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June 15, 2018

**VIA EMAIL**

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

**Re: Newland Sierra (Log No. PDS2015-ER-15-08-001; SCH No. 2015021036,  
Project Numbers: PDS2015-GPA-15-001, PDS2015-SP-15-001, PDS2015-  
REZ-15-001, PDS2015-TM-5597, PDSXXXX-HLP-XXX) –  
Newland Sierra Project Inconsistency with North County MSCP**

Dear Ms. Smith:

As you are aware, we represent Golden Door Properties, LLC (“Golden Door”), a world-class resort and agricultural operation in rural Twin Oaks Valley. The Golden Door has restored farming and beekeeping, including replanting many new trees, on its property, and shares its products through a community Farm Stand and other retail operations. The Golden Door has raised many concerns with the County about the proposed Newland Sierra Project and the impacts of adding urban density the size of the City of Del Mar in our rural community.

We write today with respect to the Project’s critical inconsistencies with the draft North County Multiple Species Conservation Plan (MSCP), as a follow-up and supplemental comment to our prior correspondence, in particular our letters dated May 21, 2018, May 31, 2018, and June 13, 2018.

We recently obtained documents as a result of a request under the Freedom of Information Act. These documents show that local agency experts were silenced after Newland Sierra proponents exerted political pressure on senior agency officials. These documents also clearly highlight the concerns of expert biologists regarding the Newland Sierra project – in particular, the assumption by the County and other proponents of the project that it is a “hardline” component of the draft North County MSCP.

In particular, these expert agency biologists noted that the inclusion of the Newland project as a “hardline” in the North County MSCP may actually doom the MSCP entirely. The

LATHAM & WATKINS<sup>LLP</sup>

unraveling of the North County MSCP would be a severe blow not only to the County but to development throughout North County.

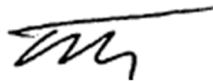
Further, the expert agency biologists' concerns point to the need for a comprehensive cumulative impacts analysis of all the General Plan amendment projects in the North County and how they impact the North County MSCP. In other words, if the County's approval of over 10,000 units of housing in the unincorporated areas cripples the conservation goals of the MSCP, then it seems reasonably likely that the federal and state wildlife agencies will not approve any MSCP at all. We urge the County to reconsider this self-destructive path and postpone consideration of the Newland project until these serious issues are resolved.

Finally, in these newly released documents, the federal agencies clearly requested updated gnatcatcher surveys, but Newland has chosen that it will not perform those surveys until next year. If that is the case, then the processing of Newland's EIR must be delayed until next year, when those surveys can be performed.

Additional detail regarding this issue and others is set forth in the enclosures.

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

Best regards,



Taiga Takahashi  
of LATHAM & WATKINS LLP

Enclosures

cc: Darin Neufeld, County Planning and Development Services  
Mark Slovick, County Planning and Development Services  
William W. Witt, Office of County Counsel  
Claudia Silva, Office of County Counsel  
Dan Silver, Endangered Habitats League  
George Courser, Sierra Club  
Stephanie Saathoff, Clay Co.  
Denise Price, Clay Co.  
Christopher Garrett, Latham & Watkins  
Kathy Van Ness, Golden Door

1. **The Newland Sierra project risks dooming the North County MSCP.** In December 2016, U.S. Fish & Wildlife staff made the following comments regarding the Newland project:

- "The Newland Sierra project fragments a large core area of habitat proposed under the North County Plan.
- Because it is unclear how the County will account for the loss of this core area, it is unclear how the project could gain approval under the draft North County Plan as we know it.
- The Wildlife Agencies could not come to agreement with the project proponent on the off-site mitigation because the acreage proposed for conservation was insufficient to offset the acreage lost to development from the Newland Sierra project within the pre-approved mitigation area or PAMA (i.e., the offsite mitigation proposed neither removed a development area from the PAMA or increased the area of preserve outside of the PAMA).
- The Newland Sierra Project as proposed results in a net loss in preserve acreage over what is anticipated for mitigation in the Draft North County Plan.
- The County did not present a logical method to make up for this loss in mitigation.
- ***Should the County Board of Supervisors approve the project without fully addressing our concerns, including our potential objection to issuance of a 4(d) permit, the Service would need to evaluate the benefits to conservation of moving forward with the North County Plan.***
- ***By approving the Newland Sierra Project and others through the 4(d) rule without addressing inconsistencies with preserve assembly, the potential exists for the 4(d) rule to undermine the very process (i.e., regional NCCP/HCP development) it was aimed at supporting.***" (See Enclosure 1 [emphasis added].)

In other words, it appears as if federal agency biologists considered the Newland project to be so fundamentally incompatible with the goals of the North County MSCP that its approval would jeopardize the North County MSCP itself.

2. **Newland must perform a comprehensive cumulative impacts analysis of all the General Plan amendment projects in the North County, in order to evaluate how the County's potential approval of all these projects will impact the North County MSCP.** If the approval of the Newland project or others essentially precludes the establishment of the North County MSCP, then the consequences of that decision must be analyzed and disclosed to the public.

3. **Newland must ensure that surveys for fairy shrimp are done in a scientifically valid manner.** In January 2017, a federal agency biologist noted that initial surveys for fairy shrimp were inadequate and new surveys were required:

Given the amount of rain we have already had this year, there may be more ponding on site than was observed in previous years - Please consider this email our approval for you to commence wet season surveys at this location according to the accepted survey guidelines for the listed large branchiopods, dated May 31, 2015, and pursuant to the conditions of your [respective] recovery permit[s]. Be aware that these surveys missed the first rains of the season therefore the results may be inconclusive. You will want to make sure you are able to substantiate any statements in your 90-day report by providing rain gauge and/or in-field observation information to demonstrate that you are meeting protocol requirements that: "Surveyors should visit sites after initial storm events

to determine when known or potential listed large branchiopod habitat has become inundated. Appropriate habitat is considered to be inundated when it holds greater than 3 cm of standing water 24 hours after a rain event." Please note that the LA County Natural History Museum encourages deposition of all collected fairy shrimp, not only listed species.

(Enclosure 2.) The project's biological analysis should therefore not only include new surveys for fairy shrimp, but surveys that are performed at the correct time using the correct methodology. Failure to conduct the surveys in this manner renders the analysis necessarily inadequate and must be revised and recirculated for public review and comment before the project may proceed through the CEQA process.

4. **Newland must perform new surveys for California gnatcatcher.** As recently as last month, federal agency biologists recognized that new surveys needed to be done for California gnatcatcher. The risk that new surveys may require additional environmental analysis, public review, and public comment under CEQA is not a valid basis to refuse to do those surveys or postpone them until a later time.

In addition, because it is known that the Newland project requires a new interchange at I-15 and Deer Springs Road, these new surveys are necessary in order to evaluate how the different designs for the interchange (for example, the "diamond" interchange; the "diverging diamond" interchange; the "diamond interchange with roundabout intersections; as described in the "Project Study Report-Project Development Support (PSR-PDS) To Request Scope Approval of Projects-funded-by-others In San Diego County near Escondido on Interstate 15 from 0.6 Mile South to 0.6 Mile North of Deer Springs Road Overcrossing," dated August 2015 [Enclosure 3]) may affect potential habitat and the nesting pair of gnatcatchers in the vicinity of the existing interchange.

Federal agency biologists expressed substantial concern about the project's potential impacts on gnatcatchers and habitat, writing in March 2017: "From the preliminary information we have received, the project will remove occupied CSS near the I-15 corridor supporting 1 gnatcatcher pair. ... Although unoccupied CSS exists in the southern interior section of the project site, this CSS also falls within the development footprint. Thus, birds displaced from existing occupied habitat cannot be expected to disperse to nearby unoccupied habitat onsite. Likewise, CSS within the northern portion of the site is already occupied. Based on this preliminary assessment, take of the gnatcatcher pair near the I-15 corridor is likely." (Enclosure 4.)

Accordingly, the Newland project must conduct updated gnatcatcher surveys before it may continue under the CEQA process in order to assess the potential for take and to analyze and/or recommend mitigation. Failure to do so is a violation of CEQA.

5. **The failure to conduct updated gnatcatcher surveys violates the General Plan.** Failure to update the gnatcatcher surveys violate the following General Plan goals and policies, as set forth below.

#### **GOAL COS-1**

**Inter-Connected Preserve System.** A regionally managed, inter-connected preserve system that embodies the regional biological diversity of San Diego County.

#### **Policies**

**COS-1.1 Coordinated Preserve System.** Identify and develop a coordinated biological preserve system that includes Pre-Approved Mitigation Areas, Biological Resource Core Areas, wildlife corridors, and linkages to allow wildlife to travel throughout their habitat ranges.

**COS-1.2 Minimize Impacts.** Prohibit private development within established preserves. Minimize impacts within



*Gnatcatcher*

established preserves when the construction of public infrastructure is unavoidable.

**COS-1.3 Management.** Monitor, manage, and maintain the regional preserve system facilitating the survival of native species and the preservation of healthy populations of rare, threatened, or endangered species.

**COS-1.4 Collaboration with Other Jurisdictions.** Collaborate with other jurisdictions and trustee agencies to achieve well-defined common resource preservation and management goals.

**COS-1.10 Public Involvement.** Ensure an open, transparent, and inclusive decision-making process by involving the public throughout the course of planning and implementation of habitat conservation plans and resource management plans.

**COS-2.1 Protection, Restoration and Enhancement.** Protect and enhance natural wildlife habitat outside of preserves as development occurs according to the underlying land use designation. Limit the degradation of regionally important natural habitats within the Semi-Rural and Rural Lands regional categories, as well as within Village lands where appropriate.

**COS-2.2 Habitat Protection through Site Design.** Require development to be sited in the least biologically sensitive areas and minimize the loss of natural habitat through site design.

As noted, the federal agencies have requested updated surveys, but Newland has chosen that it will not perform those surveys until next year: “The Applicant is aware that updated surveys will need to be done. They can't do those this year because of their EIR process doesn't want updated surveys. So they plan on conducting updated surveys next year.” (See Enclosure 5.) If that is the case, then the processing of Newland's EIR must be delayed until next year, when those surveys can be performed. Clearly, the failure to update the gnatcatcher surveys is inconsistent with COS-1.1, 1.2, 1.3, 1.4, 2.1, and 2.2. In addition, the active attempts by lobbyists to exclude and sideline expert biologists in the Fish and Wildlife Service is inconsistent with COS-1.10. (See Enclosure 6a and 6b.) And, even though much of the Newland site is designated as “critical habitat” for the gnatcatcher by the U.S. Fish and Wildlife Service, no effort has been made to avoid this critical habitat or even avoid occupied areas of gnatcatcher habitat. The draft EIR fails to include an alternative to keep development out of designated critical habitat or occupied gnatcatcher habitat.

5. **Newland should be required to acquire adequate mitigation lands to account for the loss of PAMA.** In December 2015, expert biologists at the U.S. Fish and Wildlife Service noted that mitigation lands should be of adequate biological value: “[S]ome properties are considered of greater biological value than others ... Because the proposed Newland Sierra development will result in a loss of wildlife habitat originally identified to be part of the Draft North County MSCP preserve, acquisition of PAMA lands planned for development helps ensure that there is no net loss of PAMA acreage and that the anticipated size and configuration of the planned preserve can be achieved. ... Conservation of the Hoospack or Pankey properties, while not insignificant, will not assist in maintaining the scope of PAMA lands needed to assemble the preserve anticipated by the Draft North County MSCP.” (Enclosure 7.) Newland later claimed that the Service's requests were “financially infeasible, both in project design and acquisition of specific, additional off-site mitigation.” However, the Applicant's conclusory assertion of economic infeasibility is insufficient under CEQA. (See, e.g., *County of San Diego v. Grossmont-Cuyamaca Community College* (2006) 141 Cal.App.4th 86, 108.) Accordingly, Newland must acquire comparatively valuable land in terms of biological conservation and preservation of PAMA acreage to avoid fatally prejudicing the North County MSCP. Failure to do so without substantial evidence of “financial infeasibility” would mean that the County could not approve this project, due to the requirements of CEQA. (See, e.g., *Woodward Park Homeowners Assn., Inc. v. City of Fresno* (2007) 150 Cal.App.4th 683; *Uphold Our Heritage v. Town of Woodside* (2007) 147 Cal.App.4th 587, 599, 602.)



**From:** [Goebel, Karen](#)  
**To:** [Stewart, Mendel](#)  
**Cc:** [Sobiech, Scott](#); [Doreen Stadtlander](#); [Wynn, Susan](#); [Jane Hendron](#)  
**Subject:** Re: Newland Sierra request for meeting with Paul Souza  
**Date:** Thursday, January 12, 2017 12:57:05 PM  
**Attachments:** [Newland Sierra Project 12\\_9\\_2016 \(1\).docx](#)

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Here are the bullets in case you can't find them. They were already provided to Mike Fris. If you want them changed into a formal briefing paper, I guess we can do that, but it would be nice if this will suffice.

Karen

Karen Goebel  
Assistant Field Supervisor  
Carlsbad Fish and Wildlife Office  
2177 Salk Avenue, Suite 250  
Carlsbad, California 92008  
760/431-9440, ext. 296  
760/431-9624 Fax

On Thu, Jan 12, 2017 at 12:52 PM, Goebel, Karen <[karen\\_goebel@fws.gov](mailto:karen_goebel@fws.gov)> wrote:

I found the attachment. Also, I had already prepared bullets on this issue. Do we need to do more than that?

Karen

Karen Goebel  
Assistant Field Supervisor  
Carlsbad Fish and Wildlife Office  
2177 Salk Avenue, Suite 250  
Carlsbad, California 92008  
760/431-9440, ext. 296  
760/431-9624 Fax

On Thu, Jan 12, 2017 at 12:48 PM, Goebel, Karen <[karen\\_goebel@fws.gov](mailto:karen_goebel@fws.gov)> wrote:

If this is an assignment, please forward the Rita attachment.

Karen

Karen Goebel  
Assistant Field Supervisor  
Carlsbad Fish and Wildlife Office  
2177 Salk Avenue, Suite 250  
Carlsbad, California 92008  
760/431-9440, ext. 296  
760/431-9624 Fax

On Thu, Jan 12, 2017 at 12:35 PM, Stewart, Mendel <[mendel\\_stewart@fws.gov](mailto:mendel_stewart@fws.gov)> wrote:  
Karen,

They are moving forward with setting up a meeting with Paul about Newland-Sierra. I suspect they will be wanting a briefing paper on this.

<Mendel

----- Forwarded message -----

From: [steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com) <[steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com)>  
Date: Thu, Jan 12, 2017 at 12:30 PM  
Subject: Newland Sierra request for meeting with Paul Souza  
To: "Mike Fris ([Michael\\_Fris@fws.gov](mailto:Michael_Fris@fws.gov))" <[Michael\\_Fris@fws.gov](mailto:Michael_Fris@fws.gov)>  
Cc: Maya Kepner - American West Conservation <[maya@americanwestconservation.com](mailto:maya@americanwestconservation.com)>, Paul Souza <[paul\\_souza@fws.gov](mailto:paul_souza@fws.gov)>, "Byers, Sherry" <[sherry\\_byers@fws.gov](mailto:sherry_byers@fws.gov)>, "Mendel Stewart ([Mendel\\_Stewart@fws.gov](mailto:Mendel_Stewart@fws.gov))" <[Mendel\\_Stewart@fws.gov](mailto:Mendel_Stewart@fws.gov)>, Rita Brandin <[rbrandin@newlandco.com](mailto:rbrandin@newlandco.com)>, Michael McCollum <[mccollum@mccollum.com](mailto:mccollum@mccollum.com)>, "Evans, April" <[april\\_evans@fws.gov](mailto:april_evans@fws.gov)>, "[Wanda\\_Cantrell@fws.gov](mailto:Wanda_Cantrell@fws.gov)" <[Wanda\\_Cantrell@fws.gov](mailto:Wanda_Cantrell@fws.gov)>, "[steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com)" <[steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com)>

\*\*\*Maya Kepner for Steve Thompson\*\*\*

Hi Mike:

I cannot thank you enough for all the support and love my Dad has received from USFWS- particularly R8. Steve continues to make progress daily-and we anticipate he will undergo his next surgery on Jan 25<sup>th</sup>. I'm filling-in for Steve while he is recovering, and I'd like to see if we can get this meeting scheduled soon. Sounds like the only conflicts for January on our end are:

**January 9 through January 12<sup>th</sup>**

**January 16 through 18<sup>th</sup>**

Thanks for the help and leadership, Mike.



All the best,

Maya Kepner for Steve Thompson

Also- you can contact me directly at:

[maya@americanwestconservation.com](mailto:maya@americanwestconservation.com) (cc'd above)

916-600-2324

---Original Message-----

From: [steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com) [<mailto:steve@stevethompsonllc.com>]

Sent: Friday, December 9, 2016 12:08 PM

To: Michael Fris

Cc: Paul Souza; Wanda Cantrell; Sherry Byers; Mendel Stewart; Rita Brandin; Michael McCollum; April Evans

Subject: Re: Newland Sierra request for meeting with Paul Souza

Ok Mike thanks we are anxious to get this solved so we can get some important work done on the ground

Steve Thompson

916-600-5227

>

> -----Original Message-----

> From: [steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com) [<mailto:steve@stevethompsonllc.com>]

> Sent: Friday, December 09, 2016 10:51 AM

> To: Mike Fris ([Michael\\_Fris@fws.gov](mailto:Michael_Fris@fws.gov))

> Cc: Paul Souza; [Wanda\\_Cantrell@fws.gov](mailto:Wanda_Cantrell@fws.gov); Byers, Sherry; Mendel Stewart

> ([Mendel\\_Stewart@fws.gov](mailto:Mendel_Stewart@fws.gov)); Rita Brandin; Michael McCollum

> Subject: RE: Newland Sierra request for meeting with Paul Souza

>

> Mike,

>

> Sorry it has taken me so long to get back to all of you, all my fault.

> Been working really hard with Governor Brown and the water folks on

> solutions for both wildlife and people around the Delta. I have

> attached a summary file from Rita who has been working on this project

> for years and very frustrated, as it is easy to understand why. We

> need to resolve the major issues and get on with development of the property.

>

> We would like a 30 minute meeting with you and Paul to go over how we

> got to where we are and what solutions we need to work out with FWS.

> Mendel has been helpful but we believe we needs Paul's help to finish.

> A meeting as soon as possible would help all of us get on the right

> path to be successful for the landowner and the resources we all care about.

>

> Steve

> [steve@stevethompsonllc.com](mailto:steve@stevethompsonllc.com)

> 916-600-5227

>

>

>

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Mendel Stewart  
U.S. Fish and Wildlife Service  
Carlsbad Fish and Wildlife Office  
Field Supervisor  
2177 Salk Avenue, Suite 250  
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<http://www.fws.gov/carlsbad/>

Region 8 Facebook page: <https://www.facebook.com/usfwspacificsouthwest>

Region 8 Twitter page: <https://twitter.com/USFWSPacSWest>

## Newland Sierra Project

- We do not agree that the background information and history recently provided by the project proponent accurately reflects Service efforts to resolve the outstanding issues.
- We do not see value in going point by point to correct the information, rather we present our concerns with the project as presently proposed.
- The Newland Sierra project lies within the boundaries of a regional NCCP/HCP in development by the County of San Diego.
- Under the 4(d) rule, projects that need to clear coastal sage scrub, which is the primary habitat for the gnatcatcher, may move forward with County and Wildlife Agency (Department and Service) approval as long as the project does not undermine the conservation goals of the regional plan.
- The Newland Sierra project fragments a large core area of habitat proposed under the North County Plan.
- Because it is unclear how the County will account for the loss of this core area, it is unclear how the project could gain approval under the draft North County Plan as we know it.
- The Wildlife Agencies could not come to agreement with the project proponent on the off-site mitigation because the acreage proposed for conservation was insufficient to offset the acreage lost to development from the Newland Sierra project within the pre-approved mitigation area or PAMA (i.e., the offsite mitigation proposed neither removed a development area from the PAMA or increased the area of preserve outside of the PAMA).
- The Newland Sierra Project as proposed results in a net loss in preserve acreage over what is anticipated for mitigation in the Draft North County Plan.
- The County did not present a logical method to make up for this loss in mitigation.
- The Newland Sierra Project proponents are not precluded by the Service from moving forward with their proposed project design for approval by the County.
- During the draft EIR phase, the Wildlife Agencies will have the opportunity to comment on the project design, including any initial request for 4(d) concurrence.
- Because no NCCP or ESA permits have been issued for the North County Plan, these comments represent recommendations to the County.
- We believe due consideration would be given to our concerns in accordance with the signed planning agreement between the County and the Wildlife Agencies for the North County Plan, and this is the primary concern of the project proponents.
- Strong public opposition to the project is likely based on prior efforts to get Board of Supervisor approval for almost the exact same development footprint.
- Should the County Board of Supervisors approve the project without fully addressing our concerns, including our potential objection to issuance of a 4(d) permit, the Service would need to evaluate the benefits to conservation of moving forward with the North County Plan.
- These discussions would not involve the Newland Sierra Project proponents, as their project would have already been approved by the County.

- The Newland Sierra project is but one large project currently undergoing review by the County in advance of completion of the North County Plan.
- By approving the Newland Sierra Project and others through the 4(d) rule without addressing inconsistencies with preserve assembly, the potential exists for the 4(d) rule to undermine the very process (i.e., regional NCCP/HCP development) it was aimed at supporting.



**From:** [Wynn, Susan](#)  
**To:** [Brock Ortega](#)  
**Cc:** [Mayer, David@Wildlife](#); [Brian Grover](#); [Michael McCollum](#); [Rita Brandin](#); [Shanti SPL Santulli](#); [michelle.r.lynch@usace.army.mil](#); [Vipul Joshi](#); [Stacey Love \(stacey\\_love@fws.gov\)](#); [Doreen Statlander](#); [Karen Goebel](#); [Mendel Stewart](#); [Eichar, Peter \(Peter.Eichar@sdcounty.ca.gov\)](#)  
**Subject:** Re: Newland Sierra  
**Date:** Thursday, January 19, 2017 8:25:18 AM

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Thank you for your quick response - I did note that the mapped areas of ponding were in the open space - Given the amount of rain we have already had this year, there may be more ponding on site then was observed in previous years -

Please consider this email our approval for you to commence wet season surveys at this location according to the accepted survey guidelines for the listed large branchiopods, dated May 31, 2015, and pursuant to the conditions of your [respective] recovery permit[s].

Be aware that these surveys missed the first rains of the season therefore the results may be inconclusive . You will want to make sure you are able to substantiate any statements in your 90-day report by providing rain gauge and/or in-field observation information to demonstrate that you are meeting protocol requirements that: "Surveyors should visit sites after initial storm events to determine when known or potential listed large branchiopod habitat has become inundated. Appropriate habitat is considered to be inundated when it holds greater than 3 cm of standing water 24 hours after a rain event."

Please note that the LA County Natural History Museum encourages deposition of all collected fairy shrimp, not only listed species.

Please send your survey report (hard copy at minimum) to Stacey Love.

Thanks,  
Susan

Susan Wynn  
Fish and Wildlife Biologist  
2177 Salk Avenue, Suite 250  
Carlsbad, CA 92008  
(760) 431-9440 ext 216

On Wed, Jan 18, 2017 at 4:15 PM, Brock Ortega <[bortega@dudek.com](mailto:bortega@dudek.com)> wrote:

Thank you Susan for your email.

As you have probably already noted, these locations are situated within planned open space. As described in our BTR and previously provided documents, we disclose that we found a single puddle with western spadefoot toad larvae within the northwestern quarry site. Additionally, we never found any other puddled areas within the project footprint.

Please find attached a request to sample the puddles onsite that we may identify the species. We hope that we may receive quick approval given the nature of this situation. In order to address

Mr. Mayer's concerns, we will also review the puddles for western spadefoot eggs, larvae, and adults.

Thank you for your quick review and consideration.

Best,

**BROCK A. ORTEGA**  
PRINCIPAL/SENIOR WILDLIFE BIOLOGIST

**DUDEK** | *Natural Resource Management | Infrastructure Development | Regulatory*

**Compliance**

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[bortega@dudek.com](mailto:bortega@dudek.com)

[WWW.DUDEK.COM](http://WWW.DUDEK.COM)

---

**From:** Mayer, David@Wildlife [mailto:[David.Mayer@wildlife.ca.gov](mailto:David.Mayer@wildlife.ca.gov)]  
**Sent:** Wednesday, January 18, 2017 3:42 PM  
**To:** Wynn, Susan; Brian Grover; Brock Ortega; Michael McCollum; Rita Brandin; Shanti SPL Santulli; [michelle.r.lynch@usace.army.mil](mailto:michelle.r.lynch@usace.army.mil); Vipul Joshi  
**Cc:** Doreen Statdlander; Karen Goebel; Mendel Stewart; Eichar, Peter ([Peter.Eichar@sdcounty.ca.gov](mailto:Peter.Eichar@sdcounty.ca.gov))  
**Subject:** RE: Newland Sierra

It seems any pools should be investigated for spadefoot toad tadpoles as well.

David A. Mayer

Senior Environmental Scientist

South Coast Region

California Department of Fish and Wildlife



3883 Ruffin Road

San Diego, California 92123

858-467-4234

858-467-4239 (fax)

[David.Mayer@Wildlife.ca.gov](mailto:David.Mayer@Wildlife.ca.gov)

Every Californian should conserve water. Find out how at:



[SaveOurWater.com](http://SaveOurWater.com) · [Drought.CA.gov](http://Drought.CA.gov)

**From:** Wynn, Susan [[mailto:susan\\_wynn@fws.gov](mailto:susan_wynn@fws.gov)]

**Sent:** Wednesday, January 18, 2017 3:03 PM

**To:** Brian Grover; Brock Ortega; Michael McCollum; Rita Brandin; Shanti SPL Santulli;  
[michelle.r.lynch@usace.army.mil](mailto:michelle.r.lynch@usace.army.mil); Vipul Joshi

**Cc:** Doreen Statdlander; Karen Goebel; Mendel Stewart; Mayer, David@Wildlife

**Subject:** Newland Sierra

Hello all - We received a call from a concerned citizen regarding potential vernal pools on the Newland Sierra project site. I've attached a map and a couple of the photos that were sent over - As you can see from the close up photo of one of the ponded areas, there appears to be fairy shrimp. I can not identify which species this is from a photograph - I'm guessing it is either the un-listed versatile fairy shrimp (*Branchinecta lindahli*) or the federally endangered San Diego fairy shrimp (*B. sandiegonensis*) based on what has been

observed to date in other areas, but this would need to be confirmed by a permitted biologist in the field. I do not recall any mention of potential vernal pools in the previous documents and have not had time to pull the file to check. I also do not recall whether any ponding was mapped as part of a wetland delineation for the Corps. I will continue to pass on any info I receive - given that fairy shrimp are out and there appears to be ponding on the site, we recommend that you have a permitted biologist survey the site for fairy shrimp. I am not sure which staff at the County is working on this project so please coordinate with them as appropriate.

Susan

Susan Wynn

Fish and Wildlife Biologist

2177 Salk Avenue, Suite 250

Carlsbad, CA 92008

(760) 431-9440 ext 216



# **Project Study Report-Project Development Support (PSR-PDS)**

**To**

## **Request Scope Approval of Projects-funded-by-others**

In San Diego County near Escondido on Interstate 15 from 0.6 Mile South to 0.6 Mile  
North of Deer Springs Road Overcrossing

APPROVAL RECOMMENDED:

---

*RITA BRANDIN, PROJECT SPONSOR, Accepts  
Risks Identified in this PSR-PDS and Attached Risk Register*

APPROVAL RECOMMENDED:

---

*ISMAEL SALAZAR, CALTRANS PROJECT MANAGER*

APPROVED:

---

*TOM BOUQUIN, DISTRICT DIRECTOR DESIGN*

---

*DATE*

---

*JOE HULL, DISTRICT DIRECTOR PPM*

---

*DATE*

## Vicinity Map



This project study report-project development support has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

---

*REGISTERED CIVIL ENGINEER*

8/13/2015  
*DATE*



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## 1. INTRODUCTION

### Project Description:

The Newland Real Estate Group, LLC, in cooperation with the California Department of Transportation (Caltrans) and the County of San Diego, has initiated this Project Study Report-Project Development Support (PSR-PDS) to evaluate alternatives to increase capacity, improve mobility, and relieve congestion for the existing Interstate 15 (I-15) and Deer Springs Road interchange.

A summary of relevant project data is shown in the following table:

<b>Project Limits</b>	11 – SD – 15 – PM R36.0/R37.2
<b>Number of Alternatives</b>	4
<b>Current Capital Outlay Support Estimate for PA&amp;ED</b>	\$700,000 to \$1,000,000
<b>Current Capital Outlay Construction Cost Range</b>	\$13,500,000 to \$20,200,000
<b>Current Capital Outlay Right-of-Way Cost Range</b>	\$100,000 to \$500,000
<b>Funding Source</b>	Private and other
<b>Type of Facility</b>	Freeway interchange
<b>Number of Structures</b>	1
<b>Anticipated Environmental Determination or Document</b>	Mitigated Negative Declaration (MND)/ Finding of No Significant Impact (FONSI)
<b>Legal Description</b>	In San Diego County near Escondido on Interstate 15 from 0.6 Mile South to 0.6 Mile North of Deer Springs Road Overcrossing
<b>Project Development Category</b>	3

The remaining capital outlay support, right-of-way, and construction components of the project are preliminary estimates and are not suitable for budgetary purposes. A project report will serve as approval of the “selected” alternative and the remaining components of the project.

Other approvals required are:

- Federal Highway Administration (FHWA)
- County of San Diego

## 2. BACKGROUND

Improvements to the existing I-15 and Deer Springs Road interchange are a requirement of the proposed Sierra Project, which is currently under environmental review with the County of San Diego Planning Department. The Sierra Project is a



proposed community subdivision on 1,985-acres located west of I-15 and north of Deer Springs Road.

Interstate 15 is a major traffic corridor that originates near downtown San Diego and continues north to the United States border with Canada. The intersecting Deer Springs Road is currently an east-west two-lane county roadway between I-15 and Twin Oaks Valley Road. It serves the local communities of Hidden Meadows and San Marcos, while also acting as a link for traffic traveling between I-15 and State Route 78. It has been determined that the congestion along State Route 78 contributes to a significant amount of traffic traveling along this link through the project limits. The existing I-15 and Deer Springs Road interchange is a diamond configuration with single-lane on and off ramps. The interchange consists of two signalized freeway ramp intersections and has two nearby signalized local roadway intersections, which include the Deer Springs Road and Mesa Rock Road intersection, and the Mountain Meadow Road and Champagne Boulevard intersection.

### **3. PURPOSE AND NEED**

#### **Purpose:**

The purpose of the proposed project is to plan for the projected regional population growth and increase in traffic demands at the existing I-15 and Deer Springs Road interchange for the planning design year 2040. The project proposes to widen and reconfigure the interchange to improve traffic operations and enhance transportation choices. The objectives of the project are to:

- Support anticipated regional growth and proposed local-area projects;
- Relieve congestion by providing sufficient vehicle capacity through the interchange area;
- Manage east-west travel between local communities;
- Enhance multi-modal choices;
- Improve the existing park and ride facility to provide transit connectivity; and
- Minimize environmental impacts.

#### **Need:**

The project area is located within San Diego County near Escondido, along a segment of Interstate 15 (I-15). I-15 is a major traffic corridor that serves the local communities of Hidden Meadows and City of San Marcos, while also acting as a link for traffic travelling to and from I-15 to and from State Route (SR) 78. The intersecting Deer Springs Road is classified as a 6-Lane Prime Arterial in the County of San Diego Mobility Element and is currently built as a two-lane facility between I-15 and Twin Oaks Valley Road. Based on growth forecasts prepared by the San Diego Association of Governments, the county's unincorporated areas, which encompass the project area, are expected to see an overall population growth of approximately 25 percent between 2015 and 2050. To accommodate this growth and

future capacity needs within the corridor, the interchange will require additional capacity. Regional growth coupled with the approved site developments in the immediate vicinity will result in increased volumes through the interchange by 2040 of about 25-40%, depending on the road segment. In addition to the projected traffic demands, the I-15/Deer Springs interchange is currently experiencing severe traffic congestion. Existing deficiencies of the I-15/Deer Springs interchange are summarized below:

- Three out of four I-15/Deer Springs interchange intersections are operating near or over the design capacity during peak period traffic volumes;
- Intersection delays of up to 45 seconds;
- High volumes of single occupancy vehicle travel, necessitating improved access to carpools, vanpools, and public transportation choices via existing park and ride facilities within the project area.

#### **4. TRAFFIC ENGINEERING PERFORMANCE ASSESSMENT**

A Traffic Engineering Performance Assessment (TEPA) was prepared in support of this PSR-PDS, which is included as Attachment I. The relevant findings and recommendations are included below for each build alternative. Prior to preparing the TEPA, a traffic modeling report was completed and approved by Caltrans and the County of San Diego. During the PA&ED phase, a full traffic study will be completed to confirm the anticipated traffic volumes and operations for each of the alternatives. Refer to Section 7 below for a description of each alternative.

The existing nonstandard intersection spacing between the Mesa Rock Road intersection and the southbound I-15 ramp termini negatively impact traffic operations in this area. Considering this, the existing north leg of the Mesa Rock Road intersection, which is proposed to be used as the main entrance for the Sierra Project, has been positioned as far west as possible for each of the build alternatives. Due to geometric, socio-economic, and other environmental constraints as described in the PEAR, this intersection cannot be positioned any further west. Also, the south leg of the Mesa Rock Road intersection cannot be moved due to existing development. In addition, the southbound I-15 ramp termini have been positioned as far east as possible for each of the alternatives in order to maximize the distance between these intersections and optimize the overall traffic operations for this area.

##### ***Alternative 1***

The No Build Alternative does not improve the existing operational conditions, and it is anticipated to operate at an unacceptable Level of Service (LOS) F for the design year traffic volumes.

***Alternative 2***

The proposed diamond interchange alternative is anticipated to operate at an acceptable LOS D or better for the design year traffic volumes. The queuing analysis indicates that the available intersection spacing between Mesa Rock Road and the I-15 ramp termini does not accommodate the estimated queue along westbound Deer Springs Road at Mesa Rock Road during the anticipated peak hour volumes. It is anticipated that adding a northbound loop off-ramp will improve the operations of the northbound ramp intersection during the PM peak hour. It is recommended that the feasibility of adding this loop ramp should be evaluated during the PA&ED phase.

***Alternative 3***

The proposed diverging diamond interchange alternative is anticipated to operate at an acceptable LOS D or better for the design year traffic volumes. The queuing analysis indicates adequate spacing between intersections.

***Alternative 4***

The proposed roundabout interchange alternative is anticipated to operate at an acceptable LOS D or better for the design year traffic volumes. However, due to recent and pending changes to standards and software used to analyze the capacity of roundabouts, it is anticipated that further analysis of this alternative will be required during the PA&ED phase to fully assess its traffic performance per the required Intersection Control Evaluation (ICE) process. As such, the Project Development Team (PDT) determined that this alternative should remain in the PSR-PDS.

**5. DEFICIENCIES**

The existing I-15 and Deer Springs Road interchange is currently experiencing operational problems and is operating near or over its design capacity during peak period traffic volumes. Congestion delay exists along the southbound off-ramp during the AM peak period and the northbound on-ramp during the PM peak period. This is primarily due to the congestion delay along the Route 78 corridor, which causes the traffic to take this alternative Deer Springs Road route during the high peak period traffic volumes. In addition, the existing intersection spacing adjacent to the ramp termini does not accommodate the traffic queues along Deer Springs Road. Vehicle hours of delay, average speeds, travel times, and other traffic performance measures will continue to deteriorate as growth increases in the surrounding areas.

**6. CORRIDOR AND SYSTEM COORDINATION**

The proposed project improvements for each of the build alternatives have been compared against the 2050 Regional Transportation Plan (RTP) for San Diego.

Based on the revenue constrained plan, I-15 would be widened to include 4 toll lanes (2 northbound and 2 southbound) located within the existing I-15 median from State Route 78 to Riverside County. The proposed project improvements would not impact the implementation of the additional toll lanes. Also, the widened Deer Springs Road overcrossing would be designed to accommodate the expected I-15 freeway cross section. Based on the revenue unconstrained plan, I-15 would be widened to include the same configuration as the revenue constrained plan.

The southbound direction of I-15 is located along the Extra Legal Load Network (ELLN), which requires a minimum vertical clearance of 20 ft. The existing Deer Springs Road Overcrossing currently has less than this requirement with 17.8 ft of vertical clearance. Vehicles requiring the additional clearance currently bypass the Deer Springs Road Overcrossing by exiting the freeway via the southbound off-ramp and then re-entering via the southbound on-ramp. ELLN clearances will be addressed in the proposed project via a similar travel pattern exiting and entering the mainline.

Deer Springs Road is classified as a 6-lane prime arterial in the San Diego County Mobility Element. An option being analyzed in the traffic study assumes Deer Springs Road as a 4.1A Major Road except for the portion between Sarver Lane and Mesa Rock Road which would be built as a 2.1B Community Collector segment with a continuous turn lane between Sarver Lane and Mesa Rock Road. Under this option, fewer vehicles will utilize Deer Springs Road in this option, since the roadway cross section of Deer Springs Road will be narrower than that in the General Plan Mobility Element. The narrower cross section is also supported by SANDAG for improved pedestrian and bicycle safety. Therefore, multiple variations of Deer Springs Road will be analyzed in the Traffic Operations Report during the PA&ED phase. In coordination with the County of San Diego, the project proposes to construct a narrower configuration of Deer Springs Road compared to the County Mobility Element, which is based on the findings of this report.

Improvements to the existing I-15 and Deer Springs Road interchange are currently not identified in the Regional Transportation Improvement Program (RTIP) for San Diego or the San Diego County General Plan. However, the proposed project improvements to the interchange support the proposed Sierra Project improvements, which is a private development located west of I-15 and north of Deer Springs Road.

The County of San Diego Bicycle Transportation Plan classifies Deer Springs Road as a Priority 3 proposed Class III bikeway. Priority 3 proposed bikeways are not included in the County Circulation Element map. The County Bicycle Transportation Plan proposes to incorporate bicycle parking, bicycle racks, and lockers at both of the existing County park-and-ride lots located within the project limits. Deer Springs Road is currently not identified in the 2050 San Diego Regional Bike Plan.

The project will coordinate with the SANDAG Transportation Demand Management (TDM) program iCommute to ensure the project is aligned with any TDM elements being considered in the project area.

## 7. ALTERNATIVES

In the development of the alternatives for the PSR-PDS and as part of the Intersection Control Evaluation (ICE) process, the PDT conducted an alternatives screening process through a series of workshops. During this screening process, the PDT determined weighted evaluation criteria along with a range of potential alternatives. The weighted evaluation criteria were then used to compare and rank each of the potential alternatives. As a result of this screening process, it was decided to eliminate the single point interchange (SPI) configuration, hook ramp interchange configuration, and a 6-leg roundabout configuration from further evaluation.

Each of the build alternatives propose to expand upon the western park-and-ride lot and maintain the size of the eastern park-and-ride lot that are located within the project limits, which will include features to encourage future bicycle and pedestrian traffic. The build alternatives will also consider the potential for multi-modal transit options that would be integrated with the proposed park-and-ride lots and the adjacent ramp termini, which will provide suitable bicycle and pedestrian connectivity.

The San Diego Bicycle Transportation Plan indicates a Class III bikeway within the project limits, however, a Class II bikeway will be considered between Mesa Rock Road and Champagne Boulevard for this project due to the volume of bicycle traffic indicated by crowdsource GPS information. During the PA&ED phase, the bicycle and pedestrian facilities will be further evaluated to optimize mobility, functionality, and safety for each of the build alternatives.

There are four alternatives identified in this report, which include the No Build Alternative.

### *Alternative 1*

This alternative is the No Build Alternative. The existing I-15 and Deer Springs Road interchange would remain unchanged and no work would be provided to improve operational conditions. The No Build Alternative does not meet the goals of this project to relieve congestion and is inconsistent with the purpose and need.

### *Alternative 2*

This alternative proposes to expand upon the existing diamond interchange configuration in order to improve operational conditions (see Attachment B). This alternative will require nonstandard intersection spacing between the southbound ramp termini and the Mesa Rock Road/Deer Springs Road intersection, and between the northbound ramp termini and the Champagne Boulevard/Deer Springs Road intersection. It proposes to realign the southbound ramps further east in order to improve upon the existing nonstandard intersection spacing between the southbound ramp termini and the Mesa Rock Road/Deer Springs Road intersection. Realigning

these ramps would likely require retaining walls along the southbound off-ramp and on-ramp. It is anticipated that adding a northbound loop on-ramp or off-ramp will improve the operations of the northbound ramp intersection during the PM peak hour. It is recommended that the feasibility of adding a loop ramp should be evaluated during the PA&ED phase. This alternative also proposes to widen Deer Springs Road to meet the increased traffic demand and will require the existing Deer Springs Road Overcrossing to be widened. It proposes to maintain the existing ELLN bypass of the Deer Springs Road Overcrossing via the southbound on and off-ramps.

### ***Alternative 3***

This alternative proposes to reconfigure the existing interchange into a diverging diamond interchange (DDI) configuration in order to improve operational conditions (see Attachment B). The proposed geometry follows the informational guide published by FHWA in August of 2014, which features a conventional 25 mph design speed and a 45 degree intersection angle at the points where the two directions of traffic cross each other. This alternative also proposes to widen Deer Springs Road to meet the increased traffic demand and will require the existing Deer Springs Road Overcrossing to be widened. It proposes to maintain the existing ELLN bypass of the Deer Springs Road Overcrossing via the southbound on and off-ramps utilizing a median opening for the ELLN vehicles to cross Deer Springs Road. This median opening would include several design features to keep other traffic from using it, such as a gate located within the opening, traversable concrete curb, chevron striping along the widened ramp shoulders, landscaping to block the view of the southbound on-ramp, and the geometric alignment of the median opening. This alternative may require a design exception for nonstandard intersection spacing between the southbound ramp termini and the Mesa Rock Road/Deer Springs Road intersection, and between the northbound ramp termini and the Champagne Boulevard/Deer Springs Road intersection. It may also require a design exception for the conventional design speed of 25 mph required for DDI interchange configurations.

### ***Alternative 4***

This alternative proposes to utilize the existing diamond configuration with roundabout intersections for the southbound and northbound ramp termini and for both of the adjacent local intersections along Deer Springs Road (see Attachment B). This alternative also proposes to widen Deer Springs Road to meet the increased traffic demand and will require the existing Deer Springs Road Overcrossing to be widened. It proposes to maintain the existing ELLN bypass of the Deer Springs Road Overcrossing via the southbound on and off-ramps utilizing a roundabout that the ELLN vehicles can navigate through. This alternative will require nonstandard intersection spacing between the southbound ramp termini and the Mesa Rock Road/Deer Springs Road intersection, and between the northbound ramp termini and the Champagne Boulevard/Deer Springs Road intersection. It may also require a design exception for the conventional design speed of 25 mph required for roundabout intersections.

Design Standards Risk Assessment			
Alternative	Design Standard from Highway Design Manual Tables 82.1A & 82.1B	Probability of Design Exception Approval (None, Low, Medium, High,)	Justification for Probability Rating
2	<sup>M</sup> Distance Between Ramp Intersection and Local Road Intersection	Low	The nonstandard intersection spacing presents a traffic queuing issue for this alternative, while Alternative 3 and Alternative 4 do not. Although the intersection spacing is an improvement over the existing condition, it has less intersection spacing than Alternative 3. Further, the nonstandard spacing for Alternative 4 does not affect traffic operations due to its configuration type.
3	<sup>M</sup> Distance Between Ramp Intersection and Local Road Intersection	High	This alternative provides the most intersection spacing of all the alternatives and does not present any traffic operation issues.
3	<sup>M</sup> Selection of Design Speed - Local Facilities - with Connections to State Facilities	High	The conventional design speed required for all DDI interchanges is less than the minimum speed. Therefore, this standard does not apply to or consider this type of interchange configuration. The proposed design speed would also be safer for pedestrians and bicyclists.
4	<sup>M</sup> Distance Between Ramp Intersection and Local Road Intersection	High	The nonstandard intersection spacing for this alternative does not affect traffic operations due to its configuration type.
4	<sup>M</sup> Selection of Design Speed - Local Facilities - with Connections to State Facilities	High	The conventional design speed required for all roundabout intersections is less than the minimum speed. Therefore, this standard does not apply to or consider this type of interchange configuration. The proposed design speed would also be safer for pedestrians and bicyclists.
4	<sup>A</sup> Median Width	High	The minimum standard for median width is intended for facilities that may require future left turn lanes. Interchange configurations with roundabouts do not require left turn lanes or any other design feature that would require a median. Therefore, this standard does not apply to or consider this interchange configuration.

M = Mandatory, A = Advisory

## **8. RIGHT-OF-WAY**

Most, if not all, of the work will be located within the existing right-of-way limits. It is anticipated that some small partial property acquisitions may be required for some of the alternatives. It is anticipated that the existing freeway access control limits may require modification in order to relinquish the area necessary for the proposed park-and-ride expansion. In addition, a few temporary construction easements will be required from the various parcels adjacent to the project. For additional information, refer to the findings included in the Conceptual Cost Estimate – Right-of-Way Component, which is included as Attachment F.

### **Utilities:**

There are existing utilities located along Deer Springs Road and the local intersecting roadways, which include sewer, water, gas, electrical, and telecommunication facilities. The following utility companies or agencies have been identified as owners of the various utilities located within the project area: AT&T, County of San Diego, Cox Communications, Level 3 Communications, SDG&E, San Diego County Water Authority, Valley Center Municipal Water District, and Vallecitos Water District. Minor impacts to these facilities are anticipated and will be further evaluated during the PA&ED phase.

### **Railroad:**

There are no railroad facilities located within the project study limits.

## **9. STAKEHOLDER INVOLVEMENT**

Local agency representatives from the County of San Diego have been involved in the development of the alternatives during PDT meetings and project workshops. Coordination with representatives from the San Diego Association of Governments (SANDAG), the North County Transit District (NCTD), and the Riverside Transit Authority (RTA) has taken place to determine their involvement and to identify if any potential project features could be incorporated based on their interests. As the owner and operator of the State Highway System, Caltrans has provided independent quality assurance of this document. Future stakeholder outreach will be determined by the PDT and the opportunity for public meetings will be organized during the PA&ED phase.

## **10. ENVIRONMENTAL DETERMINATION/DOCUMENT**

In order to identify environmental issues, constraints, costs and resource needs, a Preliminary Environmental Analysis Report (PEAR) was prepared in support of this PSR-PDS, which is included as Attachment D.



The project would require the preparation of environmental documentation pursuant to the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA). It is anticipated that an Initial Study (IS) with proposed Negative Declaration (ND) or Mitigated ND and a Routine Environmental Assessment with proposed Finding of No Significant Impact will be required for this project.

## 11. FUNDING

The proposed interchange project will be privately funded at some point after the County approves the proposed Sierra Development Project. As the project continues to develop, additional funding sources will be explored. Up to this point, it has been determined that this project is not eligible for Federal-aid funding and SANDAG currently does not have any planned funding for interchange improvements.

### Capital Outlay Project Estimate

	Range of Estimate		STIP Funds		Other Funds	
	Construction	Right-of-Way	Construction	Right-of-Way	Construction	Right-of-Way
Alternative 1	\$0	\$0	\$0	\$0	\$0	\$0
Alternative 2	\$20.2M	\$0.1 - \$0.5M	\$0	\$0	\$20.2M	\$0.1 - \$0.5M
Alternative 3	\$15.8M	\$0.1 - \$0.5M	\$0	\$0	\$15.8M	\$0.1 - \$0.5M
Alternative 4	\$13.5M	\$0.1 - \$0.5M	\$0	\$0	\$13.5M	\$0.1 - \$0.5M

The level of detail available to develop these capital outlay project estimates is only accurate to within the above ranges and is useful for long-range planning purposes only. The capital outlay project estimates should not be used to program or commit capital outlay funds.

### Capital Outlay Support Estimate

Capital outlay support estimate for programming PA&ED for this project is estimated to be: \$700,000 to \$1,000,000

## 12. SCHEDULE

Project Milestones		Scheduled Delivery Date
BEGIN ENVIRONMENTAL	M020	August 2015
CIRCULATE DED EXTERNALLY	M120	April 2016
PA & ED	M200	January 2017

The anticipated funding fiscal year for construction is 2019.

**13. RISKS**

A Risk Register was completed for this project; see Attachment G.

**14. FHWA COORDINATION**

This project is considered to be a High Profile Project (HPP) in accordance with the current Federal Highway Administration (FHWA) and Department of Transportation (Caltrans) Joint Stewardship and Oversight Agreement.

FHWA “engineering and operational acceptability” must be obtained early in the PA&ED phase prior to circulation of the draft environmental document with an unsigned supplemental project study report (PSR) or an unsigned draft project report. FHWA “approval” will be given after the National Environmental Policy Act (NEPA) process is completed.

**15. PROJECT REVIEWS**

District Maintenance _____	Date _____
District Traffic Safety Engineer _____	Date _____
Headquarters Project Delivery Coordinator _____	Date _____
Project Manager _____	Date _____

**16. PROJECT PERSONNEL****CALTRANS**

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Right-of-Way

---

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Jacob Armstrong.....	619.688.6960
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Traffic Safety & Operations Liaison	
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Sr. Transportation Engineer Design	
Laura Espinoza.....	619.718.7810
District Design Liaison	

## **PROJECT SPONSOR**

### **Newland Real Estate Group, LLC**

Rita Brandin .....	858.875.8219
Development Director	

## **LOCAL AGENCIES**

### **County of San Diego**

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County Transportation Specialist	
Nick Ortiz.....	858.694.2410
County Project Manager	
Richard Chin .....	858.694.3858
County Transportation Specialist	

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Consultant Project Manager	
Jason Fischer .....	619.908.3211
Consultant Project Engineer	

**Parsons**

Stephanie Blanco ..... 909.218.3551  
 Consultant Environmental

**Linscott, Law & Greenspan, Engineers**

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 Consultant Traffic Engineer Ext: 243

**The Tait Group**

David Tait ..... 916.813.1106  
 Consultant Project Facilitator

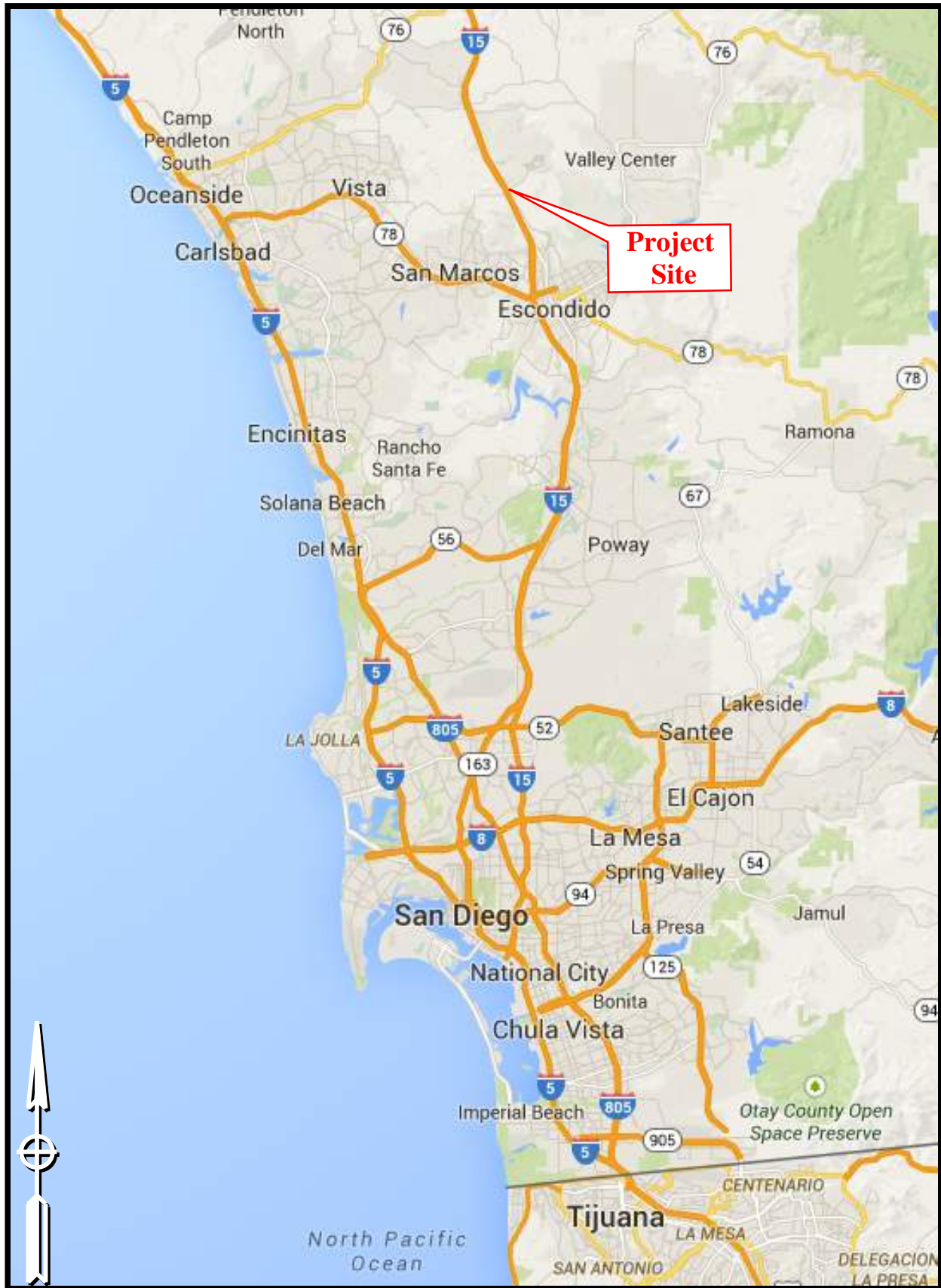
**Fusco Engineering**

Eric Armstrong..... 858.554.1500  
 Consultant Project Manager for the Sierra Project Ext: 4050

**17. ATTACHMENTS (Number of Pages)**

- A. Location and Vicinity Maps (2)
- B. Project Alternatives (3)
- C. Capital Outlay Project Estimate (9)
- D. Preliminary Environmental Analysis Report (PEAR) (28)
- E. Transportation Planning Scoping Information Sheet (9)
- F. Right-of-Way Conceptual Cost Estimate Component (3)
- G. Risk Register (2)
- H. Stormwater Documentation (67)
- I. Traffic Engineering Performance Assessment (TEPA) (16)

**ATTACHMENT A**  
LOCATION AND VICINITY MAPS



**Regional Location Map**





**Project Vicinity Map**

**ATTACHMENT B**  
**PROJECT ALTERNATIVES**

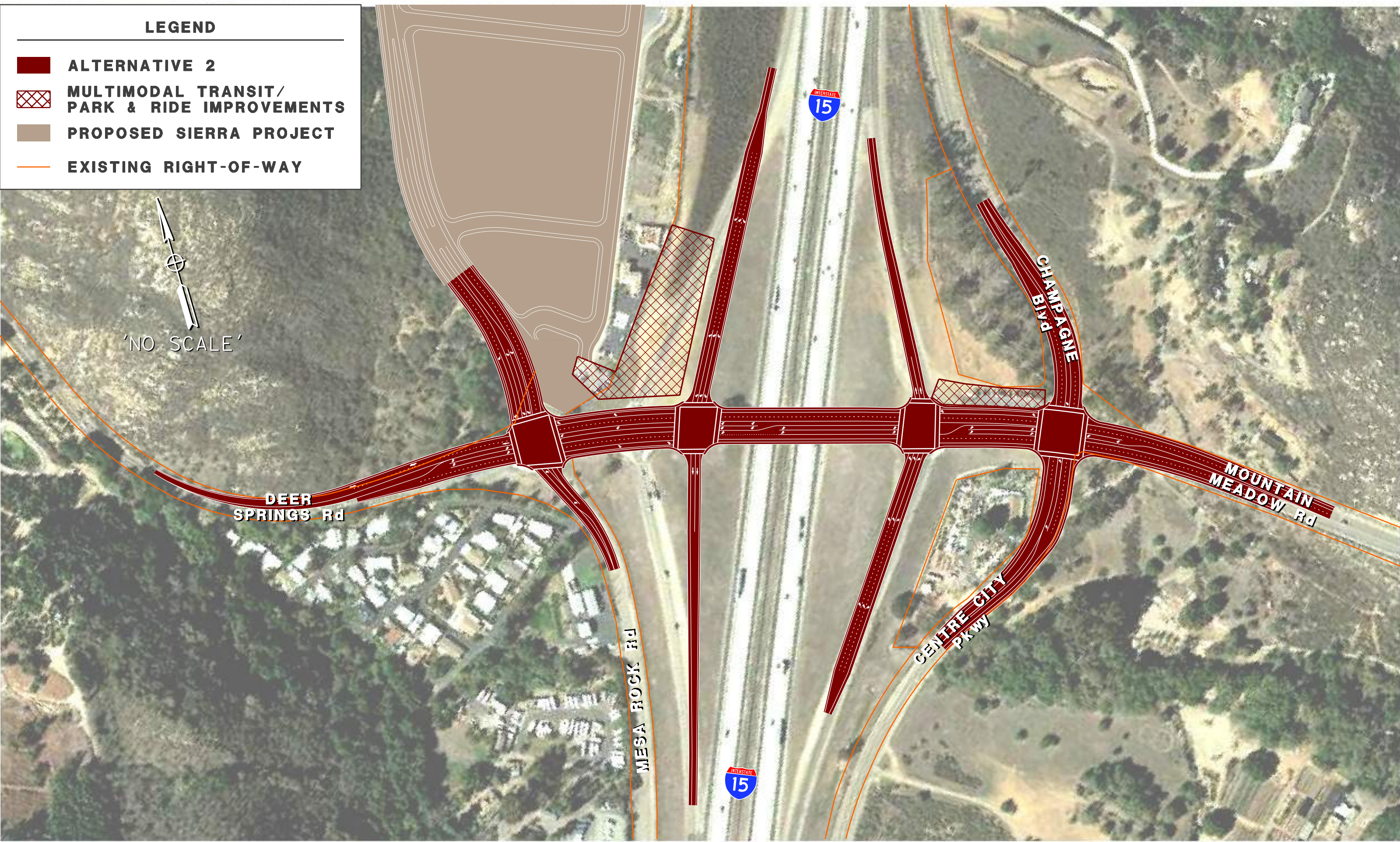


LEGEND

- ALTERNATIVE 2
- ▤ MULTIMODAL TRANSIT/  
PARK & RIDE IMPROVEMENTS
- PROPOSED SIERRA PROJECT
- EXISTING RIGHT-OF-WAY



'NO SCALE'



I-15 DEER SPRINGS ROAD  
INTERCHANGE PROJECT  
EA 11-41840

ALTERNATIVE 2  
DIAMOND INTERCHANGE

DATE PREPARED:

5 / 7 / 2015

**TYLIN** INTERNATIONAL  
engineers | planners | scientists

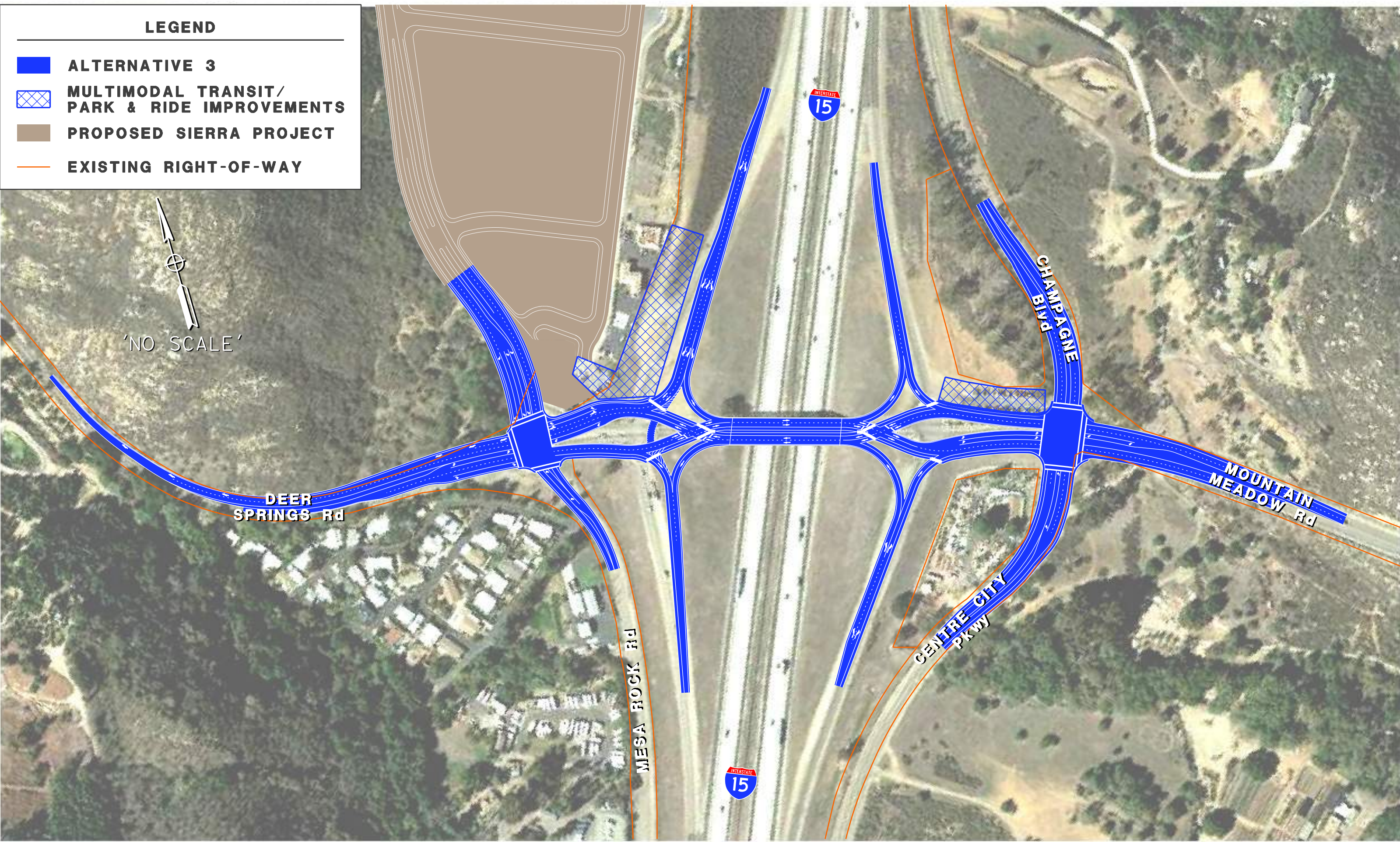


# LEGEND

- ALTERNATIVE 3
- MULTIMODAL TRANSIT/  
PARK & RIDE IMPROVEMENTS
- PROPOSED SIERRA PROJECT
- EXISTING RIGHT-OF-WAY



'NO SCALE'



I-15 DEER SPRINGS ROAD  
INTERCHANGE PROJECT  
EA 11-41840

ALTERNATIVE 3  
DIVERGING DIAMOND INTERCHANGE

DATE PREPARED:

5 / 7 / 2015

**TYLIN** INTERNATIONAL  
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# LEGEND

- ALTERNATIVE 4
- MULTIMODAL TRANSIT/  
PARK & RIDE IMPROVEMENTS
- PROPOSED SIERRA PROJECT
- EXISTING RIGHT-OF-WAY



'NO SCALE'

DEER  
SPRINGS Rd

MESA ROCK Rd

15

15

CENTRE CITY  
PKWY

CHAMPAGNE  
BLVD

MOUNTAIN  
MEADOW Rd

I-15 DEER SPRINGS ROAD  
INTERCHANGE PROJECT  
EA 11-41840

ALTERNATIVE 4  
DIAMOND INTERCHANGE WITH ROUNDABOUT INTERSECTIONS

DATE PREPARED:

5 / 7 / 2015

**TYLIN**INTERNATIONAL  
engineers | planners | scientists



**ATTACHMENT C**  
**CAPITAL OUTLAY PROJECT ESTIMATE**

# Project Study Report – Project Development Support Capital Outlay Project Estimate

Dist - Co - Rte 11-SD-15  
PM R36.0/37.2  
Program Code N/A  
Project Number 11-14000093  
Month/Year August 2015

## PROJECT DESCRIPTION:

**Limits:** In San Diego County near Escondido on Interstate 15 (I-15) from 0.6 Mile South to 0.6 Mile North of Deer Springs Road Overcrossing.

**Proposed Improvement (Scope):** Reconstruct the existing I-15 and Deer Springs Road interchange.

**Alternate: 2**

## SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	\$ <u>13,440,000</u>
TOTAL STRUCTURE ITEMS	\$ <u>5,760,000</u>
TOTAL ENVIRONMENTAL MITIGATION ITEMS	\$ <u>650,000</u>
SUBTOTAL CONSTRUCTION COSTS	\$ <u>19,850,000</u>
TOTAL RIGHT-OF-WAY ITEMS	\$ <u>350,000</u>
 TOTAL PROJECT CAPITAL OUTLAY COSTS	 \$ <u>20,200,000</u>

## I. ROADWAY ITEMS

	<u>Average Cost per Lane Mile</u>		<u>Number of Lane Miles</u>		<u>Total Cost</u>
Total Cost	<u>\$2,400,000</u>	X	<u>5.6</u>	=	<u>\$13,440,000</u>

### Explanation:

Roadway items include costs associated with earthwork, pavement, drainage, traffic, electrical work, landscaping, and other minor items. The cost estimate includes a 20% contingency factor applied to the base cost. The cost estimate has been escalated to the fiscal year 2018 using an annual escalation factor of 3%. The fiscal year 2018 is the anticipated year for construction. Roadway items exclude costs associated with structures, environmental mitigation, and right-of-way. It also excludes costs associated with owner administration, professional engineering, environmental planning, and construction administration.

TOTAL ROADWAY ITEMS	<u>\$13,440,000</u>
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## II. STRUCTURES ITEMS

	Structure (1)	Structure (2)	Structure (3)
Bridge Name	<u>Deer</u>	<u>Retaining</u>	
	<u>Springs</u>	<u>Walls</u>	
	<u>Road OC</u>		
Total Cost for Structure	<u>\$3,900,000</u>	<u>\$1,860,000</u>	

### Explanation:

Structures items include costs associated with widening the existing Deer Springs Road Overcrossing at I-15. Structures items include costs associated with retaining walls. The cost estimate includes a 20% contingency factor applied to the base cost. The cost estimate has been escalated to the fiscal year 2018 using an annual escalation factor of 3%. The fiscal year 2018 is the anticipated year for construction.

TOTAL STRUCTURE ITEMS	<u>\$5,760,000</u>
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### III. ENVIRONMENTAL MITIGATION

	<u>Quantity</u>	<u>Unit</u>		<u>Unit Price</u>		<u>Item Cost</u>
Environmental Mitigation	<u>LS</u>	<u>1</u>	X	<u>\$650,000</u>	=	<u>\$650,000</u>

#### Explanation:

Environmental mitigation includes costs associated with environmental surveys and monitoring, temporary erosion control, and storm water best management practices required during construction.

TOTAL ENVIRONMENTAL MITIGATION ITEMS \$650,000

### IV. RIGHT-OF-WAY ITEMS

	<u>Escalated Value</u>
A. Acquisition, including excess lands, damages to remainder(s) and Goodwill	<u>\$100,000</u>
B. Utility Relocation (State share)	<u>\$250,000</u>

Anticipated Date of Right-of-Way Certification 2018  
(Date to which values are escalated)

#### Explanation:

Right-of-way items include costs associated with acquiring right-of-way, temporary construction easements, and anticipated utility relocations.

TOTAL RIGHT-OF-WAY ITEMS \$350,000

# Project Study Report – Project Development Support Capital Outlay Project Estimate

Dist - Co - Rte 11-SD-15  
PM R36.0/37.2  
Program Code N/A  
Project Number 11-14000093  
Month/Year August 2015

## PROJECT DESCRIPTION:

**Limits:** In San Diego County near Escondido on Interstate 15 (I-15) from 0.6 Mile South to 0.6 Mile North of Deer Springs Road Overcrossing.

**Proposed Improvement (Scope):** Reconstruct the existing I-15 and Deer Springs Road interchange.

**Alternate: 3**

## SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	\$ <u>11,250,000</u>
TOTAL STRUCTURE ITEMS	\$ <u>3,550,000</u>
TOTAL ENVIRONMENTAL MITIGATION ITEMS	\$ <u>650,000</u>
SUBTOTAL CONSTRUCTION COSTS	\$ <u>15,450,000</u>
TOTAL RIGHT-OF-WAY ITEMS	\$ <u>350,000</u>
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$ <u>15,800,000</u>



## I. ROADWAY ITEMS

	<u>Average Cost per Lane Mile</u>		<u>Number of Lane Miles</u>		<u>Total Cost</u>
Total Cost	<u>\$2,295,000</u>	X	<u>4.9</u>	=	<u>\$11,250,000</u>

### Explanation:

Roadway items include costs associated with earthwork, pavement, drainage, traffic, electrical work, landscaping, and other minor items. The cost estimate includes a 20% contingency factor applied to the base cost. The cost estimate has been escalated to the fiscal year 2018 using an annual escalation factor of 3%. The fiscal year 2018 is the anticipated year for construction. Roadway items exclude costs associated with structures, environmental mitigation, and right-of-way. It also excludes costs associated with owner administration, professional engineering, environmental planning, and construction administration.

TOTAL ROADWAY ITEMS	<u>\$11,250,000</u>
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## II. STRUCTURES ITEMS

	Structure (1)	Structure (2)	Structure (3)
Bridge Name	<u>Deer</u>	<u>Retaining</u>	
	<u>Springs</u>	<u>Walls</u>	
	<u>Road OC</u>		
Total Cost for Structure	<u>\$2,100,000</u>	<u>\$1,450,000</u>	

### Explanation:

Structures items include costs associated with widening the existing Deer Springs Road Overcrossing at I-15. Structures items include costs associated with retaining walls. The cost estimate includes a 20% contingency factor applied to the base cost. The cost estimate has been escalated to the fiscal year 2018 using an annual escalation factor of 3%. The fiscal year 2018 is the anticipated year for construction.

TOTAL STRUCTURE ITEMS	<u>\$3,550,000</u>
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### III. ENVIRONMENTAL MITIGATION

	<u>Quantity</u>	<u>Unit</u>		<u>Unit Price</u>		<u>Item Cost</u>
Environmental Mitigation	<u>LS</u>	<u>1</u>	X	<u>\$650,000</u>	=	<u>\$650,000</u>

#### Explanation:

Environmental mitigation includes costs associated with environmental surveys and monitoring, temporary erosion control, and storm water best management practices required during construction.

TOTAL ENVIRONMENTAL MITIGATION ITEMS \$650,000

### IV. RIGHT-OF-WAY ITEMS

	<u>Escalated Value</u>
A. Acquisition, including excess lands, damages to remainder(s) and Goodwill	<u>\$100,000</u>
B. Utility Relocation (State share)	<u>\$250,000</u>

Anticipated Date of Right-of-Way Certification 2018  
(Date to which values are escalated)

#### Explanation:

Right-of-way items include costs associated with acquiring right-of-way, temporary construction easements, and anticipated utility relocations.

TOTAL RIGHT-OF-WAY ITEMS \$350,000

# Project Study Report – Project Development Support Capital Outlay Project Estimate

Dist - Co - Rte 11-SD-15  
PM R36.0/37.2  
Program Code N/A  
Project Number 11-14000093  
Month/Year August 2015

## PROJECT DESCRIPTION:

**Limits:** In San Diego County near Escondido on Interstate 15 (I-15) from 0.6 Mile South to 0.6 Mile North of Deer Springs Road Overcrossing.

**Proposed Improvement (Scope):** Reconstruct the existing I-15 and Deer Springs Road interchange.

**Alternate: 4**

## SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	\$ <u>9,875,000</u>
TOTAL STRUCTURE ITEMS	\$ <u>2,625,000</u>
TOTAL ENVIRONMENTAL MITIGATION ITEMS	\$ <u>650,000</u>
SUBTOTAL CONSTRUCTION COSTS	\$ <u>13,150,000</u>
TOTAL RIGHT-OF-WAY ITEMS	\$ <u>350,000</u>
 TOTAL PROJECT CAPITAL OUTLAY COSTS	 \$ <u>13,500,000</u>

## I. ROADWAY ITEMS

	<u>Average Cost per Lane Mile</u>		<u>Number of Lane Miles</u>		<u>Total Cost</u>
Total Cost	<u>\$2,600,000</u>	X	<u>3.8</u>	=	<u>\$9,875,000</u>

### Explanation:

Roadway items include costs associated with earthwork, pavement, drainage, traffic, electrical work, landscaping, and other minor items. The cost estimate includes a 20% contingency factor applied to the base cost. The cost estimate has been escalated to the fiscal year 2018 using an annual escalation factor of 3%. The fiscal year 2018 is the anticipated year for construction. Roadway items exclude costs associated with structures, environmental mitigation, and right-of-way. It also excludes costs associated with owner administration, professional engineering, environmental planning, and construction administration.

TOTAL ROADWAY ITEMS	<u>\$9,875,000</u>
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## II. STRUCTURES ITEMS

	Structure (1)	Structure (2)	Structure (3)
Bridge Name	<u>Deer</u>	<u>Retaining</u>	
	<u>Springs</u>	<u>Walls</u>	
	<u>Road OC</u>		
Total Cost for Structure	<u>\$1,400,000</u>	<u>\$1,225,000</u>	

### Explanation:

Structures items include costs associated with widening the existing Deer Springs Road Overcrossing at I-15. Structures items include costs associated with retaining walls. The cost estimate includes a 20% contingency factor applied to the base cost. The cost estimate has been escalated to the fiscal year 2018 using an annual escalation factor of 3%. The fiscal year 2018 is the anticipated year for construction.

TOTAL STRUCTURE ITEMS	<u>\$2,625,000</u>
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### III. ENVIRONMENTAL MITIGATION

	<u>Quantity</u>	<u>Unit</u>		<u>Unit Price</u>		<u>Item Cost</u>
Environmental Mitigation	<u>LS</u>	<u>1</u>	X	<u>\$650,000</u>	=	<u>\$650,000</u>

#### Explanation:

Environmental mitigation includes costs associated with environmental surveys and monitoring, temporary erosion control, and storm water best management practices required during construction.

TOTAL ENVIRONMENTAL MITIGATION ITEMS \$650,000

### IV. RIGHT-OF-WAY ITEMS

	<u>Escalated Value</u>
A. Acquisition, including excess lands, damages to remainder(s) and Goodwill	<u>\$100,000</u>
B. Utility Relocation (State share)	<u>\$250,000</u>

Anticipated Date of Right-of-Way Certification 2018  
(Date to which values are escalated)

#### Explanation:

Right-of-way items include costs associated with acquiring right-of-way, temporary construction easements, and anticipated utility relocations.

TOTAL RIGHT-OF-WAY ITEMS \$350,000

**ATTACHMENT D**  
**PRELIMINARY ENVIRONMENTAL ANALYSIS REPORT (PEAR)**



## PRELIMINARY ENVIRONMENTAL ANALYSIS REPORT

### 1. *Project Information*

District 11	County SD	Route I-15	PM R36.3-R37.2	EA 11-41840K
Project Title: Interstate 15 (I-15)/Deer Springs Road Interchange Project				
Project Manager: Ismael Salazar			Phone: (619) 688-6766	
Project Engineer: Armando Salvador			Phone: (619) 688-3268	
Environmental Office Chief/Manager: Olga Estrada			Phone: (619) 688-0229	
PEAR Preparer: Emily Hoyt/Stephanie Blanco (Parsons)			Phone: (949) 333-4546/ (909) 218-3551	

### 2. *Project Description*

#### **Purpose and Need**

The project area is located within San Diego County, along a segment of Interstate 15 (I-15). I-15 is a major traffic corridor that serves the local community of Hidden Meadows and City of San Marcos, while also acting as a link for traffic traveling to and from I-15 to and from State Route (SR) 78. The intersecting Deer Springs Road is classified as a 6-Lane Prime Arterial in the County of San Diego Mobility Element and is currently built as a two-lane facility between I-15 and Twin Oaks Valley Road. Based on growth forecasts prepared by the San Diego Association of Governments (SANDAG), the County's unincorporated areas, which encompass the project area, are expected to see an overall population growth of approximately 25 percent between 2015 and 2050. To accommodate this growth and future capacity needs within the corridor, the interchange will require additional capacity. Regional growth, coupled with the approved site developments in the immediate vicinity, will result in increased volumes through the interchange by 2040 of approximately 25 to 40 percent, depending on the road segment. In addition to the projected traffic demands, the I-15/Deer Springs Road interchange is currently experiencing severe traffic congestion. Existing deficiencies of the I-15/Deer Springs Road interchange are summarized below:

- Three out of four I-15/Deer Springs Road interchange intersections are operating near or over design capacity during PM peak periods;
- Intersection delays of up to 45 seconds;
- High volumes of single-occupancy vehicle travel, necessitating improved access to carpools, vanpools, and public transportation choices via existing park-and-ride facilities within the project area.

The purpose of the proposed project is to plan for the projected regional population growth and increase in traffic demands on the existing I-15/Deer Springs Road interchange for the planning design year 2040. The project proposes to widen and reconfigure the interchange to improve traffic operations and enhance transportation choices. The objectives of the project are to:

- Support anticipated regional growth and proposed local-area projects;
- Relieve congestion by providing sufficient vehicle capacity through the interchange area;
- Manage east-west travel between local communities;
- Enhance multimodal choices;
- Improve the existing park-and-ride facility to provide transit connectivity; and
- Minimize environmental impacts.

### **Description of Work**

The design alternatives for the project include one No Build Alternative and three build alternatives, which include improvements to Deer Springs Road Interchange.

### **Alternatives**

#### ***Alternative 1***

This alternative is the No Build Alternative. The existing I-15 and Deer Springs Road interchange would remain unchanged and no work would be provided to improve operational conditions. The No Build Alternative does not meet the goals of this project to relieve congestion and is inconsistent with the purpose and need.

#### ***Alternative 2***

Alternative 2 proposes to expand upon the existing diamond configuration to improve operational conditions. This alternative would require nonstandard intersection spacing between the southbound ramp termini and the Mesa Rock Road/Deer Springs Road intersection and between the northbound ramp termini and the Champagne Boulevard/Deer Springs Road intersection. It proposes to realign the southbound ramps farther east to improve upon the existing nonstandard intersection spacing between the southbound ramp termini and the Mesa Rock Road/Deer Springs Road intersection. Realigning these ramps would require retaining walls along the southbound off-ramp and on-ramp. This alternative also proposes to widen Deer Springs Road to meet the increased traffic demand and would require the existing Deer Springs Road Overcrossing to be widened. It proposes to maintain the existing Extra Legal Load Network (ELLN) bypass of the Deer Springs Road Overcrossing via the southbound on- and off-ramps.



### ***Alternative 3***

Alternative 3 proposes to reconfigure the existing interchange into a diverging diamond interchange (DDI) configuration to improve operational conditions. The proposed geometry follows the informational guide published by the Federal Highway Administration (FHWA) in August 2014, which features a conventional 25-mile-per-hour (mph) design speed and a 45-degree intersection angle. This alternative also proposes to widen Deer Springs Road to meet the increased traffic demand and would require the existing Deer Springs Road Overcrossing to be widened. Alternative 3 also proposes to maintain the existing ELLN bypass of the Deer Springs Road Overcrossing via the southbound on- and off-ramps, utilizing a median opening for the ELLN vehicles to cross Deer Springs Road. This median opening would include several design features to keep other traffic from using it, such as a gate located within the opening, traversable concrete curb, chevron striping along the widened ramp shoulders, landscaping to block the view of the southbound on-ramp, and the geometric alignment of the median opening. This alternative may require nonstandard intersection spacing between the southbound ramp termini and the Mesa Rock Road/Deer Springs Road intersection and between the northbound ramp termini and the Champagne Boulevard/Deer Springs Road intersection. It may require a design exception for the conventional design speed of 25 mph required for DDI interchange configurations.

### ***Alternative 4***

Alternative 4 proposes to utilize the existing diamond configuration with roundabout intersections for the southbound and northbound ramp termini and for both of the adjacent local intersections along Deer Springs Road. This alternative also proposes to widen Deer Springs Road to meet the increased traffic demand and would require the existing Deer Springs Road Overcrossing to be widened. It proposes to maintain the existing ELLN bypass of the Deer Springs Road Overcrossing via the southbound on- and off-ramps, utilizing a roundabout through which the ELLN vehicles can navigate. This alternative would require nonstandard intersection spacing between the southbound ramp termini and the Mesa Rock Road/Deer Springs Road intersection and between the northbound ramp termini and the Champagne Boulevard/Deer Springs Road intersection. It may require a design exception for the conventional design speed of 25 mph required for roundabout intersections.

### 3. Anticipated Environmental Approval

Check the anticipated environmental determination or document for the proposed project in the table below.

CEQA		NEPA	
<b>Environmental Determination</b>			
Statutory Exemption	<input type="checkbox"/>		
Categorical Exemption	<input type="checkbox"/>	Categorical Exclusion	<input type="checkbox"/>
<b>Environmental Document</b>			
Initial Study or Focused Initial Study with proposed Negative Declaration (ND) or Mitigated ND	<input checked="" type="checkbox"/>	Routine Environmental Assessment with proposed Finding of No Significant Impact  Complex Environmental Assessment with proposed Finding of No Significant Impact	<input checked="" type="checkbox"/>  <input type="checkbox"/>
Environmental Impact Report	<input type="checkbox"/>	Environmental Impact Statement	<input type="checkbox"/>
CEQA Lead Agency (if determined):			Caltrans
Estimated length of time (months) to obtain environmental approval:			18 months
Estimated person hours to complete identified tasks:			2,300

### 4. Special Environmental Considerations

Under any of the project build alternatives, there is the potential for impacts on biological resources, archaeological resources, and drainages. If any archaeological or historic resources identified within the area of potential effect (APE) are determined to be listed on or eligible for listing on the National Register of Historic Places (NRHP), then these would also be considered resources under Section 4(f). In compliance with Section 106 of the National Historic Preservation Act, a Finding of Effect (FOE) would need to be prepared to evaluate the effect of the proposed project on the eligible resource. If the proposed project results in a Finding of No Effect, then a *de minimis* finding would likely be appropriate with regard to Section 4(f). However, this will need to be further evaluated during the Project Approval/ Environmental Document (PA/ED) phase of the proposed project.

Deer Springs Creek runs through the south portion of the I-15/Deer Springs Road Interchange Project area. If temporary or permanent impacts are to occur, a Section 401 Water Quality Certification, Section 404 Nationwide Permit, and Section 1602 Streambed Alteration Agreement would be required; however, because the creek runs through a covered culvert from North Centre City Parkway south to Mesa Rock Road, impacts are not anticipated. Impacts to Deer Springs Creek will be further evaluated and documented during the PA/ED phase of the proposed project.

## **5. *Anticipated Environmental Commitments***

Specific avoidance, minimization, and/or mitigation measures and commitments, and associated quantitative times and costs cannot be definitively determined at this time because the technical studies have not been initiated; however, for purposes of this Preliminary Environmental Analysis Report (PEAR), it is assumed that avoidance, minimization, and/or mitigation measures and commitments would consist of those measures that minimize project-related impacts typically used for similar transportation projects. Below is a list of environmental commitments by affected resource.

### **5.1 Community Impacts**

At this stage in project planning, partial and/or full acquisitions have not been finalized for each of the proposed build alternatives; however, all property and right-of-way (ROW) acquisitions as part of the proposed project would be conducted in accordance with California Department of Transportation (Caltrans) and FHWA policies and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. Properties would be purchased at fair market value, and relocation assistance for displaced residents would be provided. If any acquisitions are identified as necessary during the PA/ED phase, then a Relocation Impact Document (RID) would be prepared for the project. Additional community impacts will be discussed in the Community Impact Assessment (CIA) study such as; land use, potential growth, community character, transportation, environmental justice, and public involvement.

### **5.2 Section 4(f)**

The proposed project alternatives are not likely to have a direct affect on parks or historic resources eligible for the NRHP. These resources, if present, would be considered resources under Section 4(f) of the Department of Transportation Act. If it is found that project alternatives do affect historic properties eligible for the NRHP, then a determination of a de minimis impact finding or preparation of a Section 4(f) evaluation would be required.

### **5.3 Visual Impacts**

A Visual Impact Study will be prepared to evaluate visual impacts associated with the proposed project. The FHWA Visual Impact Assessment for Highway Projects guidelines will be followed to quantify the visual analysis.

### **5.4 Cultural Resources**

The proposed project alternatives may affect archaeological sites and possibly historic resources. It is anticipated that a Historic Properties Survey Report (HPSR), an Archaeological Survey Report (ASR), a Historic Resources Evaluation Report (HRER), as well as APE maps would be required for the project. An FOE report would also be required if properties that are directly impacted include resources that are found eligible for the NRHP, although this is not anticipated.

## **5.5 Water Quality Study**

The drainage channels adjacent to the interchange may be affected during construction. Coordination with the California Regional Water Quality Control Board (RWQCB) and the California Department of Fish and Wildlife (CDFW) will be required.

## **5.6 Paleontology**

A project-level Paleontological Identification Report (PIR) and Paleontological Evaluation Report (PER) would be required. Based on the findings of the report, a Paleontological Mitigation Plan (PMP) may be required. Any measures arising from the plan would need to be incorporated into the proposed project commitments.

## **5.7 Hazardous Waste/Materials**

Based on a review of the project site and a review of the State Water Resources Control Board (SWRCB) GeoTracker, hazardous waste may be present within the project limits. One leaking underground storage tank (LUST) site was identified near the Arco Gas Station between Mesa Rock Road and the I-15 southbound off-ramp. According to SWRCB GeoTracker data, this previously contaminated site has undergone cleanup, and the case is now closed. Because only one site was identified, and site cleanup has been completed, the project area is considered low risk. As part of the Phase I Environmental Site Assessment Process, an Initial Site Assessment (ISA) Checklist will be completed for further investigation during the PA/ED phase of this project.

It is assumed that the use, transport, and disposal of hazardous and potential hazardous materials used during construction would be conducted in accordance with applicable federal, state, and local requirements. Soils adjacent to paved areas in the project corridor may contain aerially deposited lead (ADL) from vehicle exhaust. An ADL survey would need to be performed during Caltrans Work Breakdown Structure (WBS) 165 phase of the proposed project according to Caltrans ADL testing guidelines. If the final construction alternative involves the acquisition of land with structures, the structures should be evaluated if lead-based paint (LBP) is suspected. Lead and other heavy metals, such as chromium, may be present in the yellow thermoplastic paint markings on the pavement. These surfacing materials should be tested for LBP prior to removal. If the final construction alternative involves the acquisition of land with structures or modification to existing bridges, the structures or bridges should be evaluated for asbestos-containing materials (ACM), if suspected, prior to demolition.

## **5.8 Air Quality**

The entire San Diego Air Basin is in a nonattainment area for ozone. Implementation of the proposed project would involve enhancements to the interchange, including improved signal timing and increased capacity, to accommodate existing and planned traffic generated in the project vicinity. Regional air quality will be addressed in terms of air quality impacts in the San Diego area. An Air Quality Study Report will be prepared to evaluate the impacts of the proposed project in accordance with Caltrans Transportation Project-Level Carbon Monoxide Protocol (December 1997). Because the project is capacity increasing, a transportation conformity determination would be required.

## **5.9 Noise**

A Noise Study in accordance with FHWA's Highway Traffic Noise Guidance and Policy and the Caltrans Traffic Noise Analysis Protocol will be prepared for this project due to sensitive receptors (mobile home park) within the impact area. In addition, an early coordination meeting will be requested to determine if the project would result in predicted traffic noise levels that approach or exceed the noise abatement criteria or if the predicted traffic noise levels would approach or substantially exceed existing noise levels.

## **5.10 Biology Study**

The interchange project is located within the North County Multiple-Species Conservation Plan (MSCP) and would be subject to the guidelines specific to the County's plan. Additionally, federally listed threatened or endangered species (including candidate species) or their critical or sensitive habitat may exist within the project area; however, further study will be required to determine if the project would adversely affect said species or their critical or sensitive habitat. At a minimum, a Natural Environment Study and potentially a Biological Assessment will be required to be prepared. Coordination with USFWS and CDFW will be required.

## **5.11 Wetlands Study**

Although the project area appears devoid of wetland resources, further study will be required to determine if wetlands actually occur within the project boundary and to quantify the project-related impacts on wetlands. A wetland delineation will be conducted. Coordination with, U.S. Fish and Wildlife Service (USFWS), and U.S. Army Corps of Engineers (USACE) may be required. Coordination with the Regional Water Quality Control Board (RWQCB) and California Department of Fish and Wildlife (CDFW) may also be required.

## **5.12 Traffic**

The proposed project would result in improved traffic flow through the project corridor and the improved interchanges; however, changes in traffic patterns and flow could result in potential impacts to local arterials that could require mitigation. Potential street, lane, and ramp closures may result in adverse temporary impacts on traffic during construction. Implementation of a Traffic Management Plan (TMP) during construction would be required and would include measures to address construction period traffic impacts.

## **6. *Permits and Approvals***

All construction activities within the Caltrans ROW must conform to the requirements of the National Pollutant Discharge Elimination System (NPDES) Stormwater Permit, Order No. 99-06-DWQ, NPDES No. CAS 000003, in addition to the responsibilities specified in the Stormwater Management Plan. The proposed project must also conform to the requirements of the General NPDES Permit for Construction Activities, Order No. 2009-

0009-DWQ, NPDES No. CAS 00002, and any subsequent general permits in effect at the time of project activity.

It is anticipated that if the proposed project impacts waters or wetlands, the following permits may be required:

- Water Quality Certification under Clean Water Act (CWA) Section 401 through the RWQCB;
- Nationwide Permit 14 under CWA Section 404 through USACE; and
- Streambed Alteration Agreement under Fish and Game Code 1602.

## **7. *Level of Effort: Risks and Assumptions***

The proposed project poses several risks pertaining to hazardous waste, biological resources, cultural resources, and the nearby community. As previously discussed, a decontaminated LUST site is located adjacent to the project area. It is assumed that if hazardous material is present onsite, it may require removal and disposal pursuant to federal or state law whether it is disturbed by the project or not.

While no sensitive habitats appear to be present in the project area and there does not appear to be any potential for special-status plants to occur, critical habitat for the federally threatened California gnatcatcher (CAGN) has been identified approximately 0.25 mile northeast of the project limits. CAGN is known to frequent areas with dense coastal sage scrub (CSS) vegetation. Within the project limits, existing native CSS cover was observed on a field study conducted in 2014. Given the proximity to CAGN critical habitat and a history of CSS within the project area, focused, protocol-level CAGN surveys conducted by a federal 10(a)(1)(A) permitted biologist are recommended. The surveys would only be required in CSS areas within and adjacent to areas to be impacted by the proposed project. Surveys would determine the distribution and abundance of CAGN within the project site, which could potentially pose a risk to the project.

No bats, swift or swallow nests were observed on the existing bridge. If nesting or roosting activities are identified, avoidance and/or minimization measures would be required. The specifics of these measures would depend on the species and number of individuals.

It is known that Native Americans previously occupied areas near the I-15/Deer Springs Road Interchange Project location. As with many other projects that require excavation activities in southern California, there is the possibility of encountering potentially significant archaeological resources within the project area depending on the depth of construction for the project. The same risk also applies to paleontological resources; however, there is generally higher potential to uncover archaeological artifacts compared to paleontological specimens in this region.

Based on current designs of the proposed I-15/Deer Springs Road Interchange Project, there is slight risk that the project alignment would require additional ROW that could potentially result in community impacts.

## **8. PEAR Technical Summaries**

### **8.1 Land Use**

According to the San Diego County General Plan Land Use Map and Zoning Map, the project area is zoned commercial and office, residential mobile home, agriculture, and rural residential. Future land uses in the project area are guided by the County's General Plan and zoning ordinance. This area of the county is not built out, with many undeveloped parcels. For lands that are still vacant/undeveloped, a large percentage, including those near the proposed interchange, already have entitlements that are approved and in place. One development project within the immediate vicinity of the interchange is the Sierra-Newland Development Project. This is a proposed community subdivision on 1,985 acres currently undergoing environmental review with the County of San Diego Planning Department.

Within the project area, Deer Springs Road is primarily identified as a Collector Road, transitioning to a Major Road just southwest of Mesa Rock Road. The proposed project would be compatible with the County of San Diego's General Plan Mobility Element, which identifies Deer Springs Road as needing capacity improvements. Deer Springs Road is presently a 2 lane facility; however, per the County's current Mobility Element, Deer Springs Road classified as the following: from San Marcos City Limits to I-15 NB Ramp, Deer Springs Road is designated as a 6 lane prime arterial with a capacity of 50,000 ADT; and from I-15 NB ramp to Centre City Parkway, Deer Springs Road will be widened to be either 4 or 6 lanes depending on the traffic volumes for the specified design year and input from the County. The I-15/Deer Springs Interchange Project is consistent with these descriptions.

### **8.2 Section 4(f)**

It is not expected that any of the project alternatives would directly affect parks or historic sites eligible for or listed on the NRHP. No parks have been identified within the project area. However, if a significant archaeological site is found, as determined by Caltrans in consultation with the State Historic Preservation Officer (SHPO), appropriate Native American tribe, and the Advisory Council on Historic Preservation (ACHP), it may be NRHP eligible. If NRHP-eligible properties or resources are present in the project area, then they would be considered resources under Section 4(f) of the Department of Transportation Act; however, for the proposed project alternative, a *de minimis* impact finding will likely be determined. If it is found that the finalized project alternatives do adversely affect historic resources eligible for the NRHP, then preparation of a Section 4(f) evaluation would be required.

### **8.3 Growth**

The area immediately surrounding the project area includes existing residential, commercial, and industrial properties, as well as recreational open space. The area served

by the existing interchange is primarily residential with open space that has yet to be developed. The proposed project is not anticipated to appreciably affect the rate, type, or amount of growth that has already been accounted for in the City of Escondido, City of San Marcos, and San Diego County general plan documents. It is anticipated that following implementation of the proposed project, the pattern and rate of the population and housing growth would be consistent with rates projected in existing plans for the area.

#### **8.4 Farmlands/Timberlands**

The proposed project would not be located in an area that includes any farmlands that are designated by the California Department of Conservation (DOC) as prime farmland or farmland of local or state importance; however, DOC-classified unique farmland may temporarily and/or permanently be impacted by the proposed project. The proposed project would have no direct impacts to lands protected under the California Land Conservation Act of 1965, commonly known as the Williamson Act.

Directly north of the interchange and southwest of the interchange are some general use agricultural lands that may be impacted by construction activities. The northern agricultural land is the most likely to be impacted by construction activities, while the southwestern agricultural lands may be indirectly impacted. Indirect impacts would result from cumulative impacts due to changes in regional development patterns and growth-related changes. Indirect impacts to farmlands/timberlands would be further assessed in the Community Impact Assessment. Additional reconnaissance surveys need to be conducted to further analyze these resources.

#### **8.5 Community Impacts**

An existing mobile home park is located off of Deer Springs Road and Mesa Rock Road. Permanent impacts to this community would be minimal; however, a Community Impact Assessment (CIA) will need to be prepared to adequately assess impacts to the community cohesion and character.

Currently, no residential or commercial ROW impacts are anticipated. Because adequate ROW is present at the interchange, impacts to properties outside Caltrans ROW would be avoided to the extent feasible. If any partial or full acquisitions are required for the project, they will be thoroughly documented and assessed in the PA/ED phase. If any acquisitions are identified as necessary in a later project phase, then a RIS would be prepared for the project. Additional community impacts will be discussed in the Community Impact Assessment study such as; land use, potential growth, community character, transportation, and public involvement.

#### **8.6 Visual/Aesthetics**

The interchange project is within the County of San Diego's I-15 Corridor Subregional Plan and its Scenic Preservation Guidelines. In accordance with the plan, the project will protect and enhance scenic resources within the project area to the extent feasible.



Each of the proposed build alternatives could potentially affect the views of residences and businesses located adjacent to the project area, particularly related to the construction of improved structures, which could modify or obstruct views of sensitive viewers. The proposed project could also result in increased shading and increased glare from additional lighting, if incorporated into the project. In addition, removal of trees and vegetation may be necessary to construct the proposed project. A Visual Impact Assessment (VIA), in accordance with the FHWA Visual Impact for Highway Projects guidance, will be required. The VIA should address the aesthetic treatment of the new interchange structure and walls, vegetation removal, soundwalls, and measures to address impacts on sensitive viewer groups.

## **8.7 Cultural Resources**

Cultural resource identification, analysis, and subsequent reports will be conducted in compliance with the Amended Section 106 Programmatic Agreement (PA) in compliance with Section 106 of the National Historic Preservation Act (NHPA), as it pertains to the administration of the Federal-Aid Highway Program in California executed January 1, 2014. Potential historic properties will be identified and evaluated for inclusion in the NRHP as required by 36 Code of Federal Regulations (CFR) Part 800 and the regulations implementing Section 106 of the NHPA of 1966, as amended.

Preliminary research from a literature and records database search at the South Coast Information Center has revealed that there are cultural resources located in the project vicinity. This search covered both published and unpublished materials on previous researches and projects within the project vicinity as part of the scoping process. Native Americans may have previously occupied this area. There were nine recorded sites within a half mile radius of the project APE, with three sites recorded partially within the project APE. The majority of these sites were located on the eastern portion of the project APE. After reviewing the site reports and relevant literature, it was revealed that much of these sites were destroyed from previous construction projects. However, there is potential for encountering surface or buried archaeological artifacts during construction of the proposed project alternatives. If any of these cultural resources are encountered, or are deemed to be a CEQA historical resource, then the resource would require evaluation under Section 106, and an Archaeological Evaluation Report would be required.

It is also known that the area may contain remnants of historic trails and roads. Given the size and scope of the project, a pedestrian field survey by a qualified archaeologist will need to be conducted for the project area. This is done in order to assess whether or not the recorded sites still exist, and to discern if there are additional archaeological or historic resources in the project area. Based on the results of the survey and the completed ASR, monitoring during construction by a qualified archaeologist is recommended. If the widening of Deer Springs Road impacts an archaeological site that is potentially eligible for the NRHP, then a more detailed analysis will need to be conducted by a professionally qualified archaeologist. Depending on the results of the analysis, a memorandum of Understanding (MOU), and/or an Archaeological Data Recovery (Phase III) may become required.

Additionally, coordination with the Native American Heritage Commission (NAHC) would identify tribal representatives in the area and request a record of any known sacred grounds. As part of this outreach and consultation effort, interested parties such as historical societies, local historians and tribal representatives shall be contacted in order to ask if they have any known concerns or information beyond any archaeological properties that could affect the alternatives, cost, schedule, or viability of the proposed project alternatives.

An HPSR and APE maps would also be required for the proposed project. The literature and records search revealed a few historic buildings that were in a dilapidated state as of 2000. Subsequent research suggests that these buildings no longer exist.

Additionally, a survey will need to be conducted by an architectural historian as part of an evaluation of buildings or structures for the HRER that would be required. At this stage in the project proposal, no properties are expected to be impacted.

If any historic or archaeological resources within or adjacent to the APE are determined to be listed on or eligible for listing on the NRHP, then these would also be considered resources under Section 4(f). There may be additional cultural resources that meet the 50-year threshold and are not exempt under the Section 106 Programmatic Agreement; however, this would have to be determined when more detailed studies are conducted for the proposed project.

In accordance with Section 106 PA of the National Historic Preservation Act, a FOE would need to be prepared to evaluate the effect of the proposed project on the NRHP eligible resource, should any exist in the APE. If the proposed project results in a Finding of No Adverse Effect, then a *de minimus* finding would likely be appropriate with regard to Section 4(f). Based on the proposed build alternatives, no historic resources are anticipated to be impacted. However, the need for a Section 4(f) evaluation related to cultural resources, and the level of Section 4(f) evaluation, will be addressed during the PA/ED phase of the proposed project.

## **8.8 Water Quality and Stormwater Runoff**

Two drainages were observed within the project vicinity: Deer Springs Creek and South Fork Moosa Canyon Creek. Only Deer Springs Creek has the potential to be impacted because it flows through the southern portion of the project area; however, because the creek runs through a covered culvert from North Centre City Parkway south to Mesa Rock Road, water quality impacts are not anticipated. The second drainage is located on the northeast quadrant of I-15 and appears to be underground at Champagne Boulevard; it would most likely not be impacted by any construction activities or operation of the completed project. Both drainages are shown on the Environmental Constraints Map in Appendix E, Report Figures. Impacts to Deer Springs Creek and South Fork Moosa Canyon Creek will be further evaluated and documented in a Water Quality Study during the PA/ED phase of the proposed project.

Under the build alternatives, grading activities associated with construction could result in temporary soil erosion. Implementation of Best Management Practices (BMPs) would minimize erosion of exposed soils and the resulting movement of sediment into the storm drain system and downstream water bodies. During construction, the contractor would be required to implement several temporary site BMPs to limit soil erosion, implement water conservation practices, and maintain water quality. The construction site BMP strategy for the proposed project would consist of soil stabilization and sediment control devices.

The proposed project may require a Storm Water Pollution Prevention Plan (SWPPP) because the disturbed soil area could possibly be more than 1 acre. The proposed project alternatives may require a USACE 404 permit and an RWQCB 401 Water Quality Certification.

## **8.9 Geology, Soils, Seismic, and Topography**

Southern California is a seismically active region with numerous faults of various types and the potential for earthquakes of Richter scale magnitude. In San Diego County, where the proposed project lies, the San Jacinto Fault, which is California's second most active fault, after the San Andreas Fault, runs through northeast San Diego County. The Rose Canyon Fault is another major fault in San Diego County that runs through the downtown portion of San Diego County through La Jolla. A geotechnical investigation should be conducted during the PA/ED phase.

## **8.10 Paleontology**

Southern California has been a valuable resource for paleontological finds. There is the possibility of encountering paleontological resources within the project area, depending on the depth of construction for the project. A PIR and PER will need to be prepared for this project by a qualified paleontologist. Part of these reports will include a review of relevant published and unpublished geologic reports and paleontological locality records from the San Diego Natural History Museums. Geologic formations and paleontological deposits have a direct relationship with each other and should be considered jointly as part of the initial scoping process. The United States Geological Survey map for the project area was reviewed to gain information on geologic formations in the project area. Type Qoa covers most of the interchange which is old alluvial flood plain deposits from the late-to-middle Pleistocene epoch (6 – 11.5 million years ago). It consists of gravel, sand, silt, and clay. The other formation which covers the other large portion of the project is Kjd, Granodiorite of Jesmond Dean of the mid-Cretaceous epoch (95 – 115 million years ago). It consists of fine-grained, black and dark-gray granodiorite.

Additionally, coordination with other interested parties, such as museums, universities and knowledgeable individuals, should be undertaken as part of this effort. Given the size and scope of the project, a pedestrian survey of the project area should be conducted to identify any surface paleontological artifacts, fossils or specimen and geologic formations.

The depths of the excavations for the project have not yet been established , and intensive studies into the paleontological sensitivity of the region have not been conducted. Based on the findings of the PIR and PER reports, a PMP and construction monitoring maybe required.

### **8.11 Hazardous Waste/Materials**

As previously discussed, because only one hazardous waste cleanup site was identified adjacent to the I-15/Deer Springs Road interchange, the project area is considered low risk. An ISA Checklist and Phase I Environmental Site Assessment will be completed for further investigation during the PA/ED phase of this project.

Furthermore, the use, transport, and disposal of hazardous and potentially hazardous materials used during construction would be conducted in accordance with applicable federal, state, and local requirements.

### **8.12 Air Quality**

An Air Quality Study Report (AQSR) will be prepared to evaluate the impacts of the proposed project. The AQSR will address transportation conformity and project-level air quality impacts.

As previously stated, the entire San Diego Air Basin is in a nonattainment area for ozone. Regional air quality will be addressed in terms of air quality impacts in the San Diego area. It is anticipated that the proposed project would accommodate anticipated increases in vehicle traffic but would serve existing and planned land uses and developments. It is anticipated that the proposed project would reduce future congestion and improve traffic flow in the project area; therefore, it would potentially yield air quality benefits to the region. However, due to the capacity increasing elements associated with the proposed project, it is subject to Transportation Conformity. The project will be presented to TCWG in order to obtain concurrence that the project is in conformity with the air quality regulations. Following TCWG's recommendation, an Air Quality Conformity Report (AQCR) will be prepared. The AQCR will evaluate, among other items, regional emissions, project-level carbon monoxide and particulate matter emissions, mobile source air toxics emissions, naturally occurring asbestos, and construction emissions.

It is expected that operation results would improve area traffic congestion and therefore have a beneficial effect on air quality. It is possible that construction-related activities could produce air quality emissions. Possible mitigation measures for construction-related air quality effects, such as dust control measures, will be addressed in the AQSR.

### **8.13 Noise and Vibration**

The proposed project could temporarily increase noise levels as a result of construction activities. There are currently no soundwalls along the residential area along the southeastern portion of the interchange. The proposed project would most likely need to provide sound abatement for the sensitive receptors living adjacent to the interchange. A Noise Study Report (NSR) would be required to measure the noise impacts on nearby residences and other noise-sensitive land uses. Determination of the need for and the

placement of new soundwalls would be made during the PA/ED phase of the project based on the NSR. The Noise Abatement Decision Report (NADR) compiles information from the NSR, other relevant environmental studies, and the design considerations into a single, comprehensive document before public review of the proposed project. The final determination regarding the incorporation of any soundwalls would be based on the findings of the NSR and NADR and any input received from the public during the environmental document availability period.

#### **8.14 Biological Environment**

Non-Native Grasslands, Southern Mixed Chaparral, Coast Live Oak Woodland, Southern Coast Live Oak Riparian Forest, Chamise Chaparral, oak trees, and eucalyptus trees surround the interchange. The Non-Native Grassland, Southern Coast Live Oak Riparian Forest, Southern Mixed Chaparral, and the eucalyptus trees have the most potential to be impacted by the proposed build alternatives. The impact areas are along the west side of Deer Springs Road; just south of the road are mature oak trees and Deer Springs Creek. South Fork Moosa Canyon Creek is on the east side of I-15, at the intersection of Champagne Boulevard and Mountain Meadow Road, as well as mature eucalyptus trees north and south of Mountain Meadow Road. If there is construction work outside of the existing ROW, then these trees may be impacted. At this stage in the project, it is not expected that work outside of the existing ROW will be necessary.

Within gore areas, existing native CSS cover was observed on a field study conducted in 2014; however, it currently appears to be disturbed, non-native grasslands with sporadic CSS species based on a field survey completed in January and February 2015. Further field studies need to be conducted to verify these areas. No habitats of concern appear to be present in the project area, and there does not appear to be any potential for special-status plants to occur.

The interchange appears to be located within the Northern County MSCP. Based on the USFWS Critical Habitat Mapping database, there is no designated critical habitat for the CAGN within or immediately adjacent to the interchange area; however, designated habitat for CAGN has been identified approximately 0.25 mile northeast of the edge of the project area. Given the proximity to CAGN critical habitat and a history of CSS within the project area, then a habitat assessment for CAGN should be completed for the project. If habitat is found in the project area, then a focused, protocol-level CAGN surveys should be conducted by a federal 10(a)(1)(A) permitted biologist in accordance with 1997 Coastal California Gnatcatcher Presence/Absence Survey Guidelines published by USFWS. Surveys would determine the distribution and abundance of CAGN within the project site. The survey does not have to include the entire Biological Study Area (BSA,) but only CSS areas within and adjacent to areas to be impacted by the project.

No swift or swallows nests were observed on the existing bridge. Bats were not observed utilizing the structure either. Additional biological field studies will be conducted to verify these preliminary findings.

A Natural Environment Study will be prepared to accurately assess impacts to those resources and to identify appropriate mitigation and monitoring measures to minimize impacts.

### **8.15 Context-Sensitive Solutions**

Caltrans uses context-sensitive solutions as its approach to plan, design, construct, maintain, and operate its transportation system. Context-sensitive solutions use innovative and inclusive approaches that integrate and balance community, aesthetic, historic, and environmental values with transportation safety, maintenance, and performance goals. The plans are reached through a collaborative, interdisciplinary approach involving all stakeholders. As the project progresses through the design phase (PA/ED), context-sensitive solutions would be implemented through coordination among the Project Development Team, as appropriate. Any public outreach should also include the topic of context-sensitive solutions so that the community can provide input with regard to how the project will fit into the community. Community groups that would be contacted for public participation include, but are not limited to, Twin Oaks Valley Community Sponsor Group, and the I-15 Design Review Board. Some solutions that may apply to the project would be the incorporation of avoidance/minimization measures related to any identified cultural resources and surface or other treatments of any soundwalls or retaining walls that are required.

## **9. *Summary Statement for PSR or PSR-PDS***

The anticipated document for compliance with the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) is a joint Initial Study (IS)/Environmental Analysis (EA) leading to a Mitigated Negative Declaration (MND). Caltrans will act as the Lead Agency for CEQA and, as of July 1, 2007, Caltrans has been assigned the responsibility for the environmental review, consultation, and any other action required in accordance with applicable federal laws pursuant to 23 United States Code (U.S.C.) 327, thereby making Caltrans the lead agency for NEPA as well. Under NEPA, the appropriate documentation will be a Finding of No Significant Impact (FONSI). The MND/FONSI timeline could require approximately 18 months from the start of the environmental studies to approval of the environmental document.

The potential impacts of the proposed project are summarized below.

A CIA will be prepared to assess any impacts to the adjacent mobile home park and/or nearby businesses.

Depending on the alternative that is selected, the proposed project may result in partial acquisitions of residential and/or commercial properties. A Draft and Final RID would be required to address any relocations that occur as a result of the project.

General use agricultural land may be impacted directly to the north of the project vicinity if construction exceeds the existing ROW in that area. Mitigation and/or avoidance and minimization measures will need to be developed if any impacts are anticipated to this resource.

Excavations could potentially encounter paleontological resources. A project-level PIR and PER will be required. Based on the report findings, a PMP may also be required.

The proposed build alternatives could impact cultural resources. An HPSR and an ASR will be required. An HRER will be required to assess properties of historic significance within the project vicinity. Coordination with the NAHC and individual tribal representatives will be necessary.

If impacts to Deer Springs Creek occur, the proposed project will require the following permits: a Water Quality Certification under CWA Section 401 through the RWQCB; a Nationwide Permit 14 or Individual Permit under CWA Section 404 through USACE, depending on the extent of impact on federal Waters (Waters of the United States); and a Streambed Alteration Agreement under Fish and Game Code 1602.

The proposed project will require a Water Quality Report to analyze the potential impacts of the project on the aquatic environment. The project will require an SWPPP because the disturbed soil area could exceed 1 acre. Although temporary and permanent BMPs related to water quality should be implemented, future detailed site investigations would determine additional BMPs to be recommended as permanent treatment BMPs.

ADL studies will need to be conducted on the unpaved areas along the roadway, and studies may also be required for the structures targeted for demolition that could possibly contain LBP and/or ACM.

The proposed project is intended to reduce congestion and vehicle delay times, and it would also increase capacity. An AQSR will be required to assess the potential for the project to result in impacts to air quality during construction and operation. In addition, a quantitative analysis of greenhouse gas emissions will be required.

The proposed build alternatives will require an NSR to measure the noise impacts on nearby residences and other noise-sensitive land uses. Soundwalls may be required.

The proposed project alternatives will require a Natural Environment Study (Minimal Impacts) to evaluate impacts on biological resources and to identify avoidance, minimization, and/or mitigation measures. Bats may be present under the existing bridge, and birds protected by the federal Migratory Bird Treaty Act and similar provisions under Department of Fish and Game code may be present. Additionally, the eucalyptus and oak trees found in the project vicinity may be impacted if construction exceeds the current ROW. Mitigation and/or avoidance measures will need to be developed in case any of these biological resources are impacted.

A decontaminated LUST site is located adjacent to the proposed project area. An ISA Checklist will be required for further investigation.

## **10. Disclaimer**

The PEAR provides an initial environmental evaluation of a project before it is programmed. While it anticipates the environmental constraints that may affect project

design, cost, schedule, and delivery, it is not an environmental determination or document. Based on the project description provided in the Project Study Report (PSR), the PEAR estimates the scope, schedule, and costs associated with the subsequent environmental compliance process and it documents the assumptions used to develop those estimates. The text briefly outlines the issues and assumptions. Project scope changes made after the PEAR will affect assumption and cost.

Project scope changes made after this PEAR is prepared may affect level of environmental approval, cost and schedule. Please note that the information provided is preliminary and based on cursory examination. All impacts and associated mitigation should be considered as estimates until the project areas are thoroughly surveyed by specialists. The cost estimates (which only include preparation hours) and conclusions in the PEAR are approximate and are based on cursory analyses of probable effects. A reevaluation of the PEAR will be needed for changes in project scope or alternatives, or in environmental laws, regulations, or guidelines.



## 11. List of Preparers

<b>Cultural Resources specialist:</b> Monica Corpuz	Date: 6/18/2015
<b>Biologist:</b> Arianne Preite	Date: 6/23/2015
<b>Community Impacts specialist:</b> Emily Hoyt	Date: 6/24/2015
<b>Noise and Vibration specialist:</b> Areg Gharabegian	Date: 4/27/2015
<b>Air Quality specialist:</b> Bruce Campbell	Date: 4/27/2015
<b>Paleontology specialist/liaison:</b> Monica Corpuz	Date: 6/18/2015
<b>Water Quality specialist:</b> Chris Hinds	Date: 4/27/2015
<b>Hydrology and Floodplain specialist:</b> Portia Gonzalez, P.E.	Date: 4/27/2015
<b>Hazardous Waste/Materials specialist:</b> Shala Craig	Date: 4/27/2015
<b>Visual/Aesthetics specialist:</b> Jeff Lormand	Date: 4/27/2015
<b>Energy and Climate Change specialist:</b> James Santos	Date: 4/27/2015
<b>PEAR Preparer:</b> Emily Hoyt/Stephanie Blanco	Date: 7/30/2015

## **12. Review and Approval**

I confirm that environmental cost, scope, and schedule have been satisfactorily completed and that the PEAR meets all Caltrans requirements.

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Environmental Branch Chief

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Date:

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Project Manager

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Date:

### **REQUIRED ATTACHMENTS:**

Attachment A: PEAR Environmental Studies Checklist

Attachment B: Schedule (Gantt Chart)

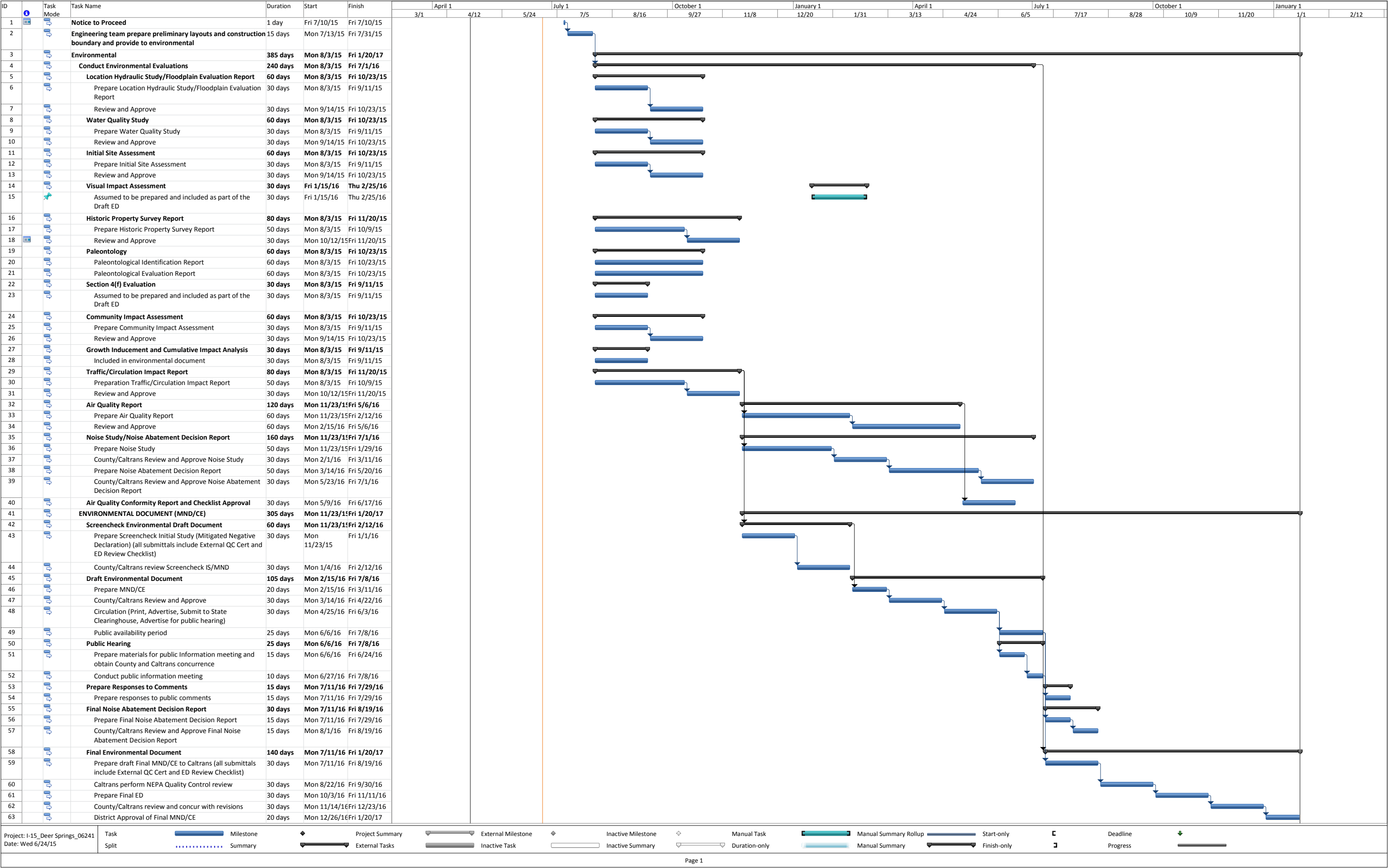
Attachment C: PEAR Environmental Commitments Cost Estimate (Standard PSR)

**Attachment A:**  
**PEAR Environmental Studies Checklist**

Environmental Studies for PA&ED Checklist					
	Not anticipated	Memo to file	Report required	Risk* L M H	Comments
Land Use	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	Part of CIA
Growth	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	Part of CIA
Farmlands/Timberlands	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	Part of CIA
Community Impacts	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	Part of CIA
Community Character and Cohesion	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	Part of CIA
Relocations	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	Part of CIA
Environmental Justice	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	Part of CIA
Utilities/Emergency Services	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	Part of CIA
Visual/Aesthetics	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>M</u>	
Cultural Resources:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>M</u>	
Archaeological Survey Report	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	
Historic Resources Evaluation Report	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>M</u>	
Historic Property Survey Report	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	
Historic Resource Compliance Report	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
Section 106 / PRC 5024 & 5024.5	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	Part of HPSR
Native American Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	Part of HPSR
Finding of Effect	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
Data Recovery Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
Memorandum of Agreement	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
Other: APE Maps and ESA Action Plan	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	Part of HPSR
Hydrology and Floodplain	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	
Water Quality and Stormwater Runoff	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	
Geology, Soils, Seismic and Topography	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	
Paleontology	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	
PER	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	
PMP	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	
Hazardous Waste/Materials:	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	
ISA (Additional)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	
PSI	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
Other:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
Air Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	
Noise and Vibration	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>M</u>	
Energy and Climate Change	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	Part of ED
Biological Environment	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	
Natural Environment Study	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	NES (MI)
Section 7:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	

Environmental Studies for PA&ED Checklist					
	Not anticipated	Memo to file	Report required	Risk* L M H	Comments
Formal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
Informal	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
No effect	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
Section 10	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
USFWS Consultation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
NMFS Consultation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
Species of Concern (CNPS, USFS, BLM, S, F)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
Wetlands & Other Waters/Delineation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	JD Report
404(b)(1) Alternatives Analysis	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
Invasive Species	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	Part of NES
Wild & Scenic River Consistency	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
Coastal Management Plan	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
HMMP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
DFG Consistency Determination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
2081	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
Other:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
Cumulative Impacts	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	Part of ED
Context Sensitive Solutions	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	Part of ED
Section 4(f) Evaluation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	Part of ED
<b>Permits:</b>					
401 Certification Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>M</u>	
404 Permit Coordination, IP, NWP, or LOP	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>M</u>	
1602 Agreement Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>M</u>	
Local Coastal Development Permit Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
State Coastal Development Permit Coordination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
NPDES Coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<u>L</u>	
US Coast Guard (Section 10)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
TRPA	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	
BCDC	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<u>L</u>	

**Attachment B:**  
**Schedule (Gantt Chart)**



**Attachment C:**  
**PEAR Environmental Commitments Cost Estimate (Standard PSR)**



## ALTERNATIVES 2, 3, AND 4

### *PART 1. PROJECT INFORMATION*

11 – SD – 15 – PM R36.3-R37.2	EA: 11-41840K
<b>Project Description:</b> The build alternatives include improvements to the Interstate 15 to the north of Deer Springs Road Interchange.	
<b>Form completed by (Name/District Office):</b> District 11	
<b>Project Manager:</b> Ismael Salazar	<b>Phone Number:</b> (619) 688-6766
<b>Date:</b> 6/25/2014	

### *PART 2. PERMITS AND AGREEMENTS*

	Permits and Agreements (\$\$)
Fish and Game 1602 Agreement	\$4,912.25
Coastal Development Permit	
State Lands Agreement	
Section 401 Water Quality Certification	\$1,500
Section 404 Permit – Nationwide (U.S. Army Corps)	N/A
Section 404 Permit – Individual (U.S. Army Corps)	N/A
Section 10 Navigable Waters Permit (U.S. Army Corps)	
Section 9 Permit (U.S. Coast Guard)	
Other:	
California Department of Fish and Wildlife CEQA Environmental Document Filing Fee	\$2,210
County Clerk Processing Fee	\$50
<b>Total (enter zeros if no cost)</b>	<b>\$8,672.25</b>

### *PART 3. ENVIRONMENTAL COMMITMENTS FOR PERMANENT IMPACTS*

<b>Environmental Commitments – Alternatives 2, 3, and 4</b>		
	Estimated Cost in \$1,000's	Notes
Hazardous Waste	\$150 – 175	
Archaeological resources	\$75 – 100	
Biological resources		
<ul style="list-style-type: none"> <li>ESA fencing</li> </ul>	\$50 – 100	ESA fencing for CSS
<ul style="list-style-type: none"> <li>Biological Monitoring</li> </ul>	\$100 – 125	Biological monitoring for CAGN, bats, nesting birds, and other species within the project area.
Paleontology	\$90-100	Paleontological

		Management Plan, and processing of two discoveries.
Noise	\$390-400	Noise abatement (i.e. soundwalls)
Total (enter zeros if no cost)	\$855-1,000	

**ATTACHMENT E**  
**TRANSPORTATION PLANNING SCOPING INFORMATION SHEET**

# Transportation Planning Scoping Information Sheet

## PROJECT INFORMATION

District No.	County	Route	Post Miles	Project ID No/ Expenditure Authorization
11	San Diego	15	R36.0/R37.2	PN 11-140000093/ EA 11-41840K
<b>Project Name and Description :</b> The I-15/Deer Springs Road Interchange project proposes to evaluate alternatives to increase capacity, improve mobility, and relieve congestion for the existing Interstate 15 (I-15) and Deer Springs Road interchange.				

### Prepared by:

District Information Sheet Point of Contact*	Name: Jason Fischer	Functional Unit:	Consultant Project Engineer
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\* The District Information Sheet Point of Contact is responsible for completing Project Information, PDT Team and Stakeholder Information, and coordinating the completion of project-related information with the Transportation Planning Stakeholders. Upon completion, provides the Transportation Planning PDT Representative and Project Manager with a copy of the Information Sheet.

Project Development Team (PDT) Information		
Title	Name	Phone Number
Project Manager	Clark Fernon	619.692.1920
Project Engineer	Jason Fischer	619.692.1920
Transportation Planning PDT Representative**	Ismael Salazar	619.688.6766

Transportation Planning Stakeholder Information		
Title	Name	Phone Number
Regional Planner	TBD	
System Planner	TBD	
Local Development- Intergovernmental Review (LD-IGR) Planner	TBD	
Community Planner	TBD	
Goods Movement Planner	TBD	
Transit Planner	TBD	
Bicycle and Pedestrian Coordinator	Seth Cutter	619.688.2597
Park and Ride Coordinator	Mike Roy	619.688.6489
Native American Liaison	TBD	
Other Coordinators:	TBD	

### Project Purpose and Need\*\*

#### Purpose:

The purpose of the proposed project is to plan for the projected regional population growth and increase in traffic demands on the existing I-15 and Deer Springs Road interchange for the planning design year 2040.

The project proposes to widen and reconfigure the interchange to improve traffic operations and enhance transportation choices. The objectives of the project are to:

- Support anticipated regional growth and proposed local-area projects;
- Relieve congestion by providing sufficient vehicle capacity through the interchange area;
- Manage east-west travel between local communities;
- Enhance multi-modal choices;
- Improve the existing park and ride facility to provide transit connectivity; and
- Minimize environmental impacts.

Need:

The project area is located within San Diego County near Escondido, along a segment of Interstate 15 (I-15). I-15 is a major traffic corridor that serves the local communities of Hidden Meadows and San Marcos, while also acting as a link for traffic travelling to/from I-15 to/from SR 78. The intersecting Deer Springs Road is classified as a 6-Lane Prime Arterial in the County of San Diego Mobility Element and is currently built as a two-lane facility between I-15 and Twin Oaks Valley Road. Based on growth forecasts prepared by the San Diego Association of Governments, the county's unincorporated areas, which encompass the project area, are expected to see an overall population growth of approximately 25 percent between 2015 and 2050. To accommodate this growth and future capacity needs within the corridor, the interchange will require additional capacity. Regional growth coupled with the approved site developments in the immediate vicinity will result in increased volumes through the interchange by 2040 of about 25-40%, depending on the road segment. In addition to the projected traffic demands, the I-15/Deer Springs interchange is currently experiencing severe traffic congestion. Existing deficiencies of the I-15/Deer Springs interchange are summarized below:

- Three out of four I-15/Deer Springs interchange intersections are operating near or over the design capacity during peak period traffic volumes;
- Intersection delays of up to 45 seconds;
- High volumes of single occupancy vehicle travel, necessitating improved access to carpools, vanpools, and public transportation choices via existing park and ride facilities within the project area.

\*\* The Transportation Planning PDT Representative is responsible for providing the PDT with the system-wide and corridor level deficiencies identified by Transportation Planning. The PDT uses the information provided by Transportation Planning to develop the purpose and need with contributions from other Caltrans functional units and external stakeholders at the initiation of the PID and is refined throughout the PID process. As the project moves past the project initiation stage and more data becomes available, the purpose and need is refined. For additional information on purpose and need see: [www.dot.ca.gov/hq/env/emo/purpose\\_need.htm](http://www.dot.ca.gov/hq/env/emo/purpose_need.htm)

**1. Project Funding:**

a	List all known and potential funding sources and percent splits: (ie. State Transportation Improvement Program (STIP)/State Highway Operations and Protection Program (SHOPP)/Transportation Enhancement (TE)/Environmental Enhancement and Mitigation (EEM)/Safe Routes to School (SR2S)/etc.).
	This project will be privately funded along with any additional funding sources identified during the development of the project.
b	Is this a measure project? Yes ___ /No <input checked="" type="checkbox"/> . If yes, name and describe the measure.

**2. Regional Planning:**

a	Name of and contact information for Metropolitan Planning Organization (MPO) or Regional Transportation Planning Agency (RTPA).
	San Diego Association of Governments (SANDAG) Sarah Strand Regional Planner 401 B Street, Suite 800 San Diego, CA 92101 619.595.5609 Sarah.strand@sandag.org
b	Name of and contact information for local jurisdiction (City or County)
	County of San Diego Nick Ortiz County Project Manager 858.694.2410 francisco.ortiz@sdcounty.ca.gov
c	Provide the page number and project description as identified in the Regional Transportation Plan (RTP) and the date of adoption, or provide an explanation if not in RTP.
	This project is a condition required by the County of San Diego for an adjacent subdivision project, which is proposed by a private developer. Therefore, it is not identified in the RTP.
d	Provide nexus between the RTP objectives and the project to establish the basis for the project purpose and need.
	N/A
e	Is the project located in an area susceptible to sea-level rise?
	No
f	Name of Air Quality Management District (AQMD)
	San Diego County Air Pollution Control District (SDAPCD)
g	If the project is located in a federal non-attainment or attainment-maintenance area is the project:
	• Regionally Significant? (per 40 (Code of Federal Regulations (CFR) 93.101) Y✓/N__
	• Exempt from conformity? (per 40 CFR 93.126 and 93.128) Y__/N✓
	• Exempt from regional analysis? (per 40 CFR 93.127) Y__/N✓
	• Not exempt from conformity (must meet all requirements)? Y✓/N__

### 3. Native American Consultation and Coordination:

a	If project is within or near an Indian Reservation or Rancheria? If so, provide the name of Tribe.
	No
b	Has/have the Tribal Government(s) been consulted? Y__/N✓. If no, why not?
c	If the project requires Caltrans to use right-of-way on trust or allotted lands, this information needs to be included as soon as possible as a key topic in the consultation with the Tribe(s). Has the Tribe been consulted on this topic? Y__/N✓. If no, why not?
d	Has the Bureau of Indian Affairs (BIA) been notified? Y__/N✓
e	Have all applicable Tribal laws, ordinances and regulations [Tribal Employment Rights Ordinances (TERO), etc.] been reviewed for required contract language and coordination?
	N/A
f	If the Tribe has a TERO, is there a related Memorandum of Understanding between the District and the Tribe?

	N/A
g	Has the area surrounding the project been checked for prehistoric, archeological, cultural, spiritual, or ceremonial sites, or areas of potentially high sensitivity? If such areas exist, has the Tribe, Native American Heritage Commission or other applicable persons or entities been consulted? Cultural work has been on-going for the Sierra Project and sites have been identified. The NAHC has been consulted for those sites. A database search is currently being completed for the I15/Deer Springs interchange project.
h	If a Native American monitor is required for this project, will this cost be reflected in cost estimates? Yes
i	In the event of project redesign, will the changes impact a Native American community as described above in d, e, or h? No

#### 4. System Planning:

a	Is the project consistent with the DSMP? Y__/N✓. If yes document approval date. If no, explain. This project is not listed or associated to any of the projects listed in the DSMP.
b	Is the project identified in the TSDP? Y__/N✓? If yes, document approval date____. If no, explain. N/A – District 11 TSDP listed as “not available” on Caltrans Website
c	Is the project identified in the TCR/RCR or CSMP? Y__/N✓. If yes, document approval date____. If no, explain. Is the project consistent with the future route concept? Y__/N✓. If no, explain. The project is not identified by the TCR or the CSMP. However, it is consistent with the future route concept.
d	Provide the Concept Level of Service (LOS) through project area. LOS D
e	Provide the Concept Facility – include the number of lanes. Does the Concept Facility include High Occupancy Vehicle lanes? Y__/N✓. 12 total lanes – 4 general purpose lanes and 2 toll lanes in each direction.
f	Provide the Ultimate Transportation Corridor (UTC) – include the number of lanes. Does the UTC include High Occupancy Vehicle Lanes? Y__/N✓. 12 total lanes – 4 general purpose lanes and 2 toll lanes in each direction.
g	Describe the physical characteristics of the corridor through the project area (i.e. flat, rolling or mountainous terrain...). Rolling Terrain
h	Is the highway in an urban or rural area? Urban ✓/Rural____. Provide Functional Classification. I-15 – Interstate Freeway Deer Springs Road – Local County Arterial
i	Is facility a freeway, expressway or conventional highway? Yes, I-15 is an Interstate Freeway.
j	Provide Route Designations: (i.e. Interregional Transportation Strategic Plan (ITSP) High Emphasis or Focus Route, Surface Transportation Assistance Act (STAA) Route, Scenic Route...). Interstate-15 is a Surface Transportation Assistance Act (STAA) Route; I-15 is also part of the Interregional Road System as stated in the ITSP.
k	Describe the land uses adjacent to project limits (i.e. agricultural, industrial...). Residential, Commercial, and Agricultural
l	Describe any park and ride facility needs identified in the TCR/CSMP, local plans, and RTP. Park and Ride Lot #33 is located at the I-15 and Deer Springs Rd intersection and has 28 spaces. Park and Ride Lot #34 is located at the I-15 and Mountain Meadows Dr intersection and has 41 spaces. The project proposes to expand lot #33 and maintain the existing size of lot #34

m	Describe the Forecasted 10 and 20-year Vehicle Miles Traveled (VMT), Annual Average Daily Traffic (AADT), and Peak Hour truck data in the TCR. Include the source and year of Forecast, and names and types of traffic and travel demand analysis tools used. <a href="#">N/A</a>
n	Has analysis on Daily Vehicle Hours of Delay (DVHD) from the Highway Congestion Monitoring Program (HICOMP) been completed and included? Y___/N___. <a href="#">N/A</a>

## 5. Local Development – Intergovernmental Review (LD-IGR) :

List LD-IGR projects that may directly or indirectly impact the proposed Caltrans project or that the proposed Caltrans project may impact. (Attach additional project information if needed.)

LD-IGR Project Information		Project
a	County-Route-Postmile & Distance to Development.	<a href="#">SD – 15 – PM – R36.4 – Directly adjacent to development</a>
b	Development name, type, and size.	<a href="#">Sierra Project, Community Subdivision, 1,985 acres</a>
c	Local agency and/or private sponsor, and contact information.	<a href="#">Private Sponsor Rita G. Brandin Senior Vice President, Development Director 9820 Towne Center Drive, Suite 100 San Diego, CA 92121 858.875.8219 <a href="mailto:rbrandin@newlandco.com">rbrandin@newlandco.com</a></a>
d	California Environmental Quality Act (CEQA) status and Implementation Date.	<a href="#">Sierra Project currently in EIR process with the County. CEQA document for the interchange project will be completed in the PA/ED phase.</a>
e	If project includes federal funding, National Environmental Policy Act (NEPA) status.	<a href="#">N/A</a>
f	All vehicular and non-vehicular unmitigated impacts and planned mitigation measures including Transportation Demand Management (TDM) and Transportation System Management (TSM) that would affect Caltrans facilities.	<a href="#">Identified in Draft Traffic Operations Report</a>
g	Approved mitigation measures and implementing party.	<a href="#">N/A</a>
h	Value of constructed mitigation and/or amount of funds provided.	<a href="#">N/A</a>
i	Encroachment Permit, Transportation Permit, Traffic Management Plan, or California Transportation Commission (CTC) Access approvals needed.	<a href="#">N/A</a>
j	Describe relationship to Regional Blueprint, General Plans, or County Congestion Management Plans.	<a href="#">The Project is processing a General Plan amendment with the County of San Diego.</a>
k	Inclusion in a Regional Transportation Plan Sustainable Community Strategy or	<a href="#">N/A</a>



	Alternative Planning Strategy?	
1	Regional or local mitigation fee program in place?	Yes

#### 6. Community Planning:

	INITIAL PID INFORMATION
a	Has lead agency staff worked with any neighborhood/community groups in the area of the proposed improvements? Y✓/N__. If yes, summarize the process and its results including any commitments made to the community. If no, why not? <a href="#">Representatives from the surrounding local agencies have been included in the PDT.</a>
b	Are any active/completed/proposed Environmental Justice (EJ) or Community-Based Transportation (CBTP) Planning Grants in the project area? Y_/N✓. If yes, summarize the project, its location, and whether/how it may interact with the proposed project.
c	Describe any community participation plans for this PID including how recommendations will be incorporated and/or addressed. Has a context sensitive solutions (CSS) approach been applied? Y✓/N__ <a href="#">The community has not been involved at this time. Further coordination will occur at the PA/ED phase.</a>
	FINAL PID INFORMATION
d	How will the proposed transportation improvements impact the local community? Is the project likely to create or exacerbate existing environmental or other issues, including public health and safety, air quality, water quality, noise, environmental justice or social equity? Y_/N✓. Describe issues, concerns, and recommendations (from sources including neighborhood/community groups) and what measures will be taken to reduce existing or potential negative effects.
e	Does this highway serve as a main street? Y_/N✓. If yes, what main street functions and features need to be protected or preserved?

#### 7. Freight Planning:

	INITIAL PID INFORMATION
a	Identify all modal and intermodal facilities that may affect or be affected by the project. <a href="#">Interstate 15</a>
	FINAL PID INFORMATION
b	Describe how the design of this project could facilitate or impede Goods Movement and relieve choke points both locally and statewide through grade separations, lane separations, or other measures (e.g., special features to accommodate truck traffic and at-grade railroad crossings). <a href="#">The purpose of this project is to alleviate traffic congestion in the vicinity of the I-15/Deer Springs Road Interchange. By improving traffic operations, the project would help facilitate goods movement.</a>
c	Describe how the project integrates and interconnects with other modes (rail, maritime, air, etc.). Do possibilities exist for an intermodal facility or other features to improve long-distance hauling, farm-to-market transportation and/or accessibility between warehouses, storage facilities, and terminals? <a href="#">It does not impact any existing intermodal facilities. No future intermodal facilities are planned with this project.</a>
d	Is the project located in a high priority goods movement area, included in the Goods Movement Action Plan (GMAP) or on a Global Gateways Development Program (GGDP) route? Y✓/N__. If yes, describe. <a href="#">I-15 is a Major International Trade Highway Route.</a>
e	Is the project on a current and/or projected high truck volume route [e.g., Average Annual Daily Truck Traffic (AADTT) of 5 axle trucks is greater than 3000]? Yes✓/N__. If yes, describe how the project

	addresses this demand.
	The project does not impact I-15. The purpose of this project is to alleviate traffic congestion in the vicinity of the I-15/Deer Springs Road Interchange. By improving traffic operations, the project would help facilitate truck traffic.
f	If the project is located near an airport, seaport, or railroad depot, describe how circulation (including truck parking) needs are addressed.
	N/A
g	Describe any other freight issues.
	N/A

**8. Transit (bus, light rail, commuter rail, intercity rail, high speed rail):**

	INITIAL PID INFORMATION
a	List all local transit providers that operate within the corridor.
	North County Transit District (NCTD) and San Diego Metropolitan Transit System (SDMTS)
b	Have transit agencies been contacted for possible project coordination? Y <input checked="" type="checkbox"/> /N __. If no, why not?
c	Describe existing transit services and transit features (bus stops, train crossings, and transit lines) within the corridor.
	Existing transit service in the project area is NCTD Breeze bus route 389 that operates every 2 hours each day of the week between Pala Casino and the Escondido Transit Center.
d	Describe transit facility needs identified in short- and long-range transit plans and RTP. Describe how these future plans affect the corridor.
	The SANDAG Draft 2050 RTP proposes the “Temecula (peak only) Extension of Escondido to Downtown Rapid” transit service, the High Speed Rail alignment along the I-15 corridor, and “Safe Routes to Transit at new transit stations” in its 2050 Revenue Constrained Transit Network (RTP Figure A.3).
	FINAL PID INFORMATION
e	Describe how the proposed project integrates transit and addresses impacts to transit services and transit facilities.
	The proposed design alternatives provide room to expand the existing park-and-ride to allow for future inclusion of multi-modal transit options.
f	Have transit alternatives and improvement features been considered in this project? Y <input checked="" type="checkbox"/> /N __ If yes, describe. If no, why not?
	The project proposes to integrate potential multi-modal transit options into the project design.

**9. Bicycle:**

	INITIAL PID INFORMATION
a	Does the facility provide for bicyclist safety and mobility needs? If no, please explain.
	Yes, the project proposes to incorporate the features listed in the County Bicycle Transportation Plan and also proposes to incorporate bikeways along Deer Springs Rd between Mesa Rock Rd and Champagne Blvd that provide safe connectivity to the surrounding features of the project, such as the adjacent park-and-ride lots and local street intersections.
b	Are any improvements for bicyclist safety and mobility proposed for this facility by any local agencies or included in bicycle master plans? If yes, describe (including location, time frame, funding, etc.).
	Yes, per the County Bicycle Transportation Plan, the project proposes bicycle parking, racks, and lockers at both of the existing park-and-ride lots.
c	Are there any external bicycle advocacy groups and bicycle advisory committees that should be included in the project stakeholder list? If so, provide contact information.
	Yes, the San Diego County Bicycle Coalition and the North County Cycle Club:

	<p>San Diego County Bicycle Coalition 858-487-6063 <a href="mailto:info@sdbikecoalition.org">info@sdbikecoalition.org</a></p> <p>North County Cycle Club <a href="mailto:admin@northcountycycleclub.com">admin@northcountycycleclub.com</a></p>
	FINAL PID INFORMATION
d	<p>Will bicycle travel deficiencies be corrected? How or why not?</p> <p>N/A</p>
e	<p>How will this project affect local agency plans for bicycle safety and mobility improvements?</p> <p>It proposes to incorporate all planned bicycle improvements (per Section 9.b. above).</p>
f	<p>If the project is the construction of a new freeway or modification to an existing freeway, will it sever or destroy existing provisions for bicycle travel? If yes, describe how bicycle travel provisions will be included in this project.</p> <p>No</p>

**10. Pedestrian including Americans with Disabilities Act (ADA):**

	INITIAL PID INFORMATION
a	<p>Does this facility provide for pedestrian safety and mobility needs? If so, describe pedestrian facilities. Do continuous and well-maintained sidewalks exist? Are pedestrians forced to walk in the roadway at any locations due to lack of adequate pedestrian facilities? Please explain.</p> <p>There is currently no existing sidewalk within the project limits. The proposed project improvements include 6' ADA accessible sidewalks on each side of Deer Springs Road between Mesa Rock Rd and Champagne Blvd. In addition, crosswalks are proposed to allow access for these intersecting streets.</p>
b	<p>Are pedestrian crossings located at reasonable intervals?</p> <p>Yes</p>
c	<p>Are all pedestrian facilities within the corridor ADA accessible and in compliance with Federal and State ADA laws and regulations?</p> <p>Yes</p>
	FINAL PID INFORMATION
d	<p>Will pedestrian travel deficiencies be corrected? How or why not?</p> <p>Yes, per Section 10.b. above.</p>
e	<p>How will this project affect local agency plans for pedestrian safety and mobility improvements?</p> <p>The proposed facilities meet the current local agency plans, and will coordinate with local agency during the design.</p>
f	<p>If the project is the construction of a new freeway or modification to an existing freeway, will it sever or destroy existing provisions for pedestrian travel? If yes, describe how pedestrian travel provisions will be included in this project.</p> <p>No</p>
g	<p>Are there any external pedestrian advocacy groups and advisory committees that should be included in the project stakeholder list? If so, provide contact information.</p> <p>No</p>
h	<p>Have ADA barriers as noted in the District's ADA Transition Plan been identified within the project limits? If not included in the project, provide justification and indicate whether District Design coordinator approval was obtained.</p> <p>N/A</p>

**11. Equestrian:**

	INITIAL PID INFORMATION
--	-------------------------

a	If this corridor accommodates equestrian traffic, describe any project features that are being considered to improve safety for equestrian and vehicular traffic? <a href="#">N/A</a>
FINAL PID INFORMATION	
b	Have features that accommodate equestrian traffic been identified? If so, are they included a part of this project? Describe. If no, why not? <a href="#">N/A</a>

**12. Intelligent Transportation Systems (ITS):**

INITIAL PID INFORMATION	
a	Have ITS features such as closed-circuit television cameras, signal timing, multi-jurisdictional or multimodal system coordination been considered in the project? Y <input checked="" type="checkbox"/> /N <input type="checkbox"/> . If yes, describe. If no, explain. <a href="#">All traffic signals will be connected or coordinated.</a>
FINAL PID INFORMATION	
b	Have ITS features been identified? If so, are they included a part of this project? Describe. If no, why not? <a href="#">Yes, the traffic signals located along Deer Springs Road.</a>

**ATTACHMENT F**  
**RIGHT-OF-WAY CONCEPTUAL COST ESTIMATE COMPONENT**

## CONCEPTUAL COST ESTIMATE REQUEST – RIGHT OF WAY COMPONENT

To: Caltrans District 11  
RIGHT OF WAY

Date: August 2015

ATTN: Ismael Salazar

11-SD-15-R36.0/R37.2  
Project ID 11-14000093  
EA 11-41840K

From: Jason Fischer

The above-referenced project will require a(n) Original/Updated Conceptual Cost Estimate for the Right of Way Component by February 2016.

### Project Information

Type and description of the project.

Project Setting: ☒ Urban ☐ Rural Current Land Use: Commercial, Residential, and Agricultural

Project Schedule: PID Date August 2015 PA&ED Date August 2016 RWC Date July 2018

Number of Alternatives to be Studied 4 Environmental Document Type MND/CE

Environment Mitigation Parcels/Credits Anticipated: ☐ Yes ☐ No ☒ Unknown

Environmental Permits: Number 404, 401, 1602 Permits Needed Prior to PA&ED None

Permits to Enter for Environmental/Engineering Studies Yes

Number of Public Meetings Anticipated 2 Controversial: ☐ Yes ☐ No ☒ Unknown

### Right of Way Requirements

Additional R/W: Number of Parcels 6 Total Additional Area 33,000 Sq Ft

Number of Easements 10 Total Easement Area 25,000 Sq Ft

Access Points/Control: ☐ No Anticipated Change ☒ Change is Anticipated

Identify Change in Access: Potential relinquishment along existing SB I-15 off-ramp

Utilities: ☐ None ☒ Minor ☐ Major Types of Utility facilities: Telecommunications, Water, Gas, Electrical and Sewer

☐ Potholing Needed Number N/A

Railroad: Identify Rail Companies in the Vicinity of the Project: N/A

List Possible RR Needs (e.g. 'Flagging'): N/A

☒ No Rail Companies in the Vicinity of the Project

Existing Facilities: ☐ No Relinquishments/Vacations ☒ Relinquishments ☐ Vacations

Proposed Facilities: ☒ No Relinquishments ☐ Relinquishments

## CONCEPTUAL COST ESTIMATE – RIGHT OF WAY COMPONENT

To: Ismael Salazar

Date: August 2015

From: Jason Fischer

11-SD-15-R36.0/R37.2

11-14000093

11-41840K

Project Description

A Field Review was conducted ☒ Yes ☐ No

### Scope of the Right of Way

Provide a general description of the right of way including the location attributes.

Right of Way Required ☒ Yes ☐ No

Number of Parcels ☒ 1-10 ☐ 11-25 ☐ 26-50 ☐ 51-100 ☐ >100

☒ Urban ☐ Rural

Land Area: Fee 33,000 Sq Ft Easement 25,000 Sq Ft

Displaced Persons/Businesses ☐ Yes ☒ No

Demolition/Clearance ☐ Yes ☒ No

Railroad Involvement ☐ Yes ☒ No

Utility Involvements ☒ Yes ☐ No 10 Number of Utilities in area

### Cost Estimates

Support Costs

☐ \$0-\$25,000

☐ \$500,001-\$1,000,000

☒ \$25,001-\$100,000

☐ \$1,000,001-\$5,000,000

☐ \$100,001-\$250,000

☐ \$5,000,001-\$10,000,000

☐ \$250,001-\$500,000

☐ > \$10,000,000

Capital Costs

☐ \$0-\$100,000

☐ \$5,000,001-\$15,000,000

☒ \$100,001-\$500,000

☐ \$15,000,001-\$50,000,000

☐ \$500,001-\$1,000,000

☐ \$50,000,001-\$100,000,000

☐ \$1,000,001-\$5,000,000

☐ >\$100,000,000

### Schedule

Right of Way will require 12 months to deliver a Right of Way Certification #1 from Final R/W Maps. This estimate is based on a Right of Way Certification date of July 2018.

**Areas of Concern**

Provide a description of areas in close proximity to the project footprint that are likely to result in complex right of way issues if impacted (i.e. junkyards, cemeteries, utility towers, etc.).

If impacted, the existing Deer Springs Oak Mobile Home Estates located south of Deer Springs Road and west of I-15 that could potentially result in complex right-of-way issues. However, none of the proposed build alternatives are expected to impact this area.

**Assumptions and Limiting Conditions**

Provide a description of assumptions and limiting conditions.

Capital costs were based on a square foot estimate of the land area required and the Automated Valuation Model (AVM) of the adjacent parcels.



**ATTACHMENT G**  
**RISK REGISTER**

LEVEL 2 - RISK REGISTER				Project Name:		I-15/Deer Springs Rd Interchange		DIST- EA	11-41840K	Project Manager	Ismael Salazar						
Risk Identification							Risk Assessment						Risk Response				
Status	ID #	Type	Category	Title	Risk Statement	Current status/assumptions	Probability	Cost Impact	Cost Score	Time Impact	Time Score	Rationale	Strategy	Response Actions	Risk Owner	Updated	
Active	1	Threat	Environmental	Environmental analysis incomplete	Design could require modification as a result of identifying additional environmental impacts.	At this stage of the design, there is limited information related to the project footprint, which makes it difficult to determine potential impacts to adjacent environmental resources. If encroachment occurs, opportunities to reduce encroachment should be explored, which could affect the design.	3-Moderate	4 -Moderate	12	4 -Moderate	12		Accept	Prior to completion of the technical studies, a more detailed design will be provided.  Complete environmental studies in the PA&ED phase.	Environmental	8/10/2015	
Active	2	Threat	Environmental	New information after Environmental Document is completed may require re-evaluation or a new document (i.e. utility relocation beyond document coverage)	Delay in RTL and construction due to additional environmental documentation and processing	The environmental review process is expected to identify all potential environmental impacts and define appropriate mitigation.	1-Very Low	4 -Moderate	4	4 -Moderate	4		Accept	Prior to project approval, the project team will work together to identify design elements that would require a re-evaluation or new document.	Environmental	8/10/2015	
Active	3	Threat	Environmental	Design changes require modification to the project footprint. Subsequently, additional environmental analysis may be required.	Environmental studies could require modification as a result of design changes.	At this stage of the design, there is limited information available to determine all of the design parameters.	3-Moderate	4 -Moderate	12	4 -Moderate	12		Accept	Prior to completion of the technical studies, a more detailed design will be provided.	Environmental / Design	8/10/2015	
Active	4	Threat	ROW	Landowners unwilling to sell	Difficult properly acquisitions could warrant eminent domain, which could delay the project schedule.	Only a small number/amount of property acquisitions are expected to be required for the project.	2-Low	2 -Low	4	4 -Moderate	8		Mitigate	Identify right-of-way needs and determine the number of impacted parcels as early as possible.	Project Management / R/W	8/10/2015	
Active	5	Threat	Environmental	Local communities pose objections	Local communities object to project related elements.	Project is not expected to adversely impact the local communities.	3-Moderate	2 -Low	6	4 -Moderate	12		Avoid	Avoid design features that could adversely impact the local communities.  If necessary, provide public outreach to communicate project benefits and impacts to the community.	Project Management / Environmental	8/10/2015	
Active	6	Threat	Design	Stakeholders request late changes or have unreasonably high expectations	Design could change and delays could occur as a result of additional stakeholder requirements or late requests.	All known stakeholders have been involved in the early phases of project development.	1-Very Low	2 -Low	2	4 -Moderate	4		Mitigate	During PA&ED, the project will complete a stakeholder analysis and then develop a stakeholders requirements register.  The project team will include all known stakeholders at the early phases of the project, which include Caltrans, San Diego County, FHWA, and Newland Real Estate group.	Project Management / Design	8/10/2015	
Active	7	Threat	ROW	Threat of lawsuits	Project may be viewed by others as having adverse impacts. Opposition to the project could cause delays to the schedule or hinder the approval of what could be the most viable alternative.	Project is not expected to cause adverse impacts.	3-Moderate	4 -Moderate	12	4 -Moderate	12		Avoid	Avoid design features that could cause adverse impacts.  If necessary, provide public outreach to communicate project benefits.	Project Management / R/W	8/10/2015	
Active	8	Threat	Organizational	Reviewing agency requires longer than expected review time	As a result of the need to receive approval from multiple reviewing agencies (County of San Diego and Caltrans), the possibility of project delays during approval could occur which would result in an increased project schedule.	It is not expected that lengthy delays will occur.	3-Moderate	2 -Low	6	4 -Moderate	12		Mitigate	During the approval process, the team will investigate processing times of the agencies to ensure timely responses and the efficient transfer of information.	Project Management	8/10/2015	
Active	9	Threat	Construction	Construction or pile driving noise and vibration impacting adjacent businesses or residents	As a result of construction activities, the need to provide additional environmental mitigation may occur, which would lead to additional project costs and schedule delays.	Due to piles being included in the structure design, specifications will be included to limit construction noise.	3-Moderate	4 -Moderate	12	4 -Moderate	12		Mitigate	Indicate on the plans and in the specifications to require the contractor to use construction methods or time windows that reduce the noise and vibration impacts to the surrounding communities.	Office Engineer	8/10/2015	
Active	10	Threat	Design	Unexpected geotechnical or groundwater issues	As a result of the structures that are required, and since no preliminary geotechnical work has been completed, the presence of unexpected subsurface conditions may occur which would lead to more complex structure designs and higher construction costs.	Geotechnical investigations will occur in the PA&ED phase.	2-Low	2 -Low	4	2 -Low	4		Accept	A Geotechnical Design Report and Structures Foundation Report will be prepared in the PA&ED phase to better define the subsurface conditions.	Design	8/10/2015	

Active	11	Threat	Design	New or revised design standard	Standards are always changing and the introduction of new requirements could lead to additional construction costs and potential ROW impacts.	The project team is continually monitoring the design standards.	3-Moderate	2 -Low	6	2 -Low	6		Accept	The project will be required to comply with the latest design standards.	Design	8/10/2015
Active	12	Threat	DES	Hazardous materials in existing structure or surrounding soil; lead paint, contaminated soil, asbestos pipe, asbestos bearings and shims	As a result of the project impacting existing structures and surrounding soil, discovery of hazardous waste may occur. If not appropriately identified, it could cause delay to project schedule.	Hazardous material investigations will occur in the PA&ED phase.	3-Moderate	2 -Low	6	2 -Low	6		Mitigate	An Initial Site Assessment will be completed during PA&ED to identify hazardous materials located within the project limits. If structure takes are likely then the specific buildings will be surveyed during PA&ED phase.	Environmental / Design	8/10/2015
Active	13	Threat	DES	Unforeseen aesthetic requirements	As a result of a change in aesthetic requirements, delays to the project schedule could occur.	Aesthetic requirements are expected to be identified during the PA&ED phase.	2-Low	2 -Low	4	2 -Low	4		Accept	Coordinate with the appropriate stakeholders aesthetic requirements during the PA&ED phase. Once identified, aesthetic requirements will be incorporated into the project.	Environmental / Design	8/10/2015
Active	14	Threat	ROW	Utility relocation requires more time than planned	Due to the potential impacts to utilities, delays in ROW clearance may occur delaying the project schedule.	Utility conflicts and relocation requirements are expected to be determined before any delays to the project would occur.	3-Moderate	4 -Moderate	12	4 -Moderate	12		Mitigate	The project team will work with the utility companies to ensure delays do not occur.	Design / R/W	8/10/2015
Active	15	Threat	ROW	Resolving objections to Right of Way appraisal takes more time and/or money	Right-of-way appraisals may cause delays to the project schedule.	Right-of-way acquisitions are expected to begin early enough to avoid delays to the project schedule.	2-Low	2 -Low	4	4 -Moderate	8		Mitigate	Begin right-of-way acquisitions early enough to help avoid potential delays to the project schedule.	Project Management / R/W	8/10/2015
Active	16	Threat	ROW	Seasonal requirements during utility relocation	Some utilities may be limited to being relocated during certain times of the year.	Limited utility impacts are expected. Subsequently, seasonal requirements are not expected.	2-Low	2 -Low	4	4 -Moderate	8		Accept	Seasonal requirements will be identified during the PA&ED phase.	Environmental / R/W	8/10/2015
Active	17	Threat	Organizational	Internal "red tape" causes delay getting approvals, decisions	Due to processing guidelines, schedule delays could occur.	It is not expected that lengthy delays will occur.	3-Moderate	2 -Low	6	4 -Moderate	12		Accept	Investigate in advance of and conform to all Caltrans and County requirements.	Project Management	8/10/2015
Active	18	Threat	Organizational	Functional units not available, overloaded	Due to agency workload, delays in project schedule could occur.	Project schedule will be provided at the beginning of the PA&ED phase.	3-Moderate	2 -Low	6	4 -Moderate	12		Mitigate	Coordinate anticipated submittal dates to help functional units schedule adequate resources. A workload agreement will be coordinated prior to the completion of the schedule.	Project Management	8/10/2015

**ATTACHMENT H**  
**STORMWATER DOCUMENTATION**

## APPENDIX E

Submitted 8-06-2015 (PSR-PDS)

## I-15 / Deer Springs Interchange Long Form - Storm Water Data Report



Dist-County-Route:	11-SD-015
Post Mile Limits:	PM R36.0/R37.2
Project Type:	Interchange Reconfiguration
Project ID (or EA):	11-14000093 (11-41840K)
Program Identification:	-
Phase:	<input checked="" type="checkbox"/> PID
	<input type="checkbox"/> PA/ED
	<input type="checkbox"/> PS&E

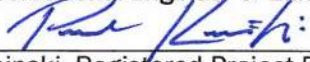
Regional Water Quality Control Board(s): San Diego RWCQB Region 9

Is the Project required to consider Treatment BMPs? Yes ☒ No ☐  
If yes, can Treatment BMPs be incorporated into the project? Yes ☒ No ☐  
If No, a Technical Data Report must be submitted to the RWQCB  
at least 30 days prior to the projects RTL date. List RTL Date: \_\_\_\_\_

Total Disturbed Soil Area: 30 ACRES Risk Level: 2  
Estimated: Construction Start Date: May 2018 Construction Completion Date: April 2020  
Notification of Construction (NOC) Date to be submitted: January 2018

Erosivity Waiver Yes ☐ Date: \_\_\_\_\_ No ☒  
Notification of ADL reuse (if Yes, provide date) Yes ☐ Date: \_\_\_\_\_ No ☒  
Separate Dewatering Permit (if yes, permit number) Yes ☐ Permit # \_\_\_\_\_ No ☒

*This Report has been prepared under the direction of the following Licensed Person. The Licensed Person attests to the technical information contained herein and the date upon which recommendations, conclusions, and decisions are based. Professional Engineer or Landscape Architect stamp required at PS&E.*

 8/6/2015  
Paul Kosinski, Registered Project Engineer/Landscape Architect Date

*I have reviewed the stormwater quality design issues and find this report to be complete, current and accurate:*

Ismael Salazar, Project Manager Date

Terry Kloefer, Designated Maintenance Representative Date

Tim Mann, Acting Landscape Architect Representative Date

[Stamp Required for PS&E only]

Carl Savage, District SW Coordinator Date



Caltrans Storm Water Quality Handbooks  
Project Planning and Design Guide  
July 2010

## STORM WATER DATA INFORMATION

### 1. Project Description

- *Clearly describe the type of project and major engineering features.*

The project proposes to widen Deer Springs Road from west of Mesa Rock Road to east of Centre City Parkway/Champagne Boulevard. The widening will require improvements to or replacement of the existing Deer Spring Road Bridge Overcrossing. In addition, improvements to intersections and freeway access ramps will also be required. The proposed project is located at the existing Interstate 15 (I-15)/Deer Springs Road Interchange between Mesa Rock Road and Champagne Boulevard.

The purpose of the Deer Springs Road Interchange modifications is to alleviate existing traffic congestion and improve interchange traffic operations to meet 2040 forecasted traffic demands. The improvements to Deer Springs Road and the I-15/Deer Springs Road Interchange are off-line improvements required to implement the Sierra Project. The Sierra Project is a proposed master-planned community project integrating residential, commercial, recreational, and open space land uses, on 1,985-acres located west of I-15 and north of Deer Springs Road. Currently Deer Springs Road is a two lane facility and the on and off ramps for the I-15 interchange are single lanes. The interchange and adjacent intersections are currently over capacity. With forecasted regional growth including the addition of the Sierra Project, improvements will be needed to reduce the congestion in the area.

- *Quantify total disturbed soil area and describe how it was calculated. It should be noted that projects that preserve, upkeep, and restore roadway structures do not need to include these activities within the calculation for DSA.*

The total disturbed soil area of the project has been estimated to be approximately 30 acres for each build alternative. This value is based on potential areas of exposed, erodible soil within the project limits that result from the construction of grading and roadways.

- *Quantify the existing impervious surface, and the impervious surface area after the project is completed.*

There are 12 acres of existing impervious surface within the project limits. The proposed project would add between 1.5 acres to 4.5 acres, depending on which alternative, of impervious surface for a total impervious area of 13.5 to 16.5 acres.

- *Identify all urban MS4 areas within the project limits.*

The project is located in Hidden Meadows, an unincorporated community of San Diego County. Within the project limits, the San Diego County operates under an MS4 permit that includes storm drain inlets, concrete ditches, natural dirt ditches, and Deer Springs Creek which crosses the I-15 south of Deer Springs Road Interchange, through a 10-foot by 5-foot Reinforced Concrete Box (RCB).

### 2. Site Data and Storm Water Quality Design Issues (refer to Checklists SW-1, SW-2, and SW-3)

*Project Engineer (PE) should confer with District/Regional Storm Water Coordinator, Landscape Architecture, Maintenance, Hydraulics, Construction and Environmental Units to define design issues.*





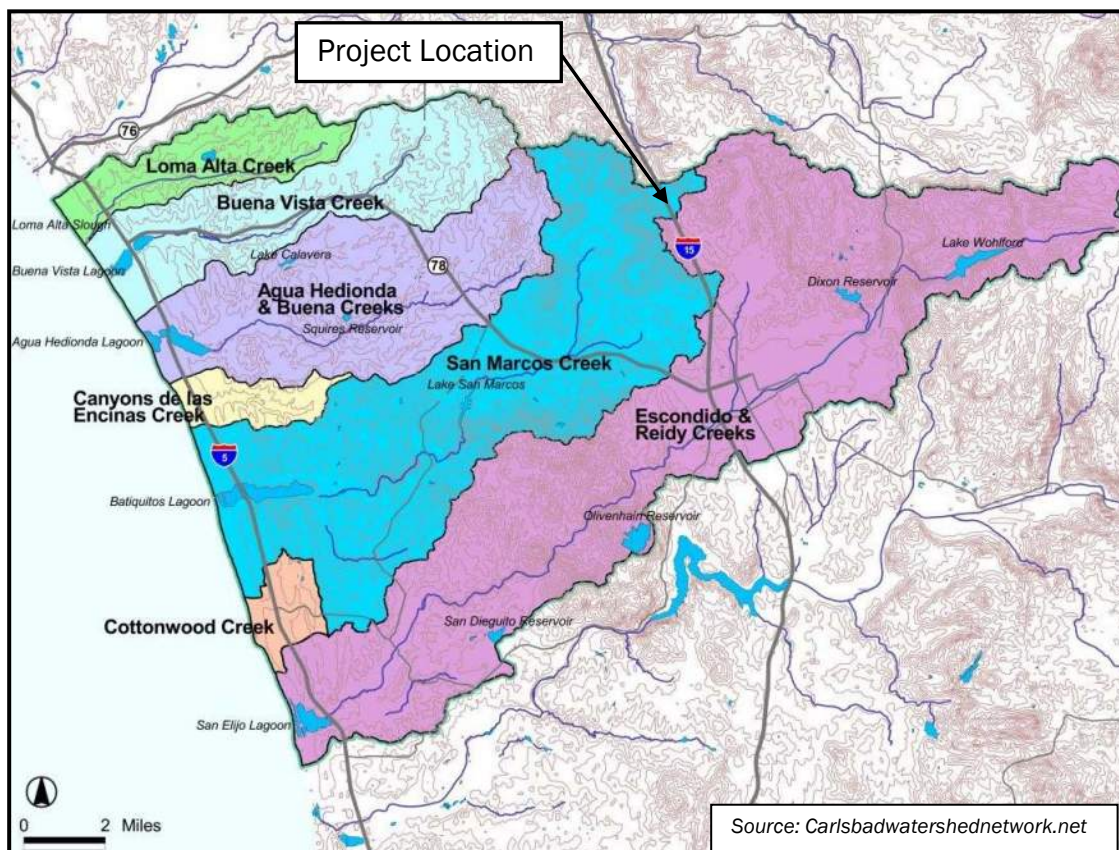
## I-15 / Deer Springs Interchange Long Form - Storm Water Data Report

Provide a narrative that contains pertinent information from source documents identified on SW-1 (e.g. Preliminary Geotechnical Report [PGR]) and a summary of the answers to the questions in SW-2 and SW-3. Use the bullets listed below as examples of information that should be described in the narrative. Note, not all of the information listed is available at each phase of a project (document status of availability, as appropriate). Information to be included will depend on the nature of the project and the site conditions.

- Identify Receiving Water Bodies (including the Hydrologic Area or sub-area [name and/or number]) and distance from the project's outfalls

Storm water runoff from the project site discharges into Deer Springs Creek through a system of inlets, culverts, natural channels and concrete channels. Deer Springs Creek flows south and westerly to San Marcos Creek which joins into Batiquitos Lagoon and ultimately discharges into the Pacific Ocean.

The San Diego Regional Water Quality Control Board (SDRWQCB) Region 9 has jurisdiction within the project limits. The project discharges into the SDRWQCB hydrologic unit 904.5, known as the San Marcos Hydrologic Area comprised of three Hydrologic Sub-Areas: Twin Oaks 904.53, Richland 904.52, and Batiquitos 904.51. The San Marcos Hydrologic Area is one of seven hydrologic areas within the Carlsbad Hydrologic Unit, see Figure 2.1.



- Identify if any of the Receiving Water Bodies are on the 303(d) list / describe Pollutants of Concern

The San Marcos Creek is an impaired water body on the 303(d) list. Since the California Department of Transportation (Caltrans) must meet requirements set forth

under the National Pollutant Discharge Elimination System (NPDES) Permit mandated by the Federal Clean Water Act for discharge of storm water runoff to the Pacific Ocean, this project will need to be designed in conformance with NPDES requirements.

The pollutants listed for San Marcos Creek on the 303(d) list are DDE (Dichlorodiphenyldichloroethylene), Phosphorus, Sediment Toxicity, and Selenium.

- Phosphorus can over stimulate the growth of aquatic plants to the detriment of other aquatic life and to some beneficial uses of the receiving water. Sources of phosphorous that may be present in highway runoff include tree leaves, surfactants, emulsifiers, and natural sources such as mineralized soil organic matter.
- DDE is a chemical similar to DDT (dichloro-diphenyl-trichloroethane), which was a pesticide once use widely to control insects in agriculture and insects that carry disease such as malaria. It was banned in the US in 1972 due to damage to wildlife. DDE has no commercial use.
- According to the California Coastal Commission, phosphorus, DDE, and sediment toxicity result primarily from urban runoff/storm sewers. The project will be mitigated by the use of Construction Site Best Management Practices (BMPs) and Permanent Treatment BMPs to prevent and minimize the discharge of pollutants contained in storm water runoff to the affected waterbodies.

The potential pollutant sources within the project right-of-way to be treated consist primarily of highway runoff. These items for the most part include total suspended solids (TSS) and total dissolved solids (TDS), specifically sediment resulting from erosion, but also including particulate and dissolved metals from the wearing of brake pads and the combustion products of fossil fuels as well as grease and oil from automobiles. The Targeted Design Constituent (TDC) for the receiving water is Phosphorus. The Permanent Treatment BMPs proposed for load reduction of the projects pollutants will address treatment for Phosphorus along with the anticipated pollutants expected in the project vicinity: TSS, TDS, Dissolved metals, grease and oil.

- *Identify if 401 certification is required*

A 401 certification will not be required because the project does not discharge to navigable waters.

- *Identify any Drinking Water Reservoirs and/or Recharge Facilities within project limit*

There are no known drinking water reservoirs and/or recharge facilities located with the project limits.

- *Describe RWQCB special requirements/concerns, including TMDLs or effluent limits*

The SDRWQCB developed a Water Quality Control Plan for the entire San Diego Basin. The plan identifies the beneficial uses of all water bodies within the region in order to determine the water quality objectives necessary to protect those uses. The beneficial uses of inland surface waters defined for the receiving waters within the Twin Oaks Hydrologic Sub-Area are as follows:

- Agricultural Supply (AGR) – Water for farming, horticulture, or ranching
- Water Contact Recreation (REC1) – Water for recreational activities involving body contact with water





- Non-contact Water Recreation (REC2) – Water for recreational activities not involving body contact with water
- Warm Freshwater Habitat (WARM) – Water that supports aquatic ecosystems
- Wildlife Habitat (WILD) – Water that supports terrestrial ecosystems

The beneficial uses defined for groundwater within the Twin Oaks Hydrologic Sub-Area are as follows:

- Municipal and Domestic Supply (MUN) – Water for community, military, or individual water supply systems
- Agricultural Supply (AGR) – Water for farming, horticulture, or ranching
- Industrial Service Supply (PRO) – Water for industrial activities that do not depend primarily on water quality

NPDES permit Order (2012-0011-DWQ) was adopted by State Water Resources Control Board (SWRCB) effective as of July 1, 2013 and subsequently, On May 20, 2014, the SWRCB, adopted amendments to the Caltrans Statewide Stormwater Permit. Attachment IV was amended to incorporate specific requirements for 84 Total Maximum Daily Loads (TMDLs).

Attachment IV to the Caltrans NPDES permit outlines a methodology for prioritizing stream segments included in TMDLs in which Caltrans is subject to. The permit establishes BMP implementation requirements, evaluated in terms of compliance units. Caltrans is expected to achieve 1650 compliance units per year through the implementation of retrofit BMPs, cooperative implementation, and post construction treatment beyond permit requirements. This prioritization list is currently in development.

- *Describe local agency requirements/concerns*

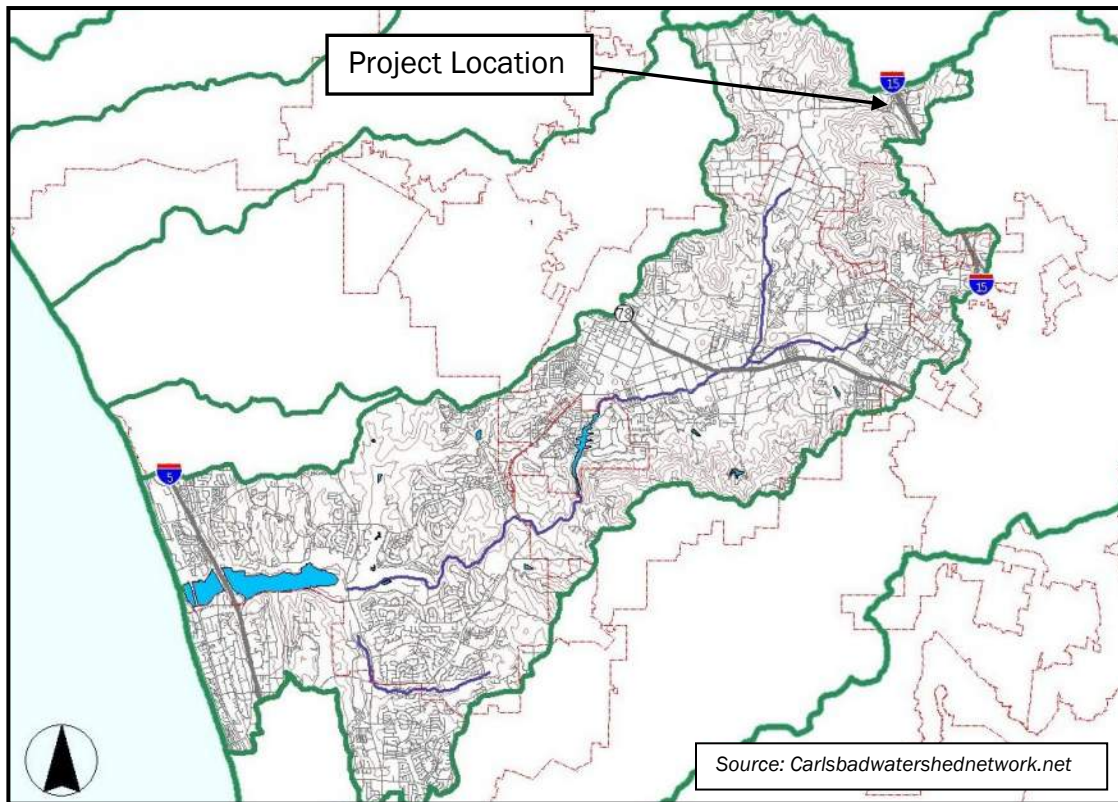
The project area does not have any High Risk Areas such as municipal or domestic water supply reservoirs or ground water percolation facilities.

- *Describe project design considerations (climate, soil, topography, geology, groundwater, right-of-way requirements, slope stabilization, etc.)*

- The Caltrans March 2003 *Construction Site Best Management Practices (BMPs) Manual*, Table 2-1 designates the rainy season dates for Region 11 (San Diego County) from October 1 through May 1, but due to the minimal amount of rain received yearly in the southern California region, there are no construction work exclusion dates or seasonal construction restrictions required by state or local regulatory agencies.
- The *Caltrans Water Quality Planning Tool* calculates the annual rainfall in the project area as 18.61 inches.
- Based on the soil HSG Classification, Group B (*County of San Diego Hydrology Manual* Appendix A) within the project vicinity, it is estimated that the existing typical infiltration rates are <0.3 in/hr (*Caltrans Storm Water Quality Handbook Project Planning and Design Guide* pg. B-14).
- Rainfall intensity information for the project location will be obtained from NOAA.

## I-15 / Deer Springs Interchange Long Form - Storm Water Data Report

- More detailed information on the geology in the area will be added to this report upon the completion of the Geotechnical Design Report.
- The site exhibits variable topography from hilly and rugged ridges, peaks, and mesas to gently rolling valleys. Given the orientation of the cut slopes, stabilization is not needed. Fill slopes will be constructed at a ratio of 4:1 (H:V) and cut slopes at a ratio of 2:1 (H:V).
- Elevations within the project limits vary between 942 and 1057-feet above mean sea level (NAVD 88). Improvements within the project area will minimally impact the topographic and ground surface relief features.
- Right-of-way impacts for the project involve acquisition of temporary construction easements, permanent easements, and partial takes near state right-of-way or on private property.
- The local land use within the project area and adjacent areas consist primarily of undeveloped private land.
- There is no dry weather flow from Caltrans right of way present on the existing project area.



**Figure 2.2: San Marcos Hydrologic Area Topography**

- *Describe project risk level determination and identify project risk level*

The Risk Level (RL) for this project was determined using the Caltrans Project Risk Determination Guidance. Of the 3 levels established by the Construction General Permit (CGP), this project has a Risk Level of 2. The RL is calculated in two parts: 1) Project Sediment Risk (SR), and 2) Receiving Water Risk (RWR). For this project, SR is

Medium and RWR is high. The Risk determination Worksheet is provided in Attachment C.

- *Identify if project involves reuse of soil containing Aerially Deposited Lead (ADL)*

There are no known contaminated or hazardous soils within project limits at this time.

- *Identify Right-of-way costs for BMPs*

Construction and Maintenance of BMPs would be within the right-of-way limits and no additional right-of-way is required. Adequate funding, including supplemental funds, will be set aside for storm-water pollution control during construction.

- *Describe measures for avoiding or reducing potential stormwater impacts*

For project areas exceeding 1-acre in disturbed soil area, NPDES guidelines necessitate the development of a Storm Water Pollution Prevention Program (SWPPP) by the contractor prior to construction to establish project-specific permanent and temporary BMPs. During the design phase, Water Pollution Control Plans will be prepared to determine the minimum control requirements to be included in the SWPPP.

Within the graded regions along the freeway, runoff will be collected by biofiltration swales or detention basins prior to discharging into Deer Springs Creek.

Standard erosion control practices will be implemented to minimize soil erosion following construction activities. Typical measures utilized during construction include applications of fiber rolls for slope stability and sediment control, temporary construction entrances to prevent sediment tracking on paved surfaces, temporary drainage inlet protection, temporary concrete washouts for concrete spoils, street sweeping, contour grading, temporary check dams and temporary hydraulic mulch or soil binders/tackifiers.

Permanent erosion and sedimentation control features may include but will not be limited to the following: hydroseeding of steeper cut slopes, permanent fiber rolls, erosion control blankets, rip-rap, and improvement of drainage facilities to handle excess runoff.

The project alignment will be chosen to minimize impacts on receiving waters by limiting cut and fill slopes, minimizing disturbance of vegetation, and avoiding formations difficult to re-stabilize. Cut and fill slopes will be made as flat as feasible, and concentrated flows shall be collected in stabilized drains and channels. Benches are not required on slopes 2:1 (H:V) or flatter and the proposed slopes are not large enough to warrant the need of benches. Slopes will be vegetated, rounded or shaped to reduce concentrated flows and will be collected in stabilized drains and channels. Maintenance pullouts are recommended adjacent to the interchange ramps to provide Maintenance and Operations personnel safe access. In addition, native, drought-tolerant plant species may be recommended to minimize landscaping maintenance requirements.

Runoff from painted materials can cause a decrease in water quality. For this reason, the proposed improvements will limit the use of paint in architectural treatment. Textures will be used where appropriate to minimize the usage of paint and other related chemicals that may potentially contribute to storm water pollution.

The modifications to the interchange ramps will require additional drainage crossovers, inlets and outlets. If the proposed conditions are found to increase



existing flow velocities, mitigation through the use of outlet velocity dissipation or bioswale devices will be implemented. These BMPs will also be utilized as permanent storm water pollution controls early in the construction process to provide additional protection.

- *Identify any existing Treatment BMPs within the project limits and their association with the project*

The project site currently contains no existing Treatment BMPs.

### **3. Regional Water Quality Control Board Agreements**

*The District/Regional NPDES coordinator will furnish information and language for this part of the Checklist.*

- *Summarize any key negotiated understandings or agreements with RWQCB pertaining to this project. This would include any discussions relating to 401 Certifications, Waste Discharge Requirements, Rainfall Erosivity Waiver, or other required permits/certifications.*

This project does not require any negotiated understandings or agreements with RWQCB at this time.

This project conforms to NPDES-Caltrans Statewide Permit (Order No. 2012-001-DWQ) (NPDES No.CAS000003) and General Construction Permit (Order No. 2012-0006-DWQ) (NPDES CAS000002) apply to this project. The project owner will file a Notice of Intent (NOI) with the State Regional Water Quality Control Board at least 30 days prior to start of construction.

- *Document any specific meeting dates and contact names that reference the negotiated understandings and/or agreements. (Communication with the RWQCB is coordinated through the District/Regional NPDES Storm Water Coordinator.)*

To date no meetings have been held with the San Diego RWQCB to discuss this project and no agreements have been made.

### **4. Proposed Design Pollution Prevention BMPs to be used on the Project.**

*Summarize responses to Checklist DPP-1, Parts 1-5 in a short narrative. Use the sub-headings shown below for the type of information that should be described in the narrative. Note, not all of the bulleted information listed is required or available at each phase of a project. Information to be included will depend on the nature of the project and the site conditions. To comply with the CGP (II.D), sediment yield and site stabilization be described in the permanent erosion control strategy, such that the site will not pose any additional risk than pre-construction conditions.*

*Summarize any qualitative benefits of Design Pollution Prevention BMPs including reducing the release of pollutants to downstream waters, increased detention time to allow for infiltration, reduced discharges (volumetric flow rates), and ancillary filtration and infiltration within vegetated conveyances and surfaces, as described in Section 2.4.1.*

*Develop an estimate of quantities and costs for the erosion control/revegetation portion of the Design Pollution Prevention BMPs as part of the Storm Water BMP Cost Summary; include right-of-way costs if additional right-of-way is needed for erosion control. Complete for each phase of the project.*

### **Downstream Effects Related to Potentially Increased Flow, Checklist DPP-1, Parts 1 and 2**

- *Identify any increase to velocity or volume of downstream flow*
- *Describe Existing vs. Post Construction Conditions*
- *Describe channel condition and design (e.g., will the project discharge to unlined channels)*



- *Describe potential for increased sediment loading*
- *Identify hydraulic changes that may affect downstream channel stability. (realignment, encroachment, etc.)*

The project may increase the velocity of flow within the project limits, but should have a negligible effect on downstream flow. During the construction phase of the project, conveyance systems will lead to biofiltration swales, or outlet velocity dissipation devices, which will minimize sediment discharges and will prevent an increase in peak flows discharged to receiving water bodies. All transitions between outlets and channels will be smooth to reduce turbulence and scour. Roadway runoff shall be treated and controlled to the maximum extent practical. The project will not encroach, cross, realign, or cause any other hydraulic changes to Deer Springs Creek that may affect downstream channel stability.

### Slope/Surface Protection Systems, Checklist DPP-1, Parts 1 and 3

- *Describe cut and fill requirements*
- *Describe existing and proposed slope conditions*
- *Describe the permanent erosion control strategy (plants, soils, mulch, blankets, establishment periods, etc.)*
- *Use Erosion Prediction Procedure to validate erosion control design (attach RUSLE2 Output as applicable)*
- *When required, provide date of approval of the Erosion Control Plan by Landscape Architecture and Maintenance*
- *Summarize any hard surfaces (rock blankets, paving)*

Conventional cut and fill grading techniques will be used to produce the proposed grades. Both cut and fill slopes will be constructed 2:1 of flatter and be less than 15 feet high. The existing slopes are both stable and vegetated with rounded shapes to reduce concentrated flow.

The existing slopes within the area are stable; however, during construction soil stabilization BMPs will be utilized to prevent soil particles from detaching and becoming suspended in storm water and non-storm water runoff.

These BMPs may include the following:

- The preservation of existing vegetation where required and when feasible;
- The implementation of temporary soil stabilization measures at regular intervals throughout the rainy season;
- The stabilization of non-active areas within 14 days of cessation of construction activities during the rainy season;
- The application of erosion control seeding or check dams for concentrated flow paths; and
- The application of permanent erosion control to remaining disturbed soil areas at the completion of the construction phase. Soil stabilization will involve the installation of uniform vegetative cover, fiber matrices, erosion control blankets, and/or fiber rolls.



The aforementioned BMPs will be deployed in a sequence to follow the progress of grading and construction. As the locations of soil disturbance change, erosion controls will be adjusted accordingly to control storm water runoff at the downgrade perimeter.

Move-in/move-out (temporary and permanent erosion control) for the project shall include moving onto the project when an area is ready to receive temporary erosion control, setting up required personnel and equipment for the application of erosion control materials and moving out all personnel and equipment when erosion control in that area is completed.

Existing vegetation within the project limits consists primarily of desert brush. The soil type within the project limits range from loamy-sand, to areas of silt or clay. A Landscaping Design shall be developed and approved by the District Landscape Architect. The BMP vegetative surface area will feature native plants. Seed mixtures, mulch, tackifier, and fertilizer recommended by the District Landscape Architect will be utilized.

Hard surface protection (slope paving, rock slope protection) will be constructed beneath the bridge abutments where vegetation does not provide adequate erosion protection. In addition, hard surface BMPs are planned at the gore points within the interchanges for maintenance and safety purposes.

The total BMP area will be determined during the design stage of the project.

#### Concentrated Flow Conveyance Systems, Checklist DPP-1, Parts 1 and 4

- Briefly describe the Concentrated Conveyance Systems to be implemented for this project

The exact locations and sizes of the drainage system components have not yet been determined. However, the project Drainage Report shall contain designs with the following general features:

- Surface runoff will be conveyed via curb and gutter, to inlets. Flared end sections and riprap material are proposed at the outlets of the storm drains to reduce the flow velocities of the discharged storm water.
- Bridge runoff will be collected in a bridge drainage system and conveyed to proposed treatment BMPs.

It shall be the intent of the drainage design to prevent increases to existing flow velocities through the use of grading, energy dissipaters, and bio-swaes. The drainage report shall include an analysis of flows at the outlets of the project to determine impacts. Offsite drainage patterns will be maintained and onsite drainage patterns will be designed to closely mimic existing drainage patterns.

#### Preservation of Existing Vegetation, Checklist DPP-1, Parts 1 and 5

- Describe area(s) of clearing and grubbing identified and defined in the contract plans

Clearing and grubbing will be performed on all areas located within the cut/fill. Clearing and grubbing limits will not be identified at this phase.

- Describe area(s) that will be placed off-limits to the contractor, if applicable (e.g., ESA areas)

Areas to be placed off-limits to the contractor have not been identified at this time. Locations will be shown on plans.



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- Consider project changes to increase preservation or preserve/avoid critical areas such as floodplains, wetlands, problem soils, and steep slopes.

Preservation areas will not be identified at this project phase. Locations identified on project drawings will be fenced during construction.

### 5. Proposed Permanent Treatment BMPs to be used on the Project

Summarize responses to Checklist T-1, Parts 1-10 in a short narrative. Use the bullets listed below as examples of information that should be described in the narrative. Note, not all of the information listed is required or available at each phase of a project. Information to be included will depend on the nature of the project and the site conditions.

Develop an estimate of quantities and costs for the proposed Treatment BMPs as part of the Storm Water BMP Cost Summary; include additional right-of-way costs if needed for these BMPs. Complete for each phase of the project.

*This section of the SWDR should be used to develop the Technical Report required by the SWMP for projects that must consider Treatment BMPs, but are not able to incorporate them due to siting constraints. At PS&E stage, if the project must consider Treatment BMPs but is not able to incorporate them, document the date of the submittal of the Technical Report to the appropriate RWQCB.*

#### Treatment BMP Strategy, Checklist T-1

- List the Targeted Design Constituent(s), if any.

The TDC for the project is phosphorous.

- List what percentage of the WQV (or WQF depending upon device) will be treated. If less than 100%, describe justification.

The goal of the project will be to treat 100% of the WQV/WQF. A more accurate number will be obtained at the design phase.

- Describe the Treatment BMP strategy for the watershed(s) within the project limits.

Phosphorus has been identified the first priority design pollutant for the proposed project due to the concentrations of phosphorus in the receiving waters of San Marcos Creek. The project will also address the anticipated pollutants expected in the project vicinity: TSS, TDS, Dissolved metals, grease and oil. Mitigation for short and long-term impacts to water quality is proposed through incorporating biofiltration swales, detention basins or Austin Sand Filters. Biofiltration swales and detention basins have a low to medium removal effectiveness for Sediment and Nutrient targeted constituents and are also considered sufficient treatment for Metals and Pathogens, per Caltrans Stormwater BMP website. Austin Sand Filters primarily remove TSS, dissolved metals, litter, and are effective at removing phosphorus, per *BMP Retrofit Pilot Program, FINAL REPORT*, January 2004.

The preliminary locations identified that could house a treatment BMP feature are in the southeast and southwest quadrants of the interchange. These BMPs should intercept and treat rainfall runoff from the roadway and assist in achieving future TMDL requirements. The biofiltration swales could potentially be placed on the shoulders of the ramps.

#### Biofiltration Swales/Strips, Checklist T-1, Parts 1 and 2

- Are Biofiltration Swales/Strips incorporated into project? If not, explain reason why not feasible. If yes, list number of Biofiltration Swales and Strips, location(s), approximate dimensions of device, and total WQF treated.



Biofiltration BMPs are a potential Treatment BMP.

- **Quantify Tributary Area**

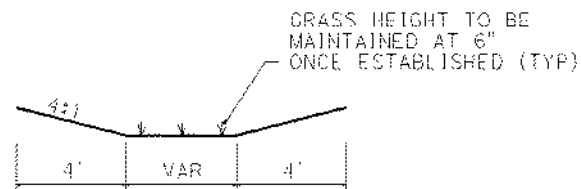
Tributary areas will not be determined at this project phase.

Biofiltration BMPs are linear channels that are lined with vegetation for the purpose of storm water conveyance and treatment. Biofiltration swales are designed to reduce the velocity of storm water runoff at the water quality event and remove particulate pollutants. These swales provide moderate to low treatment efficiencies for particulate and dissolved metals, grease and oil, and Total Suspended Solids (TSS). Most of the proposed biofiltration swales will follow existing and proposed roadway slopes, with some additional excavation required. They will also be designed to minimize flow depth, minimize flow velocity, maximize length, and eliminate standing water. The scour velocity for the type of soil will not exceed 4.0-feet per second per Table B-1 Summary of Biofiltration Strips and Swales Sitting and Design Factors, of the Caltrans PPDG, July 2010.

Although the overall pavement area will increase, proposed biofiltration swales and grading modifications will reduce the increased flow rates to minimize additional storm water runoff to the Deer Springs Creek. These discharges will be treated through settling, infiltration and biofiltration as they pass slowly through the flat, vegetated, trapezoidal channel and into an inlet with apron.

Biofiltration swales require maintenance responsibilities including:

- Periodic sediment removal
- Trash, debris and vegetation removal
- Vegetation Management
- Animal/Vector control
- Removal of standing water
- Erosion and structural maintenance



**Figure 5.1: Biofiltration Swale Cross-Section**

The cross-section of the swales will be trapezoidal with a minimum top width of 12-feet, minimum depth of 1-foot and side slopes of 4:1 or flatter. The swales will be designed for both the water quality storm and the 25-year storm. For the water quality storm, the runoff shall have a minimum hydraulic residence time of 5 minutes, maximum flow velocity of 1-foot per second and maximum depth of 3-inches. For the 25-year storm, the storm water runoff shall have a maximum flow velocity of 4-feet per second, maximum depth of 1-foot, and a minimum freeboard of 6-inches below the edge of shoulder flow line. Swale grass heights will be maintained around 6-inches once established.

### **Dry Weather Diversion, Checklist T-1, Parts 1 and 3**

- *Are Dry Weather Diversions incorporated into project? If not, explain reason why not feasible. If yes, list number of Dry Weather Diversions, location(s), and total flow rate diverted.*



- *Describe persistent dry weather flows*
- *Describe proximity to sanitary sewer*
- *Document Publicly Owned Treatment Works (POTW) and local health agencies acceptance*
- *Identify need for existing sanitary sewer pipeline upgrade*

Dry weather flow is not an issue within the project area. Dry weather diversion devices will not be incorporated into the proposed design.

#### **Infiltration Devices – Checklist T-1, Parts 1 and 4**

- *Are Infiltration Devices incorporated into project? If not, explain reason why not feasible (e.g. threat to local groundwater quality, etc.). If yes, list number of Infiltration Devices, location(s), and total WQV treated.*
- *Quantify approximate tributary area of impervious surface per Infiltration Device*
- *Calculate Water Quality Volume (WQV) treated per Treatment Infiltration Device*
- *Document soil type , HSG, and permeability*
- *Document groundwater depth*
- *Identify infiltration rate*
- *Discuss Geotechnical Integrity*

An infiltration basin is a device designed to remove pollutants from surface discharges by capturing the Water Quality Volume (WQV) and infiltrating it directly to the soil rather than discharging to receiving waters. An infiltration basin could be used depending on the height of the water table and the permeability of soil. These findings will be reported in the Geotechnical Design Report and then it can be concluded whether an infiltration basin would be an adequate BMP.

#### **Detention Devices, Checklist T-1, Parts 1 and 5**

- *Are Detention Devices incorporated into project? If not, explain reason why not feasible. If yes, list number of Detention Devices, location(s), and total WQV treated.*
- *Quantify approximate tributary area of impervious surface per Treatment Detention Basin*
- *Calculate WQV treated per Treatment Detention Basin*
- *Discuss Geotechnical Integrity*
- *Document groundwater depth*
- *Discuss hydraulic head sufficiency*

A detention basin is a permanent device formed by excavating and/or constructing an embankment so that runoff from the water quality design storm is temporarily detained under quiescent conditions, allowing sediment and particulates to settle out before the runoff is discharged. The design flows throughout the project limits will be influenced by the following parameters: pavement area changes, storm water conveyance extensions or modifications, and grading modifications.

The design of any detention basin will use the guidance provided in the Caltrans PPDG.

#### **Gross Solids Removal Devices (GSRDs), Checklist T-1, Parts 1 and 6**



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- *Are GSRDs incorporated into project? If not, explain reason why not feasible or required. If yes, list number of GSRDs, location(s), and total tributary area treated.*
- *Is receiving water on a 303(d) list for trash or have Total Maximum Daily Loads (TMDLs) for trash been established?*
- *Calculate Tributary Area for each GSRD*
- *Estimate volume of each GSRD device*
- *Identify peak design flow*

Since the project site has no TMDL for trash or litter, GSRDs have not been proposed for the project improvements.

### Traction Sand Traps, Checklist T-1, Parts 1 and 7

- *Are Traction Sand Traps incorporated into project? If not, explain reason why not feasible or required. If yes, list number of Traction Sand Traps, location(s).*
- *Is Traction Sand or an abrasive applied to roadway more than twice per year?*
- *Estimate volume of traction sand applied (S) (ft<sup>3</sup>/yr)*
- *Estimate impact from highway sweeping, snow-blowing operations, or accumulation from other sources*
- *Discuss Traction Sand Trap cleaning frequency and Maintenance operational needs such as pullouts*

Traction sand is not regularly applied within the project limits; therefore there are no Traction Sand Trap Devices within the project limits.

### Media Filters, Checklist T-1, Parts 1 and 8

- *Are Media Filters incorporated into project? If not, explain reason why not feasible. If yes, list number of Media Filters, location(s), and total WQV treated.*
- *Identify type of Media Filter incorporated: Full Sedimentation Austin Sand Filter, Partial Sedimentation Austin Sand Filter or Delaware Sand Filter*
- *If an Austin Sand Filter is incorporated into project, identify if earthen configuration or lined*
- *Is pretreatment provided to capture sediment and litter?*
- *Quantify approximate tributary area of impervious surface per Media Filter*
- *Identify Water Quality Volume (WQV) treated per Media Filter*
- *Identify depth to groundwater*
- *Discuss local vector agency issues*

Media Filters remove fine sediment, particulate-associated pollutants, and sometimes dissolved pollutants. The normal configuration of such a device consists of an initial sedimentation basin or vault followed by a filtering vault that is lined with a media. Media Filters have been considered for the project location because they would treat for all the target pollutants. Media Filters have the potential to create a permanent pool of standing water where mosquito breeding is likely to occur and they are not preferred by vector control authorities. The filter material would require changing every three to five years along with standard detention basin maintenance. The construction costs are approximately three times that of a comparable sized detention basin. However, even with the increased construction and maintenance costs; media filters are being considered because, the TDC



for San Marcos Creek is Phosphorus and these treatment BMPs are more effective at reducing this pollutant load than other viable options.

#### **Multi-Chambered Treatment Trains (MCTTs), Checklist T-1, Parts 1 and 9**

- *Are MCTTs incorporated into project? If not, explain reason why not feasible. If yes, list number of MCTTs, location(s), and total WQV treated.*
- *Quantify approximate tributary area of impervious surface per MCTT*
- *Identify Water Quality Volume (WQV) treated per MCTT*
- *Discuss local vector agency issues*

Multi-chamber treatment trains use three treatment mechanisms in three different chambers. These include a catch basin with a sump, a sedimentation chamber with tube settlers and sorbet pads, and a filtering chamber lined with media. Similarly to Media Filters, MCTTs have the potential to create vector control issues, require excessive underground storage requirements, and additional maintenance. Therefore, MCTTs are not considered feasible for this project.

#### **Wet Basins, Checklist T-1, Parts 1 and 10**

- *Are Wet Basins incorporated into project? If not, explain reason why not feasible. If yes, list number of Wet Basins, location(s), and total WQV treated.*
- *Quantify approximate tributary area of impervious surface per Wet Basin*
- *Identify Water Quality Volume (WQV) treated per Wet Basin*
- *Identify soil type and permeability*
- *Document groundwater depth*

Wet basins (constructed wetlands) are permanent pools of water designed to mimic naturally occurring wetlands. The main distinction between construction and natural wetlands is that constructed wetlands are placed in upland areas and are not subject to wetland protection regulations. Wet basins are not practical BMP devices because they should only be considered when the site is located where the visual aesthetics of the permanent pool is a considered a benefit (e.g. roadside rest area or vista point). In addition, wet basins require a steady source of water to maintain a permanent pool and the flows from the project site are intermittent. Wet Basins are not a feasible BMP for the project.

### **6. Proposed Temporary Construction Site BMPs to be used on Project**

*Summarize the selected Construction Site BMPs in a Short Narrative. The narrative should also include any pertinent details from the strategy used for the implementation of Construction Site BMPs (e.g. specific project conditions, construction operations, etc.) and monitoring. It is understood that the level of detail discussed will be different at each phase of the project. Include a brief summary to how the BMPs were estimated.*

- *Identify those Construction Site BMPs that have been designated as separate Bid Line Items.*
- *Identify those Construction Site BMPs incorporated as a lump sum in the Construction Site Management Item.*
- *Identify project risk level. If Risk Level 2 or 3, then identify planned monitoring locations and activities.*
- *Identify if dewatering will be required during the construction of the project. Describe circumstances. (i.e. will a separate dewatering permit be needed?)*



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- Identify if active treatment systems (ATS) will be used for the site, or portions thereof.
- Document the coordination effort to get concurrence with Construction regarding the Construction Site BMP strategy and associated quantities (provide names of staff and date of meeting(s)). Attach a copy of the Construction Site BMP Consideration Form to the SWDR at PS&E.
- Develop an estimate of quantities and costs (for internal Caltrans use only) for Construction Site BMPs and monitoring as a part of the Storm Water BMP Cost Summary. Complete for each phase of the project.

Construction Site BMPs will not be evaluated at this project phase. Proposed temporary construction site BMPs will be designed with coordination from the construction representative.

### 7. Maintenance BMPs (Drain Inlet Stenciling)

*Briefly describe locations where drain inlet stenciling is required, such as within cities, towns, and communities with populations of 10,000 or more, or within designated MS4 areas. Include any specific stencil types and names of contacts that recommended stencil types or locations.*

All storm water draining into the underground pipe system is eventually discharged to the Pacific Ocean. The County of San Diego and Caltrans have endeavored to inform the public concerning the importance of preventing hazardous or poisonous materials from entering the storm water system. The County and Caltrans may use annotation on drainage inlets with stenciling stating “No Dumping – This Drains to Ocean.” Stenciling should be used on the County streets where dumping will impact Deer Springs Creek, or in other areas recommended by the responsible agency. In addition, Caltrans Maintenance will “number” the drainage inlets, and amend the drainage inlet inventory for the District.

#### Attachments:

- A. Vicinity Map
- B. Evaluation Documentation Form (EDF)
- C. Risk Level Determination Documentation
- D. Checklist SW-1, Site Data Sources
- E. Checklist SW-2, Storm Water Quality Issues Summary
- F. Checklist SW-3, Measures for Avoiding or Reducing Potential Storm Water BMPs
- G. Checklists DPP-1, Parts 1–5 (Design Pollution Prevention BMPs)
- H. Checklists T-1, Parts 1, 2, 4, 5 & 8 (Treatment BMPs)
- I. 303(d) List of Receiving Waters
- J. Water Quality Standard Inventory Database
- K. BMP Cost: Project Planning Cost Estimate (PPCE)

#### Attachments Required at PS&E:

- Construction Site BMP Consideration Form
- SWDR Attachment for SMARTS Input
- RUSLE2 Summary Sheet, as applicable
- Treatment BMP Summary Spreadsheets



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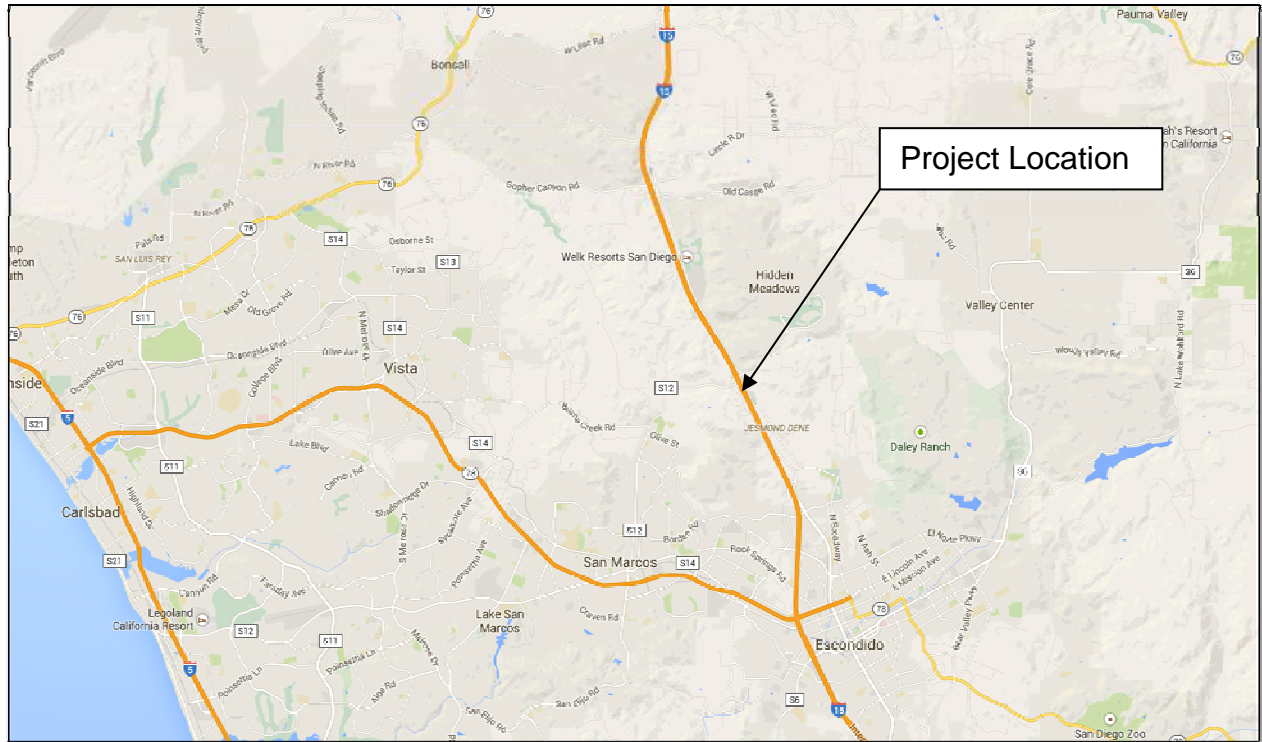
- Quantities for Construction Site BMPs
- Rainfall Erosivity Waiver, if applicable
- Storm Water BMP Cost Summary
- Preliminary Engineer's Cost Estimate (PECE) for PS&E project phase
- Plans showing BMP Deployment
- Pertinent Correspondence with RWQCB *(if requested or recommended by District/Regional NPDES Storm Water Coordinator or Designated Reviewer)*
- Checklists CS-1, Parts 1–6 (Construction Site BMPs)
- Calculations and cross sections related to BMPs *(if requested by District/Regional Design Storm Water Coordinator)*
- Section 13 2010 or (07-340 or 07-345 for 2006) *(if requested or recommended by District/Regional Design Storm Water Coordinator)*
- Conceptual Drainage Map or Drainage Plans, if available *(if requested by District/Regional Design Storm Water Coordinator for review)*



# Attachment A

## Vicinity Map





Vicinity Map

## Attachment B

### Evaluation Documentation Form (EDF)





## Evaluation Documentation Form

DATE: 8/06/2015

Project ID ( or EA): 11-14000093 (11-41840K)

NO.	CRITERIA	YES ✓	NO ✓	SUPPLEMENTAL INFORMATION FOR EVALUATION
1.	Begin Project Evaluation regarding requirement for consideration of Treatment BMPs	✓		See Figure 4-1, Project Evaluation Process for Consideration of Permanent Treatment BMPs. Go to 2
2.	Is this an emergency project?		✓	If <b>Yes</b> , go to 10. If <b>No</b> , continue to 3.
3.	Have TMDLs or other Pollution Control Requirements been established for surface waters within the project limits? Information provided in the water quality assessment or equivalent document.		✓	If <b>Yes</b> , contact the District/Regional NPDES Coordinator to discuss the Department's obligations under the TMDL (if Applicable) or Pollution Control Requirements, go to 9 or 4.  _____ (Dist./Reg. SW Coordinator initials) If <b>No</b> , continue to 4.
4.	Is the project located within an area of a local MS4 Permittee?	✓		If <b>Yes</b> , <u>County of San Diego</u> , go to 5. If <b>No</b> , document in SWDR go to 5.
5.	Is the project directly or indirectly discharging to surface waters?	✓		If <b>Yes</b> , continue to 6. If <b>No</b> , go to 10.
6.	Is it a new facility or major reconstruction?	✓		If <b>Yes</b> , continue to 8. If <b>No</b> , go to 7.
7.	Will there be a change in line/grade or hydraulic capacity?			If <b>Yes</b> , continue to 8. If <b>No</b> , go to 10.
8.	Does the project result in a <u>net increase of one acre or more of new impervious surface</u> ?	✓		If <b>Yes</b> , continue to 9. If <b>No</b> , go to 10.  <u>1.5-4.5 AC (Net Increase New Impervious Surface)</u>
9.	Project is required to consider approved Treatment BMPs.	✓		See Sections 2.4 and either Section 5.5 or 6.5 for BMP Evaluation and Selection Process. Complete Checklist T-1 in this Appendix E.
10.	Project is not required to consider Treatment BMPs. <u>RS</u> (Dist./Reg. Design SW Coord. Initials) <u>PK</u> (Project Engineer Initials) <u>8/6/15</u> (Date)			Document for Project Files by completing this form, and attaching it to the SWDR.

1 See Figure 4-1, Project Evaluation Process for Consideration of Permanent Treatment BMPs



# Attachment C

## Risk Determination



Sediment Risk Factor Worksheet		Entry
<b>A) R Factor</b>		
<p>Analyses of data indicated that when factors other than rainfall are held constant, soil loss is directly proportional to a rainfall factor composed of total storm kinetic energy (E) times the maximum 30-min intensity (I30) (Wischmeier and Smith, 1958). The numerical value of R is the average annual sum of EI30 for storm events during a rainfall record of at least 22 years. "Isoerodent" maps were developed based on R values calculated for more than 1000 locations in the Western U.S. Refer to the link below to determine the R factor for the project site.</p> <p><a href="http://water.epa.gov/polwaste/npdes/stormwater/Rainfall-Erosivity-Factor-Calculator.cfm">http://water.epa.gov/polwaste/npdes/stormwater/Rainfall-Erosivity-Factor-Calculator.cfm</a></p>		
R Factor Value		73.95
<b>B) K Factor (weighted average, by area, for all site soils)</b>		
<p>The soil-erodibility factor K represents: (1) susceptibility of soil or surface material to erosion, (2) transportability of the sediment, and (3) the amount and rate of runoff given a particular rainfall input, as measured under a standard condition. Fine-textured soils that are high in clay have low K values (about 0.05 to 0.15) because the particles are resistant to detachment. Coarse-textured soils, such as sandy soils, also have low K values (about 0.05 to 0.2) because of high infiltration resulting in low runoff even though these particles are easily detached. Medium-textured soils, such as a silt loam, have moderate K values (about 0.25 to 0.45) because they are moderately susceptible to particle detachment and they produce runoff at moderate rates. Soils having a high silt content are especially susceptible to erosion and have high K values, which can exceed 0.45 and can be as large as 0.65. Silt-size particles are easily detached and tend to crust, producing high rates and large volumes of runoff. Use Site-specific data must be submitted.</p> <p><a href="ftp://swrcb2a.waterboards.ca.gov/pub/swrcb/dwq/cgp/Risk/RUSLE/RUSLE_K_Factor/">ftp://swrcb2a.waterboards.ca.gov/pub/swrcb/dwq/cgp/Risk/RUSLE/RUSLE_K_Factor/</a></p>		
K Factor Value		0.2
<b>C) LS Factor (weighted average, by area, for all slopes)</b>		
<p>The effect of topography on erosion is accounted for by the LS factor, which combines the effects of a hillslope-length factor, L, and a hillslope-gradient factor, S. Generally speaking, as hillslope length and/or hillslope gradient increase, soil loss increases. As hillslope length increases, total soil loss and soil loss per unit area increase due to the progressive accumulation of runoff in the downslope direction. As the hillslope gradient increases, the velocity and erosivity of runoff increases. Use the LS table located in separate tab of this spreadsheet to determine LS factors. Estimate the weighted LS for the site prior to construction.</p> <p><a href="tp://swrcb2a.waterboards.ca.gov/pub/swrcb/dwq/cgp/Risk/RUSLE/RUSLE_LS_Factor/">tp://swrcb2a.waterboards.ca.gov/pub/swrcb/dwq/cgp/Risk/RUSLE/RUSLE_LS_Factor/</a></p>		
LS Factor Value		4.59
Watershed Erosion Estimate (=R <sub>x</sub> K <sub>x</sub> LS) in tons/acre		67.8861
<b>Site Sediment Risk Factor</b> Low Sediment Risk: < 15 tons/acre Medium Sediment Risk: >=15 and <75 tons/acre High Sediment Risk: >= 75 tons/acre		<b>Medium</b>

**Water: Stormwater**

You are here: [Water](#) » [Pollution Prevention & Control](#) » [Permitting \(NPDES\)](#) » [Stormwater](#) » LEW Results

**LEW Results****Rainfall Erosivity Factor Calculator for Small Construction Sites****Facility Information**

Start Date:	05/01/2018
End Date:	5/1/2020
Latitude:	33.197
Longitude:	-117.125

**Erosivity Index Calculator Results**

AN EROSIVITY INDEX VALUE OF **73.95** HAS BEEN DETERMINED FOR THE CONSTRUCTION PERIOD OF **05/01/2018 - 5/1/2020**.

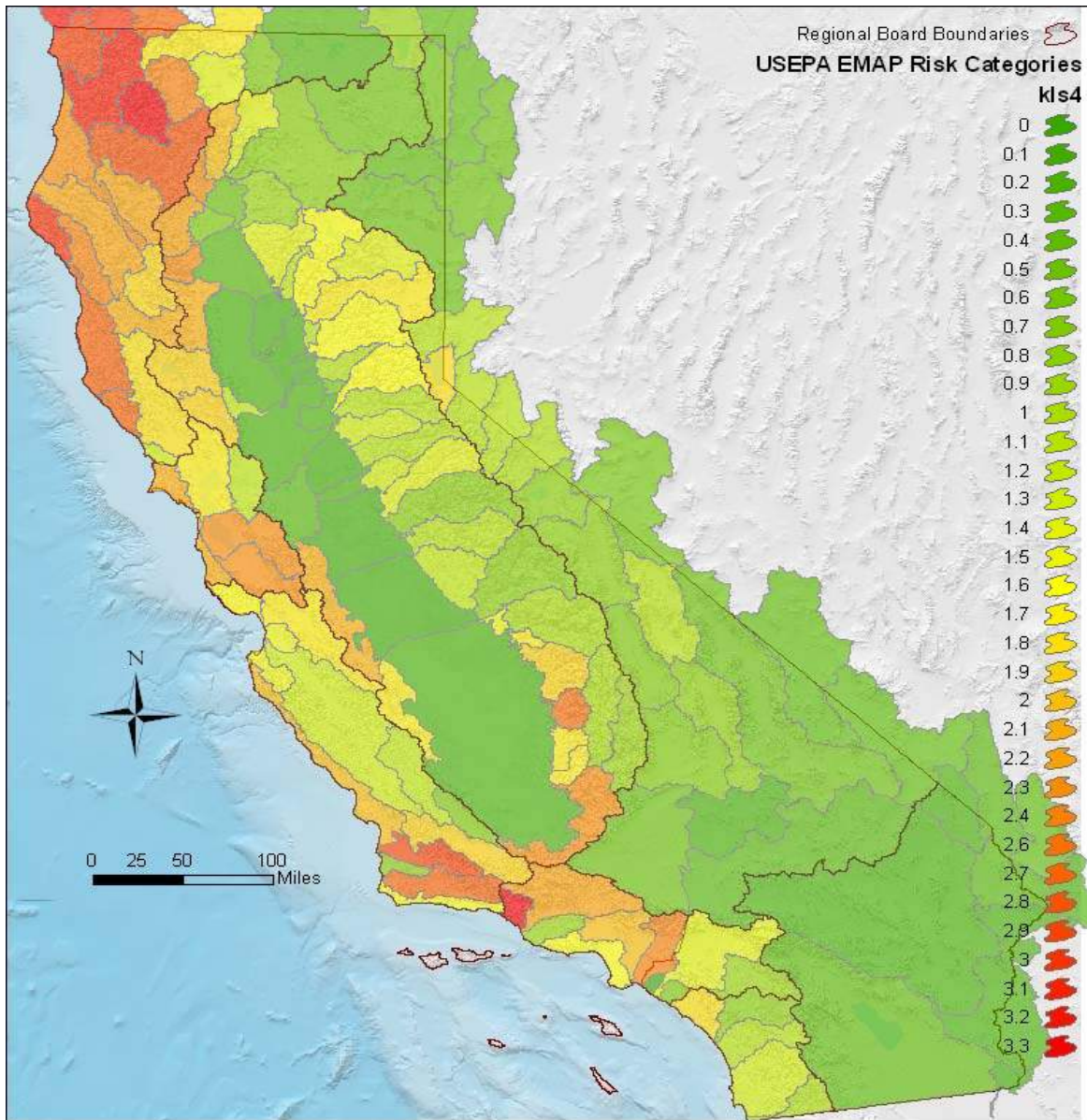
A rainfall erosivity factor of 5.0 or greater has been calculated for your site and period of construction. **You do NOT qualify for a waiver from NPDES permitting requirements.**

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Last updated on Monday, July 28, 2014

For the GIS Map Method, the R factor for the project is calculated using the online calculator at (see cell to right). The product of K and LS are shown on the figure below. To determine soil loss in tons per acre, multiply the R factor times the value for K times LS from the map.

<http://cfpub.epa.gov/npdes/stormwater/LEW/lewCalculator.cfm>



## Rish Level Determination

Sheet Flow Length (ft)	Average Watershed Slope (%)																		
	0.2	0.5	1.0	2.0	3.0	4.0	5.0	6.0	8.0	10.0	12.0	14.0	16.0	20.0	25.0	30.0	40.0	50.0	60.0
<3	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32	0.35	0.36	0.38	0.39	0.41	0.45	0.48	0.53	0.58	0.63
6	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32	0.37	0.41	0.45	0.49	0.56	0.64	0.72	0.85	0.97	1.07
9	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32	0.38	0.45	0.51	0.56	0.67	0.80	0.91	1.13	1.31	1.47
12	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32	0.39	0.47	0.55	0.62	0.76	0.93	1.08	1.37	1.62	1.84
15	0.05	0.07	0.09	0.13	0.17	0.20	0.23	0.26	0.32	0.40	0.49	0.58	0.67	0.84	1.04	1.24	1.59	1.91	2.19
25	0.05	0.07	0.10	0.16	0.21	0.26	0.31	0.36	0.45	0.57	0.71	0.85	0.98	1.24	1.56	1.86	2.41	2.91	3.36
50	0.05	0.08	0.13	0.21	0.30	0.38	0.46	0.54	0.70	0.91	1.15	1.40	1.64	2.10	2.67	3.22	4.24	5.16	5.97
75	0.05	0.08	0.14	0.25	0.36	0.47	0.58	0.69	0.91	1.20	1.54	1.87	2.21	2.86	3.67	4.44	5.89	7.20	8.37
100	0.05	0.09	0.15	0.28	0.41	0.55	0.68	0.82	1.10	1.46	1.88	2.31	2.73	3.57	4.59	5.58	7.44	9.13	10.63
150	0.05	0.09	0.17	0.33	0.50	0.68	0.86	1.05	1.43	1.92	2.51	3.09	3.68	4.85	6.30	7.70	10.35	12.75	14.89
200	0.06	0.10	0.18	0.37	0.57	0.79	1.02	1.25	1.72	2.34	3.07	3.81	4.56	6.04	7.88	9.67	13.07	16.16	18.92
250	0.06	0.10	0.19	0.40	0.64	0.89	1.16	1.43	1.99	2.72	3.60	4.48	5.37	7.16	9.38	11.55	15.67	19.42	22.78
300	0.06	0.10	0.20	0.43	0.69	0.98	1.28	1.60	2.24	3.09	4.09	5.11	6.15	8.23	10.81	13.35	18.17	22.57	26.51
400	0.06	0.11	0.22	0.48	0.80	1.14	1.51	1.90	2.70	3.75	5.01	6.30	7.60	10.24	13.53	16.77	22.95	28.60	33.67
600	0.06	0.12	0.24	0.56	0.96	1.42	1.91	2.43	3.52	4.95	6.67	8.45	10.26	13.94	18.57	23.14	31.89	39.95	47.18
800	0.06	0.12	0.26	0.63	1.10	1.65	2.25	2.89	4.24	6.03	8.17	10.40	12.69	17.35	23.24	29.07	40.29	50.63	59.93
1000	0.06	0.13	0.27	0.69	1.23	1.86	2.55	3.30	4.91	7.02	9.57	12.23	14.96	20.57	27.66	34.71	48.29	60.84	72.15

LS Factors for Construction Sites. *Table from Renard et. al., 1997.*

Receiving Water (RW) Risk Factor Worksheet	Entry	Score
<b>A. Watershed Characteristics</b>	yes/no	
A.1. Does the disturbed area discharge (either directly or indirectly) to a <b>303(d)-listed waterbody impaired by sediment</b> ? For help with impaired waterbodies please check the attached worksheet or visit the link below:	Yes	High
<a href="#">2006 Approved Sediment-impaired WBs Worksheet</a>		
<a href="http://www.waterboards.ca.gov/water_issues/programs/tmdl/303d_lists2006_epa.shtml">http://www.waterboards.ca.gov/water_issues/programs/tmdl/303d_lists2006_epa.shtml</a>		
<u><b>OR</b></u>		
A.2. Does the disturbed area discharge to a waterbody with designated beneficial uses of SPAWN & COLD & MIGRATORY?		
<a href="http://www.ice.ucdavis.edu/geowbs/asp/wbquse.asp">http://www.ice.ucdavis.edu/geowbs/asp/wbquse.asp</a>		

Combined Risk Level Matrix			
<u>Receiving Water Risk</u>	<u>Sediment Risk</u>		
	Low	Medium	High
	Low	Level 2	
High	Level 2		Level 3

Project Sediment Risk: **Medium**

Project RW Risk: **High**

Project Combined Risk: **Level 2**



## Attachment D

### Checklist SW-1, Site Data Sources



**Checklist SW-1, Site Data Sources**Prepared by: Paul Kosinski Date: May 15, 2015 District-Co-Route: 11-SD-015PM : R36.0/R37.2 Project ID (or EA): 11-14000093 (11-41840K) RWQCB: 9

Information for the following data categories should be obtained, reviewed and referenced as necessary throughout the project planning phase. Collect any available documents pertaining to the category and list them and reference your data source. For specific examples of documents within these categories, refer to Section 5.5 of this document. Example categories have been listed below; add additional categories, as needed. Summarize pertinent information in Section 2 of the SWDR.

DATA CATEGORY/SOURCES	Date
<b>Topographic</b>	
<ul style="list-style-type: none"> <li>US Topo Quadrangles <a href="http://nationalmap.gov/ustopo/">http://nationalmap.gov/ustopo/</a></li> </ul>	April 2015
•	
•	
<b>Hydraulic</b>	
<ul style="list-style-type: none"> <li>Caltrans Highway Design Manual</li> </ul>	March 2014
•	
•	
<b>Soils</b>	
<ul style="list-style-type: none"> <li>United States Department of Agriculture <a href="http://www.nrcs.usda.gov/wps/portal/nrcs/site/national/home/">http://www.nrcs.usda.gov/wps/portal/nrcs/site/national/home/</a></li> </ul>	April 2015
•	
•	
<b>Climatic</b>	
<ul style="list-style-type: none"> <li>National Weather Service Rainfall <a href="http://www.wrh.noaa.gov/sgx/obs/rainobs.php?wfo=sgx">http://www.wrh.noaa.gov/sgx/obs/rainobs.php?wfo=sgx</a></li> </ul>	April 2015
<ul style="list-style-type: none"> <li>Water Quality Planning Tool, CSU Sacramento Website, <a href="https://www.owp.csus.edu/">https://www.owp.csus.edu/</a></li> </ul>	April 2015
•	
<b>Water Quality</b>	
<ul style="list-style-type: none"> <li>Clean Water Act Section 303(d) List/ SWRCB, Website</li> </ul>	April 2015
<ul style="list-style-type: none"> <li>Caltrans Stormwater Quality Manuals and Handbooks <a href="http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm">http://www.dot.ca.gov/hq/construc/stormwater/manuals.htm</a></li> </ul>	April 2015
<ul style="list-style-type: none"> <li>San Diego Watershed Resources <a href="http://www.projectcleanwater.org/index.php">http://www.projectcleanwater.org/index.php</a></li> </ul>	April 2015
<b>Other Data Categories</b>	
•	
•	

## Attachment E

### Checklist SW-2, Storm Water Quality Issues Summary



### Checklist SW-2, Storm Water Quality Issues Summary

Prepared by: Paul Kosinski Date: May 15, 2015 District-Co-Route: 11-SD-015

PM : R36.0/R37.2 Project ID (or EA): 11-14000093 (11-41840K) RWQCB: 9

The following questions provide a guide to collecting critical information relevant to project stormwater quality issues. Complete responses to applicable questions, consulting other Caltrans functional units (Environmental, Landscape Architecture, Maintenance, etc.) and the District/Regional Storm Water Coordinator as necessary. Summarize pertinent responses in Section 2 of the SWDR.

- |  |  |                             |
|--|--|-----------------------------|
| 1. Determine the receiving waters that may be affected by the project throughout the project life cycle (i.e., construction, maintenance and operation).   | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 2. For the project limits, list the 303(d) impaired receiving water bodies and their constituents of concern.  | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 3. Determine if there are any municipal or domestic water supply reservoirs or groundwater percolation facilities within the project limits. Consider appropriate spill contamination and spill prevention control measures for these new areas. | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 4. Determine the RWQCB special requirements, including TMDLs, effluent limits, etc.  | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 5. Determine regulatory agencies seasonal construction and construction exclusion dates or restrictions required by federal, state, or local agencies.   | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 6. Determine if a 401 certification will be required.  | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 7. List rainy season dates.  | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 8. Determine the general climate of the project area. Identify annual rainfall and rainfall intensity curves.  | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 9. If considering Treatment BMPs, determine the soil classification, permeability, erodibility, and depth to groundwater.  | <input type="checkbox"/> Complete            | <input type="checkbox"/> NA |
| 10. Determine contaminated soils within the project area.  | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 11. Determine the total disturbed soil area of the project.  | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 12. Describe the topography of the project site.   | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 13. List any areas outside of the Caltrans right-of-way that will be included in the project (e.g. contractor's staging yard, work from barges, easements for staging, etc.).  | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 14. Determine if additional right-of-way acquisition or easements and right-of-entry will be required for design, construction and maintenance of BMPs. If so, how much?   | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 15. Determine if a right-of-way certification is required.   | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 16. Determine the estimated unit costs for right-of-way should it be needed for Treatment BMPs, stabilized conveyance systems, lay-back slopes, or interception ditches.   | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 17. Determine if project area has any slope stabilization concerns.  | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 18. Describe the local land use within the project area and adjacent areas.  | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 19. Evaluate the presence of dry weather flow.   | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |



## Attachment F

### Checklist SW-3, Measures for Avoiding or Reducing Potential Storm Water BMPs



### Checklist SW-3, Measures for Avoiding or Reducing Potential Storm Water Impacts

Prepared by: Paul Kosinski Date: May 15, 2015 District-Co-Route: 11-SD-015

PM : R36.0/R37.2 Project ID (or EA): 11-14000093 (11-41840K) RWQCB: 9

The PE must confer with other functional units, such as Landscape Architecture, Hydraulics, Environmental, Materials, Construction and Maintenance, as needed to assess these issues. Summarize pertinent responses in Section 2 of the SWDR.

Options for avoiding or reducing potential impacts during project planning include the following:

1. Can the project be relocated or realigned to avoid/reduce impacts to receiving waters or to increase the preservation of critical (or problematic) areas such as floodplains, steep slopes, wetlands, and areas with erosive or unstable soil conditions? ☐ Yes ☒ No ☐ NA
2. Can structures and bridges be designed or located to reduce work in live streams and minimize construction impacts? ☐ Yes ☐ No ☒ NA
3. Can any of the following methods be utilized to minimize erosion from slopes:
  - a. Disturbing existing slopes only when necessary? ☒ Yes ☐ No ☐ NA
  - b. Minimizing cut and fill areas to reduce slope lengths? ☒ Yes ☐ No ☐ NA
  - c. Incorporating retaining walls to reduce steepness of slopes or to shorten slopes? ☒ Yes ☐ No ☐ NA
  - d. Acquiring right-of-way easements (such as grading easements) to reduce steepness of slopes? ☐ Yes ☐ No ☒ NA
  - e. Avoiding soils or formations that will be particularly difficult to re-stabilize? ☐ Yes ☐ No ☒ NA
  - f. Providing cut and fill slopes flat enough to allow re-vegetation and limit erosion to pre-construction rates? ☒ Yes ☐ No ☐ NA
  - g. Providing benches or terraces on high cut and fill slopes to reduce concentration of flows? ☐ Yes ☒ No ☐ NA
  - h. Rounding and shaping slopes to reduce concentrated flow? ☒ Yes ☐ No ☐ NA
  - i. Collecting concentrated flows in stabilized drains and channels? ☒ Yes ☐ No ☐ NA
4. Does the project design allow for the ease of maintaining all BMPs? ☒ Yes ☐ No
5. Can the project be scheduled or phased to minimize soil-disturbing work during the rainy season? ☒ Yes ☐ No
6. Can permanent storm water pollution controls such as paved slopes, vegetated slopes, basins, and conveyance systems be installed early in the construction process to provide additional protection and to possibly utilize them in addressing construction storm water impacts? ☒ Yes ☐ No ☐ NA



## Attachment G

Checklist DPP-1, Parts 1-5  
(Design Pollution Prevention BMPs)



## Design Pollution Prevention BMPs

### Checklist DPP-1, Part 1

Prepared by: Paul Kosinski Date: May 15, 2015 District-Co-Route: 11-SD-015

PM : R36.0/R37.2 Project ID (or EA): 11-14000093 (11-41840K) RWQCB: 9

#### Consideration of Design Pollution Prevention BMPs

##### Consideration of Downstream Effects Related to Potentially Increased Flow [to streams or channels]

Will project increase velocity or volume of downstream flow? ☒ Yes ☐ No ☐ NA

Will the project discharge to unlined channels? ☒ Yes ☐ No ☐ NA

Will project increase potential sediment load of downstream flow? ☐ Yes ☒ No ☐ NA

Will project encroach, cross, realign, or cause other hydraulic changes to a stream that may affect downstream channel stability? ☐ Yes ☒ No ☐ NA

If Yes was answered to any of the above questions, consider **Downstream Effects Related to Potentially Increased Flow**, complete the DPP-1, Part 2 checklist.

##### Slope/Surface Protection Systems

Will project create new slopes or modify existing slopes? ☒ Yes ☐ No ☐ NA

If Yes was answered to the above question, consider **Slope/Surface Protection Systems**, complete the DPP-1, Part 3 checklist.

##### Concentrated Flow Conveyance Systems

Will the project create or modify ditches, dikes, berms, or swales? ☒ Yes ☐ No ☐ NA

Will project create new slopes or modify existing slopes? ☒ Yes ☐ No ☐ NA

Will it be necessary to direct or intercept surface runoff? ☒ Yes ☐ No ☐ NA

Will cross drains be modified? ☒ Yes ☐ No ☐ NA

If Yes was answered to any of the above questions, consider **Concentrated Flow Conveyance Systems**, complete the DPP-1, Part 4 checklist.

##### Preservation of Existing Vegetation

It is the goal of the Storm Water Program to maximize the protection of desirable existing vegetation to provide erosion and sediment control benefits on all projects. ☒ Complete

Consider **Preservation of Existing Vegetation**, complete the DPP-1, Part 5 checklist.





**Design Pollution Prevention BMPs****Checklist DPP-1, Part 2**Prepared by: Paul Kosinski Date: May 15, 2015 District-Co-Route: 11-SD-015PM : R36.0/R37.2 Project ID (or EA): 11-14000093 (11-41840K) RWQCB: 9**Downstream Effects Related to Potentially Increased Flow**

1. Review total paved area and reduce to the maximum extent practicable. ☒ Complete
2. Review channel lining materials and design for stream bank erosion control. ☒ Complete
  - (a) See Chapters 860 and 870 of the HDM. ☒ Complete
  - (b) Consider channel erosion control measures within the project limits as well as downstream. Consider scour velocity. ☒ Complete
3. Include, where appropriate, energy dissipation devices at culvert outlets. ☒ Complete
4. Ensure all transitions between culvert outlets/headwalls/wingwalls and channels are smooth to reduce turbulence and scour. ☒ Complete
5. Include, if appropriate, peak flow attenuation basins or devices to reduce peak discharges.
6. Calculate the water quality volume infiltrated by DPP BMPs within the project limits. Include the percentage of the water quality volume for each BMP and subwatershed, as appropriate, for site conditions. These calculations will be used later in the T-1 checklist. ☒ Complete



**Design Pollution Prevention BMPs****Checklist DPP-1, Part 3**Prepared by: Paul Kosinski Date: May 15, 2015 District-Co-Route: 11-SD-015PM : R36.0/R37.2 Project ID (or EA): 11-14000093 (11-41840K) RWQCB: 9**Slope / Surface Protection Systems**

1. What are the proposed areas of cut and fill? (attach plan or map) ☐ Complete
2. Were benches or terraces provided on high cut and fill slopes to reduce concentration of flows? ☐ Yes ☒ No
3. Were slopes rounded and/or shaped to reduce concentrated flow? ☒ Yes ☐ No
4. Were concentrated flows collected in stabilized drains or channels? ☒ Yes ☐ No
5. Are new or disturbed slopes > 4:1 horizontal:vertical (h:v)? ☒ Yes ☐ No

If Yes, District Landscape Architect must prepare or approve an erosion control plan, at the District's discretion.

6. Are new or disturbed slopes > 2:1 (h:v)? ☐ Yes ☒ No

If Yes, Geotechnical Services must prepare a Geotechnical Design Report, and the District Landscape Architect should prepare or approve an erosion control plan. Concurrence must be obtained from the District Maintenance Storm Water Coordinator for slopes steeper than 2:1 (h:v).

7. Estimate the net new impervious area that will result from this project. 4.0 acres ☒ Complete

**VEGETATED SURFACES**

1. Identify existing vegetation. ☒ Complete
2. Evaluate site to determine soil types, appropriate vegetation and planting strategies. ☐ Complete
3. How long will it take for permanent vegetation to establish? ☐ Complete
4. Minimize overland and concentrated flow depths and velocities. ☐ Complete

**HARD SURFACES**

1. Are hard surfaces required? ☒ Yes ☐ No

If Yes, document purpose (safety, maintenance, soil stabilization, etc.), types, and general locations of the installations. ☒ Complete

Review appropriate SSPs for Vegetated Surface and Hard Surface Protection Systems. ☒ Complete



**Design Pollution Prevention BMPs****Checklist DPP-1, Part 4**Prepared by: Paul Kosinski Date: May 15, 2015 District-Co-Route: 11-SD-015PM : R36.0/R37.2 Project ID (or EA): 11-14000093 (11-41840K) RWQCB: 9**Concentrated Flow Conveyance Systems****Ditches, Berms, Dikes and Swales**

1. Consider Ditches, Berms, Dikes, and Swales as per Topics 813, 834.3, and 835, and Chapter 860 of the HDM. ☒ Complete
2. Evaluate risks due to erosion, overtopping, flow backups or washout. ☐ Complete
3. Consider outlet protection where localized scour is anticipated. ☒ Complete
4. Examine the site for run-on from off-site sources. ☐ Complete
5. Consider channel lining when velocities exceed scour velocity for soil. ☐ Complete

**Overside Drains**

1. Consider downdrains, as per Index 834.4 of the HDM. ☒ Complete
2. Consider paved spillways for side slopes flatter than 4:1 h:v. ☒ Complete

**Flared Culvert End Sections**

1. Consider flared end sections on culvert inlets and outlets as per Chapter 827 of the HDM. ☒ Complete

**Outlet Protection/Velocity Dissipation Devices**

1. Consider outlet protection/velocity dissipation devices at outlets, including cross drains, as per Chapters 827 and 870 of the HDM. ☒ Complete

Review appropriate SSPs for Concentrated Flow Conveyance Systems. ☒ Complete

**Design Pollution Prevention BMPs****Checklist DPP-1, Part 5**Prepared by: Paul Kosinski Date: May 15, 2015 District-Co-Route: 11-SD-015PM : R36.0/R37.2 Project ID (or EA): 11-14000093 (11-41840K) RWQCB: 9**Preservation of Existing Vegetation**

1. Review Preservation of Property, (Clearing and Grubbing) to reduce clearing and grubbing and maximize preservation of existing vegetation. ☒ Complete
2. Has all vegetation to be retained been coordinated with Environmental, and identified and defined in the contract plans? ☐ Yes ☐ No
3. Have steps been taken to minimize disturbed areas, such as locating temporary roadways to avoid stands of trees and shrubs and to follow existing contours to reduce cutting and filling? ☐ Complete
4. Have impacts to preserved vegetation been considered while work is occurring in disturbed areas? ☐ Yes ☐ No
5. Are all areas to be preserved delineated on the plans? ☐ Yes ☐ No



## Attachment H

Checklist T-1, Parts 1, 2, 4, 5, 8  
(Treatment BMPs)



## Treatment BMPs

### Checklist T-1, Part 1

Prepared by: Paul Kosinski Date: May 15, 2015 District-Co-Route: 11-SD-015  
 PM : R36.0/R37.2 Project ID (or EA): 11-14000093 (11-41840K) RWQCB: 9

#### Consideration of Treatment BMPs

This checklist is used for projects that require the consideration of Approved Treatment BMPs, as determined from the process described in Section 4 (Project Treatment Consideration) and the Evaluation Documentation Form (EDF). This checklist will be used to determine which Treatment BMPs should be considered for each watershed and sub-watershed within the project. Supplemental data will be needed to verify siting and design applicability for final incorporation into a project.

**Complete this checklist for each phase of the project, when considering Treatment BMPs. Use the responses to the questions as the basis when developing the narrative in Section 5 of the Storm Water Data Report to document that Treatment BMPs have been appropriately considered.**

**Answer all questions, unless otherwise directed. Questions 14 through 16 should be answered after all subwatershed (drainages) are considered using this checklist.**

1. Is the project in a watershed with prescriptive TMDL treatment BMP requirements in an adopted TMDL implementation plan or does the project have a dual purpose facility requirement (e.g. flood control and water quality treatment or Design Pollution Prevention BMPs that provide infiltration and treatment)? ☐ Yes ☒ No

If Yes, consult the District/Regional Storm Water Coordinator to determine whether the T-1 checklist should be used to propose alternative BMPs because the prescribed BMPs may not be feasible or other BMPs may be more cost-effective. Special documentation and regulatory response may be necessary.

#### 2. Dry Weather Flow Diversion

- (a) Are dry weather flows generated by Caltrans anticipated to be persistent? ☐ Yes ☒ No
- (b) Is a sanitary sewer located on or near the site? ☐ Yes ☒ No

If Yes to both 2 (a) and (b), continue to (c). If No to either, skip to question 3.

- (c) Is connection to the sanitary sewer possible without extraordinary plumbing, features or construction practices? ☐ Yes ☐ No
- (d) Is the domestic wastewater treatment authority willing to accept flow? ☐ Yes ☐ No

If Yes was answered to all of these questions consider **Dry Weather Flow Diversion**, complete and attach **Part 3** of this checklist.

3. Is the receiving water on the 303(d) list for litter/trash or has a TMDL been issued for litter/trash? ☐ Yes ☒ No

If Yes, consider **Gross Solids Removal Devices (GSRDs)**. Complete and attach **Part 6** of this checklist. Note: Infiltration Devices, Detention Devices, Media Filters, MCTTs, and Wet Basins also can capture litter. Before considering GSRDs for stand-alone installation or in sequence with other BMPs, consult with District/Regional NPDES Storm Water Coordinator to determine whether Infiltration Devices, Detention Devices, Media Filters, MCTTs, and Wet Basins should be considered instead of GSRDs to meet litter/trash TMDL.

4. Is the project located in an area (e.g., mountain regions) where traction sand is applied more than twice a year? ☐ Yes ☒ No

If Yes, consider **Traction Sand Traps**. Complete and attach **Part 7** of this checklist.

5. Maximizing Biofiltration Strips and Swales

Objectives:

- 1) Quantify infiltration from biofiltration alone
- 2) Identify highly infiltrating biofiltration (i.e. > 90%) and skip further BMP consideration.
- 3) Identify whether amendments can substantially improve infiltration.

- (a) Have biofiltration strips and swales been designed for runoff from all project areas, including sheet flow and concentrated flow conveyance? If no, document justification in Section 5 of the SWDR. ☐ Yes ☐ No

(b) Based on existing site conditions, estimate what percentage of the WQV<sup>1</sup> can be infiltrated. When calculating the WQV, use a drawdown time appropriate for the site conditions..

- ☐ < 20%  
☐ 20 % - 50%  
☐ 50% - 90%  
☐ > 90%

☐ Complete

- (c) Is infiltration greater than 90 percent? If Yes, skip to question 13. ☐ Yes ☐ No
- If No, Continue to 5 (d).

---

<sup>1</sup> A complete methodology for determining WQV infiltration is available at:  
<http://www.dot.ca.gov/hq/oppd/stormwtr/index.htm>



- (d) Can the infiltration ranking in question 5(b) above be increased by using soil amendments? ☐ Yes ☐ No

If Yes, consider including soil amendments (increasing the infiltration ranking of strips and swales shows performance comparable to other BMPs). Record the new infiltration estimate below. If No, continue to 5 (e).

\_\_\_ < 20% (skip to 6)

\_\_\_ 20 % - 50% (skip to 6)

\_\_\_ 50% - 90% (skip to 6)

\_\_\_ >90%

☐ Complete

- (e) Is infiltration greater than 90 percent? If Yes, skip to question 13. If No, continue to 5 (f). ☐ Yes ☐ No

- (f) Is infiltration greater than 50 percent and is biofiltration preferred? If yes to both, skip to question 13. ☐ Yes ☐ No

#### 6. Biofiltration in Rural Areas

Is the project in a rural area (outside of urban areas that is covered under an NPDES Municipal Stormwater Permit<sup>2</sup>)? If Yes, proceed to question 13. ☐ Yes ☒ No

#### 7. Estimating Infiltration for BMP Combinations

Objectives:

- 1) Identify high-infiltration biofiltration or biofiltration and infiltration BMP combinations and skip further BMP consideration.
- 2) If high infiltration is infeasible, then identify the infiltration level of all feasible BMP combinations for use in the subsequent BMP selection matrices.

- (a) Has concentrated infiltration (i.e., via earthen basins) been prohibited? Consult your District/Regional Storm Water Coordinator and/or environmental documents. ☐ Yes ☒ No

If No, continue to 7 (b); if Yes, skip to question 8 and do not consider earthen basin-type BMPs

<sup>2</sup> See pages 39 and 40 of the Fact Sheets for the CGP.

[http://www.waterboards.ca.gov/water\\_issues/programs/stormwater/docs/constpermits/wqo\\_2009\\_0009\\_factsheet.pdf](http://www.waterboards.ca.gov/water_issues/programs/stormwater/docs/constpermits/wqo_2009_0009_factsheet.pdf)



- (b) Can the infiltration ranking be increased by infiltrating the un-infiltrated remaining WQV from question 5, with an infiltration BMP<sup>1</sup>? If yes, record the new infiltration estimate below. If no, proceed to 7(c). ☐ Yes ☒ No

\_\_\_ < 20% (do not consider this BMP combination)  
\_\_\_ 20% - 50%  
\_\_\_ 50% - 90%  
\_\_\_ >90%

Is at least 90 percent infiltration estimated? If Yes, proceed to 13. If No, proceed to 7(c). ☐ Yes ☒ No

- (c) Assess infiltration of biofiltration combined with an approved earthen BMP. This assessment will be used in subsequent BMP selection matrices.

Earthen Detention Basin

\_\_\_ < 20% ☐ Complete  
\_\_\_ 20% - 50%  
\_\_\_ > 50%

Continue to Question 8

8. Identifying BMPs based on the Target Design Constituents

- (a) Does the project discharge to a 303(d) impaired water body or a water body that has a TMDL adopted? If "No," use Matrix A to select BMPs, consider designing to treat 100% of the WQV, then skip to question 12. ☒ Yes ☐ No

If Yes, is the identified pollutant(s) considered a Targeted Design Constituent (TDC) (check all that apply below)?

- |  |   |
|--|---|
| <input checked="" type="checkbox"/> sediments  | <input type="checkbox"/> copper (dissolved or total)                      |
| <input checked="" type="checkbox"/> phosphorus | <input type="checkbox"/> lead (dissolved or total)                        |
| <input type="checkbox"/> nitrogen              | <input type="checkbox"/> zinc (dissolved or total)                        |
|  | <input type="checkbox"/> general metals (dissolved or total) <sup>2</sup> |

- (b) Treating Sediment. Is sediment a TDC? If Yes, use Matrix A to select BMPs, then skip to question 12. Otherwise, proceed to question 9. ☒ Yes ☐ No

<sup>1</sup> Assess the combined infiltration of the WQV by both biofiltration and infiltration BMPs. As site constraints allow, size the infiltration BMP up to the un-infiltrated WQV remaining after the biofiltration BMP.

<sup>2</sup> General metals is a designation used by Regional Water Boards when specific metals have not yet been identified as causing the impairment.



BMP Selection Matrix A: General Purpose Pollutant Removal			
Consider approaches to treat the remaining WQV with combinations of the BMPs in this table. The PE should select at least one BMP for the project; preference is for Tier 1 BMPs, followed by Tier 2 BMPs when Tier 1 BMPs are not feasible. Within each Tier, BMP selection will be determined by the site-specific determination of feasibility (Section 2.4.2.1). BMPs are chosen based on the infiltration category determined in question 7. BMPs in other categories should be ignored.			
	BMP ranking for infiltration category:		
	Infiltration < 20%	Infiltration 20% - 50%	Infiltration > 50%
Tier 1	Strip: HRT > 5 Austin filter (concrete) Austin filter (earthen) Delaware filter MCTT Wet basin	Austin filter (earthen) Detention (unlined) Infiltration basins* Infiltration trenches* Biofiltration Strip	Austin filter (earthen) Detention (unlined) Infiltration basins* Infiltration trenches* Biofiltration Strip Biofiltration Swale
Tier 2	Strip: HRT < 5 Biofiltration Swale Detention (unlined)	Austin filter (concrete) Delaware filter Biofiltration Swale MCTT Wet basin	Austin filter (concrete) Delaware filter MCTT Wet basin
<p>HRT = hydraulic residence time (min)</p> <p>*Infiltration BMPs that infiltrate the water quality volume were considered previously, so only undersized infiltration BMPs or hybrid designs are considered where infiltration is less than 90% of the water quality volume.</p>			

## 9. Treating both Metals and Nutrients.

Is copper, lead, zinc, or general metals *AND* nitrogen or phosphorous a TDC? If Yes, use Matrix D to select BMPs, then skip to question 12. Otherwise, proceed to question 10. ☐ Yes ☐ No

## 10. Treating Only Metals.

Are copper, lead, zinc, or general metals listed TDCs? If Yes, use Matrix B below to select BMPs, and skip to question 12. Otherwise, proceed to question 11. ☐ Yes ☐ No

<b>BMP Selection Matrix B: Any metal is the TDC, but not nitrogen or phosphorous</b>			
<p>Consider approaches to treat the remaining WQV with combinations of the BMPs in this table. The PE should select at least one BMP for the project; preference is for Tier 1 BMPs, followed by Tier 2 BMPs when Tier 1 BMPs are not feasible. Within each Tier, BMP selection will be determined by the site-specific determination of feasibility (Section 2.4.2.1). BMPs are chosen based on the infiltration category determined in question 7. BMPs in other categories should be ignored.</p>			
	BMP ranking for infiltration category:		
	Infiltration < 20%	Infiltration 20% - 50%	Infiltration > 50%
Tier 1	MCTT Wet basin Austin filter (earthen) Austin filter (concrete) Delaware filter	Austin filter (earthen) Detention (unlined) Infiltration basins* Infiltration trenches* MCTT Wet basin	Austin filter (earthen) Detention (unlined) Infiltration basins* Infiltration trenches* MCTT Biofiltration Strip Biofiltration Swale Wet basin
Tier 2	Strip: HRT > 5 Strip: HRT < 5 Biofiltration Swale Detention (unlined)	Austin filter (concrete) Delaware filter Biofiltration Strip Biofiltration Swale	Austin filter (concrete) Delaware filter
HRT = hydraulic residence time (min) *Infiltration BMPs that infiltrate the water quality volume were considered previously, so only undersized infiltration BMPs or hybrid designs are considered where infiltration is less than 90% of the water quality volume.			

## 11. Treating Only Nutrients.

Are nitrogen and/or phosphorus listed TDCs? If "Yes," use Matrix C to select BMPs. If "No", please check your answer to 8(a). At this point one of the matrices should have been used for BMP selection for the TDC in question, unless no BMPs are feasible.

☐ Yes    ☐ No



<b>BMP Selection Matrix C: Phosphorous and / or nitrogen is the TDC, but no metals are the TDC</b>			
Consider approaches to treat the remaining WQV with combinations of the BMPs in this table. The PE should select at least one BMP for the project; preference is for Tier 1 BMPs, followed by Tier 2 BMPs when Tier 1 BMPs are not feasible. Within each Tier, BMP selection will be determined by the site-specific determination of feasibility (Section 2.4.2.1). BMPs are chosen based on the infiltration category determined in question 7. BMPs in other categories should be ignored.			
	BMP ranking for infiltration category:		
	Infiltration < 20%	Infiltration 20% - 50%	Infiltration > 50%
Tier 1	Austin filter (earthen) Austin filter (concrete) Delaware filter**	Austin filter (earthen) Detention (unlined) Infiltration basins* Infiltration trenches*	Austin filter (earthen) Detention (unlined) Infiltration basins* Infiltration trenches* Biofiltration Strip Biofiltration Swale
Tier 2	Wet basin Biofiltration Strip Biofiltration Swale Detention (unlined)	Austin filter (concrete) Delaware filter Biofiltration Strip Biofiltration Swale Wet basin	Austin filter (concrete) Delaware filter Wet basin
* Infiltration BMPs that infiltrate the water quality volume were considered previously, so only undersized infiltration BMPs or hybrid designs are considered where infiltration is less than 90% of the water quality volume.			
** Delaware filters would be ranked in Tier 2 if the TDC is nitrogen only, as opposed to phosphorous only or both nitrogen and phosphorous.			



<b>BMP Selection Matrix D: Any metal, plus phosphorous and / or nitrogen are the TDCs</b>			
<p>Consider approaches to treat the remaining WQV with combinations of the BMPs in this table. The PE should select at least one BMP for the project; preference is for Tier 1 BMPs, followed by Tier 2 BMPs when Tier 1 BMPs are not feasible. Within each Tier, BMP selection will be determined by the site-specific determination of feasibility (Section 2.4.2.1). BMPs are chosen based on the infiltration category determined in question 7. BMPs in other categories should be ignored.</p>			
	BMP ranking for infiltration category:		
	Infiltration < 20%	Infiltration 20% - 50%	Infiltration > 50%
Tier 1	Wet basin* Austin filter (earthen) Austin filter (concrete) Delaware filter**	Wet basin* Austin filter (earthen) Detention (unlined) Infiltration basins*** Infiltration trenches***	Wet basin* Austin filter (earthen) Detention (unlined) Infiltration basins*** Infiltration trenches*** Biofiltration Strip Biofiltration Swale
Tier 2	Biofiltration Strip Biofiltration Swale Detention (unlined)	Austin filter (concrete) Delaware filter Biofiltration Strip Biofiltration Swale	Austin filter (concrete) Delaware filter
* The wet basin should only be considered for phosphorus			
** In cases where earthen BMPs can infiltrate, Delaware filters are ranked in Tier 2 if the TDC is nitrogen only, but they are Tier 1 for phosphorous only or both nitrogen and phosphorous.			
*** Infiltration BMPs that infiltrate the water quality volume were considered previously, so only undersized infiltration BMPs or hybrid designs are considered where infiltration is less than 90% of the water quality volume.			



12. Does the project discharge to a 303(d) waterbody that is listed for mercury or low dissolved oxygen? ☐Yes ☒No

If Yes, contact the District/Regional NPDES Storm Water Coordinator to determine if standing water in a Delaware filter, wet basin, or MCTT would be a risk to downstream water quality.

13. After completing the above, identify and attach the checklists shown below for every Treatment BMP under consideration. (use one checklist every time the BMP is considered for a different drainage within the project) ☒Complete

- ☒ Biofiltration Strips and Biofiltration Swales: Checklist T-1, Part 2
- ☐ Dry Weather Diversion: Checklist T-1, Part 3
- ☒ Infiltration Devices: Checklist T-1, Part 4
- ☒ Detention Devices: Checklist T-1, Part 5
- ☐ GSRDs: Checklist T-1, Part 6
- ☐ Traction Sand Traps: Checklist T-1, Part 7
- ☒ Media Filter [Austin Sand Filter and Delaware Filter]: Checklist T-1, Part 8
- ☐ Multi-Chambered Treatment Train: Checklist T-1, Part 9
- ☐ Wet Basins: Checklist T-1, Part 10

14. Estimate what percentage of the net WQV (for all new impervious surfaces within the project) or WQF (depending upon the Treatment BMP selected) will be treated by the preferred Treatment BMP(s): 100 %\* ☒Complete

15. Estimate what percentage of the net WQV (for all new impervious surfaces within the project) that will be infiltrated by the preferred treatment BMP(s): \_\_\_\_\_ %\*\* ☐Complete

16. Prepare cost estimate, including right-of-way, and site specific determination of feasibility (Section 2.4.2.1) for selected Treatment BMPs and include as supplemental information for SWDR approval. ☒Complete

\*Note: The amount of treatment should be calculated for each BMP and each subwatershed, unless all BMPs within a project are the same. Document in SWDR.

\*\*Note: The Water Quality Volume infiltrated should be documented for the entire project and also for each subwatershed. Document in SWDR.

## Treatment BMPs

### Checklist T-1, Part 2

Prepared by: Paul Kosinski Date: May 15, 2015 District-Co-Route: 11-SD-015  
 PM : R36.0/R37.2 Project ID (or EA): 11-14000093 (11-41840K) RWQCB: 9

#### Biofiltration Swales / Biofiltration Strips

##### Feasibility

1. Do the climate and site conditions allow vegetation to be established? ☒ Yes ☐ No
2. Are flow velocities from a peak drainage facility design event < 4 fps (i.e. low enough to prevent scour of the vegetated biofiltration swale as per HDM Table 873.3E)? ☒ Yes ☐ No  
 If "No" to either question above, Biofiltration Swales and Biofiltration Strips are not feasible.
3. Are Biofiltration Swales proposed at sites where known contaminated soils or groundwater plumes exist? ☐ Yes ☒ No  
 If "Yes", consult with District/Regional NPDES Coordinator about how to proceed.
4. Does adequate area exist within the right-of-way to place Biofiltration device(s)? ☒ Yes ☐ No  
 If "Yes", continue to Design Elements section. If "No", continue to Question 5.
5. If adequate area does not exist within right-of-way, can suitable, additional right-of-way be acquired to site Biofiltration devices and how much right-of-way would be needed to treat WQF? \_\_\_\_\_ acres ☐ Yes ☐ No  
 If "Yes", continue to Design Elements section. If "No", continue to Question 6.
6. If adequate area cannot be obtained, document in Section 5 of the SWDR that the inability to obtain adequate area prevents the incorporation of these Treatment BMPs into the project. ☐ Complete

##### Design Elements

\* **Required** Design Element – A "Yes" response to these questions is required to further the consideration of this BMP into the project design. Document a "No" response in Section 5 of the SWDR to describe why this Treatment BMP cannot be included into the project design.

\*\* **Recommended** Design Element – A "Yes" response is preferred for these questions, but not required for incorporation into a project design.

1. Has the District Landscape Architect provided vegetation mixes appropriate for climate and location? \* ☐ Yes ☐ No

2. Can the biofiltration swale be designed as a conveyance system under any expected flows > the WQF event, as per HDM Chapter 800? \* (e.g. freeboard, minimum slope, etc.) ☐ Yes ☐ No
3. Can the biofiltration swale be designed as a water quality treatment device under the WQF while meeting the required HRT, depth, and velocity criteria? (Reference Appendix B, Section B.2.3.1)\* ☐ Yes ☐ No
4. Is the maximum length of a biofiltration strip  $\leq 100$  ft? Strips > 100 ft. may still be considered as long as potential erosion issues have been addressed.\*\* ☐ Yes ☐ No
5. Has the minimum width (perpendicular to flow) of the invert of the biofiltration swale received the concurrence of Maintenance? \* ☐ Yes ☐ No
6. Can biofiltration swales be located in natural or low cut sections to reduce maintenance problems caused by animals burrowing through the berm of the swale? \*\* ☐ Yes ☐ No
7. Has the infiltration rate of the bio-filtration device been calculated and maximized through amendments where appropriate. \*\* ☐ Yes ☐ No
8. Have Biofiltration Systems been considered for locations upstream of other Treatment BMPs, as part of a treatment train? \*\* ☐ Yes ☐ No





## Treatment BMPs

### Checklist T-1, Part 4

Prepared by: Paul Kosinski Date: May 15, 2015 District-Co-Route: 11-SD-015

PM : R36.0/R37.2 Project ID (or EA): 11-14000093 (11-41840K) RWQCB: 9

#### ***Infiltration Devices***

##### ***Feasibility***

1. Does local Basin Plan or other local ordinance provide influent limits on quality of water that can be infiltrated, and would infiltration pose a threat to groundwater quality? ☐ Yes ☒ No
2. Does infiltration at the site compromise the integrity of any slopes in the area? ☐ Yes ☒ No
3. Per survey data or U.S. Geological Survey (USGS) Quad Map, are existing slopes at the proposed device site >15%? ☐ Yes ☒ No
4. At the invert, does the soil type classify as NRCS Hydrologic Soil Group (HSG) D, or does the soil have an infiltration rate < 0.5 inches/hr? For Design Pollution Prevention BMPs, can the soil be amended to provide an adequate infiltration rate and void space. ☐ Yes ☐ No
5. Is site located over a previously identified contaminated groundwater plume? ☐ Yes ☒ No

If "Yes" to any question above, Infiltration Devices are not feasible; stop here and consider other approved Treatment BMPs.

6. (a) Does site have groundwater within 10 ft of basin invert? ☐ Yes ☐ No
- (b) Does site investigation indicate that the infiltration rate is significantly greater than 2.5 inches/hr? ☐ Yes ☐ No

If "Yes" to either part of Question 6, the RWQCB must be consulted, and the RWQCB must conclude that the groundwater quality will not be compromised, before approving the site for infiltration.

7. Does adequate area exist within the right-of-way to place Infiltration Device(s)? ☒ Yes ☐ No  
If "Yes", continue to Design Elements sections. If "No", continue to Question 8.
8. If adequate area does not exist within right-of-way, can suitable, additional right-of-way be acquired to site Infiltration Devices and how much right-of-way would be needed to treat WQV? \_\_\_\_\_ acres ☐ Yes ☐ No  
If Yes, continue to Design Elements section.  
If No, continue to Question 9.
9. If adequate area cannot be obtained, document in Section 5 of the SWDR that the inability to obtain adequate area prevents the incorporation of this Treatment BMP into the project. ☐ Complete



**Design Elements – Infiltration Basin**

\* **Required** Design Element – A “Yes” response to these questions is required to further the consideration of this BMP into the project design. Document a “No” response in Section 5 of the SWDR to describe why this Treatment BMP cannot be included into the project design.

\*\* **Recommended** Design Element – A “Yes” response is preferred for these questions, but not required for incorporation into a project design.

1. Has a detailed investigation been conducted, including subsurface soil investigation, in-hole conductivity testing and groundwater elevation determination? (This report must be completed for PS&E level design.) \* ☐ Yes ☐ No
2. Has an overflow spillway with scour protection been provided? \* ☐ Yes ☐ No
3. Is the Infiltration Basin size sufficient to capture the WQV while maintaining a 40-48 hour drawdown time? If the BMP is used in series with a biofiltration device, then does the total upstream infiltration plus the Infiltration Basin volume at least equal the WQV. \* ☐ Yes ☐ No
4. Can access be placed to the invert of the Infiltration Basin? \* ☐ Yes ☐ No
5. Can the Infiltration Basin accommodate the freeboard above the overflow event elevation (reference Appendix B.1.3.1)? \* ☐ Yes ☐ No
6. Can the Infiltration Basin be designed with interior side slopes no steeper than 4:1 (h:v) (may be 3:1 [h:v] with approval by District Maintenance)? \* ☐ Yes ☐ No
7. Can vegetation be established in the Infiltration Basin? \*\* ☐ Yes ☐ No
8. Can diversion be designed, constructed, and maintained to bypass flows exceeding the WQV? \*\* ☐ Yes ☐ No
9. Can a gravity-fed Maintenance Drain be placed? \*\* ☐ Yes ☐ No

**Design Elements – Infiltration Trench**

1. Has a detailed investigation been conducted, including subsurface soil investigation, in-hole conductivity testing and groundwater elevation determination? (This report must be completed for PS&E level design.) \* ☐ Yes ☐ No
2. Is the surrounding soil within Hydrologic Soil Groups (HSG) Types A or B? \*\* ☐ Yes ☐ No
3. Since this BMP is used in series with a pretreatment (see No. 7 below), then does the total upstream infiltration by the pretreatment plus the void space volume of the Infiltration Trench at least equal the WQV, while maintaining a drawdown time of  $\leq 72$  hours? \*\* ☐ Yes ☐ No
4. Is the depth of the Infiltration Trench  $\leq 13$  ft? \* ☐ Yes ☐ No
5. Can an observation well be placed in the trench? \*\* ☐ Yes ☐ No
6. Can access be provided to the Infiltration Trench? \* ☐ Yes ☐ No
7. Can pretreatment be provided to capture sediment in the runoff (such as using vegetation)? \* ☐ Yes ☐ No
8. Can flow diversion be designed, constructed, and maintained to bypass flows exceeding the Water Quality event? \*\* ☐ Yes ☐ No

9. Can a perimeter curb or similar device be provided (to limit wheel loads upon the trench)? \*\* ☐ Yes ☐ No

**Design Elements and Feasibility – Infiltration-DPP BMPs**

\* **Required** Design Element – (see definition above)

\*\* **Recommended** Design Element – (see definition above)

1. Has a detailed soil investigation been conducted, to assure stability of the slope? \*\* ☐ Yes ☐ No
2. Does the soil have adequate infiltration rates or can the soil be amended to increase its infiltrating properties? \*\* ☐ Yes ☐ No
3. Are flow velocities from a peak drainage facility design event < 4 fps (i.e. low enough to prevent scour or erosion of DPP (swale or conveyance) as per HDM Table 873.3E)? Or has the BMP been designed to prevent scour or erosion for higher velocities (e.g. rock lined ditch). \* ☐ Yes ☐ No



## Treatment BMPs

### Checklist T-1, Part 5

Prepared by: Paul Kosinski Date: May 15, 2015 District-Co-Route: 11-SD-015  
 PM : R36.0/R37.2 Project ID (or EA): 11-14000093 (11-41840K) RWQCB: 9

#### Detention Devices

##### Feasibility

1. Is there sufficient head to prevent objectionable backwater conditions in the upstream drainage systems? ☒ Yes ☐ No
2. 2a) Is the volume of the Detention Device equal to at least the WQV? (Note: the WQV must be  $\geq 4,356 \text{ ft}^3$  [0.1 acre-feet]). If the BMP is used in series with a biofiltration device, then does the total upstream infiltration plus the Detention Device volume at least equal the WQV?. ☒ Yes ☐ No

Only answer (b) if the Detention Device is being used also to capture traction sand.

- 2b) Is the total volume of the Detention Device at least equal to the WQV plus the anticipated volume of traction sand, while maintaining a minimum 12 inch freeboard (1 ft)? ☒ Yes ☐ No
3. Is basin invert  $\geq 10$  ft above seasonally high groundwater or can it be designed with an impermeable liner? (Note: If an impermeable liner is used, the seasonally high groundwater elevation must not encroach within 12 inches of the invert.) ☐ Yes ☐ No

If No to any question above, then Detention Devices are not feasible.

4. Does adequate area exist within the right-of-way to place Detention Device(s)? ☒ Yes ☐ No  
If Yes, continue to the Design Elements section. If No, continue to Question 5.
5. If adequate area does not exist within right-of-way, can suitable, additional right-of-way be acquired to site Detention Device(s) and how much right-of way would be needed to treat WQV? \_\_\_\_\_ acres ☐ Yes ☐ No  
If Yes, continue to the Design Elements section. If No, continue to Question 6.
6. If adequate area cannot be obtained, document in Section 5 of the SWDR that the inability to obtain adequate area prevents the incorporation of this Treatment BMP into the project. ☐ Complete



**Design Elements**

\* **Required** Design Element – A “Yes” response to these questions is required to further the consideration of this BMP into the project design. Document a “No” response in Section 5 of the SWDR to describe why this Treatment BMP cannot be included into the project design.

\*\* **Recommended** Design Element – A “Yes” response is preferred for these questions, but not required for incorporation into a project design.

1. Has the geotechnical integrity of the site been evaluated to determine potential impacts to surrounding slopes due to incidental infiltration? If incidental infiltration through the invert of an unlined Detention Device is a concern, consider using an impermeable liner. \* ☐Yes ☐No
2. Has the location of the Detention Device been evaluated for any effects to the adjacent roadway and subgrade? \* ☐Yes ☐No
3. Can a minimum freeboard of 12 inches be provided above the overflow event elevation? \* ☐Yes ☐No
4. Is an overflow outlet provided? \* ☐Yes ☐No
5. Is the drawdown time of the Detention Device within 24 to 72 hours? \* ☐Yes ☐No
6. Is the basin outlet designed to minimize clogging (minimum outlet orifice diameter of 0.5 inches)? \* ☐Yes ☐No
7. Are the inlet and outlet structures designed to prevent scour and re-suspension of settled materials, and to enhance quiescent conditions? \* ☐Yes ☐No
8. Can vegetation be established in an earthen basin at the invert and on the side slopes for erosion control and to minimize re-suspension? Note: Detention Basins may be lined, in which case no vegetation would be required for lined areas. \* ☐Yes ☐No
9. Has sufficient access for Maintenance been provided? \* ☐Yes ☐No
10. Is the side slope 4:1 (h:v) or flatter for interior slopes? \*\* ☐Yes ☐No  
(Note: Side slopes up to 3:1 (h:v) allowed with approval by District Maintenance.)
11. If significant sediment is expected from nearby slopes, can the Detention Device be designed with additional volume equal to the expected annual loading? \*\* ☐Yes ☐No
12. Is flow path as long as possible ( $\geq 2:1$  length to width ratio at WQV elevation is recommended)? \*\* ☐Yes ☐No



## Treatment BMPs

### Checklist T-1, Part 8

Prepared by: Paul Kosinski Date: May 15, 2015 District-Co-Route: 11-SD-015

PM : R36.0/R37.2 Project ID (or EA): 11-14000093 (11-41840K) RWQCB: 9

#### **Media Filters**

Caltrans has approved two types of Media Filter: Austin Sand Filters and Delaware Filters. Austin Sand filters are typically designed for larger drainage areas, while Delaware Filters are typically designed for smaller drainage areas. The Austin Sand Filter is constructed with an open top and may have a concrete or earthen invert, while the Delaware is always constructed as a vault. See Appendix B, Media Filters, for a further description of Media Filters.

#### **Feasibility – Austin Sand Filter**

1. Is the volume of the Austin Sand Filter equal to at least the WQV using a 24 hour drawdown? (Note: the WQV must be  $\geq 4,356 \text{ ft}^3$  [0.1 acre-feet]) ☒ Yes ☐ No
2. Is there sufficient hydraulic head to operate the device (minimum 3 ft between the inflow and outflow chambers)? ☒ Yes ☐ No
3. If initial chamber has an earthen bottom, is initial chamber invert  $\geq 3$  ft above seasonally high groundwater? ☐ Yes ☐ No
4. If a vault is used for either chamber, is the level of the concrete base of the vault above seasonally high groundwater or is a special design provided?  
If No to any question above, then an Austin Sand Filter is not feasible. ☐ Yes ☐ No
5. Does adequate area exist within the right-of-way to place an Austin Sand Filter(s)? ☒ Yes ☐ No  
If Yes, continue to Design Elements sections. If No, continue to Question 6.
6. If adequate area does not exist within right-of-way, can suitable, additional right-of-way be acquired to site the device and how much right-of way would be needed to treat WQV? \_\_\_\_\_ acres ☐ Yes ☐ No  
If Yes, continue to the Design Elements section.  
If No, continue to Question 7.
7. If adequate area cannot be obtained, document in Section 5 of the SWDR that the inability to obtain adequate area prevents the incorporation of this Treatment BMP into the project. ☐ Complete  
If an Austin Sand Filter meets these feasibility requirements, continue to the Design Elements – Austin Sand Filter below.



**Feasibility- Delaware Filter**

1. Is the volume of the Delaware Filter equal to at least the WQV using a 48 hour drawdown? (Note: the WQV must be  $\geq 4,356 \text{ ft}^3$  [0.1 acre-feet], consult with District/Regional Design Storm Water Coordinator if a lesser volume is under consideration.) ☐Yes ☐No
2. Is there sufficient hydraulic head to operate the device (minimum 3 ft between the inflow and outflow chambers)? ☐Yes ☐No
3. Would a permanent pool of water be allowed by the local vector control agency? Confirm that check valves and vector proof lid as shown on standard detail sheets will be allowed, is used. ☐Yes ☐No

If No to any question, then a Delaware Filter is not feasible

4. Does adequate area exist within the right-of-way to place a Delaware Filter(s)?  
If Yes, continue to Design Elements sections. If No, continue to Question 5. ☐Yes ☐No
5. If adequate area does not exist within right-of-way, can suitable, additional right-of-way be acquired to site the device and how much right-of way would be needed to treat WQV? \_\_\_\_\_ acres  
If Yes, continue to the Design Elements section. If No, continue to Question 6. ☐Yes ☐No
6. If adequate area cannot be obtained, document in Section 5 of the SWDR that the inability to obtain adequate area prevents the incorporation of this Treatment BMP into the project. ☐Complete
7. Does the project discharge to a waterbody that has been placed on the 303-d list or has had a TMDL adopted for bacteria, mercury, sulfides, or low dissolved oxygen? ☐Yes ☐No  
  
If yes, contact the Regional/District NPDES Storm Water Coordinator to determine if standing water in this treatment BMP would be a risk to downstream water quality. If standing water is a potential issue, consider use of another treatment BMP.

If a Delaware Filter is still under consideration, continue to the Design Elements – Delaware Filter section.



**Design Elements – Austin Sand Filter**

\* **Required** Design Element – A “Yes” response to these questions is required to further the consideration of this BMP into the project design. Document a “No” response in Section 5 of the SWDR to describe why this Treatment BMP cannot be included into the project design.

\*\* **Recommended** Design Element – A “Yes” response is preferred for these questions, but not required for incorporation into a project design.

- |  |                              |                             |
|--|------------------------------|-----------------------------|
| 1. Is the drawdown time of the 2 <sup>nd</sup> chamber 24 hours? *   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 2. Is access for Maintenance vehicles provided to the Austin Sand Filter? *  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 3. Is a bypass/overflow provided for storms > WQV? *   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 4. Is the flow path length to width ratio for the sedimentation chamber of the “full” Austin Sand Filter $\geq 2:1$ ? **                                 | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 5. Can pretreatment be provided to capture sediment and litter in the runoff (such as using vegetation)? **  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 6. Can the Austin Sand Filter be placed using an earthen configuration? **<br>If No, go to Question 9.   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 7. Is the Austin Sand Filter invert separated from the seasonally high groundwater table by $\geq 10$ ft)? *<br>If No, design with an impermeable liner. | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 8. Are side slopes of the earthen chamber 3:1 (h:v) or flatter? *  | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 9. Is maximum depth $\leq 13$ ft below ground surface? *   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 10. Can the Austin Sand Filter be placed in an offline configuration? **   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |





**Design Elements – Delaware Filter**

\* **Required** Design Element – A “Yes” response to these questions is required to further the consideration of this BMP into the project design. Document a “No” response in Section 5 of the SWDR to describe why this Treatment BMP cannot be included into the project design.

\*\* **Recommended** Design Element – A “Yes” response is preferred for these questions, but not required for incorporation into a project design.

- |   |                              |                             |
|---|------------------------------|-----------------------------|
| 1. Is the drawdown time of the 2 <sup>nd</sup> chamber between 40 and 48 hours, typically 40-48 hrs? *      | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 2. Is access for Maintenance vehicles provided to the Delaware Filter? *                                    | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 3. Is a bypass/overflow provided for storms > WQV? **   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 4. Can pretreatment be provided to capture sediment and litter in the runoff (such as using vegetation)? ** | <input type="checkbox"/> Yes | <input type="checkbox"/> No |
| 5. Is maximum depth ≤ 13 ft below ground surface? *   | <input type="checkbox"/> Yes | <input type="checkbox"/> No |



# Attachment I

## 303(d) List of Receiving Waters



**2010 California 303(d) List of Water Quality Limited Segments\***

Water quality limited segments requiring a TMDL(5A), being addressed by TMDL(5B), and/or being addressed by an action other than TMDL(5C).

REGION	WATER BODY NAME	WATER BODY TYPE	INTEGRATED REPORT CATEGORY	CALWATER WATERSHED	POLLUTANT	POLLUTANT CATEGORY	FINAL LISTING DECISION	TMDL REQUIREMENT STATUS**	EXPECTED TMDL COMPLETION DATE***	POTENTIAL SOURCES
9	San Marcos Creek	River & Stream	5	90451000	DDE (Dichlorodiphenyldichloroethylene)	Pesticides	List on 303(d) list (TMDL required list)	5A	2019	Source Unknown
9	San Marcos Creek	River & Stream	5	90451000	Phosphorus	Nutrients	List on 303(d) list (TMDL required list)	5A	2019	Unknown Nonpoint Source
9	San Marcos Creek	River & Stream	5	90451000	Phosphorus	Nutrients	List on 303(d) list (TMDL required list)	5A	2019	Source Unknown
9	San Marcos Creek	River & Stream	5	90451000	Phosphorus	Nutrients	List on 303(d) list (TMDL required list)	5A	2019	Urban Runoff/Storm Sewers
9	San Marcos Creek	River & Stream	5	90451000	Phosphorus	Nutrients	List on 303(d) list (TMDL required list)	5A	2019	Unknown Point Source
9	San Marcos Creek	River & Stream	5	90451000	Sediment Toxicity	Toxicity	Do Not Delist from 303(d) list (TMDL required list)	5A	2019	Unknown Point Source
9	San Marcos Creek	River & Stream	5	90451000	Sediment Toxicity	Toxicity	Do Not Delist from 303(d) list (TMDL required list)	5A	2019	Urban Runoff/Storm Sewers
9	San Marcos Creek	River & Stream	5	90451000	Sediment Toxicity	Toxicity	Do Not Delist from 303(d) list (TMDL required list)	5A	2019	Unknown Nonpoint Source
9	San Marcos Creek	River & Stream	5	90451000	Selenium	Metals/Metalloids	List on 303(d) list (TMDL required list)	5A	2021	Source Unknown
9	San Marcos Lake	Lake & Reservoir	5	90452000	Ammonia as Nitrogen	Nutrients	List on 303(d) list (TMDL required list)	5A	2019	Unknown Point Source
9	San Marcos Lake	Lake & Reservoir	5	90452000	Ammonia as Nitrogen	Nutrients	List on 303(d) list (TMDL required list)	5A	2019	Urban Runoff/Storm Sewers
9	San Marcos Lake	Lake & Reservoir	5	90452000	Ammonia as Nitrogen	Nutrients	List on 303(d) list (TMDL required list)	5A	2019	Unknown Nonpoint Source
9	San Marcos Lake	Lake & Reservoir	5	90452000	Nutrients	Nutrients	List on 303(d) list (TMDL required list)	5A	2019	Urban Runoff/Storm Sewers
9	San Marcos Lake	Lake & Reservoir	5	90452000	Nutrients	Nutrients	List on 303(d) list (TMDL required list)	5A	2019	Unknown Nonpoint Source
9	San Marcos Lake	Lake & Reservoir	5	90452000	Nutrients	Nutrients	List on 303(d) list (TMDL required list)	5A	2019	Unknown Point Source

## Attachment J

### Water Quality Standard Inventory Database (San Marcos Creek)



CALIFORNIA DEPARTMENT OF  
TRANSPORTATION[Caltrans](#) > [DEA](#) > [Stormwater](#) > Water Quality Planning Tool

## San Marcos Creek

## Watershed Specific Water Quality Objectives

Waterbody Reach Beneficial Use Constituent Limit Units Details Reference Comments

## Numeric Water Quality Objectives

Beneficial Use	Constituent	Limit	Units	Details	Reference	Comments
Agricultural Supply	Boron	0.75	mg/L	-	Quality Criteria for Water, 1986 - Gold Book.	
Warm Freshwater Habitat	Dissolved Oxygen	-5	mg/L	-		

## Ammonia Water Quality Objectives

Beneficial Use	Constituent	pH	Temperature	Duration	Concentration	Units	Details	Reference
Agricultural Supply	Ammonia as N	-	-	-	0.025	mg/L	-	
Water Contact Recreation	Ammonia as N	-	-	-	0.025	mg/L	-	
Non-Contact Water Recreation	Ammonia as N	-	-	-	0.025	mg/L	-	
Warm Freshwater Habitat	Ammonia as N	-	-	-	0.025	mg/L	-	
Wildlife Habitat	Ammonia as N	-	-	-	0.025	mg/L	-	

## Bacteria Water Quality Objectives

Beneficial Use	Constituent	Limit	Units	Details	Reference	Comments
Water Contact Recreation	Fecal Coliform	400	Count per 100 ml	Log Mean-10% of Samples for 30 day		Log mean value. Based on more than 10 percent of total samples during any 30-day period.
Water Contact Recreation	Fecal Coliform	200	Count per 100 ml	Log Mean-5 Samples for 30 day		Log mean value. Based on a minimum of not less than five samples for any 30-day period.
Non-Contact Water Recreation	Fecal Coliform	4000	Count per 100 ml	Average-10% of Samples for 30 day		Average value. Based on more than 10 percent of total samples during any 30-day period.
Non-Contact Water Recreation	Fecal Coliform	2000	Count per 100 ml	Average-for 30 day		Average value. Based on samples for a 30-day period.

## Narrative Water Quality Objectives

Constituent	Description
Biostimulatory Substances	Inland surface waters, bays and estuaries and coastal lagoon waters shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent that such growths cause nuisance or adversely affect beneficial uses.
Color	Waters shall be free of coloration that causes nuisance or adversely affects beneficial uses. The natural color of fish, shellfish or other resources in inland surface waters, coastal lagoon or bay and estuary shall not be impaired.
Dissolved Oxygen	The dissolved oxygen concentration in ocean waters shall not at any time be depressed more than 10 percent from that which occurs naturally, as the result of the discharge of oxygen demanding waste materials.
Floating Material	Waters shall not contain floating material, including solids, liquids, foams, and scum in concentrations which cause nuisance or adversely affect beneficial uses.
Oil and Grease	Waters shall not contain oils, greases, waxes, or other materials in concentrations which result in a visible film or coating on the surface of the water or on objects in the water, or which cause nuisance or which otherwise adversely affect beneficial uses.
pH	The pH value shall not be changed at any time more than 0.2 pH units from that which occurs naturally. Changes in normal ambient pH levels shall not exceed 0.2 units in waters with designated marine (MAR), or estuarine (EST), or saline (SAL) beneficial uses. Changes in normal ambient pH levels shall not exceed 0.5 units in fresh waters with designated cold freshwater habitat (COLD) or warm freshwater habitat (WARM) beneficial uses. In bays and estuaries the pH shall not be depressed below 7.0 nor raised above 9.0. In inland surface waters the pH shall not be depressed below 6.5 nor raised above 8.5.
Radioactivity	Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life nor that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal or aquatic life.
Sediment	The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.
Suspended Solids	Waters shall not contain suspended and settleable solids in concentrations of solids that cause nuisance or adversely affect beneficial uses.
Taste and Odor	Waters shall not contain taste or odor producing substances at concentrations which cause a nuisance or adversely affect beneficial uses. The natural taste and odor of fish, shellfish or other Regional water resources used for human consumption shall not be impaired in inland surface waters and bays and estuaries.
Temperature	The natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Board that such alteration in temperature does not adversely affect beneficial uses. At no time or place shall the temperature of any COLD water be increased more than 5F above the natural receiving water temperature.  All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life. Compliance with this objective will be determined by use of indicator organisms, analyses of species diversity, population density, growth anomalies, bioassays of appropriate duration, or other appropriate methods as specified by the Regional Board. The survival of aquatic life in surface waters subjected to a waste discharge or other controllable water quality factors, shall not be less than that for the same water body in areas unaffected by the waste discharge or, when necessary, for other control water that is consistent with requirements specified in US EPA, State Water Resources Control Board.
Toxicity	As a minimum, compliance with this objective as stated in the previous sentence shall be evaluated with a 96-hour acute bioassay. In addition, effluent limits based upon acute bioassays of effluents will be prescribed where appropriate, additional numerical receiving water objectives for specific toxicants will be established as sufficient data become available, and source control of toxic substances will be encouraged.
Turbidity	Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses.

## Attachment K

BMP Cost: Project Planning Cost Estimate (PPCE)



Storm Water BMP Cost Summary - PID Phase Only  
THIS INFORMATION IS FOR CALTRANS INTERNAL USE ONLY

Project Name:	I-15 / DEER SPRINGS ROAD INTERCHANGE
District:	11
County:	San Diego
Route:	15
Postmile Limits:	PM R36.0/R37.2
Project ID (or EA):	11-14000093 (11-41840K)

**1.0 Design Pollution Prevention BMPs**

BMP Quantity	Unit Cost		
1	\$120,000	SUBTOTAL	\$120,000

**2.0 Treatment BMPs**

Miles of Pavement	\$100,000 per Mile		
1.8	\$180,000	SUBTOTAL	\$324,000

**3.0 Prepare SWPPP**

Total Construction Cost	Cost per Table F-6		
\$20,200,000	\$11,400	SUBTOTAL	\$11,400

RQM Value (if SWPPP is required):

\$5,400

**4.0 Construction Site BMPs**

Total Construction Cost	x.x% per Table F-3		
\$20,200,000	2.00%	SUBTOTAL	\$404,000

**4.0 Stormwater Monitoring**

Project Risk Level	SWM Cost-PPDG Appendix F*		
2	\$26,400	SUBTOTAL	\$52,800

<b>TOTAL COST FOR STORM WATER BMPs</b>	<b>\$912,200</b>
--	------------------

\*SWM Cost =  $M \times \{[\text{Days}^{0.5} \times \$1000] + \$2000 (1 + 0.1 (\text{Months}/12))\}$   
where  $M=1$ ;  $\text{Days}^{0.5} = 24$ ; and  $\text{Months} = 24$

**ATTACHMENT I**  
**TRAFFIC ENGINEERING PERFORMANCE ASSESSMENT**



TRAFFIC ENGINEERING PERFORMANCE ASSESSMENT  
**I-15 AT DEER SPRINGS ROAD INTERCHANGE**  
San Diego County, California  
June 25<sup>th</sup>, 2015

LLG Ref. 3-14-2316

*Prepared by:*  
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*Under the Supervision of:*  
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TRAFFIC ENGINEERING PERFORMANCE ASSESSMENT  
**I-15 AT DEER SPRINGS ROAD INTERCHANGE**

San Diego County, California  
June 25<sup>th</sup>, 2015

## 1.0 INTRODUCTION

This report contains traffic information in support of the Project Study Report (PSR) prepared for the I-15 / Deer Springs Road interchange project in the County of San Diego. This Traffic Engineering Performance Assessment (TEPA) is prepared in accordance with Caltrans guidelines and presents our preliminary traffic engineering findings and provides recommendations for future analysis of the interchange alternatives. Existing traffic data was collected at the four study area intersections and segments. Freeway and ramp traffic volumes were obtained from Caltrans' California Freeway Performance Measurement System (PeMS). Analysis of existing and future conditions was performed for several interchange alternatives and is presented in this report.

The objective of the PSR is to determine the preliminary geometric design and operational characteristics for the redesigned I-15 / Deer Springs Road interchange. The information in the PSR will result in preliminary alternatives for the improvement of the I-15 / Deer Springs Road interchange that will relieve traffic congestion around the interchange and the ramps in the long-term.



Figure 1-1

## Project Area Map

I-15 AT DEER SPRINGS ROAD INTERCHANGE

## 2.0 PROJECT DESCRIPTION

The I-15/Deer Springs Road interchange serves as a primary access to the interstate highway system for the Hidden Meadows and Twin Oaks Valley communities.

### 2.1 Network Options

The following two Network Options were analyzed in the PSR:

- *Option A* assumes Deer Springs Road to be a 4.1A Major Road between I-15 SB Ramps and Twin Oaks Valley Road, except between Sarver Lane and Mesa Rock Road, where it is assumed as a 2.1A Community Collector section with a continuous turn lane.
- *Option B* assumes Deer Springs Road as a 6.1 Prime Arterial per the San Diego County Mobility Element.

**Figure 2-1** depicts the two network options.

In addition to the above options, volumes are forecasted without the eastward extension of Mountain Meadow Road (Mirar De Valle Road) to Valley Center Road, since this connection is speculative.

### 2.2 Intersection Control Evaluation (ICE) Process

In the development of the alternatives for the PSR-PDS and as part of the Intersection Control Evaluation (ICE) process, the Project Development Team (PDT) conducted an alternatives screening process through a series of workshops. During this screening process, the PDT determined weighted evaluation criteria along with a range of potential alternatives. The weighted evaluation criteria were then used to compare and rank each of the potential alternatives. As a result of this screening process, it was decided to eliminate the single point interchange (SPI), hook ramp interchange, 6-leg roundabout, along with various loop ramp alternatives from further evaluation.

### 2.3 Interchange Alternatives

#### 2.3.1 *Alternative 1 – No Build*

In this alternative, the existing interchange configuration and intersection geometry is assumed and no improvements are included.

**Figure 2-2** depicts the Existing interchange configuration and intersection geometry and indicates the intersections studied in this document.

#### 2.3.2 *Alternative 2 – Diamond*

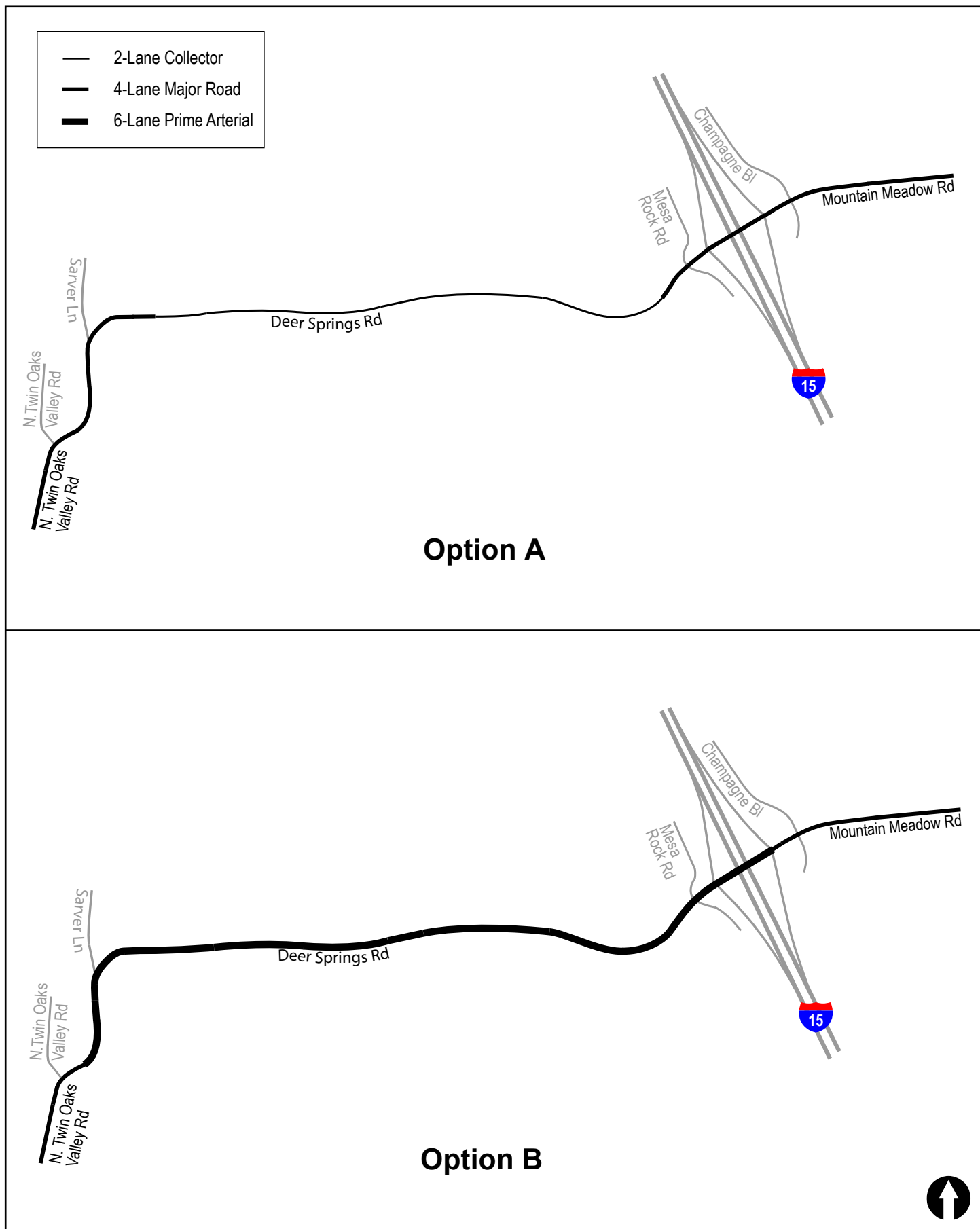
In this alternate, the existing interchange configuration is assumed with improved geometry at each of the intersections such as dual left-turn lanes and additional through lane(s) at the two ramp intersections. It is proposed to relocate the I-15 SB ramps further east to increase intersection spacing between the SB ramps and Mesa Rock Road.

### 2.3.3 *Alternative 3 – Diverging Diamond Interchange (DDI)*

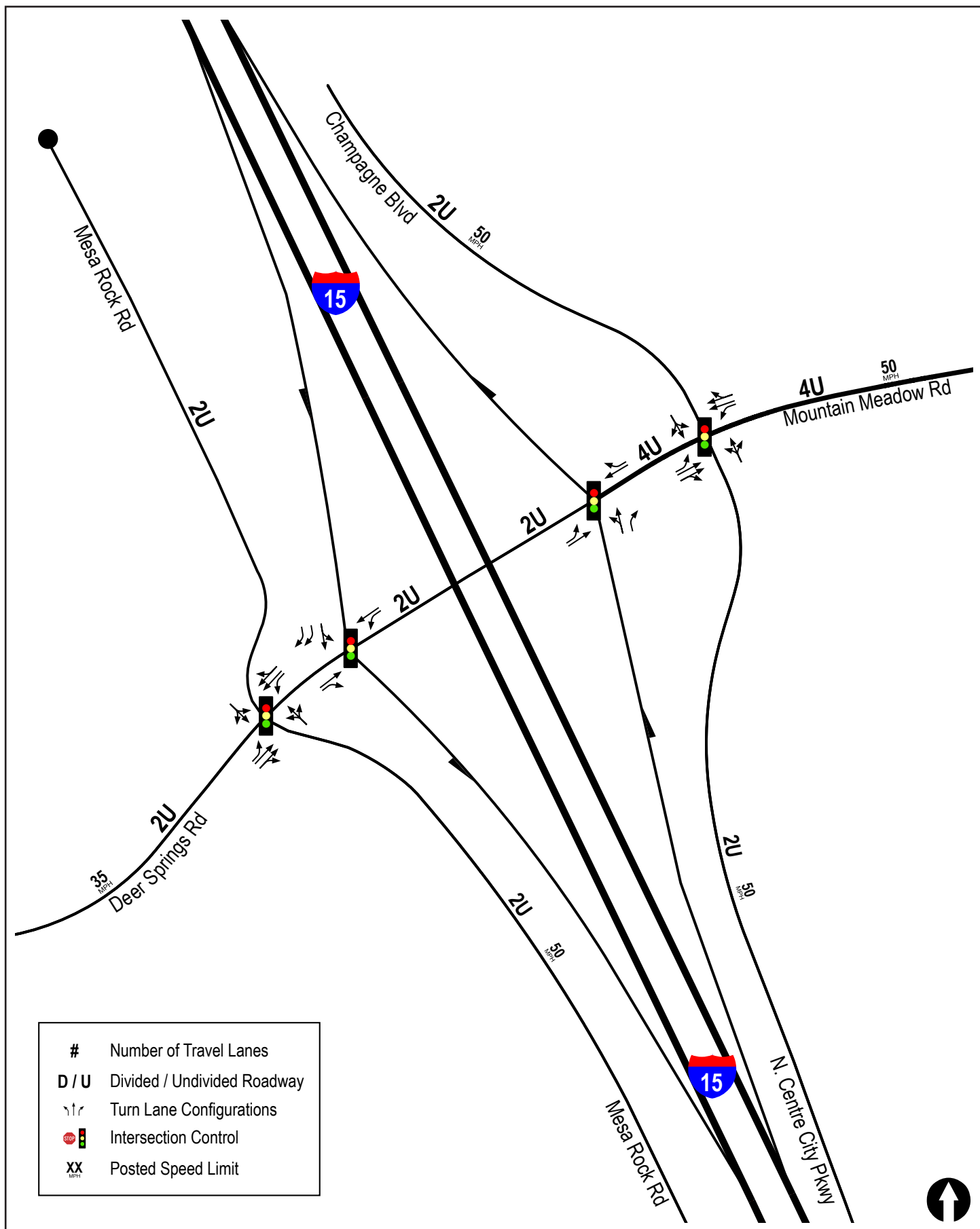
In this alternative, a *diverging diamond interchange* (DDI) configuration is assumed. The adjacent intersections at the frontage roads are signalized.

### 2.3.4 *Alternative 4 – Four-Roundabouts Interchange*

In this alternative, roundabouts are assumed at each of the ramp intersections and the frontage road intersections at Deer Springs Road.







N:\2316\Operations Report\TEPA\Figures  
Date: 05/04/15

**Figure 2-2**  
**Existing Roadway and Intersection Geometry**

I-15 AT DEER SPRINGS ROAD INTERCHANGE



### 3.0 EXISTING CONDITIONS

This section discusses the existing conditions in the study area. Existing conditions traffic volume data was obtained from the *Final Traffic Volumes Report I-15/Deer Springs Road Interchange*, San Diego, California, April 21<sup>st</sup>, 2015. The data was assembled from the Caltrans' California Freeway Performance Measurement System (PeMS) for the freeway segments. AM / PM peak hour and daily segment volume counts were conducted on January 21, 2014.

Average Daily Traffic (ADT) volumes for existing conditions are summarized in *Table 3-1*.

TABLE 3-1  
EXISTING SEGMENT VOLUMES

Street Segment	ADT <sup>a</sup>
<b>I-15 Mainline</b>	
Gopher Canyon Rd to Deer Springs Rd	127,900
Deer Springs Rd to Centre City Pkwy	124,200
<b>Deer Springs Road</b>	
Sarver Lane to Mesa Rock Road	17,000
Mesa Rock Road to I-15 SB Ramps	20,000
I-15 SB Ramps to I-15 NB Ramps	15,600
I-15 NB Ramps to Champagne Boulevard	11,200
<b>Mountain Meadow Road</b>	
East of Champagne Blvd	7,900

**Footnote:**

a. ADT – Average Daily Traffic Volumes

### 3.1 Existing Intersection Operations

*Table 3-2* summarizes the existing peak hour intersection operations at the study area intersections. As seen in *Table 3-2*, all study area intersections are calculated to currently operate at LOS D or better, except the Deer Springs Road / I-15 NB Ramps intersection, which is calculated to operate at LOS E during the PM peak hour.

However, though the calculated existing intersection operations are acceptable, during the AM peak hour, the westbound queues extend from Mesa Rock Road several hundred feet eastward, east of the southbound ramps intersection and during the PM peak hour, the eastbound queues extend from the southbound ramps intersection several hundred feet westward, west of Mesa Rock Road.

**TABLE 3-2  
EXISTING INTERSECTION OPERATIONS**

Intersection	Control Type	Peak Hour	Delay <sup>a</sup>	LOS <sup>b</sup>
1. Deer Springs Rd / Champagne Blvd	Signal	AM	11.3	B
		PM	11.4	B
2. Deer Springs Rd / I-15 NB Ramps	Signal	AM	24.0	C
		PM	<b>66.0</b>	<b>E</b>
3. Deer Springs Rd / I-15 SB Ramps	Signal	AM	35.1	D
		PM	31.7	C
4. Deer Springs Rd / Mesa Rock Rd	Signal	AM	18.6	B
		PM	18.3	B

**Footnotes:**

- a. Average delay expressed in seconds per vehicle.
- b. Level of Service

Signalized		Unsignalized	
Delay	LOS	Delay	LOS
0.0 < 10.0	A	0.0 < 10.0	A
10.1 to 20.0	B	10.1 to 15.0	B
20.1 to 35.0	C	15.1 to 25.0	C
35.1 to 55.0	D	25.1 to 35.0	D
55.1 to 80.0	E	35.1 to 50.0	E
> 80.1	F	> 50.1	F

## 4.0 SUMMARY OF PRELIMINARY FINDINGS & RECOMMENDATIONS

### 4.1 Assessment Approach, Data Sources and Major Assumptions

#### 4.1.1 *Forecasted Traffic Volumes & Conditions*

Future traffic volume data was obtained from the *Final Traffic Volumes Report I-15/Deer Springs Road Interchange*, San Diego, California, April 21<sup>st</sup>, 2015. Long-term analysis is based on SANDAG Series 12 Year 2035 model. Therefore, LLG obtained Year 2035 with Sierra Project model runs for *Options A and B*, these models included the *Mountain Meadow Road connection*. Year 2040 volumes were forecasted using a three-step process.

#### Step 1 – Year 2035 Volume Forecast

LLG worked with SANDAG staff to enter project land uses into the Year 2035 model. Project land uses for each of the 7 neighborhoods were input into the model exactly as proposed. The model runs for all Options used the same project land use inputs. The network assumptions for Options A and B were inputted accordingly for each model run while keeping the land use constant. The Year 2035 with Sierra Project volumes were obtained from each model run.

#### Step 2 – Growing Year 2035 Volumes to Year 2040

In Step 2, a Select Zone Assignment for the project-only trips was conducted. The project-only trips assigned to the street system were then removed from the Year 2035 With Sierra Project ADT to arrive at Year 2035 Without Sierra Project traffic volumes. This was done so Sierra would not have the growth factor applied to them.

#### Step 3 – Year 2040 Volumes

Growth factors were developed for each segment and five years of growth was added to each segment. The Sierra Project traffic was then added back in to obtain the Year 2040 with Sierra Project traffic. These steps are described in detail in the following section.

A model without the eastward connection of Mountain Meadow Road towards Valley Center Road was run. The volumes from the “with” and “without” Mountain Meadow Road connection were compared and a relationship (percentage change) between the two was developed for each segment. These percentage changes were applied to the ADT volumes, to obtain the *Option A without Mountain Meadow Road Connection* volumes. The AM / PM peak hour volumes were forecast as described above for *Option A*.

Average Daily Traffic (ADT) volumes (without the eastward connection of Mountain Meadow Road for Option A and Option B are summarized in **Table 4-1**.

#### 4.1.2 *Methodology / Analysis Software*

Peak hour intersection analysis was conducted for the four study area intersections for all project alternatives. The Synchro analysis software was used to conduct the peak hour intersection analysis. The following section summarizes the results of this analysis.

TABLE 4-1  
SEGMENT VOLUMES

Street Segment	Existing	Year 2040	
		Option A	Option B
<b>I-15 Mainline</b>			
Gopher Canyon Rd to Deer Springs Rd	127,900	178,840	180,090
Deer Springs Rd to Centre City Pkwy	124,200	180,370	185,690
<b>Deer Springs Road</b>			
Sarver Lane to Mesa Rock Road	17,000	24,620	34,950
Mesa Rock Road to I-15 SB Ramps	20,000	36,010	38,510
I-15 SB Ramps to I-15 NB Ramps	15,600	26,100	29,330
I-15 to Champagne Boulevard	11,200	22,750	27,650
<b>Mountain Meadow Road</b>			
East of Champagne Blvd	7,900	14,560	15,530

#### 4.1.3 Preliminary Assessment Findings

The existing nonstandard intersection spacing between the Mesa Rock Road intersection and the southbound I-15 ramp termini negatively impacts traffic operations in this area. Considering this, the existing north leg of the Mesa Rock Road intersection, which is proposed to be used as the main entrance for the Sierra Project, has been positioned as far west as possible for each of the build alternatives. Due to geometric, socio economic, and other environmental constraints as described in the PEAR, this intersection cannot be positioned any further west. The south leg of Mesa Rock Road cannot be moved due to existing development. In addition, the southbound I-15 ramp termini have been positioned as far east as possible for each of the alternatives in order to maximize the distance between these intersections and optimize the overall traffic operations for this area.

#### Alternative 1 – No Build

Option B volumes are used in the *No Build* analysis since that corresponds to the County Mobility Element. **Table 4-1** summarizes the *No Build* intersection analysis. As seen in *Table 4-1* two intersections are calculated to operate at LOS E/F or worse conditions.

In the *No-Build* alternative, though the calculated intersection operations are acceptable, as in the case of the existing condition, during the AM peak hour, the westbound queues extend from Mesa Rock Road several hundred feet eastward, east of the southbound ramps intersection and during the PM peak hour, the eastbound queues extend from the southbound ramps intersection several hundred feet westward, west of Mesa Rock Road.

## Alternative 2 – Diamond Alternative

**Table 4-2** summarizes the *Diamond* intersection analysis. As seen in *Table 4-2* all intersections are calculated to operate at LOS D or better.

Though the calculated intersection operations are acceptable, as in the case of the *No-Build* condition, during the AM peak hour, the westbound queues extend from Mesa Rock Road several hundred feet eastward, east of the southbound ramps intersection and during the PM peak hour, the eastbound queues extend from the southbound ramps intersection several hundred feet westward, west of Mesa Rock Road.

## Alternative 3 – Diverging Diamond Alternative

**Table 4-2** summarizes the *Diverging Diamond* intersection analysis. As seen in *Table 4-2* all intersections are calculated to operate at LOS D or better.

In this alternative, though the calculated intersection operations are acceptable, as in the case of the Alternative 2, during the AM peak hour, the westbound queues extend from Mesa Rock Road several hundred feet eastward, east of the southbound ramps intersection and during the PM peak hour, the eastbound queues extend from the southbound ramps intersection several hundred feet westward, west of Mesa Rock Road.

## Alternative 4 – Four Roundabouts Alternative

Based on the future forecasted volumes, two-lane roundabouts are not expected to operate at acceptable levels of service in the long-term. Therefore, a preliminary “sensitivity” analysis was conducted to determine the period up to which a system of two lane roundabouts would operate at LOS D or better. This analysis indicated that both with Option A and Option B traffic, the system of two-lane roundabouts are calculated to operate at LOS E or worse prior to Year 2040. Another analysis was conducted to determine if a system of 3/2-lane roundabouts would operate at LOS D or better for a few years. This alternative was calculated to operate at LOS D or better for 5 years or less from installation.

The analysis of a *4-Roundabout* alternative is not finalized. The 4-roundabouts could be analyzed as a network using the VisSim or Corsim softwares in the PR&ED phase. It is possible that the roundabouts would operate more efficiently when analyzed as a network. Since standards and software used to analyze the capacity of roundabouts are evolving, further analysis of this alternative will be required during the PA&ED phase to fully assess its traffic performance per the required Intersection Control Evaluation (ICE) process. As such, the PDT determined that this alternative should remain in the PSR-PDS.

**TABLE 4-1**  
**INTERSECTION OPERATIONS: ALTERNATIVE 1 – NO BUILD**

Intersection	Control Type	Peak Hour	Delay <sup>a</sup>	LOS <sup>b</sup>
1. Deer Springs Rd / Champagne Blvd	Signal	AM	27.7	C
		PM	31.8	C
2. Deer Springs Rd / I-15 NB Ramps	Signal	AM	<b>55.7</b>	<b>E</b>
		PM	<b>236.0</b>	<b>F</b>
3. Deer Springs Rd / I-15 SB Ramps	Signal	AM	<b>62.2</b>	<b>E</b>
		PM	<b>161.8</b>	<b>F</b>
4. Deer Springs Rd / Mesa Rock Rd	Signal	AM	38.0	D
		PM	30.4	C

**Footnotes:**

- a. Average delay expressed in seconds per vehicle.
- b. Level of Service

Signalized	
Delay	LOS
0.0 < 10.0	A
10.1 to 20.0	B
20.1 to 35.0	C
35.1 to 55.0	D
55.1 to 80.0	E
> 80.1	F

TABLE 4-2  
INTERSECTION OPERATIONS

Intersection	Control Type	Peak Hour	OPTION A		OPTION B	
			Delay <sup>a</sup>	LOS <sup>b</sup>	Delay	LOS
Alternative 2 – Diamond						
1. Deer Springs Rd / Champagne Blvd	Signal	AM	47.5	D	49.7	D
		PM	38.4	D	39.3	D
2. Springs Rd / I-15 NB Ramps	Signal	AM	35.0	C	35.6	D
		PM	51.6	D	50.7	D
3. Deer Springs Rd / I-15 SB Ramps	Signal	AM	42.7	D	42.1	D
		PM	25.0	C	29.5	C
4. Deer Springs Rd / Mesa Rock Rd	Signal	AM	29.9	C	23.8	C
		PM	48.3	D	35.9	D
Alternative 3 – Diverging Diamond						
1. Deer Springs Rd / Champagne Blvd	Signal	AM	43.3	D	36.9	D
		PM	47.1	D	42.2	D
2. Deer Springs Rd / I-15 NB Ramps	Signal	AM	31.4	C	14.1	B
		PM	34.2	C	49.7	D
3. Deer Springs Rd / I-15 SB Ramps	Signal	AM	16.6	B	8.5	A
		PM	22.2	C	21.8	C
4. Deer Springs Rd / Mesa Rock Rd	Signal	AM	25.3	C	28.9	C
		PM	22.6	C	23.7	C

**Footnotes:**

- a. Average delay expressed in seconds per vehicle.  
b. Level of Service

Signalized	
Delay	LOS
0.0 < 10.0	A
10.1 to 20.0	B
20.1 to 35.0	C
35.1 to 55.0	D
55.1 to 80.0	E
> 80.1	F

## 5.0 SCOPE OF FUTURE TRAFFIC ENGINEERING STUDIES, ACTIVITIES, AND TASKS

Further operational analyses listed below will be conducted:

- Freeway mainline segments
- ILV analysis of the ramp intersections
- Ramp merge
- Ramp diverge

The following will be evaluated / developed:

- Vehicular, pedestrian and bicycle safety for each of the alternatives
- Electrical systems including type, service, hardware, software
- A traffic management plan for the work zone during construction





**From:** [Goebel, Karen](#)  
**To:** [Michael McCollum](#)  
**Cc:** [Fris, Michael](#); [Mendel Stewart](#); [Lynch, Michelle R CIV USARMY CESPL \(US\)](#); [Mark Wardlaw](#); [Ed Pert](#)  
**Bcc:** [susan\\_wynn@fws.gov](mailto:susan_wynn@fws.gov)  
**Subject:** Newland Sierra Project 4(d) vs Section 7 vs Section 10  
**Date:** Thursday, March 16, 2017 1:14:39 PM

---

Hi Mike,

In follow-up to our discussion on Friday, Mike Fris asked me to provide some additional information concerning the need for a take exemption for gnatcatchers for the Newland Sierra project. I have copied the Department and the County on this email so that they are informed about this discussion. We have had these same discussions with the project proponents at meetings where the Department and County were present so the information should not be new to them. I am also copying the Corps of Engineers (Corps) since they may be involved through the section 7 consultation process.

As we discussed, there are 3 processes allowed under the Act for the Service to grant take exemptions: through section 7 consultations where a Federal nexus exists, through section 10 permits, and for threatened species only (e.g., gnatcatcher), special 4(d) rules.

All of these avenues are available to the project proponents for the Newland Sierra project because 1) a Federal nexus exists under section 7 with the Corps, 2) an individual section 10 permit could be pursued in advance of the North County regional planning effort, which is still underway, or 3) the project proponent could apply through the County for a habitat loss permit (HLP) consistent with the special 4(d) rule, State NCCP process and conservation guidelines, and the County's ordinance implementing the 4(d) process within the County.

This is to confirm that only one process is required to grant the take exemption such that no HLP permit would be required if a take exemption was granted through either the section 7 or section 10 process. For the benefit of the Department and County, this statement is confirmed in the special 4(d) rule on page 65090 and in Attachment F of the County's ordinance, which have been forwarded to the Department and County by separate email.

You have asked for clarification regarding how the Service would address the coastal sage scrub (CSS) impacts of the project on gnatcatcher if the Corps initiated section 7 consultation with us. We attempt to address this question here, though we have not yet seen the Corps' final scope of analysis for areas under their jurisdiction nor have we determined whether our scope of analysis may differ. I also do not believe that the Corps has initiated consultation with us for the Newland Sierra project.

For discussion purposes only, let's assume the Service will include all CSS within our scope of analysis. I assume this may be logical in this instance because CSS is the primary habitat of gnatcatchers and we will need to evaluate the impact of both the loss and conservation of CSS due to the project on individual gnatcatchers (i.e., will there be take?) and determine how these impacts affect overall gnatcatcher survival and recovery at the species level, as is required when making our jeopardy/no jeopardy determination.

From the preliminary information we have received, the project will remove occupied CSS near the I-15 corridor supporting 1 gnatcatcher pair. I am not quite sure how much of this pair's territory will be affected without specific project information; but for this purpose, let's assume the loss represents the majority, if not all, of the CSS within this pair's territory.

Although unoccupied CSS exists in the southern interior section of the project site, this CSS also falls within the development footprint. Thus, birds displaced from existing occupied habitat cannot be expected to disperse to nearby unoccupied habitat onsite. Likewise, CSS within the northern portion of the site is already occupied. Based on this preliminary assessment, take of the gnatcatcher pair near the I-15 corridor is likely.

In making our jeopardy/no jeopardy determination, impacts to 1 pair of gnatcatchers and loss of the onsite CSS will be measured against conservation of the CSS in the northern portion of the site and any offsite conservation required as mitigation through the CEQA process. Thus, under this scenario, we will have addressed all of the onsite habitat, whether lost or conserved; the unoccupied CSS onsite, though no take is anticipated specifically from removal of unoccupied CSS; and any offsite habitat offered as mitigation in support of recovery of the species.

We should also clarify that the Service does not take a position as to which path you take (section 7 vs. HCP vs. 4(d)/HLP). We are simply clarifying options for you. Issuance of a non-jeopardy biological opinion should not be viewed as Service support for the project (or lack of support). We have expressed concern to the County about the overall project design's fragmentation of a core habitat area. We have also requested clarification on how the County will assemble a North County

preserve that relies on conservation of 75 percent of the Pre-Approved Mitigation Area when large projects, such as Newland Sierra and others, are not required to individually meet this conservation goal. Our understanding is that the County views these issues as resolvable and plans to address them in future iterations of the conservation design. Nevertheless, these are regional conservation planning issues that have not yet been resolved and which may be highlighted during the CEQA review process for this project.

Hope this helps, and you can call me if you have questions. I will be teleworking (760-415-2802) this afternoon up until 4:00 pm. After that, I am off to Seattle through Monday of next week.

Sincerely,

Karen

Karen Goebel  
Assistant Field Supervisor  
Carlsbad Fish and Wildlife Office  
2177 Salk Avenue, Suite 250  
Carlsbad, California 92008  
760/431-9440, ext. 296  
760/431-9624 Fax



**From:** [Zack, Winston S CIV CPMS \(US\)](#)  
**To:** [Stadtlander, Doreen](#)  
**Cc:** [susan\\_wynn](#); [Lynch, Michelle R CIV USARMY CESPL \(US\)](#); [Dahl, Kyle J CIV USARMY CESPL \(US\)](#)  
**Subject:** RE: [Non-DoD Source] Re: [EXTERNAL] Newland Sierra - Corps-Service-Applicant meeting  
**Date:** Thursday, May 3, 2018 1:35:57 PM

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The Applicant is aware that updated surveys will need to be done. They can't do those this year because of their EIR process doesn't want updated surveys. So they plan on conducting updated surveys next year.

The main point of this requested meeting is to identify Scope and what the Corps' Action Area will be for future consultation. The other part of the meeting would be related to what, if any, other non-Corps areas of the project site may/may not need to be consulted on. There are probably other questions the Applicant (and team) want to get clarified, but I can't think of what those would be right now.

Thanks!

-----Original Message-----

From: Stadtlander, Doreen [[mailto:doreen\\_stadtlander@fws.gov](mailto:doreen_stadtlander@fws.gov)]  
Sent: Thursday, May 3, 2018 1:18 PM  
To: Zack, Winston S CIV CPMS (US) <Winston.S.Zack@usace.army.mil>  
Cc: susan\_wynn <susan\_wynn@fws.gov>; Lynch, Michelle R CIV USARMY CESPL (US) <Michelle.R.Lynch@usace.army.mil>; Dahl, Kyle J CIV USARMY CESPL (US) <Kyle.J.Dahl@usace.army.mil>  
Subject: [Non-DoD Source] Re: [EXTERNAL] Newland Sierra - Corps-Service-Applicant meeting

Hi Winston,

My understanding is that the Corps had previously met with the project applicant and recommended that the CAGN surveys be updated. Have you received the results?

Doreen

On Thu, May 3, 2018 at 11:00 AM, Zack, Winston S CIV CPMS (US) <Winston.S.Zack@usace.army.mil> <<mailto:Winston.S.Zack@usace.army.mil>> > wrote:

Susan and Doreen,

Could you please provide me with some dates/times we could set up a meeting for the Newland Sierra Project?

I recall you wanted to have an Agency (Corps & Service) meeting before we meet with the Applicant. So, potentially we could have back-to-back meetings on the same day? Food for thought.

Thank you,

Winston S. Zack  
Regulatory Project Manager, Archaeologist, M.S., RPA  
U.S. Army Corps of Engineers Regulatory Division  
5900 La Place Court, Suite 100  
Carlsbad, CA 92008  
Office Phone: (760) 602-4838

winston.s.zack@usace.army.mil <<mailto:winston.s.zack@usace.army.mil>>

--

Doreen Stadtlander  
Division Chief  
Carlsbad Fish and Wildlife Office  
2177 Salk Avenue, Suite 250  
Carlsbad, CA 92008  
(760) 431-9440, ext. 223

**6a**

**From:** [Goebel, Karen](#)  
**To:** [Statdlander, Doreen](#); [Wynn, Susan](#); [Carol Roberts](#); [Jon Avery](#); [Woulfe, MaryBeth](#); [Jane Hendron](#)  
**Subject:** Fwd: Permitting issue  
**Date:** Tuesday, April 18, 2017 2:06:43 PM  
**Attachments:** [San Diego Issue Brief 4\\_18\\_2017.docx](#)

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Just FYI. This meeting will be with Paul and Mike next week as a result of the Matrix meeting in D.C. Bullet assignment was prepared by Dan and edited by me. See attached.

Jane, copying you because this is a congressional meeting. Did you ever see the matrix? If not, I can forward to you. It would be good for you to be aware of these issues since they seem to be causing the RO to engage a lot, and I don't know how that translates into potential hot topics or not.

Karen

Karen Goebel  
Assistant Field Supervisor  
Carlsbad Fish and Wildlife Office  
2177 Salk Avenue, Suite 250  
Carlsbad, California 92008  
760/431-9440, ext. 296  
760/431-9624 Fax

----- Forwarded message -----

**From:** Cox, Dan <[dan\\_cox@fws.gov](mailto:dan_cox@fws.gov)>  
**Date:** Mon, Apr 17, 2017 at 3:55 PM  
**Subject:** Re: Permitting issue  
**To:** "Stewart, Mendel" <[mendel\\_stewart@fws.gov](mailto:mendel_stewart@fws.gov)>, Karen Goebel <[Karen\\_Goebel@fws.gov](mailto:Karen_Goebel@fws.gov)>  
**Cc:** Michael Fris <[michael\\_fris@fws.gov](mailto:michael_fris@fws.gov)>, Michael Senn <[michael\\_senn@fws.gov](mailto:michael_senn@fws.gov)>

Mendel and Karen,

looks like we will need to talk and maybe come up with some quick bullets on where we are on our list of projects... do you want to take the first stab at this or would you like me to?

I don't have any more information than what's in this email chain, but my guess is we should be ready to talk about:

- Santee
- North County Plan
- Newland
- Eagle issues and village 13/14

I will call you tomorrow and we can discuss.



thanks  
dan

On Mon, Apr 17, 2017 at 12:47 PM, Michael Fris <[michael\\_fris@fws.gov](mailto:michael_fris@fws.gov)> wrote:  
See below. Let's check in on status of our various projects before then.

Sent from my iPhone

Begin forwarded message:

**From:** "Rische, Robert" <[Robert.Rische@mail.house.gov](mailto:Robert.Rische@mail.house.gov)>  
**Date:** April 17, 2017 at 12:30:58 PM PDT  
**To:** 'Paul Souza' <[paul\\_souza@fws.gov](mailto:paul_souza@fws.gov)>  
**Cc:** Michael Fris <[Michael\\_Fris@fws.gov](mailto:Michael_Fris@fws.gov)>, "[michael\\_senn@fws.gov](mailto:michael_senn@fws.gov)" <[michael\\_senn@fws.gov](mailto:michael_senn@fws.gov)>, Dan Cox <[Dan\\_Cox@fws.gov](mailto:Dan_Cox@fws.gov)>, "[wanda\\_cantrell@fws.gov](mailto:wanda_cantrell@fws.gov)" <[wanda\\_cantrell@fws.gov](mailto:wanda_cantrell@fws.gov)>, "[amedee\\_brickey@fws.gov](mailto:amedee_brickey@fws.gov)" <[amedee\\_brickey@fws.gov](mailto:amedee_brickey@fws.gov)>  
**Subject:** RE: Permitting issue

Next Monday (4/24) at 3:00 will work for me. Just to clarify, are you DC-based and can meet in person or would this be a call? Either works for me, just wanted to clarify.

Thanks,

Robert

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**From:** Paul Souza [[mailto:paul\\_souza@fws.gov](mailto:paul_souza@fws.gov)]  
**Sent:** Monday, April 17, 2017 3:03 PM  
**To:** Rische, Robert  
**Cc:** Michael Fris; [michael\\_senn@fws.gov](mailto:michael_senn@fws.gov); Dan Cox; [wanda\\_cantrell@fws.gov](mailto:wanda_cantrell@fws.gov); [amedee\\_brickey@fws.gov](mailto:amedee_brickey@fws.gov)  
**Subject:** Re: Permitting issue

Thanks for the note, Robert. I'd be happy to meet with you anytime.

Just took a quick look at the calendar . . . Would early next week work? How about Monday, April 24 at 3:00 pm EST or Tuesday, April 25 at 2:00 pm EST? If you'd prefer a different time, just say the word.

Looking forward to the conversation . . .

Sincerely,

Paul Souza

Regional Director

Pacific Southwest

U.S. Fish and Wildlife Service

2800 Cottage Way, Suite W-2606

Sacramento, CA 95825

916-414-6469

916-208-2457 Cell

<https://www.fws.gov/cno>

On Apr 17, 2017, at 2:13 PM, Rische, Robert  
<[Robert.Rische@mail.house.gov](mailto:Robert.Rische@mail.house.gov)> wrote:

Good afternoon,

My name is Robert Rische and I'm counsel to Congressman Issa in his D.C. office. We recently met with James Whalen and Jeff O'Connor, representing development industries who conveyed they were having difficulty obtaining permits from the U.S. Fish & Wildlife Service with respect to developments in and around our congressional district.

They mentioned they had been in contact with your agency, so I wanted to touch base with you. Would you be available for a call later this week or early next week to discuss further?

Thanks,

Robert

Robert Rische

Counsel

Office of Congressman Darrell Issa (CA-49)

2269 Rayburn House Office Building

Washington, D.C. 20515

202-225-3906

[robert.rische@mail.house.gov](mailto:robert.rische@mail.house.gov)

[<image001.png>](#) [<image002.png>](#)  
[<image003.png>](#) [<image004.png>](#)

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Dan Cox  
US Fish and Wildlife Service  
Section 10 (HCP) Coordinator

2800 Cottage Way W2606  
Sacramento, Ca 95825  
(916) 414-6539  
[dan\\_cox@fws.gov](mailto:dan_cox@fws.gov)

- **City of Santee- new HCP (Subarea Plan under the MSCP)**
  - **Summary of the project:** We are working with the City of Santee on their draft Subarea Plan. The Subarea Plan will focus on the biggest development project proposed within the City, the Fanita Ranch project.
  - **Status:** Working through the process to negotiate their Subarea Plan. CFWO discussed a new reserve design with the City, waiting for a response.
  - **Concerns:** The developer felt like they had a hard line agreement from 20 years ago. Hard line agreements go into effect at permit issuance when take is authorized. No permit has yet been issued for the City's Subarea Plan, and species' status and needs have changed in the area, which is why we have proposed changes from the design that was identified in the former hardline agreement.
  - **Next steps:** Waiting to hear back from the City on CFWO's proposed reserve design.
  
- **North County Plan- new HCP**
  - **Summary of the project:** We have been working with San Diego County to develop their North County Plan.
  - **Status:** Meetings with the County occur about 2 times per month; the plan is still being drafted. County gave CFWO a preliminary draft plan in early April, which is under review by CFWO.
  - **Concerns:** Working with new County staff that are inexperienced in developing HCPs. County wants draft plan out to the public in September; CFWO feels like this is an ambitious schedule due to outstanding issues (e.g., new conservation analysis not yet discussed or understood, funding, working through golden eagle issues.)
  - **Next steps:** CFWO commenting on sections of their preliminary plan by April 30<sup>th</sup>
  
- **Newland Sierra Development- new development project**
  - **Summary of the project:** New development project proposed within the draft North County Plan.
  - **Status:** CFWO has been in discussions with the developer to explain their regulatory options for take authorization, including a section 7 consultation or take authorization through the existing gnatcatcher 4d rule. Developer purchased land that they propose to meet mitigation needs.
  - **Concerns:** The proposed mitigation was purchased without input from the Wildlife Agencies (CFWO and CDFW) and does not address our concerns expressed for impacts to the overall reserve design of the North County Plan.
  - **Next steps:** Section 7 seems to be a viable option to pursue for take authorization.
  
- **San Diego MSCP and Eagle Issues with Village 14- within existing HCP**
  - **Summary of the project:** Development within the San Diego MSCP. Golden eagle take was not authorized in this area in the MSCP, but the latest science indicates that take may occur from the development.
  - **Status:** CEQA has been initiated (Notice of Preparation) by the County of San Diego for the proposed development project. Environmental groups are talking with the developer about options to alleviate the situation. FWS (RO and CFWO) is working through the biological and regulatory questions associated with the proposed development project.
  - **Concerns:** There are limited solutions that work for the developer and for golden eagles. Maintaining partnerships with the County, developers, and environmental groups has been challenging as they have opposite views on resolution.

- **Next steps:** CFWO is meeting on May 4<sup>th</sup> with San Diego County to discuss eagle issues.
- **San Diego MSCP and Quino/Eagle Issues with Village 13- within existing HCP**
  - **Summary of the project:** CFWO is working with San Diego County to figure out how to adjust their project and or the MSCP to address take of quino checkerspot butterfly. Quino is not a covered species under the MSCP.
  - **Status:** Working with the County to balance quino checkerspot butterfly and golden eagle conservation needs with developer needs. The County is considering amending the MSCP to include quino or developing a new HCP for quino only.
  - **Concerns:** Quino locations are all over the proposed development footprint so take cannot be avoided; need to find the right balance between development and conservation needs.
  - **Next steps:** CFWO is proposing a solution that will hopefully work for the developer and for conservation of quino checkerspot butterfly. The potential solution involves a reserve design change that will also help to address concerns about golden eagles.
- **Ramona Grasslands Preserve- recreation**
  - **Summary of the project:** The desire for increased public access within land purchased with Federal grant funding increases risks to golden eagle conservation, which was a primary purpose of the grant funding.
  - **Status:** CFWO is working with the County to try and find a balance between recreational access and conservation of golden eagles. Since the land was acquired, a docent led trail program during the limited non-breeding season for resident golden eagles (September 1 – December 1) has been used as a compromise. The County is now pushing for the trail to be open for 3 months without usage control.
  - **Concerns:** Potential abandonment of an active golden eagle territory due to recreation in an area that was purchased for the conservation of golden eagles and other raptors.
  - **Next steps:** Continue to work with the County to find a balance for both parties.

**From:** [Stadtlander, Doreen](#)  
**To:** [Susan Wynn](#)  
**Subject:** Fwd: FW: [EXTERNAL] RE: Checking In  
**Date:** Tuesday, April 3, 2018 8:54:47 AM

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see email chain..

----- Forwarded message -----

**From:** **Stewart, Mendel** <[mendel\\_stewart@fws.gov](mailto:mendel_stewart@fws.gov)>  
**Date:** Mon, Apr 2, 2018 at 5:34 PM  
**Subject:** Fwd: FW: [EXTERNAL] RE: Checking In  
**To:** "Roberts, Carol" <[carol\\_a\\_roberts@fws.gov](mailto:carol_a_roberts@fws.gov)>  
**Cc:** "Sobiech, Scott" <[scott\\_sobiech@fws.gov](mailto:scott_sobiech@fws.gov)>, Karen Goebel <[karen\\_goebel@fws.gov](mailto:karen_goebel@fws.gov)>, Doreen Stadtlander <[doreen\\_stadtlander@fws.gov](mailto:doreen_stadtlander@fws.gov)>

Carol,

Please provide any input you have to Doreen so we can provide an update to the Regional office by COB on Tuesday.

Thank you <Mendel

----- Forwarded message -----

**From:** **Michael Fris** <[michael\\_fris@fws.gov](mailto:michael_fris@fws.gov)>  
**Date:** Mon, Apr 2, 2018 at 11:59 AM  
**Subject:** FW: [EXTERNAL] RE: Checking In  
**To:** Mendel Stewart <[mendel\\_stewart@fws.gov](mailto:mendel_stewart@fws.gov)>, Dan Cox <[Dan\\_Cox@fws.gov](mailto:Dan_Cox@fws.gov)>

Mendel, Dan: See comments by Jim W below. I'm gonna ask Dan to help put together a paragraph on status of each of these. I don't think we need to rebut or correct him, but just clear the air on where we are with each. Shouldn't be that hard. Dan: I can sit with you today and outline them. I can be on the phone early tomorrow to walk through them with both of you, and be able to walk through status of each of these, do any necessary clarifications or course corrections, and move forward

**From:** Evans, April [mailto:[april\\_evans@fws.gov](mailto:april_evans@fws.gov)]  
**Sent:** Friday, March 30, 2018 12:35 PM  
**To:** Holzworth, Jody  
**Cc:** Michael Fris; Wanda Cantrell  
**Subject:** Re: [EXTERNAL] RE: Checking In

Both are scheduled. 8-9 pre-brief and 9-10 call with Jim Whalen.

*April Evans,*

*U.S. Fish and Wildlife Service*

*Secretary to the Assistant Regional Director*

*Ecological Services*

*Region 8*

*(916) 414-6516*

*(916) 414-6462 FAX*

On Fri, Mar 30, 2018 at 10:39 AM, Holzworth, Jody <[jody\\_holzworth@fws.gov](mailto:jody_holzworth@fws.gov)> wrote:

Mike,

Please make Paul's asks here next week's priority, including an updated briefing paper by COB Tuesday. Let me know how I can help.

April, please schedule a pre-brief on San Diego HCP issues for Wednesday morning that includes Mike, Paul and myself. Then, please schedule a time to visit with Jim Whalen after the first Wednesday meeting, if possible. Paul plans to call into both of these meetings while on vacation (he is on EST so mornings are best). It would be good if we can get these scheduled today.

Mike, you'll want to let Wanda know who else will be joining us from your team and Carlsbad on Monday.

Thank you!

--Jody

----- Forwarded message -----

From: **Paul Souza** <[paul\\_souza@fws.gov](mailto:paul_souza@fws.gov)>

Date: Thu, Mar 29, 2018 at 4:34 PM

Subject: Fwd: [EXTERNAL] RE: Checking In  
To: Michael Fris <[Michael\\_Fris@fws.gov](mailto:Michael_Fris@fws.gov)>  
Cc: [jody\\_holzworth@fws.gov](mailto:jody_holzworth@fws.gov)

Mike,

As we discussed, I'm going to need a briefing on the status of these projects (see below) . . . Your RO team can lead the briefing and Carlsbad can join the pre-brief. Probably Wednesday morning and I'd like a written briefing paper the day before. Jim implies there may be other issues coming, too. I'm going to see if we schedule the meeting with Jim and his colleagues right after. **Jim specifically said he did not want Carlsbad in that meeting.**

Let's see how far we can get on each of these issues. I'd like you and your team to be able to clearly define the sticking points on the remaining issues. **Please see if we can get them thinking about fair solutions that are workable for the developers.** I've found it difficult to separate the key issues from the less important issues in some of the briefings with Carlsbad. Not sure who should be the key voice on the phone from that office . . . Use your good judgment.

Many thanks,

Paul Souza  
Regional Director  
Pacific Southwest  
U.S. Fish and Wildlife Service  
[2800 Cottage Way, Suite W](#)-2606  
Sacramento, CA 95825  
916-414-6469  
916-208-2457 Cell  
<https://www.fws.gov/cno>

Begin forwarded message:

**From:** James Whalen <[james@jwhalen.net](mailto:james@jwhalen.net)>  
**Date:** March 29, 2018 at 7:18:01 PM EDT  
**To:** Paul Souza <[paul\\_souza@fws.gov](mailto:paul_souza@fws.gov)>  
**Subject:** [EXTERNAL] RE: Checking In

Hi Paul—thanks for getting back to me. You are right, we are planning on sending you what we are looking for, but it has been taking longer than I'd hoped. I'll get it asap. I had been hoping to do something this week with you so as not to bother you on vacation next week, but Dudek isn't quite done yet. Here



is where we stand:

### Low-Hanging Fruit

*Warner Springs Ranch*—we brought you material February 12, 2016, on the benefits of proceeding with a “mega-preserve” of 100,000 acres in the Henshaw Valley over a year ago, but nothing has happened (because there is no development “threat”?). This has the potential to really help on golden eagle and other apex species, not to mention Quino and about three other listed species. We need a champion from your office who will make this a priority. The request to you is to help make this conservation effort happen by assigning one of the best Carlsbad FWS people to this, Jonathan Snyder, who gets things done.

*Newland Sierra*—Rita Brandin and I met with you on December 18, 2017, and you said a Section 7 for the gnatcatcher was the simplest path forward. We took this direction. The Newland team has submitted its 404 application, and the Corps said they will ask for a meeting with the FWS. We requested that Mike Fris be personally involved to ensure there are no jeopardy issues. We request that this process be completed under your oversight to ensure it is satisfactorily completed.

### Tougher Calls

*Otay Ranch Village 14*—material in support of the Land Exchange was given to your office on June 26, 2017. Since then, despite having a compelling argument for a superior project with the land exchange, and spending \$2MM to do it as directed by FWS, there has been no movement. We tried in good faith, but have run out of time, so the current project is proceeding to approval. The County is issuing findings that will resolve the Baldwin letter issues. FWS is trying to require a MSCP major boundary adjustment rather than allowing the findings permitted under the County's Biological Mitigation ordinance. Because we anticipate objection from FWS, our request is to allow the County to proceed with the BMO findings without objection from FWS.

*Fanita Ranch*—Jeff O'Connor and I met with you on August 21, 2017, and shared three footprints, two of which were acceptable to the FWS. The third, which is the project proposed today, is clearly superior to the other two on its face, but was rejected by the Carlsbad FWS. The documentation that supports Home Fed's assertion that their proposal is superior is almost done. The request is to support the inclusion of the Home Fed footprint in the incipient Santee MSCP Subarea Plan.

Village 13—Stephen Haase and I met with you on June 21, 2017, and came back with your admonition to document the adequate mitigation of Quino impacts in a revised footprint called Alternative H. We also met twice more to no avail with Carlsbad. We have nearly completed the requested documentation. Based upon expert analysis, it is clear a key element necessary for survival of the species is conservation and management. Alternative H implements this strategy by restoring and enhancing unoccupied Quino habitat onsite and providing additional funding for on-going management. (Note that FWS/SD Zoo efforts to breed and transplant captive Quino larvae have borne fruit with the recent, second year of successful emergence of adults.) We believe the foregoing meets your requirements to support the modified Alternative H through the Section 7 process, and request your leadership and oversight.

It would be good to discuss on the phone. I am loath to disrupt your hard-earned vacation, so you tell me what works, time-wise. Thanks so much again, JimW

James E. Whalen

President

J. Whalen Associates, Inc.

[1660 Hotel Circle North, Suite 725](#)

[San Diego, CA 92108](#)

Phone: 619-683-5544

Email: [james@jwhalen.net](mailto:james@jwhalen.net)

---

**From:** Paul Souza <[paul\\_souza@fws.gov](mailto:paul_souza@fws.gov)>

**Sent:** Thursday, March 29, 2018 1:50 PM

**To:** James Whalen <[james@jwhalen.net](mailto:james@jwhalen.net)>

**Subject:** Checking In

Jim,

Thanks for the conversation last week. I thought you were going to send me a follow up note with the issues you'd like to cover next week. Just want to be sure we're prepared and can schedule it.

Many thanks and talk with you soon . . .

Paul Souza  
Regional Director  
Pacific Southwest  
U.S. Fish and Wildlife Service  
[2800 Cottage Way, Suite W](#)-2606  
Sacramento, CA 95825  
916-414-6469  
916-208-2457 Cell  
<https://www.fws.gov/cno>

--

**Jody Holzworth**  
**Deputy Regional Director**  
**U.S. Fish & Wildlife Service**  
**Sacramento, CA**  
**(916) 414-6619**

--

Mendel Stewart  
U.S. Fish and Wildlife Service  
Carlsbad Fish and Wildlife Office  
Field Supervisor  
[2177 Salk Avenue, Suite 250](#)  
[Carlsbad, CA 92008](#)

760-431-9440 x211 office  
760-533-5976 mobile  
[mendel\\_stewart@fws.gov](mailto:mendel_stewart@fws.gov)  
<http://www.fws.gov/carlsbad/>

Region 8 Facebook page: <https://www.facebook.com/usfwspacificsouthwest>

Region 8 Twitter page: <https://twitter.com/USFWSPacSWest>

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Doreen Stadtlander  
Division Chief  
Carlsbad Fish and Wildlife Office  
2177 Salk Avenue, Suite 250  
Carlsbad, CA 92008  
(760) 431-9440, ext. 223

**6b**

**From:** [Wynn, Susan](#)  
**To:** [Williams, Carol@Wildlife](#); [Sevrens, Gail@Wildlife](#); [David Mayer](#)  
**Cc:** [Doreen Statdlander](#); [Karen Goebel](#)  
**Subject:** Newland Sierra  
**Date:** Wednesday, August 2, 2017 9:58:30 AM  
**Attachments:** [15B0150-17CPA0166 Newland Sierra DEIR comments.docx](#)

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Hi Carol et al - Thanks for taking the lead on this letter - Carol did an amazing job. Unfortunately, we are not going to be able to go joint with you on it- I had started to make a few edits - you can use or delete as you see fit, I also removed any reference to us.

If you have any questions, please give Karen a call.

Susan

Susan Wynn  
Fish and Wildlife Biologist  
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(760) 431-9440 ext 216



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California Department of Fish and Wildlife  
South Coast Region  
3883 Ruffin Road  
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In Reply Refer To:  
FWS/CDFW 15B0150 17CPA0166

Ms. Ashley Smith  
County of San Diego  
Department of Planning and Development Services  
5510 Overland Avenue, Suite 310  
San Diego, California 92123

Subject: Comments on the Draft Environmental Impact Report, General Plan Amendment, Specific Plan, Rezone, Tentative Map, and Draft Habitat Loss Permit for the proposed Newland Sierra Project, County of San Diego, California (Log No. PDS2015-ER-15-08-001; SCH No. 2015021036. Project Numbers: PDS2015-GPA-15-001, PDS2015-SP-15-001, PDS2015-REZ-15-001, PDS2015-TM-5597)

Dear Ms. Smith:

The Department of Fish and Wildlife (Department) ~~and the U.S. Fish and Wildlife Service (Service), collectively referred to as the Wildlife Agencies, have~~ reviewed the Draft Environmental Impact Report (DEIR), General Plan Amendment, Specific Plan, Rezone, Tentative Map, and Draft Habitat Loss Permit (HLP) for the proposed Newland Sierra Project (Project) received on June 15, 2017. The comments provided in this letter are based on information in the documents provided; associated reference materials including Dudek's December 11, 2013 Memorandum; Megan Jennings' April 2017 Merriam Mountains Wildlife Connectivity Review; multiple meetings and discussions with San Diego County (County) staff and representatives of the Project applicant; our knowledge of sensitive and declining plant and animal species and vegetation communities in the County; and our participation in regional conservation planning, including working with the County, various consultants, and stakeholders involved with the County's draft North County Multiple Species Conservation Program (NC-MSCP) planning effort.

~~The primary concern and mandate of the Service is the protection of public fish and wildlife resources and their habitats. The Service has legal responsibility for the welfare of migratory birds, anadromous fish, and endangered animals and plants occurring in the United States. The Service is also responsible for administering the Federal Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 *et seq.*), including habitat conservation plans (HCP) developed under section 10(a)(1) of the Act.~~ The Department is a Trustee Agency and a responsible Agency pursuant to the California Environmental Quality Act (CEQA), Sections 15386 and 15381, respectively. The Department is responsible for the conservation, protection, and management of the State's biological resources, including rare, threatened, and endangered plant and animal

species, pursuant to the California Endangered Species Act (CESA) and other sections of the Fish and Game Code, and administers the Natural Community Conservation Planning (NCCP) program. The County has signed a Planning Agreement with the Department and the Service for the development of the draft NC-MSCP, and this NCCP/Habitat Conservation Plan (HCP) is currently in development for unincorporated lands in north San Diego County.

The Project site consists of 51 parcels totaling approximately 1,985 acres located west of Interstate 15, north of Deer Springs Road, and east of Twin Oaks Valley Road within the Twin Oaks Valley and Hidden Meadows communities of the North County Metropolitan Subregional Plan area (southern portion) and the Bonsall Community Planning area (northern portion) of the unincorporated San Diego County (County). The Project would include the development of 2,135 dwelling units, 81,000 square feet of general commercial uses, a six-acre school site, approximately 36 acres of parks, and 1,202 acres of biological open space. Overall, the master-planned community would consist of seven planning areas focused around a town center located off of Deer Springs Road in the southeastern corner of the site and include an extensive trail system including: 6.9 miles of multi-use pathways along the main road; 8.9 miles of internal pathways and trails within neighborhoods; 2 miles of multi-purpose trails through the open space area; and, 1.5 miles of secondary trails through the open space area. Access to the Project site would be provided by two main access points along Deer Springs Road, with an additional access point provided at Camino Mayor off of Twin Oaks Valley Road.

The Project site is located within the northern portion of the Merriam Mountains range, a narrow 8.5-mile-long chain of low mountains generally running north-south with a variety of east-west trending ridgelines and scattered peaks. The property is primarily undeveloped with on-site topography composed mostly of hills and valleys dominated by rock (granodiorite) outcroppings, moderate to steeply sloping terrain, and elevations ranging from approximately 660 feet above mean sea level (AMSL) near the northwestern end to approximately 1,750 feet AMSL in the west-central portion of the Project site. Various dirt roads and trails that provide access to each parcel and service roads for existing water infrastructure traverse the Project site. An abandoned quarry is located in the northwest portion of the Project site and an abandoned private landing strip is located in the north-central portion. Surrounding land uses to the north, west, and south of the Project site include large-lot, single-family residential development, agricultural uses and conserved open space.

The Project site is also located within a core habitat area within the Pre-Approved Mitigation Area (PAMA) of the draft NC-MSCP, specifically the Gopher Canyon—Twin Oaks Planning Unit. Merriam Mountains represents one of only two-three remaining large blocks of natural habitat in the PAMA west of Interstate 15. Vegetation on the Project site consists predominately of southern mixed chaparral, with interspersed patches of Diegan coastal sage scrub, live oak woodlands, and southern willow scrub. The South Fork of Moosa Canyon also runs from the northern to northeastern area of the Project site. In addition, the habitat evaluation maps of the draft NC-MSCP indicate that habitats on and adjacent to the Project site are “moderate”, “high”, and “very high” habitat quality. Areas to the north, south, east, and west of the site are also identified as PAMA in the draft NC-MSCP.

**Commented [WS1]:** IF we are restricted to referencing the 2009 plan, then it is in the San Marcos-Merriam Mountains Core and this project is shown as a hardline – going back to this draft does not make sense to me at this point in the process – so keeping it generic

**Commented [WS2]:** See Megan Jennings write up



The proposed Project would permanently impact 776.6 acres on-site, including 54.5 acres of coastal scrub, 666.9 acres of chaparral, 6.5 acres of coast live oak woodland, 15.3 acres of riparian habitat, and 15.3 acres of non-native grassland. Permanent impacts off-site would range from 70.5-73.2 total acres and include impacts to coastal scrub, chaparral, oak woodland, riparian habitats, and non-native grassland. The applicant proposes to mitigate these impacts through the designation of 1,209.1 acres of on-site biological open space and the purchase of an additional 211.8 acres off-site. On-site impacts would also permanently impact the federally threatened coastal California gnatcatcher (*Polioptila californica californica*, gnatcatcher). The applicant proposes to mitigate impacts to coastal scrub and gnatcatcher through the County's HLP process. In addition to permanent impacts, the Project will temporarily impact 8.7-9.2 total acres on-site and 1.29 total acres off-site. The applicant proposes to restore the temporarily impacted areas within designated open space via the development and implementation of a Revegetation Plan.

We offer the following comments and recommendations to assist in avoiding, minimizing, and adequately mitigating Project-related impacts to biological resources, and to ensure that the Project is consistent with the HLP process, Federal and State endangered species laws/regulations, and ongoing regional habitat conservation planning efforts:

1. The DEIR analyzes eleven alternatives to the proposed Project, including an Existing General Plan Alternative. Under this alternative, the Project site would be developed under existing General Plan land use designations of Village, Semi-Rural, and Rural Lands. According to the Land Use Element of the County's General Plan, approximately 19.6 acres of the existing property are designated Semi-Rural 10 (SR10), which allows one dwelling unit per 10 gross acres on land with slopes of less than 25 percent, and one dwelling unit per 20 gross acres on land with slopes greater than 25 percent. Approximately 1,907 acres of the existing property is designated Rural Lands 20 (RL20), which allows one dwelling unit per 20 gross acres. Approximately 4.64 acres are designated General Commercial (C-1), which allows a maximum intensity of 0.70 floor area ratio in areas designated as Village. Approximately 53.64 acres are designated Office Professional (C-2), which allows a maximum intensity of 0.80 floor area ratio in areas designated as Village.

The DEIR concludes that this alternative would allow approximately 99 single-family residential dwelling units and 2,008,116 square feet of office professional and commercial space with associated roadways, leach fields for septic systems, and Fuel Modification Zones (FMZs), and would decrease open space by approximately 273 acres in comparison to the proposed Project. According to our understanding of the County's Conservation Subdivision Ordinance, which requires 75% avoidance of resources on lands zoned SR 10, and 80% avoidance on lands zoned RL 20, this conclusion is incorrect. It is our understanding that the zoning allowances are only applied to the acreage that remains after the avoidance criteria have been met. This would result in the development of approximately 20 homes on lands zoned SR10 and RL20, and the avoidance and protection of approximately 1,539 acres of open space on those lands, a

330-acre increase from the proposed Project. The Conservation Subdivision Ordinance also contains specific requirements that relate to the design of the open space on site. According to the County's "Rural Subdivision Design and Processing Guidelines", Projects subject to the Conservation Subdivision Ordinance are required to:

- A. Conserve the largest blocks possible of fragmented and interconnected open space;
- B. Avoid creating slivers of open space or fingers of open space that extend in and around development and provide the lowest amount of interface between open space and development – referred to as maximizing the surface area to perimeter ratio;
- C. Create the maximum amount of connectivity between on and off-site resource areas;
- D. Maintain patterns of diversity within the landscape such as multiple habitat types, varying topography, agriculture, etc; and,
- E. Preserve particularly unique and/or sensitive resources in the core of open space areas or such that they are sufficiently buffered to achieve the same practical effect.

These requirements are consistent with the preserve design principles outlined in the Planning Agreement, the NCCP Conservation Guidelines, and the NCCP Act of 2003.

The avoided lands shall be protected with an easement dedicated to the County or a conservancy approved by the Director of County PDS. Under the application of the Conservation Subdivision Ordinance as described above, the Existing General Plan Alternative would maximize on-site open space and lead to the most biologically sound preserve design alternative. If our understanding is correct, although we have not yet seen the resulting project footprint, it is very possible that we would recommend the adoption of this alternative.

2. The DEIR also analyzes three alternatives recommended by the Department and the U.S. Fish and Wildlife Service (Wildlife Agencies) in ~~our response letters~~ response to the Notice of Preparation (NOP) for the DEIR. These alternatives would minimize project impacts to the draft PAMA, provide for a large, contiguous block of open space in the eastern and northern portion of the property thereby contributing to assemblage of the San Marcos-Merriam Mountains Core Area, and maintain connectivity between on and offsite areas designated as draft PAMA and to other conservation efforts outside the NCMSCP planning area. Retaining a core block of habitat onsite as well as connectivity for wildlife throughout the Project site is a primary concern of ours. There are very few areas remaining in the NC-MSCP that support blocks of native vegetation that are greater than 500 acres. In addition, aAs discussed in Megan Jennings' Merriam Mountains Wildlife Connectivity Review, the proposed Project site's location within the Merriam Mountains serves as a critical stepping-stone between north-south ~~coastal sage scrub habitat~~ patches along the I-15. The proposed Project location is also important for east-west movement between the Merriam Mountains and the San Marcos Mountains. Given the importance

of the Project's location for wildlife habitat and connectivity, the Wildlife Agencies continue to recommended-recommend selection of a three-scaled-back alternatives that would minimize Project impacts to the PAMA in the draft NC-MSCP and preserve a large core block of habitat; ~~provide for a large, continuous block of open space in the eastern and northern portion of the Site; and maintain connectivity between on- and off-site areas designated as draft PAMA and other conservation efforts outside the NC-MSCP planning area.~~

Under CDFW/USFWS Land Use Planning Alternative A – one of the three Wildlife Agency recommended alternatives - the Town Center, Terraces, and Hillside planning areas, along with associated access roadways, parks, and other improvements, would be removed and replaced with open space. The remainder of the planning areas (Valley, Mesa, Knoll, and Summit) would remain as proposed under the Project. The DEIR concludes that this alternative is the Environmentally Superior Alternative, with the exception of the No Project (No Build) Alternative. In the event that the Existing General Plan Alternative is not adopted, given the wildlife habitat and connectivity benefits discussed above, we would also support the adoption of this alternative.

3. The proposed Project is requesting an amendment to the County's Resource Protection Ordinance (RPO) to allow impacts to RPO wetlands and wetland-buffers. The RPO defines wetlands as lands that have one or more of the following attributes: (1) lands that periodically support a predominance of hydrophytes (plants whose habitat is water or very wet places); (2) lands in which the substratum is predominantly undrained hydric soil; or (3) lands where an ephemeral or perennial stream is present and whose substratum is predominately non-soil, and where such lands contribute substantially to the biological functions or values of wetlands in the drainage system. As detailed in Table 3 of the draft Resource Protection Plan, the Project would impact 2.13 acres of RPO wetland and 8.7 acres of wetland-buffer on-site, as well as 1.49 acres of RPO wetland and 1.10 acres of wetland-buffer off-site. The Project proposes to partially mitigate these impacts through avoidance of other RPO wetlands on-site; however, these on-site areas would not be suitable to serve as mitigation credit as avoidance is already required per the RPO. As such, additional off-site mitigation would be required in order to fully mitigate impacts to RPO wetlands and wetland-buffers.

The Project's proposal to amend the RPO creates a concern regarding the ability to meet the conservation goals and objectives established in the NC-MSCP. The RPO is one of several enforcement tools the County has advocated to ensure the build out of the NC-MSCP Preserve and the conservation of the NC-MSCP Covered Species. Currently, there is no exemption built into the RPO that allows impacts to RPO wetlands without commensurate mitigation. Allowing exemptions to the RPO on a project-by-project basis severely compromises the effectiveness of this enforcement tool. We request the Project be revised to avoid impacts, except those caused by uses permitted under Sec. 86.604 of the RPO, to all RPO wetlands and wetland-buffer both on and off-site to provide

consistency with the existing RPO.

4. The Project is also requesting an exemption to the RPO to allow development on Steep Slope Lands. Section 86.602(p) of the RPO, defines “Steep Slope Lands” as, “all lands having a slope with natural gradient of 25% or greater and a minimum rise of 50 feet, unless said land has been substantially disturbed by previous grading”. The development footprint of the proposed Project includes 148 acres of Steep Slope Lands. RPO Section 86.604.e.1.cc allows encroachment into Steep Slope Lands “to avoid impacts to significant environmental resources that cannot be avoided by other means, provided no less environmentally damaging alternative exists”. As discussed above, the enforceability of the RPO is critical to the success of the NC-MSCP. The DEIR analyzes several less environmentally damaging alternatives to the proposed Project. Therefore, we recommend that the Project be modified to remove Steep Slope Lands from the development footprint in order to provide consistency with the RPO.
5. The draft NC-MSCP has identified a target level of conservation for lands within the PAMA at 75 percent; however, the project, as proposed, would achieve about 39 percent conservation of the property. We acknowledge that the 75 percent conservation target is an average across the PAMA, where some areas will be conserved at higher levels and others at lower levels. Because anything less than 75 percent conservation on projects occurring in PAMA will require additional cost to the County to make up for that shortfall, we especially advocate for that level of conservation prior to the completion of the NC-MSCP permit. This level of conservation is therefore our starting point as we review each proposed project that is located within the PAMA boundaries. We also consider other factors including the importance of the project area to identified biological core and linkage areas within the preserve, as well as the presence of critical biological resources. As discussed in the Wildlife Agencies NOP response letters for the proposed Project, the balance of any portion of the 75 percent conservation that cannot be achieved on-site should be met by contributing land that adds value to the Merriam Mountains connection, preferably in the same NC-MSCP planning unit.

In order to fulfill the proposed Project’s mitigation requirements and provide the remaining balance of 75 percent conservation, the Project applicant has purchased a 211.8-acre property located within PAMA of the draft NC-MSCP, specifically within the far eastern section of the Ramona Planning Unit. We recognize the value of this property as it provides a block of ~~continuous~~-habitat situated ~~between~~-~~near~~ segments of the Cleveland National Forest and San Diego County Parks land, ~~and~~ supports high value habitat and sensitive species such as Engelmann Oak, ~~and~~ aides in the build out of the NC-MSCP Preserve. However, this property does not provide comparable habitat to that which would be impacted by the proposed Project, and, importantly, does not off-set the loss/reduction of connectivity created by the Newland Sierra project or further the conservation efforts in the Merriam Mountains vicinity pursuant to NC-MSCP goals.

**Commented [WS3]:** Near? This kind of implies that it actually connects these lands, however it is actually is not contiguous with either

Furthermore, the elevation of the coastal sage scrub on the proposed mitigation property is too high to support gnatcatchers, thus its preservation cannot be considered compensatory for impacts to gnatcatcher occupied and potentially occupied habitat on-site or to impacts to the coastal sage scrub along the I-15 corridor.

6. The DEIR does not adequately address potential impacts to wildlife from roads and traffic both within the project and offsite from the widening of Deer Springs Road and the potential changes to the Deer Springs interchange at Interstate 15. Wildlife crossing structures as well as associated fencing to reduce mortality effects of the roadways should be included as mitigation measures in the project to ensure that the site is permeable to wildlife and to minimize impacts from the roads and traffic.

6.7. The Project applicant has committed to conserving the biological resources within the on and off-site open space in perpetuity by recording a Biological Open Space Easement (M-BIO-8B). Open space easements generally prohibit a number of potentially harmful impacts, such as grading, clearing vegetation, and building structures, from occurring within the open space. However, the proposed easement, as described in M-BIO-8B of the DEIR, includes an exception for selective clearing of vegetation by hand to the extent required by written order of the fire authorities, pursuant to the February 26, 1997 Memorandum of Understanding (MOU) between us and the fire districts. This MOU only addresses clearing to reduce fire hazards for structures that existed at the time the MOU was signed; it was not intended to extend to future development and therefore is not applicable to the proposed Project. New developments should be conditioned to include all FMZ's within the development footprint. Any future fuel modifications that occur within designated open space would be considered impacts and would require additional compensatory mitigation. We recommend the removal of this exception from the proposed open space easement and the reconfiguration of the open space, if necessary, to reduce the potential need for such clearing to occur. Alternatively, if the applicant does not wish to modify the easement language, the Resource Management Plans (RMPs) for the designated open space should include assurances that compensatory mitigation will be provided for any future impacts that occur because of this exception.

8. The text of the DEIR references several versions of the draft NC-MSCP, including the 2009, 2014, and 2016 versions; however, only the 2009 version is included in the Chapter 5 List of References. We recognize that significant aspects of the draft NC-MSCP, including biological goals and objectives and covered species lists, have changed numerous times throughout the plan's development, thus complicating the evaluation of the proposed Project's impact on the plan. Nonetheless, the DEIR should include citations for all documents referenced in the document. The Environmental findings, that are included in the draft Habitat Loss Permit, state that they are based "upon all of the documents contained in the record for this project" not just the 2009 draft

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Commented [WC4]: I was hoping you could expand on this one. We weren't sure what direction to go in...it wouldn't be productive for them to review the Project only based on the 2009 Plan (last public draft), but I'm not sure we can direct them to the 2017 Plan (and updated species list) since it's not \*officially\* public

~~7.~~ The findings include a discussion of the project's consistency with the *Interim Project Preserve Design Principles*. The first couple of principles state that the on-site open space should provide a long-term biological benefit and that no isolated pockets of open space should be used for mitigation credit. As described above under comments 1 and 2, preservation of a core block of habitat in this unit of the PAMA is critical to the success of the NC-MSCP. We remained concerned about the long-term viability of the proposed openspace in the southern and eastern blocks of biological open space due to indirect effects from the adjacent development, fuel modification, and access roads. Although the County has proposed this project as a "hardline area" in the draft North County Plan, the conservation analysis has not been completed, nor has the Department agreed to the proposed footprint. Therefore the conclusion that "By identifying the proposed on-site biological open space as a proposed hardline area, the County has determined that the proposed biological open space would provide long-term biological benefit" is not valid.

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~~8-9.~~ The draft NC-MSCP proposes to cover two bat spaces, the pallid bat (*Antrozous pallidus*) and Townsend's big-eared bat (*Corynorhinus townsendii pallescens*). According to the Biological Resources Technical Report (BTR), focused surveys to locate roosting bats were not performed due to the presumed low potential for bats to forage or roost within trees within the Project site. To ensure that potential impacts to these proposed covered species have been thoroughly evaluated, we recommend that focused daytime surveys for potential roosting spots, including trees and rock outcroppings, as well as nighttime surveys for foraging behavior, be performed.

~~9-10.~~ According to the BTR, western spadefoot toad (*Spea hammondi*, spadefoot) has been detected on-site on two occasions, both within the old quarry and outside of the development footprint. There are no expected impacts within the quarry area; however, the BTR recognizes there is a high potential for spadefoot to occur across the site, and therefore the species has been considered significantly and permanently impacted by the proposed Project. Spadefoot is currently listed as a California Species of Special Concern. In the event that additional spadefoot breeding pools are found within 500 ft. of the development footprint, the Project applicant should consult with us to discuss possible relocation, forced dispersal, or alternative avoidance measures.

~~10-11.~~ The proposed biological mitigation measures require the development of several associated documents, including RMPs, a Relocation Plan for Ramona horkelia (*Horkelia truncata*), a Revegetation Plan for the restoration of temporarily impacted areas, and a Nesting Bird Management, Monitoring, and Reporting Plan. Opportunities for the us to review and comment on these documents prior to their approval is currently limited to the Nesting Bird Management, Monitoring, and Reporting Plan. We request the opportunity to review and provide comments on all above-mentioned documents, as well as the

Ms. Ashley Smith (~~FWS/CDFW SD 15B0150 17CPA0166~~)

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proposed final language for both the biological open space easements and limited-building-zone easements, prior to their approval by County officials.

~~11,12.~~ M-BIO-1 describes the biological monitoring that will occur on-site prior to and during construction activities to ensure adherence to all proposed avoidance, minimization, and mitigation measures. M-BIO-3 states that a final Monitoring Report documenting the monitoring actions will be submitted to the County upon completion of grading activities for each Final Map and prior to rough grading plan final inspection. Given the scale of the proposed Project, we request that the Project Biologist, in addition to preparing the proposed comprehensive final report, circulate monthly updates to us.

We appreciate the opportunity to provide comments on the subject project and look forward to further coordination with the County on this project. If you have questions regarding this letter, please contact Carol Williams of the Department at [Carol.Williams@wildlife.ca.gov](mailto:Carol.Williams@wildlife.ca.gov), (858) 637-5511, or ~~Susan Wynn of the Service at Susan.Wynn@fws.gov, (760) 431-9440 ext. 216.~~

Sincerely,

~~Karen A. Goebel  
Assistant Field Supervisor  
U.S. Fish and Wildlife Service~~

Gail K. Sevens  
Environmental Program Manager  
California Department of Fish and Game

cc:  
State Clearinghouse





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**From:** Stewart, Mendel <mendel\_stewart@fws.gov>  
**Sent:** Wednesday, December 2, 2015 5:39 PM  
**To:** Rita Brandin  
**Cc:** Karen Goebel; Ed Pert; Mark Wardlaw  
**Subject:** Re: FW: Our Discussion on Friday afternoon, November 20th - Correction on Prior E-Mail

Hi Rita,

Thank-you for trying to capture our conversation. I would like to clarify the following points:

We have no objection to the project applicant's purchase of offsite mitigation lands in support of adding to the overall conservation of the Draft North County MSCP preserve lands; however, from the list of properties provided for our review and support for a potential hard-line agreement, some properties are considered of greater biological value than others. Specifically, we will support acquisition of the Morris Ranch property because the proposed development on the site will sever a key linkage in the Draft North County MSCP, thus conservation of the site has been a priority for conservation for some time. The project applicant's contribution to the acquisition of this critical property would help us make a stronger biological case that the offsite mitigation proposed offsets the loss and fragmentation of the project's onsite PAMA lands. Likewise, we will support the Mountain Gate acquisition because of its size and location within the PAMA and because its purchase will ensure conservation of a large core area of the Draft North County MSCP preserve.

During our conversation, my intent was not to dismiss the value of the Hoospack or Pankey properties' contribution to the Draft North County MSCP preserve system, but only to do what you asked in identifying Service priorities for conservation that would lead to a hard-line agreement. Because the proposed Newland Sierra development will result in a loss of wildlife habitat originally identified to be part of the Draft North County MSCP preserve, acquisition of PAMA lands planned for development helps ensure that there is no net loss of PAMA acreage and that the anticipated size and configuration of the planned preserve can be achieved. Acquisition of one of these properties which both include development would offset the overall loss of existing PAMA acreage that will result from the Newland Sierra development. Conservation of the Hoospack or Pankey properties, while not insignificant, will not assist in maintaining the scope of the PAMA lands needed to assemble the preserve anticipated by the Draft North County MSCP.

I hope this helps clarify our conservation priorities and to dispel any concerns you may have regarding our agency's role in balancing the needs of residential and commercial development with our mission to conserve the nation's important fish and wildlife resources. We believe the section 10 permitting program and regional planning through the MSCP highlight the Service's sincere efforts to work in partnership to achieve this goal.

Marine Corps Base Camp Pendleton is the potential partner for the Morris Ranch property. We let them know that someone might be interested in partnering on this acquisition. Below is the person to contact.

Ken Quigley  
Strategic/Regional Environmental Planner  
Strategic Planning Section, Building 22165  
MCIWEST\_MCB Camp Pendleton  
Box 555008  
Marine Corps Base

Camp Pendleton, CA 92055-5008  
(760) 725-9733  
DSN: 365-9733  
FAX -9722

Please let me know if you have any questions.

<Mendel

On Wed, Dec 2, 2015 at 10:05 AM, Rita Brandin <[rbrandin@newlandco.com](mailto:rbrandin@newlandco.com)> wrote:

Good morning Mendel:

After re-reading the e-mail I sent to you on 11/25, I realized that I put the incorrect date down for our last meeting. Please see those corrections below in red.

Please let me know if you have any further additions or corrections. Also, if you have reached the Morris Ranch contact that was discussed in our meeting.

Thank you.

Rita Brandin

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**From:** Rita Brandin  
**Sent:** Wednesday, November 25, 2015 11:58 AM  
**To:** 'mendel\_stewart@fws.gov'  
**Subject:** Our Discussion on Friday afternoon, November 20th  
**Importance:** High

Good morning Mendel:

I appreciate that you called me directly on Friday afternoon to discuss the U.S. Fish and Wildlife agency's stance on offsite acquisition options as a follow up to our Thursday, November 19th meeting at the County. As I have reviewed the discussion with others, I've concluded that it might be important to memorialize our conversation so Newland and our team have clarity moving forward. If I missed any key points or misunderstood any of your comments from the discussion, please feel free to provide those additions or corrections to my summary e-mail. I will attempt to capture the key points as I understood them.



As you know, we had previously proposed a list of off-site parcels at our meeting on November 5th, and we discussed the same list at our meeting on November 19th. We asked that you relook at the biological value of those parcels for acceptable offsite acquisition by Newland in lieu of being limited to only the Morris Ranch and Mtn. Gate parcels as communicated in Karen Goebel's e-mail to me on November 18th. You mentioned you would meet further with your staff to discuss the list.

During our call, you mentioned that as a follow up to our 11/19 discussion, you and your staff had further reviewed the list of parcels, and relooked at two parcels in particular that we had discussed at length – the two we refer to as Hoospack and Pankey. You said that although the California Dept. of Fish and Wildlife wanted to take another look at the biological value of these parcels, that the U.S. Fish and Wildlife Service did not see them as acceptable acquisitions. When I asked why they were not acceptable given our preliminary assessment of their biological value and their core PAMA location, you said they were not “threatened” like the Morris Ranch and Mtn. Gate properties, and these two parcels were of high priority for the agencies. When I asked what you meant by threatened, you said that Hoospack and Pankey are not priority and that you are not worried about them like Morris Ranch or Mt. Gate because neither parcel has significant development potential under the County's General Plan and slopes and terrain didn't make them as viable for development projects. In summary, you said; “[w]e've talked and unless Newland is willing to acquire one of the two options we provided then there will be no hardline”.

I expressed my concern that it appeared the agency's focus on these two tentative map projects as the only acceptable offsite acquisition land for Newland appeared to be having one developer buy another developer's approved project to keep them from being developed. You responded your agency is trying to protect threatened habitat and there are lots of ways to do that.

To close our discussion, I reiterated your comment regarding the limitation of Morris Ranch or Mtn. Gate as the only acceptable options, and wanted to be clear whether there was any opening, in your mind, for further discussions on the other parcels. You indicated that there was not.

I indicated I was still willing to explore a potential joint deal on Morris Ranch with the party that Karen Goebel had mentioned in our November 19th meeting. You indicated that the agency had not been able to get in touch with him as of our call but when you did you would ask him to call me.

Please let me know if I properly captured the key points of our conversation as I want to make sure we are still on the same page moving forward.

Best regards,

Rita Brandin

Newland Sierra, LLC

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