation. Landscape plans will comply with the County's Water Conservation Landscaping Ordinance, Water Efficient Landscape Design Manual, etc. and will be reviewed and approved by the County prior to the start of construction.

2. Project grading shall be implemented in accordance with the approved Preliminary Grading Plan, and is designed to follow general rise and fall in existing topography and to avoid sharp or abrupt grade transitions, as feasible.

3. Construction of the Project shall comply with the Project's visual study through approved building and construction plans. Specific elements include:

    - Incorporation of open space corridors and parks. A minimum of approximately 60 percent of the Project shall be in biological open space set-aside or landscaped space.

    - Trails/pathways with equestrian fencing and/or landscaping shall be sited along all Project roadways excluding a portion of the access to Lot 2.

    - Varied rooflines with differing tower/chimney elements.

    - Non-inhabitable roofline elements shall not exceed 5 percent of the structure rooflines.

    - Dark roofs (gray, brown) of varying shades will be used rather than lighter colors or red tile.

    - All trash dumpsters/compactors/receptacles will be screened (by buildings or screen walls) if they would otherwise be visible from a street or common area. Mechanical units also will be screened.

    - Where distinguishable, roof-top equipment will be screened from view from adjacent roads, properties, and pedestrian areas. This equipment may include HVAC, etc. Where shielding of routine roof equipment may not be possible, equipment would be organized in an orderly, uncluttered fashion and painted to match the roof color. Rooftop equipment screening would be identified on site plans.

- Exterior building materials will variously include stone, masonry, painted or stained horizontal and vertical wood siding, stucco, and metal elements.

- Architectural elements will seek to reduce the apparent size, bulk, and scale of proposed buildings through use of techniques such as:

    - Incorporating roofline variation through use of flat parapet roofs, as well as gables, dormers, overhangs etc.

    - Locating garage doors in alleys/courtyards, etc. as opposed to on streets.

    - Providing overhead structures at entries, such as porches, trellises, or pergolas.

    - Aligning roadways in a curvilinear manner.

- The Project footprint will be consistent with PDS2018-TM-5626 as depicted on Figure 1-6a of this EIR.

7.2.2 Design Considerations for Aesthetics – Operation

1. Lighting shall be oriented downward, shall not spill onto open space or off-site areas, and will be sited as shown on EIR Figure 1-21a, in compliance with the County LPC. Additional specific Conditions include:

    - Full cutoff fixtures (lights will turn off at 11:00 p.m.), low-reflective surfaces (matte surfaces that do not reflect glare) and low-angle spotlights (to focus light on specific features and not allow "spill") shall be used.

    - No lighting shall blink, flash, or be of unusually high intensity or brightness.

    - WTWRF lighting shall use full cut off fixtures for all lights. Pole lights shall be shielded, 10 to 14 feet tall, and will only be activated when workers are present.

    - Streetlights shall be located only at intersections and at one location in parking for the Center House and be shielded down lights. Lights will be a maximum of 15 feet to 20 feet tall at Project major intersections and 10 to 15 feet tall at interior street locales shown on EIR Figure 1-21b.

    - Project identification signage will incorporate small scale landscape up-lighting and will not include internally lighted letters.

2. To ensure consistency in format and content of signs, a comprehensive sign package will be developed and submitted to PDS as part of the site plan application. Specific conditions include:

    - Sign posts and other structural elements will be wood or metal with a white, earth tone, black, or natural stain finish. Reflective or bright colors are prohibited.

- "Way-finding" and informational signage will be located at intersections and decision points so as to generate the fewest number of signs.

- Project identification signage will be discretely placed within low stone walls or pilaster landscape elements, with secondary signs being smaller in scale.

- The maximum size of residential directory signage will be limited to 25 s.f.

- Center House window signs will be no larger than 25 percent of the window on or behind which they are displayed.

- Rooftop and roof-mounted signs, neon signs, internally illuminated plastic signs, and back lit signs that appear to be internally illuminated shall not be installed and are prohibited.

- Letter and symbol height will be limited to a maximum of 10 inches.

- Center House total sign area is limited to 1 s.f. of sign area per linear foot of building length along Private Drive A and Private Drive J, up to a maximum of 90 s.f.

- One additional building directory sign not exceeding 10 s.f. in size may be allowed at each Center House public entrance for each tenant.

7.2.3 Design Considerations for Transportation/Traffic – Construction

1. Improvements shall be constructed at the intersection of Harmony Grove Road/Country Club Drive consistent with the approved Grading Plan and TM, including the provision of northbound left- and right-turn lanes to merge with the newly constructed condition provided by HGV for approaches from the north, east and west.

2. Country Club Drive shall be widened to three lanes, with one southbound lane, a center lane (for left turns or to function as an emergency access/egress route), and one northbound lane, consistent with the approved Grading Plan and TM.

3. A Traffic Control Plan shall be prepared by the Construction Contractor and approved by County DPW prior to initiation of construction: including measures to reduce traffic delays and minimize public safety impacts, such as the use of flag persons, traffic cones, detours and advanced notification signage, pedestrian/equestrian detours, movement restrictions and temporary lane closures to preclude substantial traffic delays during construction of residential, commercial, recreational and public services/utility project elements. In addition, the construction contractor shall provide a means for public liaison/contact information for public inquiries and concerns.

7.2.4 Design Considerations for Transportation/Traffic – Operation

1. Bicycle spaces shall conform to the standards provided within the County Zoning Ordinance Sections 6758-6783, 6787, and 6792.

7.2.5 Design Considerations for Biological Resources – Construction

Measures regarding control of off-site flows in Hydrology/Water Quality are also applicable to Biological Resources.

1. Brushing, clearing, and grading activities will not be permitted within 500 feet of active California gnatcatcher or raptor nests during the avian breeding season (January 15 through September 15).

2. Temporary protective fencing will be used to keep construction equipment and people out of sensitive habitats that are not proposed to be graded.

3. The Project will comply with wet weather grading restrictions (October 1 to April 30) to avoid habitat damage in applicable locations.

4. Project landscaping will conform to the Conceptual Landscape Plan, species and spacing; including: installation of (a) native species container stock; (b) no invasive exotics in either plants or hydroseed mix; (c) no "California" pepper trees (*Schinus molle*) will be planted within 50 feet of riparian habitat, and (d) use of a hydroseed mix that incorporates native species, and is appropriate to the area. This mix shall be approved by the monitoring biologist.

7.2.6 Design Considerations for Biological Resources – Operation

Measures regarding shielded lights in Aesthetics, control of off-site flows in Hydrology/Water Quality, and structure restrictions in the limited building zone (see Hazards) are also applicable to Biological Resources.

1. The Project will provide a 200-foot buffer between RPO riparian areas and proposed residential/commercial/recreational vertical development.

2. BOS areas will be fenced off from the proposed development.

3. Signs will be placed along the edge of the BOS area to deter human incursion.

4. Each BOS easement will be surrounded by a Limited Building Zone easement dedicated on the Final Map that does not allow any structures, in order to prevent fire clearing from extending into biological open space.

7.2.7 Design Considerations for Noise – Construction

1. All residents within a 0.5-mile radius of the blast location shall receive notice from the blasting contractor prior to blasting, containing the day and hour that blasting will occur. Residents shall receive this notice at least 24 hours before any blasting event.

2. Residents shall be contacted prior to the first notice of blasting to determine their preferred method of contact for the blasting information (e.g., phone, email, regular mail).

3. Signs providing noticing of the blast, including the date and time of the blast, shall be posted by the blasting contractor near the Harmony Grove Road and Country Club Drive intersection, the Country Club Drive and Cordrey Drive intersection, and the entrance to the Del Dios Highland Preserve trail (off Del Dios Highway). This signage shall be posted at least seven days before any blasting event.

4. Both resident notices and posted signage shall contain contact information so residents and visitors can obtain more information if requested.

5. If pile driving is utilized as part of the construction of the bridge over Escondido Creek and the Harmony Grove Equestrian Park is operational during pile driving operations, the following best management practices would be implemented to avoid potential adverse effects to horseback riders, horses, and other park visitors:

    - Bridge construction may use cast in-drilled holes in place of pile driving while the park is occupied; and

    - If pile driving is to be performed, pile driving shall not occur on Saturdays or Sundays so that the equestrian park may remain open on the weekends.

7.2.8 Design Considerations for Air Quality – Construction

1. In accordance with the SDAPCD Rule 55 - Fugitive Dust Control, no dust and/or dirt will leave the property line. The following measures will be implemented:

    - Any areas where ground disturbance occurs shall be watered a minimum of twice daily, or as needed to control dust.

    - If visible dust emissions are discharged into the atmosphere beyond the property line for a period or periods aggregating more than 3 minutes in any 60-minute period, construction activities will be terminated until all dust clears.

    - The following control measures will be implemented to minimize visible roadway dust: (a) track-out grates or gravel beds at each egress point; (b) wheel-washing at each egress during muddy conditions, soil binders, chemical soil stabilizers, geotextiles, mulching, or seeding; and for outbound transport trucks (c) secured tarps or cargo covering, watering, or treating of transported material.

    - Visible roadway dust resulting from active operations, spillage from transport trucks, erosion, or track-out/carry-out shall be removed at the conclusion of each work day when active operations cease, or every 24 hours for continuous operations. On dry days, dirt and debris spilled onto paved surfaces shall be swept up immediately to reduce resuspension of particulate matter caused by vehicle movement. If a street sweeper is used to remove any track-out/carry-out, only particulate matter smaller than 10 microns in diameter (PM_{10})-efficient street sweepers certified to meet the most current South Coast Air Quality Management District (SCAQMD) Rule 1186 requirements shall be

used. The use of blowers for removal of track-out/carry-out will be prohibited under any circumstances.

- Dust-control measures such as watering to reduce particulate generation will be used for pertinent locations/activities (e.g., concrete removal).
- Contractor(s) will implement paving, chip sealing or chemical stabilization of internal roadways after completion of grading.
- Dirt storage piles will be stabilized by chemical binders, tarps, fencing or other erosion control.
- A 15-mile per hour (mph) speed limit will be enforced on unpaved surfaces.
- Haul trucks hauling dirt, sand, soil, or other loose materials will be covered or 2 feet of freeboard will be maintained.
- The contractor will terminate grading activities if winds exceed 25 mph.
- Any blasting areas would be wetted down within four hours prior to initiating the blast
- Disturbed areas shall be hydroseeded within three days, landscaped, or developed as quickly as possible and as directed by the County and/or SDAPCD.

2. Low volatile organic compound (VOC) coatings will be used during construction and maintenance in accordance with SDAPCD Rule 67 requirements.

3. The Project will comply with County Municipal Code Section 68.508-68.518. A Construction and Demolition Debris Management Plan and a refundable performance guarantee will be developed by the Construction Contractor prior to building permit issuance, and implemented to divert debris from construction and demolition away from landfills. The plan will require that 90 percent of inerts and 70 percent of all other materials from the Project are recycled.

4. Appropriate (i.e., non-hazardous) construction debris will be recycled for on- or off-site use whenever feasible.

5. Construction equipment shall be operated in accordance with the California Air Resources Board's Airborne Toxic Control Measure (ATCM) that limits diesel-fueled commercial motor vehicle idling. In accordance with the subject ATCM (see Cal. Code Regs., tit. 13, §2485), the drivers of diesel-fueled commercial motor vehicles meeting certain specifications shall not idle the vehicle's primary diesel engine for longer than five minutes at any location. The ATCM requires the owners and motor carriers that own or dispatch such vehicles to ensure compliance with the ATCM requirements.

6. Tier III or higher construction equipment will be used, with the exception of concrete/industrial saws, generator sets, welders, air compressors, or construction equipment where Tier III or higher is not available.

7.2.9 Design Considerations for Air Quality – Operation

1. As implemented through the D1-Designator Site Plan, energy efficiency will comply with ~~2016~~ Title 24 standards, Part 6 in effect at the time of building permit application. State personnel will verify installation of Title 24 requirements prior to sale and occupancy.

2. The Project will provide e~~E~~lectrical outlets ~~will be installed on the exterior walls of residences~~ in all residential backyards and within the common areas of multi-family ~~uses to allow use of electric landscape maintenance equipment~~development areas.

~~3. Only natural gas or equivalent non-wood fireplaces will be installed in residential uses.~~

~~4. Natural gas outlets will be provided in residential backyards and within the common areas of multi-family development areas.~~

~~5.~~3. The Center House parking area will include eight 19.2 kW ~~A dual-port l~~Level 2 EV (electric vehicle) charging stations (serving two parking spaces) ~~and signage will be installed in the parking area for the Center House~~. The Project will also ~~will plumb for an~~install a Level 2 EV charging station (220-volt chargers) within the garage of ~~for~~ each residential~~ce~~ unit (453 total).

~~6.~~4. As a matter of regulatory compliance, the Project will be required to use energy efficient fixtures and bulbs in all common outdoor areas.

WTWRF Odor Control

1. PDFs at the WTWRF facilities include: water misting, chemical additives or activated carbon to minimize odors, as required, and include:

    - Covered or housed WTWRF facilities
    - A misting system with odor neutralizing liquids to break down the foul smelling chemical compounds in the biogases
    - Active odor control units to manage gases from the wet and solids stream treatment processes
    - Bio filters to capture odor causing compounds in a media bed where they are oxidized by naturally occurring micro-organisms

7.2.10 Design Considerations for Greenhouse Gases – Construction

Measures specified for Air Quality Construction are also applicable to Greenhouse Gases.

1. See Air Quality Construction PDF 5.

2. See Air Quality Construction PDF 6.

~~1.~~3. To the extent feasible, diesel equipment fleets that exceed existing emissions standards will be utilized when commercially available in the San Diego region.

~~2.~~4. To the extent feasible, electric and renewable fuel powered construction equipment will be utilized when commercially available in the San Diego region.

~~3.~~5. To the extent practicable and feasible, electricity will be used to power appropriate types and categories of construction equipment (e.g., hand tools).

~~4.~~6. As a PDF, the Applicant will develop and provide to all homeowners an informative brochure to educate homeowners regarding water conservation measures, recycling, location of the electric vehicle charging stations, location of outdoor electric outlets to promote using electrical lawn and garden equipment, and location of nearby resources such as dining and entertainment venues, small commercial centers, and civic uses to reduce vehicle miles traveled. This brochure will be developed and provided to PDS for review prior to occupancy of the first unit.

7. See Air Quality Construction PDF 3.

7.2.11 Design Considerations for Greenhouse Gases - Operation

Measures specified for Air Quality are also applicable to Greenhouse Gases. The Proposed Project's PDFs would be included as D Designator Site Plan conditions and verified prior to the issuance of final certificate of occupancy, as follows:

8R~~12~~. The Proposed project will comply with the ~~2016~~ California Title 24 Energy Code in effect at the time of building permit application~~(which went into effect on January 1, 2017)~~. The following energy efficient items will be included in all residential units: improved high efficiency heating, ventilation, and air conditioning (HVAC) systems~~units~~ with sealed (tight) air ducts; enhanced ceiling, attic and wall insulation; energy conserving appliances such as whole house fans: high -efficiency water heaters (tankless water heaters); energy-efficient three coat stucco exteriors; energy efficient appliances ~~(Energy Star™ or equivalent);~~ programmable thermostat timers; and high-efficiency window glazing.

9~~13~~. Roof anchors and pre-wiring to allow for the installation of photovoltaic (PV) systems where such systems are not installed as part of Project implementation will be provided on additional non-residential structures (e.g., if an on-site WTWRF is approved as part of the Project).

10R. See Air Quality Operation PDF 3.

11~~7~~. The Project's outdoor landscaping plan will use turf only in sports field, dog park and park/recreation areas~~;~~, maximize drought-tolerant, native, and regionally appropriate plants through planting in conformance with the Project Conceptual Landscape Plan and the County's Water Conservation and Landscape Design Manual~~;~~, and incorporate weather-based irrigation controllers, multi-programmable irrigation clocks, and high efficiency drip irrigation systems. At the time of final inspection, a manual shall be placed in each building that includes, among other things, information about water conservation. The Project shall

submit a Landscape Document Package that complies with the referenced County Ordinance and demonstrates a 40 percent reduction in outdoor use. The Landscape Document Package shall be submitted to the County for review and approval prior to issuance of any building permits and compliance with this measure shall be made a condition of the Project's approval.

12~~8~~. The Project will utilize reclaimed water from the proposed WTWRF (or the existing HGV WRF) for outdoor irrigation.

13R~~3~~. The Project will install rooftop solar PV panels (a photovoltaic solar system) on all residential units within the Project to produce a total of 4,165 kW of solar power~~and the Center House in order to supply 100 percent of the Project's electricity needs through renewable energy (see ConSol Report in Appendix J for analysis). To clarify for this Project, this means that the Project will design all residences and the Center House to achieve the California Energy Commission's (CEC's) Zero Net Energy standards, as defined in that agency's 2015 Integrated Energy Policy Report (CEC 2015) – in other words, this will include covering electricity and natural gas~~.

14~~6~~. Project potable water use will be reduced by 20 percent through installation of low-flow water fixtures, reduction of wastewater generation by 20 percent, installation of low-flow bathroom fixtures, and installation of weather-based smart irrigation control systems.

15R4. As a matter of regulatory compliance, t~~T~~he Project will comply with Section 5.106.5.2 of the latest California Green Building Standards Code (CALGreen Code) in effect at the time of building permit application, which requires the provision of ~~provide~~ designated parking for shared vehicles and clean air vehicles. This will occur at the Center House and Project parks ~~in compliance with Section 5.106.5.2 of the 2016 California Green Building Standards Code (CALGreen Code)~~.

16~~11~~. As discussed in the Specific Plan, the Project ~~would~~ will provide bicycle parking facilities and bicycle circulation improvements to encourage the use of bicycles (see also Improvement Plans.)

17~~9~~. Marked crosswalks connecting the east and west sides of Country Club Drive will be located from each of the Project entries to the future multi-use trail on the west side of the road to accommodate pedestrians/equestrians in crossing the road.

18~~10~~. The Project's parking facilities will comply with the County's Parking Design Manual that requires parking areas to minimize the heat island effect that results from asphalt and/or large building block surfaces such as parking lots.

19. See Air Quality Operations PDF 2.

20~~1~~. Areas for storage and collection of recyclables and yard waste will be provided.

21~~5~~. The Landscaping Plan for the Project will include the installation of a minimum of 2,045 trees within the Project site.

2214. The HOA will provide two electrical vehicles that will be sited at the Center House for use by residents for service that further connects various Project components, land uses, parks/open spaces, and the retail/commercial uses of HGV and HGV South. The vehicles will be provided to the HOA with the issuance of the first occupancy permit and the future provision and maintenance of such vehicles shall thereafter be the responsibility of the HOA in accordance with the Covenants, Conditions and Restrictions (CC&Rs). The vehicles will be available for use based upon a self-service check-~~-~~in system utilizing HOA identification cards. This program will terminate when a transit linkage is proposed by the local transit district.

2315. An area within the developable portion of the Center House will be reserved for dedication for a transit stop for bus service when a local transit line is extended to service the HGV/HGV South Village area. The Project's proposed circulation network of ~~pathways/~~sidewalks, trails, and bicycle routes will provide connections to the transit stop to further provide a regional alternative transportation system.

2416. The Project shall submit building plans illustrating that the Project would install one rain barrel per every 500 square feet of available roof area provided that s~~S~~tate, regional or local incentives/rebates are available to fund the purchase of such rain barrels and roof area is available to feasibly install the barrels.

252. The HOA will provide informational materials on SANDAG's rideshare programs like iCommute. The Applicant will develop and provide to all homeowners an informative brochure, approved by the County, to educate homeowners regarding water conservation measures, recycling, location of the ~~electric vehicle~~EV charging stations, location of outdoor electric outlets to promote using electrical lawn and garden equipment, and location of nearby resources such as dining and entertainment venues, commercial centers, and civic uses to reduce VMT.

26. The Project will not install wood or natural gas burning hearth options in residential units.

27. Natural gas lines will not be installed on site (the Project will be 100 percent electric).

28. The Project will install rooftop solar PV panels (a photovoltaic solar system) on the Center House to the maximum extent feasible based on its final design.

7.2.12 Design Considerations for Energy

Measures specified for Air Quality and Greenhouse Gases are also applicable to Energy.

7.2.13 Design Considerations for Geologic Hazards – Construction

1. The Proposed Project design and construction efforts will incorporate applicable standard seismic factors from the County Building Code, IBC/CBC and Greenbook, as identified in the Project geotechnical investigations. Specifically, these factors will be incorporated into the design and construction of facilities such as structures, foundations/slabs, pavement and utilities, as well as related activities including remedial grading (e.g., removal and/or reconditioning unsuitable soils), manufactured slope/retaining wall design, site drainage, and

use of properly engineered fill (i.e., fill exhibiting characteristics such as proper composition, moisture content, application methodology and compaction). This process will include verification through standard plan review and site-specific geotechnical observation and testing during Project excavation, grading, and construction activities.

2. Potential liquefaction hazards will be addressed through compliance with standard measures and Project geotechnical investigations including efforts such as: (1) installation of subdrains in appropriate areas to avoid near-surface saturation; (2) removal of unsuitable (e.g., compressible) deposits in areas proposed for development; and (3) replacement of unsuitable materials with engineered fill. This process will include verification through standard plan review and site-specific geotechnical observation and testing during Project excavation, grading, and construction activities.

3. Acceptable factors of safety for manufactured slopes will be achieved through standard measures and the Project geotechnical investigations including efforts such as: (1) constructing fill slopes with approved material (engineered fill) and surface treatments, using drought-tolerant landscaping and irrigation controls, and limiting grades to a maximum of 2:1 (horizontal to vertical); and (2) designing/constructing cut slopes with maximum grades of 1.5:1 and maximum heights of 90 feet, and over-excavation or blasting of cut slopes in granitic rock to reach unweathered and stable rock exposures. This process will include verification through standard plan review and site-specific geotechnical observation and testing during Project excavation, grading, and construction activities.

4. Expansive soils will be addressed per the County Building Code, IBC/CBC, Greenbook and Project geotechnical investigations; including such efforts as: (1) removal and replacement of expansive soils with engineered fill exhibiting very low or low expansion potential (per IBC/CBC or other applicable regulatory/industry criteria); (2) use of appropriate foundation design (including post-tensioned slabs), reinforcement and footing depths; (3) implementation of appropriate concrete placement methodology and design, including proper installation/curing and moisture conditioning, doweling (anchoring) of exterior flatwork and driveways to building foundations, and use of crack-control joints; and (4) use of subdrains in appropriate areas to avoid near-surface saturation. This process will include verification through standard plan review and site-specific geotechnical observation and testing during Project excavation, grading, and construction activities.

5. Corrosive soils will be addressed per the County Guidelines, IBC/CBC, Greenbook and Project geotechnical investigations; including standard efforts such as: (1) removal of unsuitable deposits and replacement with non-corrosive fill; (2) use of corrosion-resistant construction materials (e.g., coated or non-metallic facilities); and (3) installation of cathodic protection devices (e.g., use of a more easily corroded "sacrificial metal" to serve as an anode and draw current away from the structure to be protected). This process will include verification through standard plan review and site-specific geotechnical observation and testing during Project excavation, grading, and construction activities.

6. Oversize materials will be addressed through standard efforts such as selective disposal (e.g., burial in deeper fills), crushing, use in landscaping efforts, or off-site disposal. This

process will include verification through standard plan review and site-specific geotechnical observation and testing during Project excavation, grading, and construction activities.

7.2.14 Design Considerations for Hazards and Hazardous Waste – Construction

1. Prior to bringing combustible materials onto the site, utilities shall be in place, fire hydrants operational, an approved all-weather roadway in place, and fuel modification zones will be established and approved.

2. Prior to development construction, perimeter fuel modification areas as depicted in the Project FPP and EIR Figure 3.1.3-1 will be implemented, existing flammable vegetation on vacant lots will be reduced by 60 percent, and trees/shrubs will be properly pruned.

7.2.15 Design Considerations for Hazards and Hazardous Waste – Operation

1. The Project will comply with all recommended measures in the FPP (Dudek 2018, Appendix L to this EIR), including the features listed below.

2. The Proposed Project will provide payment in accordance with the County Fire Mitigation Fee Ordinance for a fire and emergency medical response facility from the new fire station being built in HGV to the north through fire assessments and fees.

3. The parts of the Project area proposed for development would convert the existing vegetation to a lower flammability, ignition resistant landscape than under current conditions. This conversion would include removal of primarily non-native grasses and construction of roads, structures, and irrigated, managed landscape vegetation.

4. A third travel lane would be provided for the entirety of Country Club Drive from its intersection with Harmony Grove Road to the southernmost Project entrance and would extend within the Project so that no structure exceeds 800 feet from that extra lane as an equivalent form of egress.

5. Existing access for several residences east of the Project crosses the HGV South site (Figure 3.1.3-1). Such access would continue to be provided through the HGV South site after development, but via improved, code conforming on-site roadways, thereby improving the evacuation situation to the west for those off-site residences. Additionally, a route to the east is accessible by typical passenger vehicles, does connect with Johnston Road to the east, and would be available in an emergency situation where people need to be moved to the east and the primary access route (Country Club Drive) is not available.

6. The Project would provide three separate access ways off of Country Club Drive (Figure 3.1.3-1). The first would be a paved service road 450 feet south of Harmony Grove Road adjacent to the HGV South wastewater land use area. The second would be an access into the community approximately 800 feet south of the first access. The third would be approximately 400 feet south of the second. These three access ways are part of a looped interior road system so if one or both of the southern roads are blocked, the northern roadway would still be accessible by all residents. These three ingress/egress points are in addition to

the existing evacuation route to the east noted above, and would enable resident evacuation without compromising emergency respondent access to the community.

7. New road and driveway grades would comply with the Fire Code, not exceeding 20 percent. Any sections exceeding 15 percent would be constructed with Portland Concrete surface and provided heavy broom finish or equivalent surfacing and subject to FAHJ approval.

8. Project structures would be a minimum of 100 feet from wildland fuels. Fuel Modification Zone (FMZ) setbacks would exceed the County standard of 100 feet that is typically 50 feet irrigated and 50 feet thinned zones. HGV South would provide 75 feet of irrigated Zone 1 and a minimum of 25 feet of thinned Zone 2. To ensure long-term identification and maintenance, permanent markers would be installed to identify the FMZs on the perimeter of the developed areas. In some locations, particularly the southwestern and eastern sides of the Project, the setbacks would vary between 110 feet and nearly 200 feet wide to focus FMZs where fire behavior is anticipated to be the most aggressive.

9. Structure setbacks from the top of the slope would be a minimum of 15 horizontal feet from top of slope to the farthest projection from a roof for single-story structures and 30 horizontal feet from top of slope to the farthest projection from a roof for two-story structures where applicable (southwestern portion of the Project). Structures taller than two stories and where the slope is greater than 2:1 may require a setback greater than 30 feet. For lots where a full 30-foot setback would not be possible, installation of a 6-foot tall, non-combustible, heat deflecting, wall would be provided as part of Project Design for additional heat and flame deflection. This wall may be a combination of masonry and dual pane (one pane tempered glazing) materials. During the site plan review process required for this Project, the FAHJ would review setbacks relative to appropriate fire standards and if the appropriate setback is unavailable, the walls would be implemented along one or more of these lots.

10. Fuel modification in environmentally sensitive areas, if any are encountered, would require approval from the County and the appropriate resource agencies (CDFW and USFWS) prior to any vegetation management activities occurring within those areas. Riparian habitat enhancement maintenance/fuel modification at the Escondido Creek bridge crossing would be provided within the roadway easement; including removal of: dead/dying plants, exotic/ invasive species and highly flammable species.

11. Crowns of trees located within defensible space would maintain a minimum horizontal clearance of 10 feet for fire resistant trees and mature trees would be pruned to remove limbs one-third the height or 6 feet, whichever is less, above ground surface. Ornamental trees would be limited to groupings of two to three trees with canopy separation as described in Table 7 of the FPP for trees located on slopes.

12. The internal Project development area between residential structures and building clusters (see green portions of Figure 3.1.3-1) would be cleared of vegetation and re-planted with permanently irrigated fire-resistant plants, thereby excluding native fuels within the development area and minimizing the likelihood of ignitions internal to the Project.

13. Plants used in the fuel modification areas or landscapes would include drought-tolerant, fire resistive trees, shrubs, and groundcovers. The plantings would be consistent with County of San Diego's Suggested Plant List for Defensible Space. The FPP also provides a list of prohibited plant species to avoid planting within the first 50 feet adjacent to a structure in Appendix J to the FPP, unless the potential for spreading fire has been otherwise reduced or eliminated. (The Final Landscape Plan for the Project will not contain any of the plants in Appendix J.) Landscaping would be inspected annually and on an ongoing basis by the FAHJ.

14. The HGV South HOA shall ensure long-term funding and ongoing compliance with all provisions of the FPP, including vegetation planting, fuel modification, vegetation management, and maintenance requirements throughout the common areas of the Project site. Individual property owners would be enforced through HOA CC&Rs. The Applicant will provide the County with the applicable HOA documents to demonstrate compliance with this provision prior to the first permit of occupancy.

15. Rancho Santa Fe Fire Protection District's (RSFFPD's) Fire Marshal may require a property owner to modify combustible vegetation in the area within 20 feet from each side of the driveway or a public or private road adjacent to their property to establish an FMZ.

16. Fire hydrants would be placed every 300 feet along Project streets (Figure 3.1.3-1), exceeding the Fire Code requirement of 350 feet to the structure. The additional fire hydrants would assist fire operations by reducing operational time to extinguish any fires.

17. The minimum fire flow requirements for the Project would be dual 2,500 gallons per minute (gpm) at 20 pounds per square inch (psi), compliant with the requirements of the Rincon MWD. Thus, the water system would be designed to deliver 5,000 gpm during fire demands, exceeding code requirements by 100 percent.

18. Each of the Project's three entrances would be provided a lighted map directory, and internal signage would be customized to provide clear, intuitive navigation within the Project. Street signs would be customized for the Project and would meet or exceed lettering size to provide clear, easy-to-follow signage to aid emergency response.

19. All site access roads would have fire department turnarounds (cul-de-sacs). Roadway cul-de-sacs would comply with the County's minimum 36-foot radius (72-foot diameter) cul-de-sac bulb standard. Where parking is provided within cul-de-sacs, the additional space would be provided outside the 72-foot diameter bulb.

20. All proposed private streets would have a minimum paved width of 24 feet. Where vehicles would be allowed to park on one side of the street, the road width would be 30 feet. Head-in parking areas would include an additional 18 feet of paved area outside travel lanes.

21. Minimum unobstructed vertical clearance of 13 feet 6 inches would be maintained for the entire required width for all streets, including driveways that require emergency vehicle access.

22. No gates or speed bumps or humps would be allowed within the Project, so that traffic flow (ingress and/or egress) would be able to move more rapidly in the case of emergency. No gates are anticipated at the Project's entrances. If gates are proposed elsewhere, all access gates would comply with CFC Section 503.6. Gates on private roads and driveways would comply with County and FAHJ standards for electric gates, including an emergency key-operated switch overriding all command functions and opening the gate.

23. The Project will provide 434 guest parking spaces. The Project shall implement the Parking Management Plan. The Parking Management Plan will designate the parking area at the community/recreation center as valet/shuttle staging area for all homeowners' events exceeding 10 guests. Homeowners will be required to obtain parking permits for use of guest parking overnight. "No Parking" signs will be installed on designated streets. The HOA will maintain a contract with a towing company so that illegally parked vehicles would be towed within a short period of time.

24. Based on its location and ember potential, the Project is required to include the latest ignition and ember resistant construction materials and methods for roof assemblies, walls, vents, windows, and appendages, as mandated by San Diego County Fire and Building Codes (Chapter 7A and 2014 CFC). Exterior walls would have a noncombustible covering. Ember resistant vents (BrandGuard, O'Hagin, or similar approved vent of 1/8-inch screening) would be utilized in all structures. Multi-pane glazing would be required with a minimum of one tempered pane, fire-resistance rating of not less than 20 minutes. All habitable structures and garages would be provided interior residential fire sprinklers per County Fire Code requirements.

25. FMZs, including rear yard areas, would be limited building zones (LBZs), as described in the FPP.

26. The individual lot owners would be subject to strict limitations, prohibiting owners from erecting combustible structures, including fences, trellises, arbors, play equipment, etc. as the most critical area for structure protection (besides ember protection) is the structure itself and the immediate landscaping area.

27. A 1- to 3-foot-wide landscape free area will be implemented adjacent to the foundation of stucco structures.

7.2.16 Design Considerations for Hydrology/Water Quality – Construction

Measures regarding landscaping in Aesthetics, dust control/erosion in Air Quality and control of pollutants in Hazards are also applicable to Hydrology/Water Quality.

Water Quality

Erosion/Sedimentation

1. The Project will prepare a Construction Site Monitoring Plan (CSMP), a Risk Assessment to determine the Project's Risk Level (1, 2 or 3), and appropriate Risk Level Requirements as outlined in the Construction General Permit.

2. Prior to land disturbance activities, a Storm Water Pollution Prevention Plan (SWPPP) and CSMP will be prepared by a qualified SWPPP preparer, with this plan to be located on site at all times.

3. If the site is determined to be a Risk Level 2 or 3 site, a Rain Event Action Plan (REAP) will be prepared and implemented 48 hours prior to any likely precipitation event (50 percent or greater probability of producing precipitation in the Project area) by the Qualified SWPPP Developer (QSD) or Qualified SWPPP Practitioner (QSP). The REAP shall be prepared for all phases of construction and implemented for construction activities to provide enhanced erosion and sediment control measures during predicted storm events.

4. The Project will comply with seasonal grading restrictions during the rainy season (October 1 to April 30) for applicable locations/conditions.

5. The construction contractor shall use erosion control/stabilizing measures, such as geotextiles, mulching, mats, plastic sheets/tarps, fiber rolls, soil binders, compost blankets, soil roughening, and/or temporary hydroseeding (or other plantings) in appropriate areas (e.g., disturbed areas and graded slopes), will be used.

6. The construction contractor shall use sediment controls to protect the construction site perimeter and prevent off-site sediment transport, including measures such as temporary inlet filters, silt fence, fiber rolls, silt dikes, biofilter bags, gravel bag berms, compost bags/berms, temporary sediment basins, check dams, street sweeping/vacuuming, advanced treatment systems (ATS, if applicable based on risk assessment), energy dissipators, stabilized construction access points/sediment stockpiles, and properly fitted covers for sediment transport vehicles.

7. BMP materials will be stored in applicable on-site areas to provide "standby" capacity adequate to provide complete protection of exposed areas and prevent off-site sediment transport.

8. Full erosion control will be provided in disturbed areas not scheduled for additional activity for 14 or more consecutive calendar days.

9. Appropriate training will be provided for the personnel responsible for BMP installation and maintenance.

10. Construction debris will be properly contained at least 50 feet from storm drain inlets and water courses and disposed of so as not to allow runoff into surrounding waters.

11. Prior to and after storm events, BMP function and efficiency will be checked by construction contractor and implementation monitors.

12. Sampling/analysis, monitoring/reporting and post-construction management programs will be implemented per NPDES and/or County requirements, along with additional BMPs as necessary to ensure adequate erosion and sediment control.

Construction-related Hazardous Materials

1. Hazardous materials use/storage locations will be restricted to areas at least 50 feet from storm drains and surface waters.

2. Raised (e.g., on pallets), covered, and/or enclosed storage facilities will be used for all hazardous materials.

3. Accurate and up-to-date written inventories and labels will be maintained for all stored hazardous materials. This will be checked on a weekly basis.

4. Berms, ditches, and/or impervious liners (or other applicable methods) will be used in material storage and vehicle/equipment maintenance and fueling areas to provide a containment volume of 1.5 times the volume of stored/used materials and prevent discharge in the event of a spill.

5. Warning signs will be placed in areas of hazardous material use or storage and along drainages and storm drains (or other appropriate locations) to avoid inadvertent hazardous material disposal.

6. All construction equipment and vehicles will be properly maintained so as not to release fuels, oils, or solvents. The amount of hazardous materials used and stored on the site will be minimized, and use/storage locations will be restricted to areas at least 50 feet from storm drains and surface waters.

7. Paving operations will be restricted during wet weather, appropriate sediment control devices/methods will be used downstream of paving activities, and wastes and/or slurry from sources including concrete, dry wall and paint will be contained or disposed of by using properly designed and contained washout areas.

8. Training for applicable employees will be provided in the proper use, handling and disposal of hazardous materials, as well as appropriate action to take in the event of a spill.

9. Absorbent and clean-up materials will be stored in readily accessible locations adjacent to any hazardous material use/storage locations.

10. Portable wastewater facilities will be properly located, maintained, and contained.

11. A licensed waste disposal operator will be employed to regularly (at least weekly) remove and dispose of construction debris at an authorized off-site location.

12. Regulatory agency telephone numbers and a summary guide of clean-up procedures will be posted and maintained in a conspicuous on-site location at the construction trailer by the construction contractor.

13. A licensed waste disposal operator will be employed to regularly (at least weekly) remove and dispose of construction debris at an authorized off-site location.

14. Recycled or less hazardous materials will be used wherever feasible.

Demolition-related Debris Generation

1. The Project will appropriately remove, handle, transport and dispose of hazardous materials generated during demolition, including efforts such as implementing appropriate sampling and monitoring procedures; proper containment of contaminated materials during construction; providing protective gear for workers handling contaminated materials; ensuring acceptable exposure levels; and ensuring safe and appropriate handling, transport and disposal of hazardous materials generated during Project construction.

Disposal of Extracted Groundwater

1. If required, dewatering operations will include standard measures such as: (1) using appropriate erosion and sediment controls (as noted above for Erosion/Sedimentation) in applicable areas/conditions (e.g., disposal of extracted groundwater on slopes or graded areas); (2) testing extracted groundwater for appropriate contaminants prior to discharge; and (3) treating extracted groundwater prior to discharge, if required, to provide conformance with applicable Groundwater Permit discharge criteria, through methods such as filtration, aeration, adsorption, disinfection, and/or conveyance to a municipal wastewater treatment plant.

7.2.17 Design Considerations for Hydrology/Water Quality – Operation

Drainage Alteration

1. The Project design includes a series of storm drain facilities to capture and convey flows within and through the site, including a series of curb/gutter inlets and two subsurface hydromodification/water quality vaults, all of which would be tied to an underground storm drain system of pipelines and related structures, as shown on the Grading Plan.

Runoff Rates/Amounts

1. The proposed storm drain system includes a series of facilities noted above under Drainage Alteration, and that system (including improvements associated with off-site roadway/utility features) will accommodate peak 100-year storm flows and provide flow regulation and energy dissipation per the Project Preliminary Hydrology/Drainage Study (PDC 2017a, Appendix M-1 to this EIR).

Hydromodification

1. Two on-site subsurface hydromodification vaults (north and south) will provide flow duration control at the associated outlets, to be implemented by the construction contractor.

2. Hydromodification vault design details will be verified/refined during the ongoing Project design process, including completion of a geomorphic channel assessment analysis.

3. Energy dissipation facilities will be provided where appropriate (pursuant to recommendations in the Project Drainage Study).

Floodplains/Flooding

1. The Project design includes a series of storm drain facilities to capture, convey, and regulate flows within and through the site as previously described, with these facilities to accommodate 100-year peak storm flows where applicable.

2. The results of the preliminary Hydrologic Engineering Center-River Analysis System (HEC-RAS) model evaluated in the Project Drainage Study will be implemented for the proposed Escondido Creek bridge crossing along Country Club Drive, to ensure that the proposed bridge would not be subject to flood-related hazards or notably redirect/impede flood flows. The preliminary bridge design criteria used in this analysis will be verified or refined based on a Project-specific HEC-RAS analysis to be conducted as part of the ongoing Project design process.

3. Preliminary design for the potential on-site wastewater treatment plant identifies a pad elevation of 584.2 feet (refer to Figure 1-6a), with mapped 100-year flood elevations in this portion of the site ranging between 571 and 575 feet (FEMA 2012a, refer to Exhibit A of the Project Drainage Study in EIR Appendix M-1), to ensure that this site would be elevated above the 100-year flood level and would not notably redirect/impede flood flows.

Water Quality

Low Impact Development (LID) Site Design BMPs

The Proposed Project will:

1. Preserve well-draining (Type A) soils, significant trees, critical areas (e.g., steep slopes and floodplains), and other sensitive areas wherever feasible.

2. Provide appropriate set-backs from drainages for development envelopes, and restrict construction equipment access in planned green/open space areas.

3. Development has been clustered into a lot design, and design hardscape areas (e.g., streets) to the minimum widths necessary to meet regulatory/safety standards.

4. Restrict construction equipment access in planned green/open space areas, re-till soils compacted during construction, and collect native soil layers for reuse in on-site landscaping efforts.

5. During early revegetation/stabilization of disturbed slopes as soon as possible after/during construction, with permanent landscaping, incorporate “smart irrigation” technology (including appropriate water schedules and rain/pressure-sensitive shutoff devices).

6. Include a harvest/reuse component in the two proposed detention/hydromodification vaults.

Source Control BMPs

The Proposed Project will:

1. Convey flows from applicable sources (e.g., fire sprinkler tests and wash water) to the sanitary sewer.

2. Install "no dumping" stencils/tiles and/or signs with prohibitive language (per current County guidelines) at applicable locations such as drainages, storm drain inlets, catch basins and public access points to discourage illegal dumping.

3. Protect materials stored in outdoor work areas from rainfall, run-on, runoff, and wind dispersal by minimizing storage of potential pollutants, enclosing/covering storage areas, providing secondary containment such as berms, implementing appropriate record keeping, providing appropriate employee/user training, and conducting applicable site inspection and maintenance.

4. Trash storage areas for multi-family residential sites and public areas such as parks and the community center/recreation center will be constructed on paved enclosed areas with impervious surfaces, and use of attached lids and/or roofs for trash containers.

5. Additional BMPs include: on-site storm drain inlet protection, direction of runoff into landscaped/vegetated areas where feasible, use of structural pest controls in lieu of chemical pesticides and proper use/control of chemical pesticides when required, and appropriate design and maintenance of potential HOA-maintained water features.

PDP Pollutant Control BMPs

1. The Project design will include the two (north and south) water quality vaults identified in the Project SWQMP, and two (east and west) proprietary biofiltration units to treat runoff from applicable portions of the site prior to discharge.

BMP Monitoring and Maintenance

1. Monitoring and maintenance for the Project proposed water quality basins will be implemented by the Project HOA, pursuant to associated recommendations in Attachment F (Maintenance Plan) of the Project SWQMP (EIR Appendix N). A written BMP Maintenance Agreement with the County will be completed prior to Project residency, which includes requirements that the facilities be limited to the proposed use, an access easement to the County, and verification of funding as required by the County.

2. The Project owner(s) will dedicate the proposed catch basin inlet inserts (along with associated property and access) to the County, and will provide funding for the initial monitoring and maintenance period (24 months) through means acceptable to the County (with long-term funding and monitoring/maintenance to be the responsibility of the County). Monitoring and maintenance for the Project proposed water quality basins will be implemented by the Project HOA, pursuant to associated recommendations in Attachment F (Maintenance Plan) of the Project SWQMP (EIR Appendix N). A written BMP Maintenance

Agreement with the County will be completed prior to Project residency, which includes requirements that the facilities be limited to the proposed use, an access easement as required by the County, and verification of funding.

7.2.18 Design Considerations for Land Use and Planning – Operation

Measures regarding lighting and site layout in Aesthetics, lighting and open space set aside in Biology, GHG controls under GHG, and hazards/FPP specifics under Hazards, etc., are also applicable to Land Use.

1. The Proposed Project shall include a GPA for a partial Land Use designation change from Semi-rural Residential 0.5 to Village 10.9 and Neighborhood Commercial.

2. The Proposed Project shall include a CPA for a Village Boundary Line adjustment.

3. The Proposed Project shall include a zoning designation change from Limited Agriculture (A-70) and Semi-Rural (SR 0.5) to Specific Plan (S-88).

4. The Proposed Project shall obtain a Waiver of Open Space Easement as detailed in RPO Section 86.604[e][2][cc][3]), with regard to steep slope lands, and an Exception for Roads/Utilities as detailed in RPO Section 86.604(e)(2)(bb)(ii).

5. The lighting for the Proposed Project shall be designed to adhere to the regulations of the County LPC.

6. Native and drought- tolerant landscaping shall be irrigated with reclaimed water.

7. Trail connections will be provided through the Project site to other existing and planned trails in HGV and to DDHP and allow residents to walk or bike to nearby destinations without relying on automobiles.

8. Soft-surface road and trail materials that are appropriate to the local setting and desired community character (e.g., decomposed granite) are preferred and will be used as feasible.

9. Trail beds will comply with County standards for width of primary tread. Shade trees shall be planted along Project-implemented sidewalks and pathways, as outlined in the Landscaping Plan which includes specific species, spacing, and installation size.

7.2.19 Design Considerations for Public Services and Utilities – Operation

1. The Proposed Project Applicant shall pay developer fees levied by each applicable school district prior to the issuance of building permits.

2. The Project design shall include water conservation measures, including the State-mandated 14 BMPs for water conservation (such as installation of ultra low-flow toilets).

3. Pursuant to the April 2015 Executive Order B-29-15, permanent irrigation with potable water for newly constructed development will be delivered by drip or microspray systems.

Reclaimed water would be produced for irrigation of parks, parkways, manufactured slope areas, and other common area landscaping; consistent with the County of San Diego's Water Efficient Landscape Design Manual, the County of San Diego's Water Conservation in Landscaping Ordinance, and the State of California's Model Water Efficient Landscape Ordinance (MWELO).

7.2.20 Design Considerations for Agriculture

1. Disclosure statements included in sales documentation for all proposed residential units will notify potential owners that the adjacent property (future Equestrian Ranch) could potentially be used for agricultural operations and that there could be associated issues such as odors, noise, and vectors.