

**FINAL**  
**MITIGATED NEGATIVE DECLARATION**  
**RESPONSE TO COMMENTS**  
**CLARIFICATIONS AND REVISIONS**  
**MITIGATION MONITORING PROGRAM**

**DON WALLACE MULTI-USE**  
**TRAIL CONNECTOR PROJECT**

**LEAD AGENCY**

**COUNTY OF LOS ANGELES**  
Department of Parks and Recreation  
510 South Vermont Avenue  
Los Angeles, CA 90020

February 26, 2014

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### Section 3: Mitigation Monitoring Program

Letter No. 1  
City of Calabasas



CITY of CALABASAS

February 18, 2014

Mr. Bryan Moscardini, Departmental Facility Planner I  
Los Angeles Co. Dept. of Parks & Recreation  
510 S. Vermont Street, Room 201  
Los Angeles, CA 90020

Regarding: Notice of Intent to adopt a Mitigated Negative Declaration for a proposed Multi-use Trail Connector Project located partially within the City of Calabasas

Dear Mr. Moscardini:

The City of Calabasas offers the following comments in response to the circulated Notice of Intent to adopt a Mitigated Negative Declaration for the proposed "Don Wallace Multi-use Trail Connector Project".

- 1. The California Department of Transportation should be listed as an additional Responsible Agency. } 1.1
- 2. Trail user estimates for this proposed new connector segment appear to have been under-estimated in the draft MND. Projected future trail user rates should be based upon a completed trail system. Thus, projected rates of use by horseback riders should reflect daily access via linkages both north and south from trailheads in those areas, and the presence of local trail riding businesses currently offering services in the immediate area. This would likely translate into a higher estimated daily user rate than the rates assumed in the draft MND. Accordingly, estimated introduction of additional contaminants into the stream should be adjusted to reflect these higher trail use rates. } 1.2
- 3. Section 4.9 ("Hydrology and Water Quality") fails to identify a number of potentially significant impacts. For example, under sub-sections (a) and (f), the more appropriate determination should be "Less Than Significant with Mitigation Incorporation". And, accordingly, the MND should fully discuss the mitigation measures to be employed to reduce and/or mitigate impacts to stream water quality caused by introduction of horse and pet waste into the stream channel. } 1.3

- 4. The intended design and function of the culvert is to convey floodwaters safely beneath the freeway, and the structure(s) was not originally designed and built to accommodate recreational use. Floodwaters and flash flood events present an obvious life safety hazard to trail users. In the event the L. A. County Parks Department chooses to carry out this project, we strongly recommend to the Department that all reasonable measures be taken to advise trail users of flood hazard risks and to discourage, or perhaps even prevent, trail use during times when such hazards are likely. Accordingly, the County departments are urged to take all reasonable measures and precautions to safeguard the public by informing trail users of the flood hazard risks, maintaining the flood control channel to ensure its proper floodwater conveyance function, and regulating recreational access and use. For these reasons, the indicated potential level of impact under Section 4.9 of the draft MND (particularly sub-section (i)) should be "Less Than Significant with Mitigation Incorporation" instead of "Less than Significant". 1.4
- 5. Design and construction of the trail must not impede flood water flows, and all hydrologic modeling should fully consider peak flow conditions, to include debris flow conditions. 1.5
- 6. The walking surface for the culvert portion of the proposed trail should remain as-is (sandy soil of approximately 12 to 24 inches depth), or some similarly earthen substrate to afford adequate footing and some degree of forgiveness in the event of a mishap by a horse and rider. The channel should not be dredged out to the barren concrete bottom as is suggested in the MND (see page 29). 1.6
- 7. The Las Virgenes Creek corridor is well planned for purposes of habitat and stream channel restoration. In fact, restoration of the stream channel and banks to a more natural configuration and setting is the paramount objective outlined in both the *Las Virgenes Gateway Master Plan* and the *Las Virgenes, McCoy, and Dry Canyon Creeks Master Plan*. Trail use of the creek corridor falls to a secondary level of importance. Accordingly, we request that the trail design and construction fully mitigate for vegetation removal and potential impacts to water quality and to attendant wildlife. 1.7
- 8. The MND lacks sufficient cross section exhibits to adequately convey an understanding of the trail design and construction. The document should include additional cross sections illustrating the proposed trail on both sides of the 101 freeway and showing the proportional relationships between the stream channel, stream banks, the proposed new trail, as well as nearby slopes and land uses. Such exhibits will better illustrate how the trail will be constructed along the stream banks with minimal disruption to the flood channel structures, rip-rap material and any other water flow rate reduction structures or forms, etc., as well as how adjacent landscaping will be effectively integrated into the design. 1.8
- 9. Section 4.4, which discusses potential impacts to biological resources, incorrectly indicates that the proposed project would have "no impact" relative to provisions of any adopted habitat conservation plan, natural community conservation plan, or other 1.9

approved local habitat conservation plan. The *Las Virgenes, McCoy, and Dry Canyon Creeks Master Plan*, especially as has been successfully implemented for this segment of the Las Virgenes Creek, makes clear that conservation and preservation of the post-restoration habitat and plant life within the restored stream channel is paramount. The proposed multi-use trail would definitely contribute some potential environmental impacts. And while it is fair to say that those potential impacts may very well be mitigated to a point below the "significant" threshold, they are most certainly not so minimal as to warrant a "no impact" determination.

1.9  
cont

10. Also relating to Section 4.4 – we urge a thorough review of the discussion and analyses of potentially impacted species to ensure all potentially impacted species are duly listed and discussed. We found a number of listed species not included in the draft MND but which had been included in other CEQA documents relating to nearby projects. Examples include the Arroyo Chub, the San Diego Horned Lizard, San Diego Mountain King Snake, and the Coastal California Gnat Catcher.

1.10

11. For approximately 20 years the City of Calabasas has maintained a Dark Skies Ordinance to reduce light pollution in the night sky. Safety lighting within the culvert should be placed on timers so that nighttime dark sky conditions will not be negatively affected. Also, to prevent light spillage upward into the sky the lighting design should include shielding -- particularly for any lighting located at the culvert entrances or elsewhere along the trail sections not contained within the culvert. For these reasons the MND should more appropriately indicate "Less Than Significant Impacts with Mitigation Incorporated" under subsection 4.1(d).

1.11

12. The construction aspects of the project, and associated potential impacts, are not well explained. We believe decision-makers, the public, and responsible agencies would all benefit from the availability of greater detail on this. For example, the proposed staging area is merely identified as a location, but there is no discussion of how vehicles will enter & exit this area, how pass-by traffic might be affected, or what measures are to be taken to safeguard highway motorists during the construction phase. Also, what temporary ramps, walls, or other physical improvements will have to be put into place to accomplish the trail work and construction?

1.12

13. The environmental review should contemplate higher use levels consistent with overall trail network plans, and all modeling should, accordingly, factor into the impact analyses and mitigation measures such levels of use.

1.13

14. Because a significant portion of the trail is located within the City of Calabasas, the trail name would require City Council approval. Therefore, we request that for the time being (to include references within the MND), the proposed trail connector project be either un-named or be given a ubiquitous temporary name. Honorary naming of the trail would be better accomplished at a later date; perhaps when the completed trail is ready for public use for example. Also, this would allow the naming process to be accomplished cooperatively between the County and the City.

1.14

Thank you for the opportunity to comment on the draft Mitigated Negative Declaration.

Sincerely,

A handwritten signature in black ink, appearing to read 'Maureen Tamuri', with a long horizontal flourish extending to the right.

Maureen Tamuri  
Director, Community Development Department

Cc: Tony Coroalles, City Manager

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**Responses to Letter No. 1**  
**City of Calabasas**

- 1.1 The County concurs in this comment. As stated on page 6 of the IS/MND the California Department of Transportation (Caltrans) is identified as a responsible agency of which approvals and/or permits are required. The County has worked closely for over a year with Caltrans District 7 to ensure that Caltrans both understands and agrees with the Project approach, conceptual design, and overall Project objectives. Caltrans requested specific technical studies and offered many proactive suggestions for the alignment and design elements during the numerous meetings, field visits and conference calls. The Los Angeles County DPR will enter into a maintenance agreement with Caltrans to operate and maintain the trail. The existing drainage conveyance system under the US 101 is currently owned and maintained by Caltrans. It is therefore, critical that any modifications to this system meet with Caltrans approval.
- 1.2 While the proposed Don Wallace Multi-Use Trail Connector Project is envisioned to be an important link of a larger trail system that would extend from the Pacific Ocean to the Santa Monica Mountains, no applications for additional portions of the trail system are currently in place. When applications for additional portions of the trail are received by the appropriate jurisdiction, environmental review will be conducted to assess potential impacts. The purpose of the Don Wallace Trail IS/MND is to assess the potential environmental impacts of this proposed independent trail segment. The trail segment would be designed, operated and maintained to minimize impacts to water quality, flood flow conveyance, and user safety. Additionally, the County hosted a meeting with the RWQCB, CDFW, USACE, and Caltrans on January 8, 2014 to discuss potential project related concerns with the agencies prior to the review of the IS/MND. The County is aware of the 303(d) listing of the Las Virgenes Creek in the City. In that meeting and subsequent telephonic discussions the agencies accepted the approach and the mitigation measures suggested by the County. The agencies will continue to finalize any details during the current permitting process. Future trails that may connect to the Don Wallace Multi-Use Trail Connector Project will analyze their impacts to the water quality and other resources and include any mitigation measures associated therewith. As such, the analysis conducted in the IS/MND is appropriate for analyzing environmental impacts associated with this independent segment only.
- 1.3 The proposed trail connector Project is currently being designed to include several key features that would reduce potential impacts to stream water quality from horse and/or pet waste. The trail is being designed to carry surface flows away from the channel, which would reduce potential water quality impacts. The trail alignment would hug the western

bank of the channel which would decrease the potential for waste to enter the water stream. A curb is also currently being considered along the lower portion, as well as the upstream portion, of the channel which would maintain low flows in the channel on the east side of the trail. The proposed trail connector Project would also be designed to drain surface water on the trail toward the slope on the west side. The County committed to maintaining the proposed trail connector Project up to three times a week to remove any horse and/or pet waste to further reduce water quality impacts. The County will continue to monitor trail usage and will modify maintenance episodes regularly depending on the need.

- 1.4 Page 29 of the IS/MND identifies seven key safety features of the Project description that are required to be implemented as part of the proposed trail connector Project: trail surface materials; ramp grades; signage; gates; lighting; mirrors; and security patrols. Two of these safety features, signage and gates, would inhibit use of the trail segment during storm events. The County would be responsible for closing the access gates prior to and during storm events. Additionally, signage would be located throughout the trail warning users that trail use is prohibited during storm events. These features are project design features in the project description rather than mitigation measures, and are required to be implemented should the Project be approved. Therefore, no additional mitigation measures are required.
- 1.5 A Hydrology and Hydraulics Evaluation Report was prepared by CWE for the proposed trail connector Project. Section 4.4 of the Hydrology and Hydraulics Evaluation Report identified that the Caltrans hydraulic bridge freeboard criteria are met for the proposed Project conditions with over four feet of freeboard during the 100-year design flow event. The design will be reviewed and approved by the Los Angeles County Flood Control District (LACFCD) in the process of obtaining the Encroachment Permit. Additionally, County of Los Angeles Department of Public Works reviewed the hydrology data for the Project area and found that the Capital Flood of 9,980 cfs corresponds to the burned watershed and complies with the 2002 updated hydrology method. The hydrology study for determining the Capital Flood of 14,500 cfs was done in 1964 prior to updating the hydrology method. Therefore, the County of Los Angeles Department of Public Works recommended the burned peak flow of 9,980 cfs to be used for sizing the culvert, and did not recommend bulking the Capital Flood upstream of the culvert.

The hydraulics of Las Virgenes Creek at the design flow rate are controlled by the size of the culverts. The currently proposed trail connector Project will improve flow conditions by removing sediment and vegetation on the western side of the channel and culvert that are influencing flows in the channel. Removal of sediment and vegetation in the channel would improve the flow capacity. Thus, a less than significant impact would occur.



- 1.6 Caltrans requires the removal of sediment within the western culvert for the proposed trail connector Project. The proposed trail connector Project would be designed such that all sediment would be removed and the existing concrete bottom would be exposed. However, the County will coordinate with Caltrans and LACFCD during the design phase and determine whether some minimal amount of sediment may remain in the proposed trail.
- 1.7 The County concurs with this comment. The Project has been designed to reduce impacts to vegetation and water quality through both project design features and mitigation measures. As stated on page 38 of the IS/MND, a small amount of vegetation within the City's restored portion of the creek will be impacted during construction. The impacted vegetation areas would be replanted or would be mitigated upstream. An area of 0.18 acres of vegetation would be removed upstream of the box culverts for the trail. However, impacted riparian vegetation will be mitigated by removal of non-native plants and enhancement plantings of native vegetation upstream of the proposed trail connector Project (refer to Exhibit 11, *Mitigation Enhancement Area* in the IS/MND). The proposed enhancement area measures have been and would continue to be coordinated with the appropriate resource agencies during the current permitting and design phases of the Project.
- Additionally, refer to Response 1.3 for information regarding project design and reducing potential water quality impacts.
- 1.8 Currently, the proposed trail connector Project is in the conceptual design phase. Should the proposed trail connector Project be approved, more detailed design would be undertaken and thus detailed cross sections and exhibits would be created to convey design details. Both Caltrans and LACFCD would be required to approve all detailed design elements prior to implementation.
- 1.9 It is recognized that the Las Virgenes, McCoy, and Dry Canyon Creeks Master Plan makes the conservation and preservation of the post-restoration habitat and plant life within the restored stream as paramount. In recognition of this fact, the Project has been carefully designed to include design features that are intended to fully mitigate identified impacts to the restored stream channel.
- 1.10 As requested, the County's consultant has re-examined the potential for the Project site to support additional species not previously identified as occurring in the project vicinity, including Arroyo chub, San Diego horned lizard, San Diego Mountain king snake, and coastal California gnatcatcher. The re-examination of the Project site reaffirmed the absence of these species.

1.11 As stated on page 29 of the IS/MND, lighting within the culvert under the US 101 would be provided. The lighting would be on a timer that would restrict use of the culvert to daylight hours. The Los Angeles County Code 17.04.330 requires that hours of operation and lighting be signed on the site to operate from dawn to dusk. Additionally, the proposed trail connector Project is required to adhere to all City of Calabasas ordinances, including the Dark Skies Ordinance. These are considered project design features in the project description and as such are required to be adhered to should the proposed trail connector Project be implemented. Therefore, impacts would be less than significant and no additional mitigation measures are necessary.

1.12 The County has conducted extensive coordination with Caltrans District 7 on the development of a conceptual design plan for the proposed trail project. With preliminary approval from Caltrans, the construction staging area will be located north of the US 101 freeway and west of Las Virgenes Creek, within Caltrans right-of-way. Construction vehicles would exit from the westbound lanes of the US 101 and make a right turn onto the staging area. The County's construction contractor will be responsible for obtaining Caltrans approval of a staging area permit and for preparing a freeway traffic plan. The types and numbers of the construction equipment needed during construction and maintenance are listed on pages 33 (Table 2.3-1 Estimated Use of Construction Equipment) and 34 of the IS/MND. From within a fenced staging area, equipment will be unloaded from the trucks and continue along the top surface of the west channel bank. A ramp will be constructed to allow equipment into the channel bottom and provide access to the underground culvert area. In a meeting between the City and the County on February 20, 2014 the City proposed a second project staging area within a private parking lot located adjacent to and south of Agoura Road and along the west bank of the Las Virgenes Creek. The City will coordinate with the property owner and support the effort to obtain temporary use of this area. This staging area will allow additional access of construction equipment to the project area between the US 101 freeway and just south of Agoura Road.

1.13 Refer to Responses 1.2 and 1.3.

1.14 The County concurs and will defer naming of the trail portion within the City limits to a later date. The County and the City will work together on determining the name of that portion of the trail. Also, the County and City agree that the portion of the trail not within the City limits will be named the Don Wallace Multi-Use Trail Connector.

Letter No. 2  
County of Los Angeles Fire Department



COUNTY OF LOS ANGELES

FIRE DEPARTMENT

1320 NORTH EASTERN AVENUE  
LOS ANGELES, CALIFORNIA 90063-3294

DARYL L. OSBY  
FIRE CHIEF  
FORESTER & FIRE WARDEN

RECORDED  
FEB 10 2014 4:43 PM  
PL 201400013

February 7, 2014

Bryan Moscardini, Planner  
Department of Parks and Recreation  
Departmental Facility  
510 S. Vermont Avenue, Room 201  
Los Angeles, CA 90020

Dear Mr. Moscardini:

**DRAFT MITIGATION NEGATIVE DECLARATION, "DON WALLACE MULTI-USE TRAIL CONNECTOR PROJECT," TO CONNECT A RESTORED PORTION OF LAS VIRGENES CREEK IN CALABASAS SOUTH OF THE 101 FREEWAY TO PORTIONS OF THE CREEK NORTH OF THE 101 FREEWAY, CALABASAS (FFER #201400013)**

The Draft Mitigation Negative Declaration has been reviewed by the Planning Division, Land Development Unit, Forestry Division, and Health Hazardous Materials Division of the County of Los Angeles Fire Department. The following are their comments:

**PLANNING DIVISION:**

- 1. We have no comments at this time.

**LAND DEVELOPMENT UNIT:**

- 1. The Land Development Unit does not have any comments or conditions for this project. If there are any questions, please contact the County of Los Angeles Fire Department, Land Development Unit Inspector, Wally Collins, at (323) 890-4243.



2.1

SERVING THE UNINCORPORATED AREAS OF LOS ANGELES COUNTY AND THE CITIES OF:

|              |           |                  |                      |           |                      |                       |                  |
|--------------|-----------|------------------|----------------------|-----------|----------------------|-----------------------|------------------|
| AGOURA HILLS | CALABASAS | DIAMOND BAR      | HIDDEN HILLS         | LA MIRADA | MAJIBU               | POMOCA                | SIGNAL HILL      |
| ARTESIA      | CARSON    | DUARTE           | HUNTINGTON PARK      | LA PUENTE | BRAYWOOD             | RANCHO PALOS VERDES   | SOUTH EL MONTE   |
| AZUSA        | CERRITOS  | EL MONTE         | INDUSTRY             | LAKEWOOD  | NORWALK              | ROLLING HILLS         | SOUTH GATE       |
| BALDWIN PARK | CLAREMONT | GARDENA          | INGLEWOOD            | LANCASTER | PALMDALE             | ROLLING HILLS ESTATES | TEMPLE CITY      |
| BELL         | COMMERCE  | GLENDDORA        | IRVINDALE            | LAWNDALE  | PALOS VERDES ESTATES | ROSEMEAD              | WALNUT           |
| BELL GARDENS | COVINA    | HAWAIIAN GARDENS | LA CANADA FLINTRIDGE | LONITA    | PARAMOUNT            | SAN DIMAS             | WEST HOLLYWOOD   |
| BELLFLOWER   | CUDAHY    | HAWTHORNE        | LA HABRA             | LYNWOOD   | PICO RIVERA          | SANTA CLARITA         | WESTLAKE VILLAGE |
| BRADBURY     |           |                  |                      |           |                      |                       | WHITTIER         |

Bryan Moscardini, Planner  
February 7, 2014  
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**FORESTRY DIVISION – OTHER ENVIRONMENTAL CONCERNS:**

1. The statutory responsibilities of the County of Los Angeles Fire Department, Forestry Division include erosion control, watershed management, rare and endangered species, vegetation, fuel modification for Very High Fire Hazard Severity Zones or Fire Zone 4, archeological and cultural resources, and the County Oak Tree Ordinance.
2. The areas germane to the statutory responsibilities of the County of Los Angeles Fire Department, Forestry Division, have been addressed.

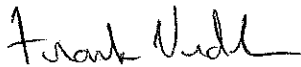
21  
cont.

**HEALTH HAZARDOUS MATERIALS DIVISION:**

1. The Health Hazardous Materials Division has no objection to the proposed project.

If you have any additional questions, please contact this office at (323) 890-4330.

Very truly yours,



FRANK VIDALES, CHIEF, FORESTRY DIVISION  
PREVENTION SERVICES BUREAU

FV:jl

**Responses to Letter No. 2  
County of Los Angeles Fire Department**

2.1 Comments noted.

**Letter No. 3****Los Angeles County Department of Public Works**

February 25, 2014

Mr. Bryan Moscardini  
Los Angeles County, Department of Parks and Recreation  
Departmental Facility Planner I  
510 South Vermont Avenue  
Los Angeles, CA, 90020

**DRAFT INITIAL STUDY/MITIGATED NEGATIVE DECLARATION (IS/MND)  
DON WALLACE MULTI-USE TRAIL CONNECTOR PROJECT  
UNINCORPORATED COUNTY AREA OF LOS ANGELES AND CITY OF  
CALABASAS**

**LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS REVISED  
COMMENTS**

We completed our review of the Draft IS/MND for the proposed trail connector project located in the unincorporated County area of Los Angeles and City of Calabasas. The proposed project is for a Class III Trail that will connect a restored portion of Las Virgenes Creek in the City of Calabasas (south of the US Highway 101) to portions of the creek north of the US Highway 101. More specifically, the proposed project will begin at Agoura Road, proceed north under the US Highway 101, traverse the concrete channel on the west side, and continue into the natural/informal trails within the Santa Monica Mountains Conservancy (SMMC) property. The proposed 1,500 linear-foot trail will provide a vital multi-use connection to a larger network of existing and future regional trails, ultimately providing continuous trail connectivity from the Pacific Ocean in Malibu to the interior areas of Los Angeles County and the Santa Monica Mountains.

Clearing and grubbing will be performed along the trail alignment during the construction. For the area within the culvert and further upstream, estimated 1,335 cubic yards of sediment and 0.18 acres of vegetation will be removed. In addition, during the construction of the project, temporary diversion of water flows will be achieved by the use of fiber rolls.

This supersedes the Public Works memo dated February 20, 2014 (attached) and is being issued to reflect additional information related to the title search of the parcels within the proposed trail project that was obtained after the original memo was sent. The additional information indicates that the Los Angeles Flood Control District (LACFCD) has ownership of land within the trail project and therefore flood permits will be necessary from the LACFCD prior to the construction of the proposed trail. We have revised Background and History Comment No. 1 below accordingly. The content of the

Mr. Bryan Moscardini  
February 25, 2014  
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other comments listed below has not changed from the February 20, 2014, memo that was previously sent.

The following are County of Los Angeles, Department of Public Works' comments for your consideration and relate to the environmental document only:

For specific revisions, additions, or deletions of wording directly from the project document the specific section, subsection, and/or item along with the page number is first referenced then the excerpt from the document is copied within quotations using the following nomenclature:

Deletions are represented by a ~~strikethrough~~.  
Additions are represented by *italics* along with an underline.  
Revisions are represented by a combination of the above.

#### **Background and History**

1. Section 2.2, Background and History, page 6 of 102; Public Works had previously requested to exclude LACFCD as an agency that would require approval/permits issuance. As indicated above, applicable flood permits will be required and therefore the statement below is acceptable and no change is required:

"Prior to the construction of the Proposed Trail Connector, approval/permits would be required from the U.S. Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW), Regional Water Quality Control Board (RWQCB), Caltrans, Los Angeles County Department of Public Works/Flood Control District (LACDPW), and the City of Calabasas".

Los Angeles County Flood Control District (LACFCD) quitclaimed to the City of Calabasas a portion of its right, title and interest to easement for storm drain ingress/egress and flood control purposes within the proposed trail. The quitclaim deed was recorded on February 28, 2002 under document number OR 02-0475197. Prior to the construction of the proposed trail connector, a flood permit will be required from LACFCD since LACFCD has ownership of land within the proposed trail.

If you have any questions regarding the background and history comment above, please contact Mr. Youssef Chebabi of Watershed Management Division at (626) 458-4313 or [ychebabi@dpw.lacounty.gov](mailto:ychebabi@dpw.lacounty.gov).

3.1

Mr. Bryan Moscardini  
February 25, 2014  
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- 2. Section 2.2, Background and History, page 6 of 102; LACFCD owns and maintains facilities within the vicinity of the project, any impacts to LACFCD system including any proposed connections or alteration to any flood control facilities should be discussed in the IS/MND. A construction permit from the LACFCD prior to construction is required. Plans must be submitted to the Los Angeles County Department of Public Works for review and approval prior to permit issuance. This should specifically be noted in the environmental document. For submittal and permit fees associated with connections to LACFCD facilities, please contact Land Development Division, Permits Section at (626) 458-3129. 3.2

If you have any questions regarding the background and history comments please contact Mr. Stephen Lipka of Flood Maintenance Division at (818) 869-0594 or [slipka@dpw.lacounty.gov](mailto:slipka@dpw.lacounty.gov).

**Geology and Soils**

- 1. Section 4.6, Geology and Soils, item a(iii), page 67 of 102; include a discussion that the all or portion of the project site is located in a potentially liquefiable areas per the State of California Seismic Hazard Zones Map – Calabasas Quadrangle. 3.3
- 2. Section 4.6, Geology and Soils, item b, page 67 of 102; include a discussion about possible impacts from scouring. Please note that it is recommended that any impacts of scouring to be discussed and disclosed in the geotechnical evaluation report dated February 11, 2013 (Revised February 13, 2013). 3.4

If you have any questions regarding the geology and soils comments, please contact Mr. Jeremy Wan of Geotechnical and Materials Engineering Division at (626) 458-4925 or [jwan@dpw.lacounty.gov](mailto:jwan@dpw.lacounty.gov) or [jwan@dpw.lacounty.gov@dpw.lacounty.gov](mailto:jwan@dpw.lacounty.gov@dpw.lacounty.gov).

**Hydrology and Water Quality**

- 1. Section 4.9, Hydrology and Water Quality, item a, page 76 of 102; include a discussion of the possible increase of bacteria TMDL due to increased use of the trail by hikers and their dogs and include mitigations such as but not limited to providing litter bag dispensers at both locations where the trail provides access to the river bed. 3.5

If you have any questions regarding the hydrology and water quality comment, please contact Mr. Youssef Chebabi of Watershed Management Division at (626) 458-4313 or [ychebabi@dpw.lacounty.gov](mailto:ychebabi@dpw.lacounty.gov).



Mr. Bryan Moscardini  
 February 25, 2014  
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**Transportation/Traffic**

1. Section 4.16 Transportation/Traffic, section a, page 92 of 102, add a statement regarding traffic management plan as follows: "As a standard proposed trail connector project design feature, Traffic Management Plan would be implemented to minimize impacts to the traffic during the construction stage. The Traffic Management Plan would require agency-approved detour routes around the construction site to minimize impacts to traffic. Detour routes outlined in this Traffic Management Plan would need to be reviewed and approved by all applicable agencies including Los Angeles County Public Works." 3.6
- If you have any questions regarding the transportation/traffic comment, please contact Mr. Andrew Ngumba of traffic and Lighting Division at (626) 300-4851 or [angumba@dpw.lacounty.gov](mailto:angumba@dpw.lacounty.gov).

**Utilities and Service Systems**

1. Section 4.17, Utilities and Service Systems, item c, page 95 of 102, include the description of the existing sewer pipelines within the project area that is maintained by Los Angeles County Sewer Maintenance District (LACSMD) as shown in attached LACSMD Map No. N-1118 for your reference. 3.7
- If you have any questions regarding the utilities and service systems comment, please contact Ms. Marisa Morelos of Sewer Maintenance Division at (626) 300-3370 or [mmorelos@dpw.lacounty.gov](mailto:mmorelos@dpw.lacounty.gov).

**General Notes:**

- The following are not part of Public Works' IS/MND comments and are only presented for your consideration:
1. As discussed in the Appendix D, Phase 1 Hydrology and Hydraulics Evaluation Report, under both existing and proposed conditions flows overtop the triple box culvert, however due to removal of sediments and vegetation, the overtopping at proposed condition will occur at higher flow rates and hence it might be beneficial to incorporate additional mitigations in the project site in order to reduce the flooding hazard in that area. 3.8
  2. Federal Emergency Management Agency (FEMA) is currently conducting a new hydraulic analysis for the project area and will be issuing new Flood Insurance Rate Maps as a result. Depending on the FEMA's final maps and the final 3.9

Mr. Bryan Moscardini  
February 25, 2014  
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hydraulics impacts of this project, a Letter of Map Revision (LOMR) application may be required by FEMA.

If you have any questions regarding the general notes, please contact Mr. Youssef Chebabi of Watershed Management Division at (626) 458-4313 or [ychebabi@dpw.lacounty.gov](mailto:ychebabi@dpw.lacounty.gov).

If you have any other questions or require additional information, please contact Miss Teni Mardirosian of Land Development Division at (626) 458-4910 or [tmardirosian@dpw.lacounty.gov](mailto:tmardirosian@dpw.lacounty.gov).

3.9  
Continued

TM:

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Attach.

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**Responses to Letter No. 3**  
**Los Angeles County Department of Public Works**

- 3.1 The County concurs with this comment.
- 3.2 The conceptual design of the proposed trail connector Project is such that it does not interfere with or modify any existing flood control facilities or connections. The County is required to coordinate with LACFCD during the design process to ensure that designs for the proposed trail and ramp will meet LACFCD standards and requirements. Additionally, the County will be seeking an Encroachment Permit from LACFCD. A permit will only be granted if LACFCD agrees that the proposed design would not interfere with existing facilities and design flow criteria.
- 3.3 The requested statement has been added in Section 2, *Clarifications and Revisions*, of this document. Refer to page 67, impact 4.6 a (iii) for a full discussion of liquefaction potential on the Project site. As stated on page 67, the alluvial portion of the site, within the creek channel, is within State and County Hazard Zones for Liquefaction. To minimize potential damage to the proposed structures caused by liquefaction, all construction would comply with the latest California Building Code standards, as required by the City Municipal Code 9.04.030. As such, implementation of the California Building Code standards, which include provisions for seismic building designs, would ensure that impacts associated with liquefaction would be less than significant.
- 3.4 The existing channel upstream of the US 101 is a rectangular, concrete channel with 2-3 feet of sediment accumulated over the concrete invert. The vegetal growth is very dense in some areas of this reach. During large storm events, the sediment may scour, possibly uprooting vegetation during this process. This is a natural occurrence in a channel such as this. Typically the material that is scoured during the storm event is replenished by upstream sources for very little net change in the earthen portion of the channel invert.

The reach of channel between US 101 and Agoura Road bridge appears to have been restored with a gravel/cobble invert with rock riprap check dams spaced at regular intervals. Currently, this reach is very densely vegetated. The use of gravel/cobble invert, check dams, intermittent large stone and the vegetal growth will greatly reduce the expected scour in this reach.

As a result of the proposed trail connector Project, the change in expected scour should be insignificant, as the hydraulics of the channel will not be significantly changed. The only potential change in hydraulics or scour may be from the creation of a cleared path through

the existing vegetation. Flows may seek this “path of least resistance” to flow. However, the upstream reach including the culvert under US 101 has a concrete invert that would limit scour depth. The downstream reach was designed to protect against scour as part of the restoration project which when completed had little or no vegetation.

3.5 Refer to Response 1.3.

3.6 Comment noted. Refer to Section 2, *Clarifications and Revisions*, of this document.

3.7 There are currently two sewer lines that bisect the proposed trail connector Project site. An eight-inch diameter vitrified clay gravity flow collection sewer line runs along Agoura Road and is maintained by the Consolidated Sewer Maintenance District. The second line is a collection sewer line that connects to a reinforced concrete trunk sewer maintained by the Las Virgenes Municipal Water District. These lines connect within the proposed trail connector Project site in the downstream portion north of Agoura Road. Neither construction nor operation of the proposed trail connector Project is anticipated to interfere or modify the existing sewer systems.

3.8 As stated in Response 1.5, a Hydrology and Hydraulics Evaluation Report dated December 4, 2013, was prepared by CWE for the proposed trail connector Project. Section 4.4 of the Hydrology and Hydraulics Evaluation Report identified that the Caltrans hydraulic bridge freeboard criteria are met for the proposed Project conditions with over four feet of freeboard during the 100-year design flow event. The design would be reviewed and approved by the Los Angeles County Flood Control District (LACFCD) as part of the process of obtaining the Encroachment Permit.

3.9 Comment noted.

Letter No. 4  
CA Department of Fish and Wildlife

**From:** Blankenship, Daniel@Wildlife [<mailto:Daniel.Blankenship@wildlife.ca.gov>]  
**Sent:** Thursday, February 20, 2014 2:53 PM  
**To:** Bryan Moscardini  
**Subject:** Don Wallace Multi Use Trail Connector Project CEQA MND

Dear Mr. Moscardini,

Thank you for the opportunity to comment on the above referenced MND in re: to potential impacts to biological resources. The Department concurs with the proposed biological mitigation measures with the following recommendations and clarification.

1. As noted in the MND, the County will submit a notification for a streambed alteration agreement and will coordinate with the Department as needed during biological clearance surveys.
2. Please coordinate with National Parks Service to insure trail design and the undercrossing can facilitate use by wildlife as much as practical. As we discussed by phone, NPS and others are looking at wildlife crossing opportunities and this trail connector can be useful for wildlife during low public use periods.
3. Please insure clearance surveys continue to include southwestern pond turtle. If southwestern pond turtle are observed please coordinate with Department staff to develop a plan of action.
4. The Department concurs that it is prudent to work outside of bird nesting season to minimize disturbance to nesting birds. Although there are periods of high nesting probability, in the south coastal environs bird nesting can be very prolonged and biological monitors should always be on the lookout for nesting behavior.

Please contact Dan Blankenship if you have any questions or have need for further consultation.

Daniel S. Blankenship  
Senior Environmental Scientist (Specialist)  
Habitat Conservation Planning - North  
CA Department of Fish and Wildlife  
South Coast Region  
P.O. Box 802619  
Santa Clarita, CA 91380-2619  
O 661-259-3750  
C 661-644-8469  
[Daniel.Blankenship@wildlife.ca.gov](mailto:Daniel.Blankenship@wildlife.ca.gov)

} 4.1  
 }  
 } 4.2  
 }  
 } 4.3  
 }  
 } 4.4

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**Responses to Letter No. 4**  
**CA Department of Fish and Wildlife**

- 4.1 The County is committed to clearing the project through the CDFW, including the submittal of a streambed alteration agreement, as well as under CEQA and CESA.
- 4.2 The County will continue to coordinate with the NPS and others during the detailed design. The County recognizes the importance of wildlife corridors in conjunction with users' safety.
- 4.3 The County's previous assessments did not find southwestern pond turtle. As requested, clearance surveys will continue to include southwestern pond turtle. If this species is found onsite, the County will coordinate with the CDFW to develop a plan of action.
- 4.4 It is the County's intent to conduct work outside the avian breeding season to minimize impacts to nesting birds. However, as requested, a biological monitor will be employed during all construction activities to assess and minimize potential impacts to sensitive biological resources, including nesting birds.

Letter No. 5  
City of Calabasas Letter #2



CITY of CALABASAS

February 24, 2014

Mr. Bryan Moscardini, Departmental Facility Planner I  
Los Angeles Co. Dept. of Parks & Recreation  
510 S. Vermont Street, Room 201  
Los Angeles, CA 90020

Regarding: Notice of Intent to adopt a Mitigated Negative Declaration for a proposed Multi-use Trail Connector Project located partially within the City of Calabasas


Dear Mr. Moscardini:

This letter supplements our official comment letter addressed to you and dated February 18, 2014. Your efforts to respond to our comments should focus only on matters discussed within these two letters, and not any prior correspondence. } 5.1

As was discussed with County officials at a meeting on February 20th, the City requests that the County extend the southern terminus of the connector trail on its flood easement beneath the Agoura Road bridge and upward along the west embankment immediately south of the bridge. This adjustment to the southern trail terminus would align the connector trail segment with the City's multi-purpose trail along the west side of Las Virgenes Creek, which is currently in the planning stage. By adding this short southern extension, the connector trail length would be increased by approximately 150 feet. An additional benefit would be that a potential second temporary construction staging area could be easily accommodated in this area (please see the attached exhibit). } 5.2

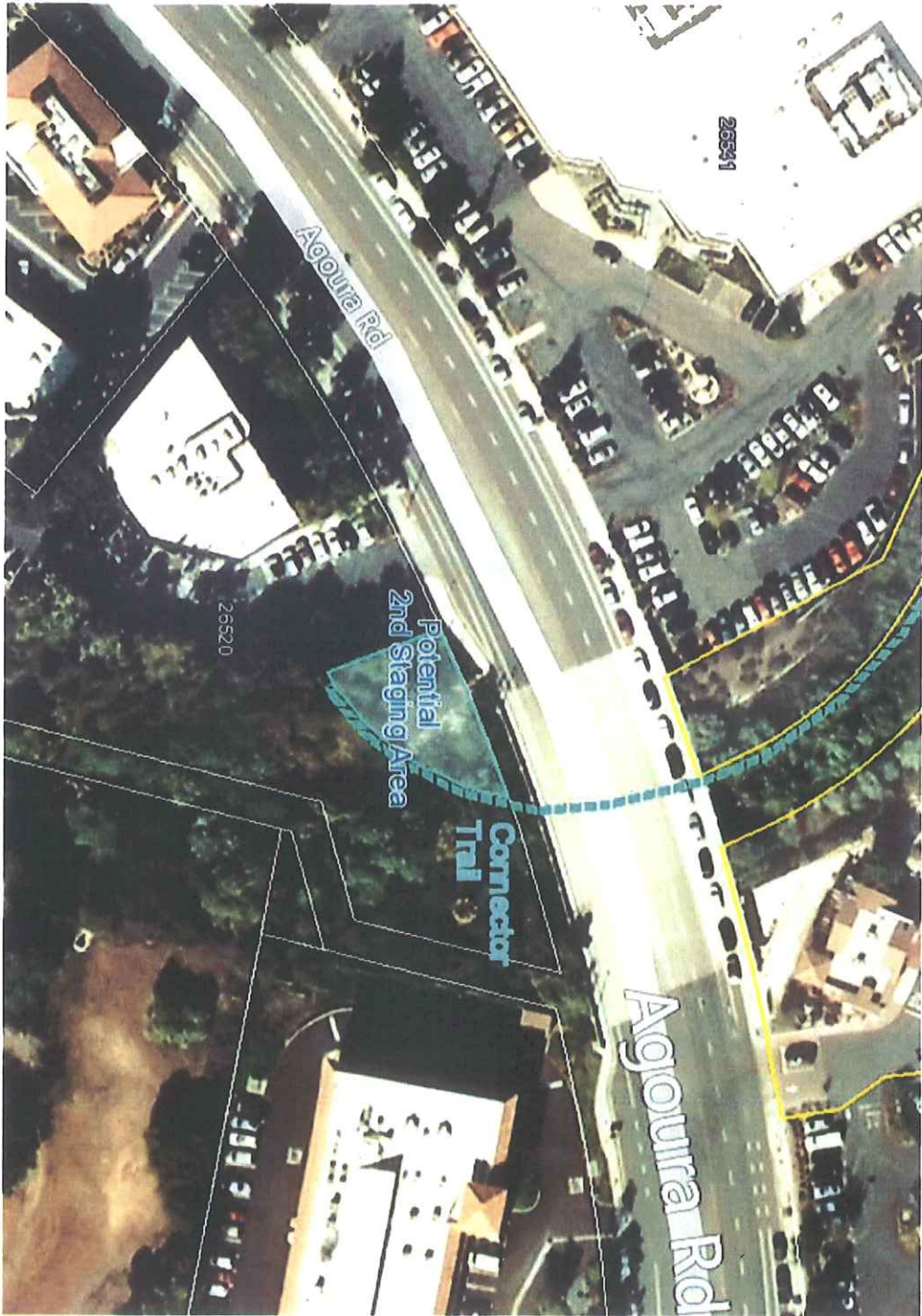
Finally, recognizing that this letter has been sent at the close of the noticed public comment period, and the CEQA timeline for preparation of responses would potentially constrain you as you attempt to prepare written responses, we hereby waive our rights under CEQA regarding receipt of your written responses, and will gladly accept the responses as late as March 3, 2014. } 5.3

Thank you for the opportunity to work with the County on this project, and for your consideration of our comments to the draft MND.

Sincerely,  
  
Maureen Tamuri, AIA, AICP  
Community Development Director

Cc: Anthony M. Coroalles, City Manager  
Tom Bartlett, AICP, City Planner  
Robert Yalda, PE, Director of Public Works

Attachment: Proposed southern connector trail terminus  
100 Civic Center Way  
Calabasas, CA 91302  
(818) 224-1600  
Fax (818) 225-7324





**Responses to Letter No. 5  
City of Calabasas Letter #2**

- 5.1 Comment noted.
- 5.2 The County concurs with this comment, subject to the availability of funds and obtaining the necessary permits for the requested trail extension. The County is currently working on revising conceptual designs to extend the proposed trail connector Project south of the Agoura Road bridge. Biological and cultural resources assessments have been conducted for the extension area. Review of the biological, cultural, and other resources addressed in the IS/MND resulted in no significant changes to the previous analysis.
- 5.3 Comment noted.

## CLARIFICATIONS AND REVISIONS

Changes to the Draft Initial Study/Mitigated Negative Declaration are noted below. Underlining indicates additions to the text; striking indicates deletions to the text. The changes to the Draft Initial Study/Mitigated Negative Declaration do not affect the overall conclusions of the environmental document. These changes reflect minor clarifications to the Draft Initial Study/Mitigated Negative Declaration. These clarifications and modifications are not considered to result in any new or more severe impacts than identified in the Draft Initial Study/Mitigated Negative Declaration, and are not otherwise deemed to warrant recirculation pursuant to CEQA Guidelines §15073.5 Changes are listed by page and where appropriate by paragraph. Added or modified text is shown by underlining (example) while deleted text is shown by striking (~~example~~).

### Global Revision

All references to the ~~Santa Monica Mountains Conservancy (SMMC)~~ in the Draft MND should be changed to the Mountains Recreation and Conservation Authority (MRCA).

### Page 28

The Don Wallace Multi-Use Trail Connector Project is a proposed 1,5~~7~~00-foot long and 8 to 10 foot wide multi-use segment that would provide vital connections to a larger planned regional trail system from the ~~SMMC~~ Mountains Recreation and Conservation Authority (MRCA) property to Malibu Creek State Park. The proposed trail connector Project is a part of a larger planned trail system of the Los Angeles County and City of Calabasas as identified in their Trails Master Plans. The proposed trail connector Project is a critical component to provide a viable, safe and formal trail for recreational use.

The Don Wallace Multi-Use Trail Connector project will be located within the City of Calabasas, Caltrans US 101 and County of Los Angeles, California. The project proposes to develop a trail approximately 1,700 feet in length, within the Las Virgenes Creek. The trail would initiate along the channel upper bank area located south of Agoura Road. The trail would proceed downward to the bottom of the channel, northward under the Agoura Road bridge and run along the western edge of the earthen, soft bottom channel towards the US 101 underground culvert. There are 3 separate culverts and the trail would continue through the western cell of the US 101 culvert. The trail would transition to the rectangular open concrete channel and would continue north along the western edge of the channel. The trail would transition again from the rectangular channel north through a trapezoidal channel area and towards an earthen soft bottom channel. The trail would ramp up along the western channel edge and onto the top of channel bank. The channel would continue along the upper channel area towards the west and the trail would then connect

with existing natural/informal trails within the MRCA land. Please see the revised exhibits in this Section.

~~The proposed trail connector Project would start with a turn-around area underneath Agoura Road Bridge. The trail would ramp up with an 8-foot wide soil cement trail at an 8% grade and along the upper (west) earthen channel bank of the Las Virgenes Creek. The trail would then descend at an 8% grade from the top of the channel towards the culverts under the US 101. The proposed trail would continue north under the US 101 through the western culvert. The trail would continue 400-feet north towards the open concrete channel area. Existing sediment within the west culvert would be removed. Upon exiting the culvert, a 10-foot wide by approximately 440-feet long area would be cleared from existing vegetation and sediment. The trail area would run along the west channel wall in the cleared area towards the upstream rip-rap channel bottom. An eight-inch high curb is proposed north of the culvert to divert flows to the middle and eastern culverts during rain events. Near the rip-rap channel area and beyond the Caltrans right-of-way limit, an 8-foot wide soil-cement trail would run upward at an 8% grade along the earthen channel's west bank. At 200-feet, the trail would reach the top of the channel bank and exit onto the SMMC MRCA land. It should be noted that the County requires that a minimum of 10% of each of its park facilities be in compliance with the American Disabilities Act (ADA), which mandates that no more than a 5% grade will be designed. 82% of the proposed trail connector Project is in compliance with ADA requirements. Thus, the trail connector Project would exceed the minimum ADA standards requirement. The proposed trail connector Project would reduce obstruction to flows by utilizing the existing concrete bottom channel for the base surface structure. It would also reduce impacts to vegetation by minimizing the need for construction equipment to be placed in the channel bottom north of US 101. An area of vegetation, 10 feet wide from the western wall of the concrete channel area would be removed with the implementation of the proposed trail connector Project (see Exhibit 10, *Trail Alignment*).~~

### **Page 60, Mitigation Measure BIO-3**

The Project Applicant is required to obtain the following regulatory approvals prior to commencement of any construction or maintenance activities within the identified jurisdictional areas: United States Army Corps of Engineers (USACE) Clean Water Act Section 404 Permit; Regional Water Quality Control Board (RWQCB) Clean Water Act Section 401 Water Quality Certification; and CDFW Section 1602 Streambed Alteration Agreement.

**Page 67, Third Paragraph, First Sentence**

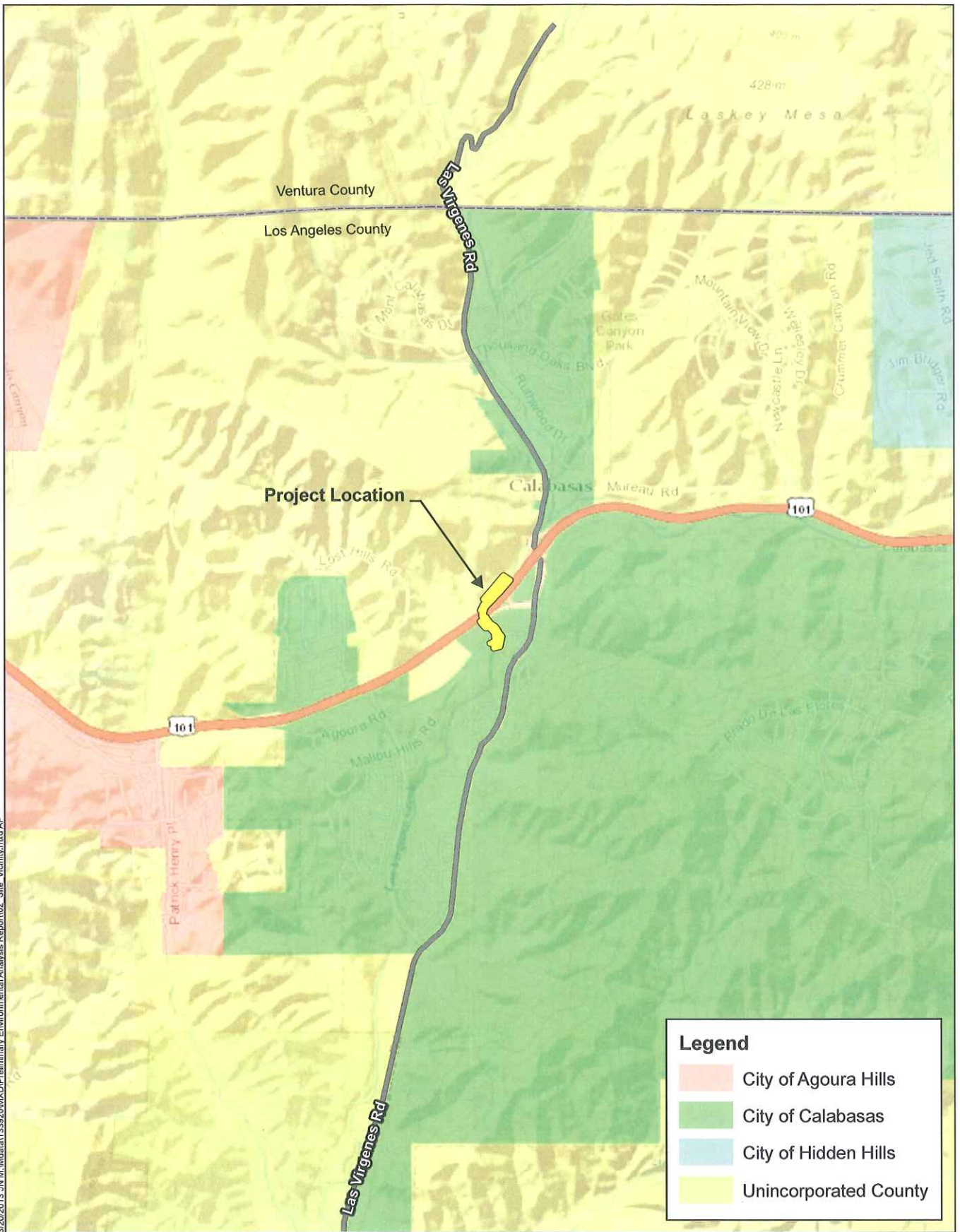
A portion of the Project site is located in a potentially liquefiable area per the State of California Seismic Hazard Zone Map-Calabasas Quadrangle. Additionally, the alluvial portion of the site, within the creek channel is within State and County Hazard Zones for Liquefaction.

**Page 92, Second Paragraph, Sixth Sentence**

As a standard proposed trail connector Project design feature, a Traffic Management Plan would be implemented to minimize impacts to traffic during the construction stage. ~~The Traffic Management Plan would require agency approved detour routes around the construction site to minimize impacts to traffic.~~ Detour routes outlined in this Traffic Management Plan would need to be reviewed and approved by all applicable agencies including Los Angeles County Public Works. Less than significant impacts would occur in this regard.

# REVISED EXHIBITS

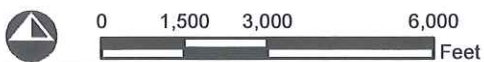
(Exhibits have been revised as needed to reflect the addition of the trail extension)



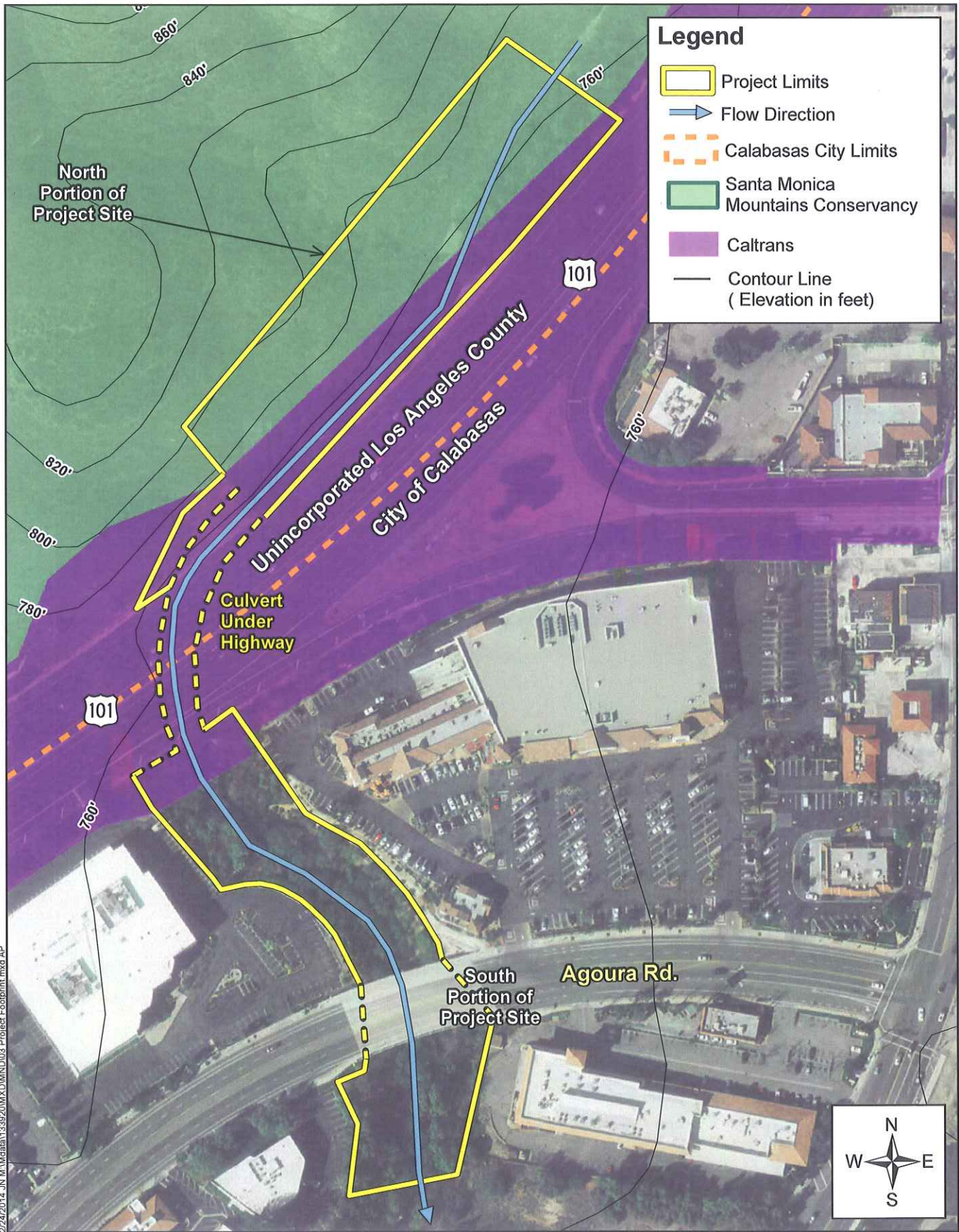
3/20/2013 11:01 AM M:\data\133920\MAXD\Preliminary Environmental Analysis Report\02\_Site\_Vicinity.mxd AP

DON WALLACE MULTIUSE TRAIL CONNECTOR  
DRAFT MITIGATED NEGATIVE DECLARATION

# Project Location

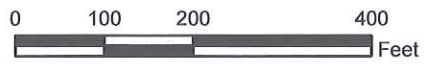


Source: ESRI World Topographic Basemap



**Legend**

- Project Limits
- Flow Direction
- Calabasas City Limits
- Santa Monica Mountains Conservancy
- Caltrans
- Contour Line (Elevation in feet)

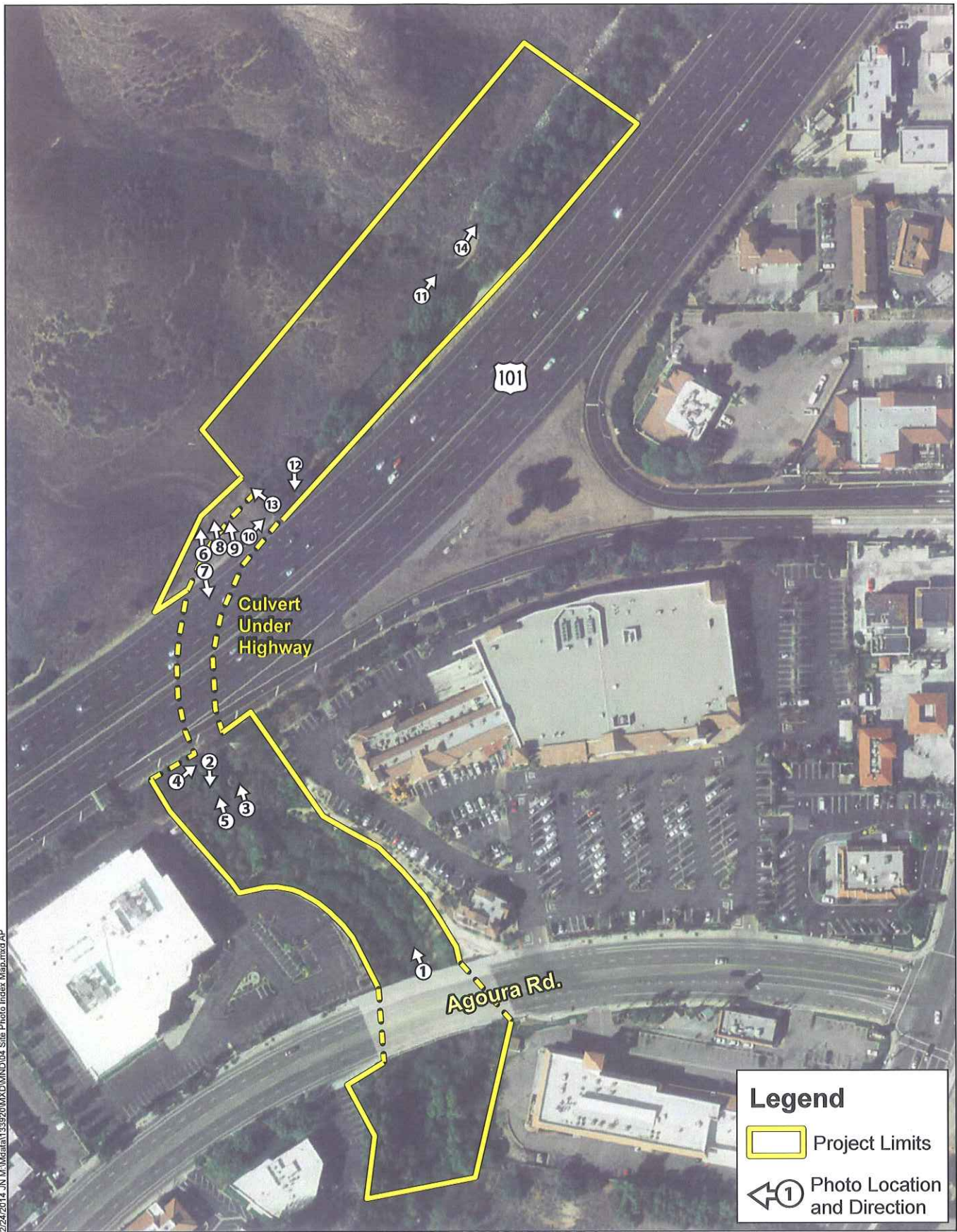


DON WALLACE MULTI-USE TRAIL CONNECTOR  
DRAFT MITIGATED NEGATIVE DECLARATION

# Project Footprint

Source: Eagle Aerial - 2012, LA County GIS Data Portal, USGS National Map Elevation Data Set

2/24/2014, 11:41 AM, data1133920\MXD\MND\04\_Site Photo Index Map.mxd, AP

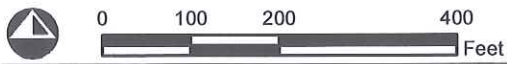


**Legend**

-  Project Limits
-  Photo Location and Direction

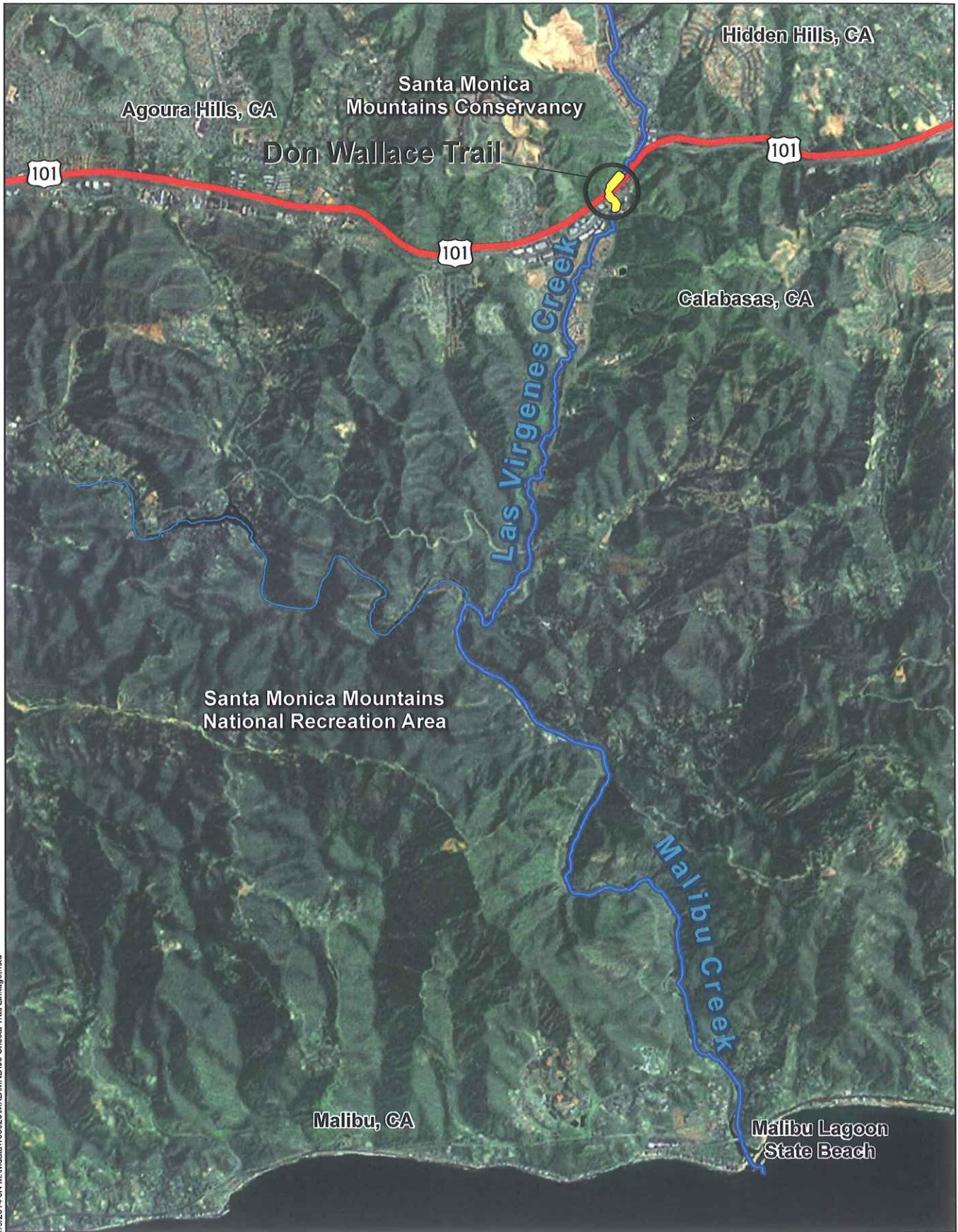
DON WALLACE MULTI-USE TRAIL CONNECTOR  
DRAFT MITIGATED NEGATIVE DECLARATION

# Site Photo Index Map



Source: Eagle Aerial - 2012





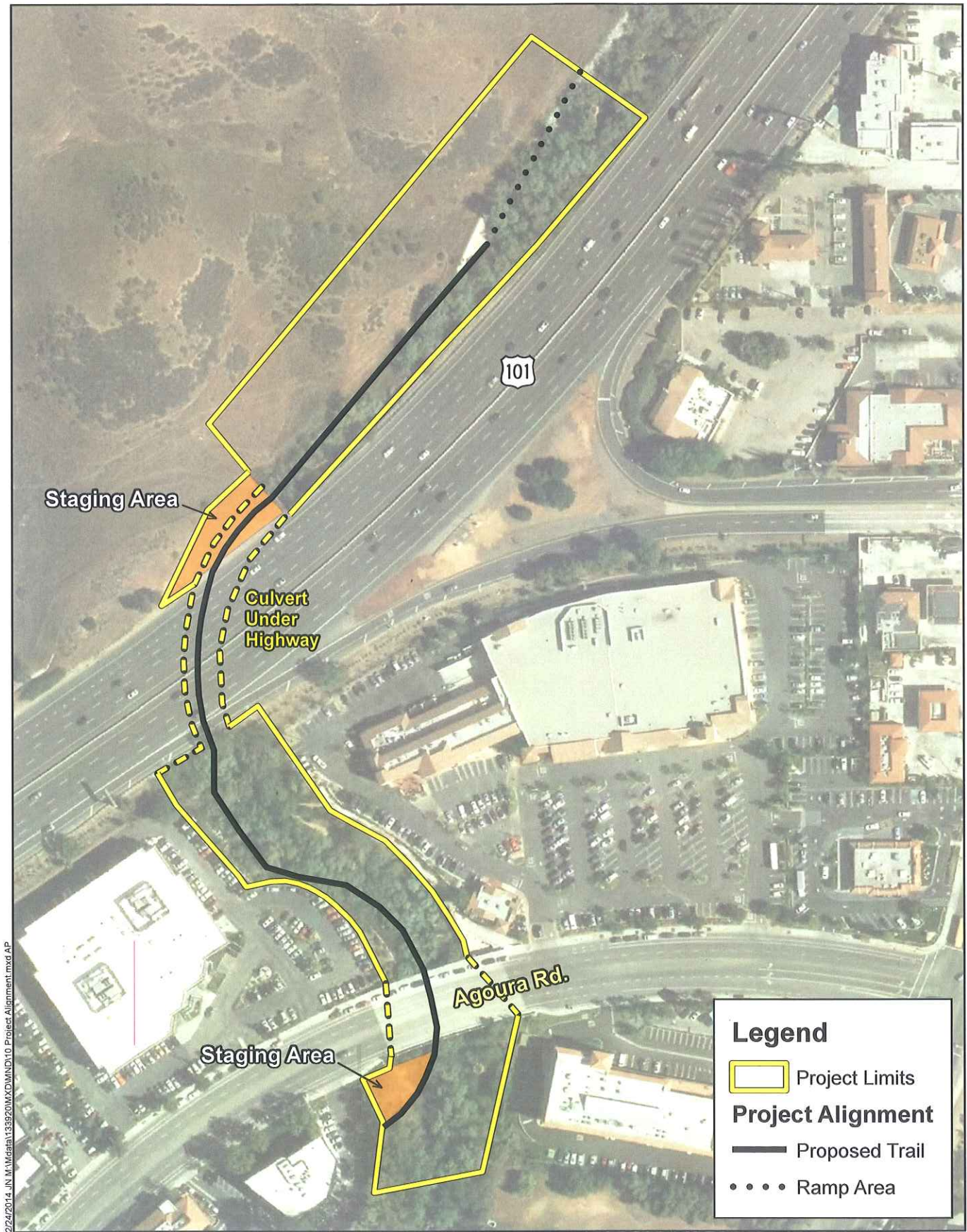
1/9/2014, 10:13:32 AM, 13392001XDXDIND08 Critical Trail Linkage.mxd

DON WALLACE MULTI-USE TRAIL CONNECTOR  
 DRAFT MITIGATED NEGATIVE DECLARATION

# Mountains to Ocean Proximity



Source: ESRI World Imagery, National Hydrography Dataset



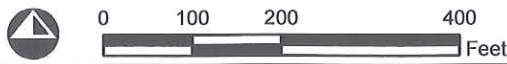
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**Legend**

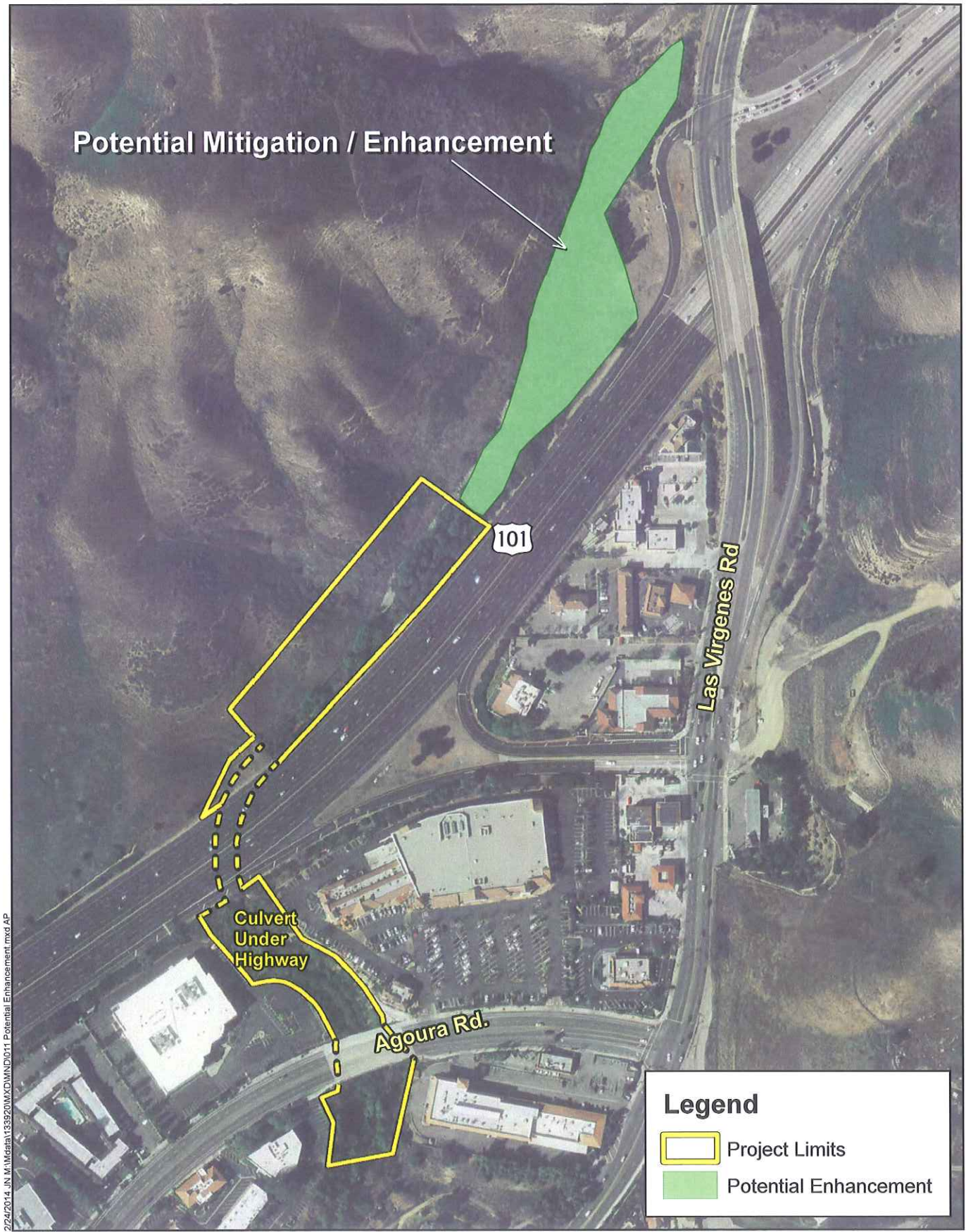
- Project Limits
- Project Alignment**
- Proposed Trail
- Ramp Area

DON WALLACE MULTI-USE TRAIL CONNECTOR  
DRAFT MITIGATED NEGATIVE DECLARATION

# Project Alignment



Source: Eagle Aerial - 2012



2/24/2014 10:11:13 AM M:\Data\133920\MXD\MND\011 Potential Enhancement.mxd AP



Source: Eagle Aerial - 2012, LA County GIS Data Portal, USGS National Map Elevation Data Set

DON WALLACE MULTI-USE TRAIL CONNECTOR  
 DRAFT MITIGATED NEGATIVE DECLARATION  
**Mitigation Enhancement Area**

# REVISED APPENDICES

AMENDED APPENDIX B  
HABITAT ASSESSMENT

## MEMORANDUM

To: Juan Villalobos

JN: 133920

From: Travis McGill

Date: February 17, 2014

Subject: Don Wallace Multi-Use Trail Connector – Trial Alignment Update

---

RBF Consulting conducted a habitat assessment for the extension of the Don Wallace Multi-Use Trail Connector under Agoura Road and exiting the western bank of Las Virgenes Creek. Las Virgenes Creek generally flows in a north to south direction under the Agoura Road Bridge. The proposed trail extension will extend under the Agoura Road Bridge, and south of the bridge for approximately 170 feet on the western bank of Las Virgenes Creek. The proposed trail extension will not result in any additional impacts to U.S. Army Corps of Engineers or Regional Water Quality Control Board jurisdictional waters of the U.S. or waters of the State. However, the proposed trail extension will have 0.03-acre of additional impacts to California Department of Fish and Wildlife associated riparian vegetation.

The area under the existing bridge is heavily disturbed with minimal vegetation (refer to Photograph1). Plant species found on the western bank of Las Virgenes Creek, under the bridge, primarily consisted of tree tobacco (*Nicotiana glauca*), a non-native weedy plant species (refer to Photograph 2). Riprap protects the concrete piers supporting the bridge, and compacted dirt is found on both banks of the low flow channel of Las Virgenes Creek. Water within Las Virgenes Creek under the bridge ranged from approximately 3 to 20 inches in depth.

The area south of Agoura Road is composed of a mixed riparian forest plant community dominated black willow (*Salix gooddingii*) (refer to Photographs 3 and 4). Other plant species observed include cottonwood (*Populus fremontii*), sycamore (*Plantanus racemosa*), and boxelder (*Acer negundo*). The canopy covers approximately 50% of the ground. The understory is primarily open with patches of coyote brush (*Baccharis pilularis*), smilo grass (*Stipa miliacea*), Mexican fan palm (*Washingtonia robusta*), and non-native grasses (refer to Photograph 5).

The western bank of Las Virgenes Creek, south of Agoura Road, is disturbed and has been stabilized with rip rap. Growing through the riprap is distressed black willow and ruderal/weedy plant species (refer to Photographs 6 and 7). There is also a steel beam that crosses over Las Virgenes Creek and cuts into the western bank near the trail exit (refer to Photograph 8).

Do to the extensive disturbance along the western bank of Las Virgenes Creek, no sensitive plants are expected to occur with the proposed trail extension.

The plant community associated with Las Virgenes Creek south of Agoura Road, like the plant communities associated with Las Virgenes Creek north of Agoura Road (mixed riparian forest "restored" and willow scrub), have the potential to provide suitable habitat for least Bell's vireo (*Vireo bellii pusillus*) (LBVI). Focused surveys conducted in 2013 covered the area south of Agoura Road and were negative. No LBVI were heard nor observed during the 2013 focused survey.

Travis J. McGill  
Biologist | Natural Resources



**Photograph 1-** Heavily disturbed area under the Agoura Road Bridge.



**Photograph 2-** Tree tobacco on the western bank of Las Virgenes Creek, under the Agoura Road Bridge.



**Photograph 3-** Mixed riparian forest south of the Agoura Road Bridge.



**Photograph 4-** Mixed riparian forest south of the Agoura Road Bridge.





**Photograph 5-** Open understory composed of leaf litter within the mixed riparian forest south of Agoura Road.



**Photograph 6-** Vegetation growing up through the open riprap on western bank.



**Photograph 7-** Western bank of Las Virgenes Creek stabilized by riprap.



**Photograph 8-** Large steel beam crossing over Las Virgenes Creek on the right. Riprap stabilized bank on the left.

**APPENDIX G**  
**CULTURAL RESOURCES ASSESSMENT**

(This appendix is new)

# CULTURAL RESOURCES ASSESSMENT

## Don Wallace Multiuse Trail Connector Project Calabasas, Los Angeles County, California

Prepared for:

Juan Villalobos  
RBF Consulting  
3300 East Guasti Road, Suite 100  
Ontario, California 91761-8656

Prepared by:

David Brunzell, M.A., RPA  
Contributions by Dan Leonard, PhD  
BCR Consulting LLC  
1420 Guadalajara Place  
Claremont, California 91711  
Project No. RBF1401

### **National Archaeological Data Base Information:**

*Type of Study:* Class III Cultural Resources Assessment/Inventory

*Resources Recorded:* None

*Keywords:* Calabasas, Brents Junction, Las Virgenes Creek

*USGS Quadrangle:* 7.5-minute Calabasas, California (1967)



**BCRCONSULTING LLC**

February 24, 2014

## MANAGEMENT SUMMARY

BCR Consulting LLC (BCR Consulting) is under contract to RBF Consulting to conduct a Class III Cultural Resources Assessment of the Don Wallace Multiuse Trail Connector Project (project) in the City of Calabasas and unincorporated portions of Los Angeles County, California. The work is being performed pursuant to Section 106 of the National Historic Preservation Act of 1966 (Section 106 of the NHPA), according to U.S. Army Corps of Engineers requirements. It is also being prepared pursuant to the California Environmental Quality Act (CEQA) according to Los Angeles County Department of Parks and Recreation requirements. A cultural resources records search, field survey, Native American Consultation, and Paleontological Resources Assessment were conducted for the project. The records search revealed that 45 cultural resources studies have taken place resulting in the recording of 13 cultural resources within one-mile of the Area of Potential Effect (APE), or project site. Of the 45 previous studies, five have previously assessed portions of the APE, but no cultural resources have been recorded within its boundaries. A detailed project footprint exhibit and a potential second staging area and connector-trail exhibit are both included in Appendix A. Together these exhibits comprise the APE/project site. Results of the Native American Consultation are provided in Appendix B, project photos are included in Appendix C, and the Paleontological Resources Assessment is included in Appendix D.

During the field survey, BCR Consulting archaeologists did not discover any cultural resources (including prehistoric or historic archaeological sites or historic buildings) within the Don Wallace Multiuse Trail Connector Project APE. As a result, BCR Consulting recommends a finding of no historic properties affected under Section 106 of the NHPA, and no impacts to historical resources under CEQA, for this undertaking. BCR Consulting also recommends that no additional cultural resources work or monitoring is necessary during proposed activities associated with the development of the APE. However, if previously undocumented cultural resources are identified during earthmoving activities, a qualified archaeologist should be contacted to assess the nature and significance of the find, diverting construction excavation if necessary.

If human remains are encountered during the undertaking, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC.

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## INTRODUCTION

Brunzell Cultural Resource Consulting (BCR Consulting) is under contract to conduct a Class III Cultural Resources Assessment of the Don Wallace Multiuse Trail Connector Project (project) in the City of Calabasas and unincorporated portions of Los Angeles County, California. The work is being performed pursuant to Section 106 of the National Historic Preservation Act of 1966 (Section 106 of the NHPA), according to U.S. Army Corps of Engineers requirements. It is also being performed pursuant to the California Environmental Quality Act (CEQA) according to Los Angeles County Department of Parks and Recreation requirements.

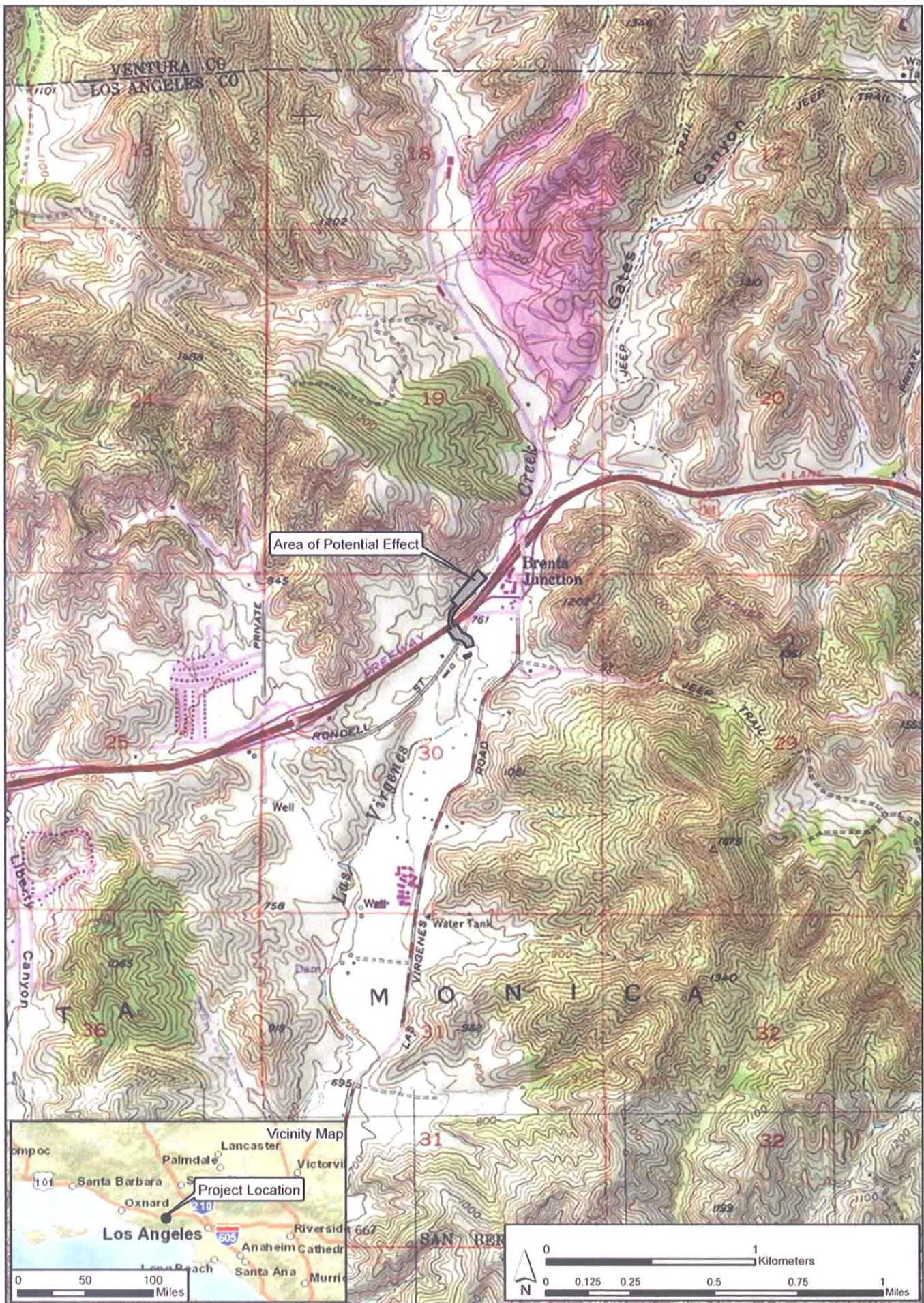
## AREA OF POTENTIAL EFFECTS AND UNDERTAKING/PROJECT

The Area of Potential Effects (APE), or project site, is located in the northeast quarter of Section 30, and the southeast quarter of Section 19, Township 1 North, Range 17 West, San Bernardino Baseline and Meridian, in the City of Calabasas and unincorporated portions of Los Angeles County, California. It is depicted on the United States Geological Survey (USGS) *Calabasas, California* (1967) 7.5-minute topographic quadrangle (Figure 1). A more detailed project footprint exhibit and a potential second staging area and connector-trail exhibit are both included in Appendix A. Together these exhibits comprise the APE/project site. The APE/project site is located approximately ¼ mile west of Las Virgenes Road, just north of Agoura Road, and immediately south and north of the Ventura Freeway (US101). It includes approximately 10 acres along a 1500-foot stretch of Las Virgenes Creek where it passes under Highway 101. Per the project description provided by RBF, project objectives include:

- Provide connectivity for trail systems on both sides of US 101, at the Las Virgenes Creek crossing;
- Minimize impacts to the environmental resources, including, but not limited to, the water, air, and biological resources;
- Minimize hydraulic and sedimentation impacts to the existing flood control project; Minimize disruption to the existing native vegetation.

## NATURAL SETTING

The elevation of the APE ranges from approximately 760 feet above mean sea level (AMSL), to approximately 900 feet AMSL. Highway 101 and extensive commercial development border the APE on the east and south. To the north and west, however, the foothills of the Santa Monica Mountains remain undeveloped. Las Virgenes Creek was channelized in 1977, but the concrete lining between Highway 101 and Agoura Road was removed in 2007 during the Las Virgenes Creek Restoration Project. In the south portion of the APE, the east side of the creek has a gentle slope with a short dirt trail and row of landscaped trees. The west side has an imported granite boulder slope for erosion control. The box culvert running under Highway 101 consists of three tunnels, with the creek currently flowing only through the east tunnel. In the north portion of the APE, the creek is bounded on the east by a five-meter tall concrete wall, and on the west by a similar concrete wall transitioning to a concrete slope moving north. The north part of the APE includes a strip of land above the creek channel on its west side that is 100 to 150 feet wide. This terrain includes the foothills of the Santa Monica Mountains.



Area of Potential Effect

Brents Junction

Las Virgenes

Vicinity Map

Project Location

Los Angeles

Area of Potential Effect  
 Don Wallace Multiuse Trail Connector Project  
 Reference: ESRI, USGS Quad. Calabasas (1967), CA

Figure 1

RBF Consulting  
 3300 East Guasti Road, Suite 100  
 Ontario, California 91761



The geology of the APE includes younger Quaternary Alluvium derived as alluvial fan deposits from the hills to the northwest, or as fluvial deposits from the creek to the east. Some sediments of the middle Miocene Upper Topanga Formation are exposed in the higher elevations on the northwestern portion of the APE (see Appendix C). The younger alluvium is more likely to yield cobbles suitable for the manufacture prehistoric artifacts, though none were noted within the APE.

Las Virgenes Creek flows north to south through the APE in a flood channel ranging from approximately 25 to 50 feet wide. Riparian Woodland habitat (including various tree species, sawgrass, and cattail) dominates the creek channel, while Coastal Sage Scrub habitat (including seasonal grasses, non-native Russian thistle, and patches of coyote squash) covers the foothills. Signature plant species of the Riparian Woodland typically include herbs such as rush (*Juncus* sp.) and sedge (*Carex* sp.), shrubs such as elderberry (*Sambucus mexicana*), monkeyflower (*Mimulus auranticus*), mule fat (*Baccharis salicifolia*), poison oak (*Toxicodendron diversilobum*), and wild rose (*Rosa californica*), and trees such as red alder (*Alnus rubra*), white alder (*Alnus rhombifolia*), big-leaf maple (*Acer macrophyllum*), California bay (*Umbellularia californica*), Fremont's cottonwood (*Populus fremontii*), black cottonwood (*Populus trichocarpa*), California sycamore (*Platanus racemosa*), and willow (*Salix* sp.). Key animals include California red-legged frog (*Rana aurora draytoni*), California gnatcatcher (*Polioptila californica californica*), red-shouldered hawk (*Buteo lineatus*), steelhead trout (*Oncorhynchus mykiss*), raccoon (*Procyon lotor*), Virginia opossum (*Didelphis virginiana*), and western pond turtle (*Emys [Clemmys] marmorata*) (Williams et al. 2008:85-86, 120)

Signature plant species of Coastal Sage Scrub community include black sage (*Salvia mellifera*), California brittlebush (*Encelia californica*), California buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), deerweed (*Lotus scoparius*), golden yarrow (*Eriophyllum confertiflorum*), laurel sumac (*Malosma laurina*), lemonadeberry (*Rhus integrifolia*), poison oak (*Toxicodendron diversilobum*), purple sage (*Salvia leucophylla*), sticky monkeyflower (*Mimulus aurantiacus*), sugar bush (*Rhus ovate*), toyon (*Heteromeles arbutifolia*), white sage (*Salvia apiana*), coastal century plant (*Agave shawii*), coastal cholla (*Opuntia prolifera*), Laguna Beach liveforever (*Dudleya stolonifera*), many-stemmed liveforever (*Dudleya multicaulis*), our Lord's candle (*Yucca whipplei*), and prickly pear cactus (*Opuntia* sp.). Signature animal species include the kangaroo rat (*Dipodomys* sp.), California horned lizard (*Phrynosoma coronatum frontale*), orange throated whiptail (*Cnemidophorus hyperthrus*), San Diego horned lizard (*Phrynosoma coronatum blainvillii*), brown-headed cowbird (*Molothrus ater*), California gnatcatcher (*Polioptila californica californica*), California quail (*Callipepla californica*), and San Diego cactus wren (*Campylorhynchus brunneicapillus sandiegensis*) (Williams et al. 2008:118-120).

## CULTURAL SETTING

### Prehistoric Context

Two primary regional syntheses are commonly utilized in the archaeological literature for southern California. The first was advanced by Wallace in 1955, and defines four cultural horizons, each with characteristic local variations: Early Man Horizon, Milling Stone, Intermediate, and Late Prehistoric. Employing a more ecological approach, Warren (1986) defined five periods in southern California prehistory: Lake Mojave, Pinto, Gypsum,

Saratoga Springs, and Protohistoric. Warren viewed cultural continuity and change in terms of various significant environmental shifts, defining the cultural ecological approach for archaeological research of the California deserts and coast. Many changes in settlement patterns and subsistence focus are viewed as cultural adaptations to a changing environment, beginning with the gradual environmental warming in the late Pleistocene, the desiccation of the desert lakes during the early Holocene, the short return to pluvial conditions during the middle Holocene, and the general warming and drying trend, with periodic reversals that continue to this day (Warren 1986).

### **Ethnography**

The APE is situated at an ethnographic nexus peripherally occupied by the Gabrielino and the Ventureño subdivision of the greater Eastern Coastal Chumash. Individual ethnographic summaries are provided below.

**Gabrielino.** The Gabrielino probably first encountered Europeans when Spanish explorers reached California's southern coast during the 15th and 16th centuries (Bean and Smith 1978; Kroeber 1925). The first documented encounter, however, occurred in 1769 when Gaspar de Portola's expedition crossed Gabrielino territory (Bean and Smith 1978). Other brief encounters took place over the years, and are documented in McCawley 1996 (citing numerous sources). The Gabrielino name has been attributed by association with the Spanish mission of San Gabriel, and refers to a subset of people sharing speech and customs with other Cupan speakers (such as the Juaneño/Luiseño/Ajachemem) from the greater Takic branch of the Uto-Aztecan language family (Bean and Smith 1978). Gabrielino villages occupied the watersheds of various rivers and intermittent streams. Chiefs were usually descended through the male line and often administered several villages. Gabrielino society was somewhat stratified and is thought to have contained three hierarchically ordered social classes which dictated ownership rights and social status and obligations (Bean and Smith 1978:540-546). Plants utilized for food were heavily relied upon and included acorn-producing oaks, as well as seed-producing grasses and sage. Animal protein was commonly derived from rabbits and deer in inland regions, while coastal populations supplemented their diets with fish, shellfish, and marine mammals (Boscana 1933, Heizer 1968, Johnston 1962, McCawley 1996). Dog, coyote, bear, tree squirrel, pigeon, dove, mud hen, eagle, buzzard, raven, lizards, frogs, and turtles were specifically not utilized as a food source (Kroeber 1925:652).

**Ventureño Chumash.** Juan Rodriguez Cabrillo was the first European to encounter the Chumash when he landed near present-day Ventura in 1542. Early interactions were amiable, but by 1782 most Ventureño had come under control of the San Buenaventura Mission (Grant 1978). Very little data on non-Mission Chumash was collected. However, due to biases in the mission accounts, interpretations have been developed that combine the scant ethnographic data with information gathered during archaeological investigations. Chumash villages typically occupied high ground adjacent to streams and sloughs, with several village excavations identifying 38 to 120 houses, indicating populations of 300 to 2000 people. Due to proximity to the coast, the Chumash developed a maritime culture with sewn-plank canoes to exploit dolphins, whales, large ocean fish, and mollusks (Grant 1978; Moratto 1984). They also exploited inland resources including acorns, pine nuts, soap plant, deer, coyote, fox, rabbits, and game birds. Chumash cultural traits included elaborate rock

art, a shell-money economic system, numerous games, basketry, finely carved stone and wooden objects, and shell and bone tools and decorative objects (Grant 1978).

## History

Historic-era California is generally divided into three periods: the Spanish or Mission Period (1769 to 1821), the Mexican or Rancho Period (1821 to 1848), and the American Period (1848 to present).

**Spanish Period.** The Spanish first explored California from the coast in the 16<sup>th</sup> century, and claimed dominion over the entire region. Permanent settlements were not established until the 18<sup>th</sup> century. The most lasting of those included the Spanish San Buenaventura Mission established in 1782, and the San Fernando Mission established in 1797. Through these missions, Spanish hegemony was established over Europeans and Native Americans throughout southern California until the Mexican Period.

**Mexican Period.** In 1821, Mexico overthrew Spanish rule and the missions began to decline. By 1833, the Mexican government passed the Secularization Act, and the missions, reorganized as parish churches, lost their vast land holdings, and released their neophytes (Beattie and Beattie 1974).

**American Period.** The American Period, 1848–Present, began with the Treaty of Guadalupe Hidalgo. In 1850, California was accepted into the Union of the United States primarily due to the population increase created by the Gold Rush of 1849. The cattle industry reached its greatest prosperity during the first years of the American Period. Mexican Period land grants had created large pastoral estates in California, and demand for beef during the Gold Rush led to a cattle boom that lasted from 1849–1855. However, beginning about 1855, the demand for beef began to decline due to imports of sheep from New Mexico and cattle from the Mississippi and Missouri Valleys. When the beef market collapsed, many California ranchers lost their ranchos through foreclosure. A series of disastrous floods in 1861–1862, followed by a significant drought diminished the economic impact of local ranching. This decline combined with ubiquitous agricultural and real estate developments of the late 19<sup>th</sup> century, set the stage for diversified economic pursuits that have continued to proliferate to this day (Beattie and Beattie 1974; Cleland 1941).

## PERSONNEL

David Brunzell, M.A., RPA acted as the Project Manager and Principal Investigator for the current study. Mr. Brunzell performed the cultural resources records search at the South Central Coastal Information Center (SCCIC) located at California State University, Fullerton. He also compiled the technical report. BCR Consulting Field Director, Dan Leonard, PhD, and Staff Archaeologist/Geographic Information Systems (GIS) Specialist Joseph Brunzell completed the field survey.

## METHODS

### Research

Prior to fieldwork, an archaeological records search was conducted at the SCCIC. This included a review of all recorded historic and prehistoric cultural resources, as well as a

review of known cultural resources, and survey and excavation reports generated from projects located within one mile of the APE. In addition, a review was conducted of the National Register of Historic Places (National Register), the California Register of Historical Resources (California Register), and documents and inventories from the California Office of Historic Preservation including the lists of California Historical Landmarks, California Points of Historical Interest, Listing of National Register Properties, and the Inventory of Historic Structures.

**Field Survey**

An archaeological pedestrian field survey of the APE was conducted on January 20, 2014. The survey was conducted by walking parallel transects spaced approximately 20 meters apart across 100 percent of the APE. Soil exposures, including natural and artificial clearings were carefully inspected for evidence of cultural resources.

**RESULTS**

**Research**

Data from the SCCIC revealed that 45 cultural resource studies have taken place resulting in the recording of 13 cultural resources within a one-mile radius of the APE. The nearest cultural resource was a historic homestead recorded approximately 1/8 mile east of the APE's eastern boundary. Of the 45 previous studies, five have previously assessed portions of the APE, but no cultural resources have been previously recorded within its boundaries. The records search is summarized as follows:

**Table A. Cultural Resources and Reports Located Within One Mile of the APE**

| USGS 7.5 Minute Quadrangle          | Cultural Resources Within One Mile of APE  | Studies Within One Mile of APE   |
|-------------------------------------|--|--|
| <i>Calabasas, California (1967)</i> | CA-LAN-129, 315, 420, 482, 669, 893, 894, 895, 1881, 1883, 1885, 4363, P-19-150252 | LA-81, 268, 381, 531, 868, 935, 981, 1007, 1008, 1052, 1105, 1146, 1285, 1483, 1644, 1765, 2046, 2159, 2280, 2409, 2596, 2717, 2729, 3230, 3546, 3587, 3741, 3751, 3742, 3940, 4473, 6596, 6601, 7138, 7141, 7151, 7271, 8260, 8708, 9249, 10201, 10208, 10401, 10445, 10888 |

**Field Survey**

During the field survey, BCR Consulting personnel carefully inspected the APE, and identified no cultural resources within its boundaries. Surface visibility along Las Virgenes Creek was 0 to 5 percent due to the presence of thick leaf litter and brush. Leaf litter was brushed aside at 20-meter intervals to examine surface soils. Soils along the creek include dark brown sandy silt and sandy clay with 15 percent gravel and cobble inclusions less than 20 centimeters in diameter, and occasional granite boulders up to one meter in diameter. Outside of the creek channel in the foothills area of the APE, sediments include brown silt with less than 10 percent sandstone gravels less than 20 centimeters in diameter, and occasional sandstone boulders 50 to 100 centimeters in diameter. Surface visibility in the foothill area is 5 to 10 percent due to thick grass cover, except for the west edge of the APE, which has 80 to 100 percent visibility due to a recent fire.

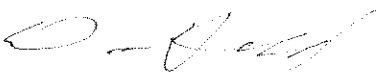
**RECOMMENDATIONS**

BCR Consulting conducted a Class III Cultural Resources Assessment of the Don Wallace Multiuse Trail Connector Project in the City of Calabasas and unincorporated portions of Los Angeles County, California. This work was completed pursuant to Section 106 of the NHPA, as amended, and pursuant to CEQA. The records search and field survey did not identify any cultural resources (including prehistoric or historic archaeological sites or historic buildings) within the APE. Furthermore, research results combined with surface conditions have failed to indicate sensitivity for buried cultural resources. As a result, BCR Consulting recommends a finding of no historic properties affected under Section 106 of the NHPA, and no impacts to historical resources under CEQA, for this undertaking. BCR Consulting also recommends that no additional cultural resources work or monitoring is necessary during proposed activities associated with the development of the APE. However, if previously undocumented cultural resources are identified during earthmoving activities, a qualified archaeologist should be contacted to assess the nature and significance of the find, diverting construction excavation if necessary.

If human remains are encountered during the undertaking, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 48 hours of notification by the NAHC.

**CERTIFICATION**

I hereby certify that the statements furnished above and in the attached appendices present the data and information required for this archaeological report, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

|   |                |
|---|----------------|
| Date: February 24, 2014   |                |
|  | David Brunzell |
| Authorized Signature  | Printed Name   |
| Registered Professional Archaeologist (RPA)   |                |

## REFERENCES

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Williams, Patricia, Leah Messinger, Sarah Johnson

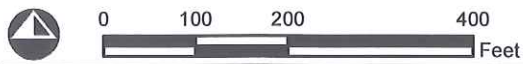
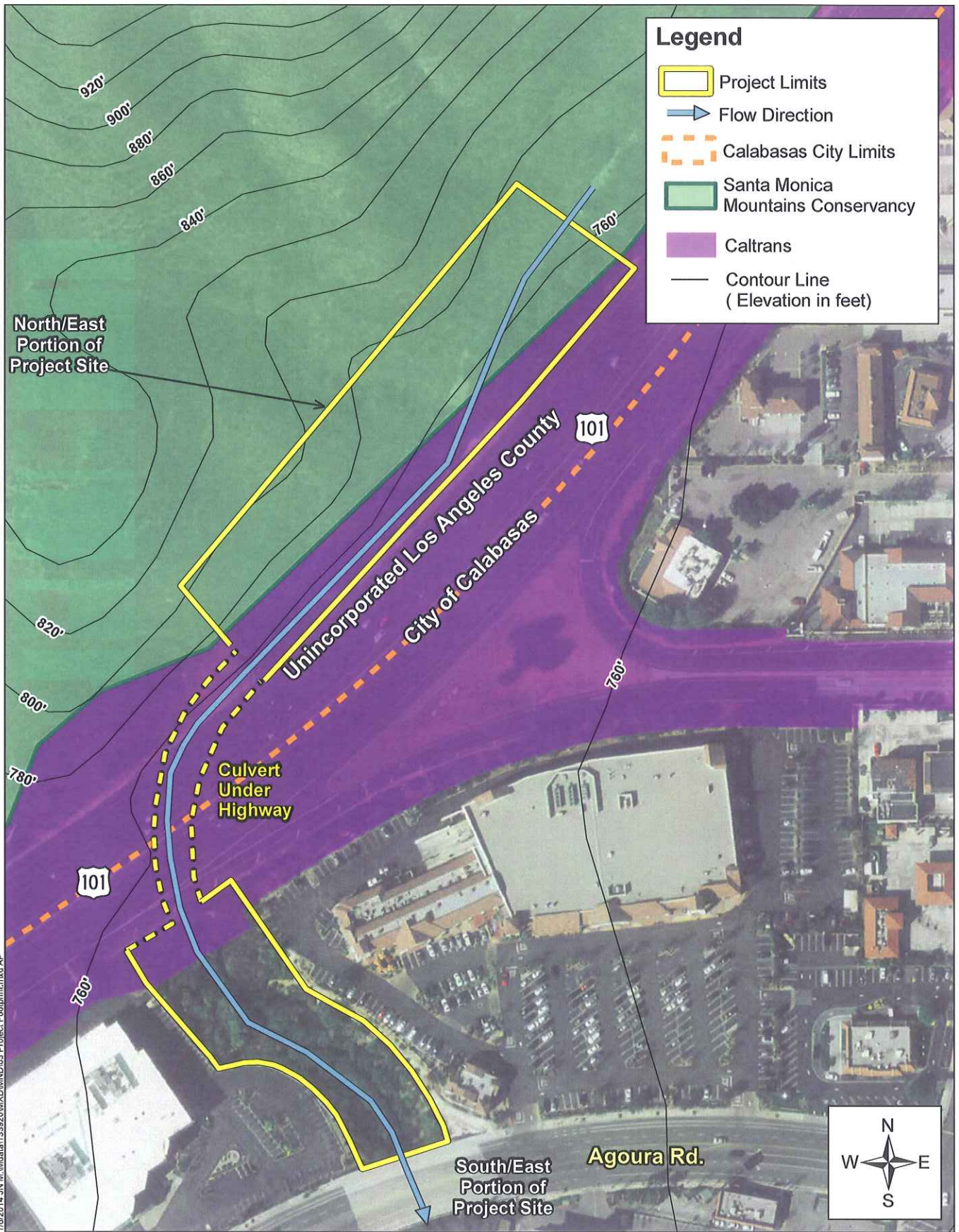
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## APPENDIX A

### DETAILED PROJECT FOOTPRINT AND POTENTIAL SECOND STAGING AREA/CONNECTOR TRAIL EXHIBITS

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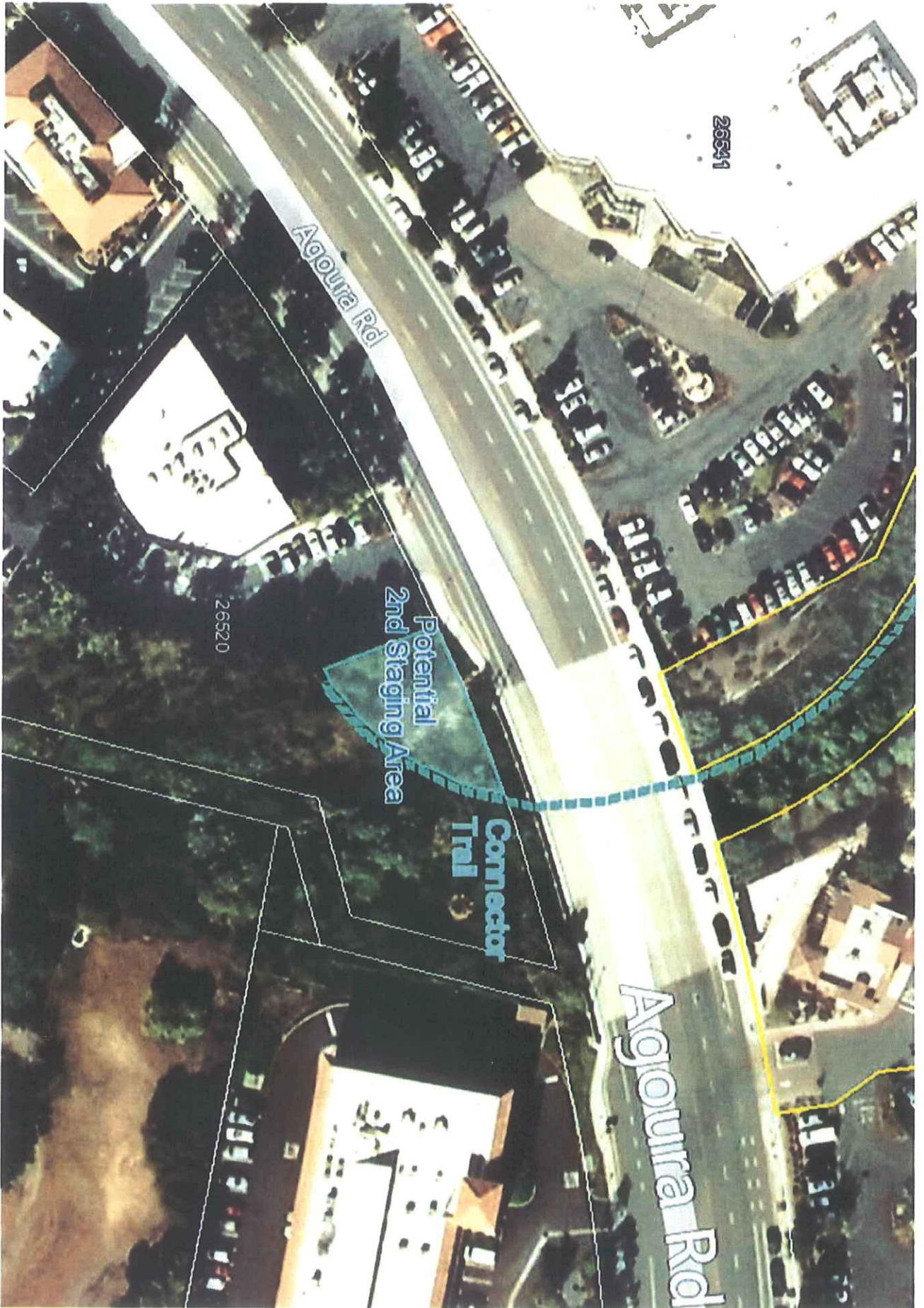




Source: Eagle Aerial - 2012, LA County GIS Data Portal, USGS National Map Elevation Data Set

DON WALLACE MULTI-USE TRAIL CONNECTOR  
DRAFT MITIGATED NEGATIVE DECLARATION

# Project Footprint



26541

Agoura Rd

Potential  
2nd Staging Area

26520

Connector  
Trail

Agoura Rd

**APPENDIX B**

**NATIVE AMERICAN CONSULTATION**

---

**Subject:** SLF Search and List of Tribes for the Don Wallace Multiuse Trail Connector Project, located in Calabasas, Los Angeles County, California  
**From:** joseph brunzell (joebrunzell@gmail.com)  
**To:** ds\_nahc@pacbell.net;  
**Cc:** david.brunzell@yahoo.com;  
**Date:** Monday, January 20, 2014 1:31 AM

Hi Dave,

I'd like to request a Sacred Lands File search and list of potentially interested tribes for the proposed Don Wallace Multiuse Trail Connector Project, located in Calabasas, Los Angeles County, California. The proposed project is in Sections 19 and 30, Township 1 North, Range 17 West, San Bernardino Baseline and Meridian. It is depicted on the *Calabasas (1967), California* 7.5-minute USGS topographic quadrangle (see attached map)\*. Please send the list to my email or the below fax number and please get in touch with any questions.

Please note we have a **new fax number**.

Thanks,

--  
Joseph Brunzell  
Staff Archaeologist  
**BCR Consulting LLC**  
1420 Guadalajara Place  
Claremont, Ca. 91711  
Phone: 213/616-8613  
Fax: 909/992-3065

[www.bcrconsulting.net](http://www.bcrconsulting.net)

\*See Report Figure 1.

**NATIVE AMERICAN HERITAGE COMMISSION**

1650 Harbor Boulevard, Suite 100  
West Sacramento, CA 95691  
(916) 373-3715  
Fax (916) 373-5471  
Web Site [www.nahc.ca.gov](http://www.nahc.ca.gov)  
Ds\_nahc@pscbell.net



January 23, 2014

Mr. Joseph Brunzell, Staff Archaeologist

**BCR Consulting, LLC**

1420 Guadalajara Place  
Claremont, CA 91711

Sent by FAX to: 909-992-3065  
No. of Pages: 3

RE: Sacred Lands File Search and Native American Contacts list for the "**Don Wallace Multiuse Trail Connector Project;**" located in the Simi Hills area near the City of Calabasas; Los Angeles County, California.

Dear Mr. Brunzell:

A record search of the NAHC Sacred Lands File failed to indicate the presence of Native American traditional cultural places in the project site(s) submitted as defined by the USGS coordinates configuring the 'Area(s) of Potential Effect' or APE(s). However, there are archaeological and Native American cultural resources in close proximity to the APE. The area is know to local tribes to be very culturally sensitive. Also note that the absence of archaeological and/or cultural resources does not preclude their existence at the subsurface level.

In the 1985 Appellate Court decision (170 Cal App 3<sup>rd</sup> 604), the Court held that the NAHC has jurisdiction and special expertise, as a state agency, over affected Native American resources impacted by proposed projects, including archaeological places of religious significance to Native Americans, and to Native American burial sites.

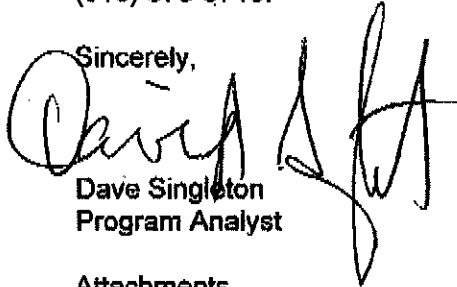
Attached is a list of Native American tribes, Native American individuals or organizations that may have knowledge of cultural resources in or near the project area (APE). As part of the consultation process the NAHC recommends that local government and project developers contact the tribal governments and individuals in order to determine the proposed action on any cultural places/sacred sites. If a response from those listed is not received in two weeks of notification, the NAHC requests that a follow-up telephone call be made to ensure the project information has been received.

California Government Code Section 65040.12(e) defines "environmental justice" to provide "fair treatment of People...with respect to the development, adoption, implementation, and enforcement of environmental laws, regulations and policies" and Executive Order B-10-11 requires consultation with Native American tribes their elected

officials and other representatives of tribal governments to provide meaningful input into the development of legislation, regulations, rules, and policies on matters that may affect tribal communities.

If you have any questions or need additional information, please contact me at (916) 373-3715.

Sincerely,

A handwritten signature in black ink, appearing to read "Dave Singleton". The signature is stylized and written over the printed name.

Dave Singleton  
Program Analyst

Attachments

**Native American Contacts  
Los Angeles County California  
January 23, 2014**

**Beverly Salazar Folkes**  
1931 Shadybrook Drive  
Thousand Oaks, CA 91362  
folkes9@msn.com  
805 492-7255  
(805) 558-1154 - cell  
folkes9@msn.com

**Chumash  
Tataviam  
Fernandeño**

**Kitanemuk & Yowlumne Tejon Indians**  
Delia Dominguez, Chairperson  
115 Radio Street  
Bakersfield, CA 93305  
deedominguez@juno.com  
(626) 339-6785

**Yowlumne  
Kitanemuk**

**Fernandeno Tataviam Band of Mission Indians**  
Larry Ortega, Chairperson  
1019 - 2nd Street, Suite #1  
San Fernando CA 91340  
(818) 837-0794 Office  
  
(818) 837-0796 Fax

**Fernandeno  
Tataviam**

**San Fernando Band of Mission Indians**  
John Valenzuela, Chairperson  
P.O. Box 221838  
Newhall, CA 91322  
tsen2u@hotmail.com  
(661) 753-9833 Office  
(760) 885-0955 Cell  
(760) 949-1604 Fax

**Fernandeño  
Tataviam  
Serrano  
Vanyume  
Kitanemuk**

**LA City/County Native American Indian Comm**  
Ron Andrade, Director  
3175 West 6th St, Rm. 403  
Los Angeles, CA 90020  
randrade@css.lacounty.gov  
(213) 351-5324  
(213) 386-3995 FAX

**Randy Guzman - Folkes**  
4676 Walnut Avenue  
Simi Valley, CA 93063  
ndnRandy@yahoo.com  
(805) 905-1675 - cell  
(805) 520-5915-FAX

**Chumash  
Fernandeño  
Tataviam  
Shoshone Paiute  
Yaqui**

**Tongva Ancestral Territorial Tribal Nation**  
John Tommy Rosas, Tribal Admin.  
Private Address  
Gabrielino Tongva  
  
tattnlaw@gmail.com  
310-570-6567

**This list is current only as of the date of this document.**

**Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.**

**This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Don Wallace Multituse Trail Connector Project; located near the City of Calabasas at the north end of the San Fernando Valley; Los Angeles County, California for which a sacred lands file search and Native American Contacts list were requested.**

**Section 106 Native American Consultation Initial Contact Summary for the Don Wallace Multiuse Trail Connector Project, City of Calabasas and Unincorporated Los Angeles County, California.** Native American Heritage Commission replied to BCR Consulting Request on January 23, 2014. Results of Sacred Land File Search did not indicate presence of Native American cultural resources, and recommended that the below groups/individuals be contacted.

| <b>Groups Contacted</b>  | <b>Letter/Email Date</b>          | <b>Response from Tribes</b>   |
|--|-----------------------------------|---|
| Beverly Salazar Folkes   | Letter: 1/25/14<br>Email: 1/26/14 | 1/30/14: Ms. Folkes responded by phone to request contact from the lead agency if native soils will be disturbed by project activities, and also requested notification in case of any prehistoric finds during construction. |
| Delia Dominguez, Chairperson<br>Kitanemuk & Yowlumne Tejon Indians                   | Letter: 1/25/14<br>Email: 1/26/14 | None  |
| Larry Ortega, Chairperson<br>Fernandeno Tataviam Band of Mission Indians             | Letter: 1/25/14<br>Email: N/A     | None  |
| John Valenzuela, Chairperson<br>San Fernando Band of Mission Indians                 | Letter: 1/25/14<br>Email: 1/26/14 | None  |
| Ron Andrade, Director<br>LA Native American Indian Commission                        | Letter: 1/25/14<br>Email: 1/26/14 | None  |
| Randy Guzman-Folkes  | Letter: 1/25/14<br>Email: 1/26/14 | None  |
| John Tommy Rosas, Tribal Administrator<br>Tongva Ancestral Territorial Tribal Nation | Letter: N/A<br>Email: 1/26/14     | None  |





January 25, 2014

Beverly Salazar Folkes  
1931 Shadybrook Drive  
Thousand Oaks, California 91362

**Subject: Section 106 Consultation for the Don Wallace Multiuse Trail Connector Project, located in the Simi Hills area near the City of Clabajas, Los Angeles County, California.**

Dear Beverly:

This is an invitation to consult on a proposed development project at locations with which you have tribal cultural affiliation. The purpose of the consultation is to ensure the protection of Native American cultural resources on which the proposed undertaking may have an impact. In the tribal consultation process, early consultation is encouraged in order to provide for full and reasonable public input from Native American Groups and Individuals, as consulting parties, on potential effect of the development project and to avoid costly delays. Further, we understand that much of the content of the consultation will be confidential and will include, but not be limited to, the relationship of proposed project details to Native American Cultural Historic Properties, such as burial sites, known or unknown, architectural features and artifacts, ceremonial sites, sacred shrines, cultural landscapes including traditional beliefs and practices. The proposed project is located within Sections 19 and 30, of Township 1 North, Range 17 West, San Bernardino Baseline and Meridian, and is depicted on the *Calabasas* (1967), *California* USGS 7.5 Minute Topographic Quadrangle (see attached).

If you know of any cultural resources in the vicinity that may be of religious and/or cultural significance to your community or if you would like more information, please contact me at 909-525-7078 or david.brunzell@yahoo.com. Correspondence can also be sent to BCR Consulting, Attn: David Brunzell, 1420 Guadalajara Street, Claremont, California 91711. I request a response by February 26, 2014. If you require more time, please let me know. Thank you for your involvement in this process.

Sincerely,

**BCR Consulting LLC**

David Brunzell, M.A./RPA  
Principal Investigator/Archaeologist  
*Attachment:* USGS Map



January 25, 2014

Delia Dominguez  
Chairperson  
Kitanemuk & Yowlumne Tejon Indians  
115 Radio Street  
Bakersfield, California 93305

**Subject: Section 106 Consultation for the Don Wallace Multiuse Trail Connector Project, located in the Simi Hills area near the City of Clabasas, Los Angeles County, California.**

Dear Delia:

This is an invitation to consult on a proposed development project at locations with which you have tribal cultural affiliation. The purpose of the consultation is to ensure the protection of Native American cultural resources on which the proposed undertaking may have an impact. In the tribal consultation process, early consultation is encouraged in order to provide for full and reasonable public input from Native American Groups and Individuals, as consulting parties, on potential effect of the development project and to avoid costly delays. Further, we understand that much of the content of the consultation will be confidential and will include, but not be limited to, the relationship of proposed project details to Native American Cultural Historic Properties, such as burial sites, known or unknown, architectural features and artifacts, ceremonial sites, sacred shrines, cultural landscapes including traditional beliefs and practices. The proposed project is located within Sections 19 and 30, of Township 1 North, Range 17 West, San Bernardino Baseline and Meridian, and is depicted on the *Calabasas* (1967), *California* USGS 7.5 Minute Topographic Quadrangle (see attached).

If you know of any cultural resources in the vicinity that may be of religious and/or cultural significance to your community or if you would like more information, please contact me at 909-525-7078 or david.brunzell@yahoo.com. Correspondence can also be sent to BCR Consulting, Attn: David Brunzell, 1420 Guadalajara Street, Claremont, California 91711. I request a response by February 26, 2014. If you require more time, please let me know. Thank you for your involvement in this process.

Sincerely,

**BCR Consulting LLC**

David Brunzell, M.A./RPA  
Principal Investigator/Archaeologist  
*Attachment:* USGS Map



January 25, 2014

Larry Ortega  
Chairperson  
Fernandeno Tataviam Band of Mission Indians  
1019 2<sup>nd</sup> Street, Suite #1  
San Fernando, California 91340

**Subject: Section 106 Consultation for the Don Wallace Multiuse Trail Connector Project, located in the Simi Hills area near the City of Clabajas, Los Angeles County, California.**

Dear Larry:

This is an invitation to consult on a proposed development project at locations with which you have tribal cultural affiliation. The purpose of the consultation is to ensure the protection of Native American cultural resources on which the proposed undertaking may have an impact. In the tribal consultation process, early consultation is encouraged in order to provide for full and reasonable public input from Native American Groups and Individuals, as consulting parties, on potential effect of the development project and to avoid costly delays. Further, we understand that much of the content of the consultation will be confidential and will include, but not be limited to, the relationship of proposed project details to Native American Cultural Historic Properties, such as burial sites, known or unknown, architectural features and artifacts, ceremonial sites, sacred shrines, cultural landscapes including traditional beliefs and practices. The proposed project is located within Sections 19 and 30, of Township 1 North, Range 17 West, San Bernardino Baseline and Meridian, and is depicted on the *Calabajas* (1967), *California* USGS 7.5 Minute Topographic Quadrangle (see attached).

If you know of any cultural resources in the vicinity that may be of religious and/or cultural significance to your community or if you would like more information, please contact me at 909-525-7078 or david.brunzell@yahoo.com. Correspondence can also be sent to BCR Consulting, Attn: David Brunzell, 1420 Guadalajara Street, Claremont, California 91711. I request a response by February 26, 2014. If you require more time, please let me know. Thank you for your involvement in this process.

Sincerely,

**BCR Consulting LLC**

David Brunzell, M.A./RPA  
Principal Investigator/Archaeologist  
*Attachment:* USGS Map



January 25, 2014

John Valenzuela  
Chairperson  
San Fernando Band of Mission Indians  
P.O. Box 221838  
Newhall, California 91322

**Subject: Section 106 Consultation for the Don Wallace Multiuse Trail Connector Project, located in the Simi Hills area near the City of Clabasas, Los Angeles County, California.**

Dear John:

This is an invitation to consult on a proposed development project at locations with which you have tribal cultural affiliation. The purpose of the consultation is to ensure the protection of Native American cultural resources on which the proposed undertaking may have an impact. In the tribal consultation process, early consultation is encouraged in order to provide for full and reasonable public input from Native American Groups and Individuals, as consulting parties, on potential effect of the development project and to avoid costly delays. Further, we understand that much of the content of the consultation will be confidential and will include, but not be limited to, the relationship of proposed project details to Native American Cultural Historic Properties, such as burial sites, known or unknown, architectural features and artifacts, ceremonial sites, sacred shrines, cultural landscapes including traditional beliefs and practices. The proposed project is located within Sections 19 and 30, of Township 1 North, Range 17 West, San Bernardino Baseline and Meridian, and is depicted on the *Calabasas (1967), California* USGS 7.5 Minute Topographic Quadrangle (see attached).

If you know of any cultural resources in the vicinity that may be of religious and/or cultural significance to your community or if you would like more information, please contact me at 909-525-7078 or david.brunzell@yahoo.com. Correspondence can also be sent to BCR Consulting, Attn: David Brunzell, 1420 Guadalajara Street, Claremont, California 91711. I request a response by February 26, 2014. If you require more time, please let me know. Thank you for your involvement in this process.

Sincerely,

**BCR Consulting LLC**

David Brunzell, M.A./RPA  
Principal Investigator/Archaeologist  
*Attachment: USGS Map*



January 25, 2014

Ron Andrade  
Director  
LA Native American Indian Commission  
3175 West 6<sup>th</sup> Street, Rm. 403  
Los Angeles, California 90020

**Subject: Section 106 Consultation for the Don Wallace Multiuse Trail Connector Project, located in the Simi Hills area near the City of Clabasas, Los Angeles County, California.**

Dear Ron:

This is an invitation to consult on a proposed development project at locations with which you have tribal cultural affiliation. The purpose of the consultation is to ensure the protection of Native American cultural resources on which the proposed undertaking may have an impact. In the tribal consultation process, early consultation is encouraged in order to provide for full and reasonable public input from Native American Groups and Individuals, as consulting parties, on potential effect of the development project and to avoid costly delays. Further, we understand that much of the content of the consultation will be confidential and will include, but not be limited to, the relationship of proposed project details to Native American Cultural Historic Properties, such as burial sites, known or unknown, architectural features and artifacts, ceremonial sites, sacred shrines, cultural landscapes including traditional beliefs and practices. The proposed project is located within Sections 19 and 30, of Township 1 North, Range 17 West, San Bernardino Baseline and Meridian, and is depicted on the *Calabasas* (1967), *California* USGS 7.5 Minute Topographic Quadrangle (see attached).

If you know of any cultural resources in the vicinity that may be of religious and/or cultural significance to your community or if you would like more information, please contact me at 909-525-7078 or david.brunzell@yahoo.com. Correspondence can also be sent to BCR Consulting, Attn: David Brunzell, 1420 Guadalajara Street, Claremont, California 91711. I request a response by February 26, 2014. If you require more time, please let me know. Thank you for your involvement in this process.

Sincerely,

**BCR Consulting LLC**

David Brunzell, M.A./RPA  
Principal Investigator/Archaeologist  
*Attachment:* USGS Map

# MITIGATION MONITORING PROGRAM

**MITIGATION MONITORING PROGRAM**  
**Don Wallace Multi-Use Trail Connector Project**  
**County of Los Angeles**

| MITIGATION MEASURE   | RESPONSIBLE PERSON                     | MONITORING FREQUENCY         | METHOD OF VERIFICATION                                  | MONITORING COMPLIANCE RECORD (NAME/DATE) |
|--|--|------------------------------|---|--|
| <p><b>BIO-1:</b> Pre-construction clearance surveys for nesting birds is required if ground disturbing activities or removal of any trees, shrubs, or any other potential nesting habitat are scheduled within avian nesting season (nesting season generally extends from February 1-August 31). Pre-construction clearance surveys shall be conducted within 3 days prior to ground disturbing activities. As part of the nesting bird clearance survey, a pre-construction clearance survey shall be conducted to ensure bats are not roosting within the triple concrete box culvert under US 101.</p> | <p>Parks and Recreation Department</p> | <p>Prior to construction</p> | <p>Separate submittal (e.g., reports/studies/plans)</p> |  |
| <p><b>BIO-2:</b> If an active avian nest is discovered during the pre-construction clearance survey, construction activities will be rerouted, a no-work buffer<sup>1</sup> might have to be established around the nest, and delayed until the young have fledged. A biological monitor will be present to delineate the boundaries of the buffer area, if an active nest is observed, and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the qualified</p>  | <p>Parks and Recreation Department</p> | <p>Onsite inspection</p>     | <p>Separate submittal (e.g., reports/studies/plans)</p> |  |

<sup>1</sup> The size of the buffer shall be determined by the biologist in consultation with CDFW, and shall be based on the nesting species, its sensitivity to disturbance, and expected types of disturbance. Typically these buffers range from 250 to 500 feet from the nest location.

**MITIGATION MONITORING PROGRAM**  
**Don Wallace Multi-Use Trail Connector Project**  
**County of Los Angeles**

| MITIGATION MEASURE   | RESPONSIBLE PERSON                     | MONITORING FREQUENCY                       | METHOD OF VERIFICATION                  | MONITORING COMPLIANCE RECORD (NAME/DATE) |
|--|--|--|---|--|
| <p>biologist has determined that young birds have successfully fledged, a monitoring report shall be prepared and submitted to the County of Los Angeles for review and approval prior to initiating construction activities within the buffer area. The monitoring report shall summarize the results of the nest monitoring, describe construction restrictions currently in place, and confirm that construction activities can proceed within the buffer area without jeopardizing the survival of the young birds. Construction within the designated buffer area shall not proceed until the written authorization is received by the applicant from CDFW.</p> |  |  |   |  |
| <p><b>BIO-3:</b> The Project Applicant is required to obtain the following regulatory approvals prior to commencement of any construction or maintenance activities within the identified jurisdictional areas: United States Army Corps of Engineers (USACE) Clean Water Act Section 404 Permit; Regional Water Quality Control Board (RWQCB) Clean Water Act Section 401 Water Quality Certification; and CDFW Section 1602 Streambed Alteration Agreement.</p>  | <p>Parks and Recreation Department</p> | <p>Prior to construction</p>               | <p>Other agencies permit / approval</p> |  |
| <p><b>NOI-1:</b> Prior to the issuance of grading permits, feasible noise control measures shall be implemented to reduce daytime construction noise levels. Such control measures could include any of the following, as appropriate:</p>   | <p>Parks and Recreation Department</p> | <p>Prior to issuance of grading permit</p> | <p>Plan check</p>                       |  |



**MITIGATION MONITORING PROGRAM**  
**Don Wallace Multi-Use Trail Connector Project**  
**County of Los Angeles**

| MITIGATION MEASURE   | RESPONSIBLE PERSON | MONITORING FREQUENCY                                  | METHOD OF VERIFICATION                 | MONITORING COMPLIANCE RECORD (NAME/DATE) |
|--|--------------------|---|--|--|
| <ul style="list-style-type: none"> <li>• To the extent possible, all mechanical equipment shall be oriented away from the nearest noise sensitive receptors; and</li> <li>• All mechanical equipment shall be screened and enclosed to minimize noise.</li> <li>• Construction contracts shall specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other state required noise attenuation devices;</li> <li>• Construction noise reduction methods such as shutting off idling equipment, installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction equipment staging areas and occupied residential areas, and use of electric air compressors and similar power tools, rather than diesel equipment, shall be used where feasible; and</li> <li>• During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers.</li> </ul> |                    | <p>During construction and maintenance activities</p> | <p>Construction compliance records</p> |  |

**MITIGATION MONITORING PROGRAM**  
**Don Wallace Multi-Use Trail Connector Project**  
**County of Los Angeles**

| MITIGATION MEASURE  | RESPONSIBLE PERSON | MONITORING FREQUENCY | METHOD OF VERIFICATION | MONITORING COMPLIANCE RECORD (NAME/DATE) |
|---|--------------------|----------------------|------------------------|--|
| <ul style="list-style-type: none"> <li>• Operation of equipment requiring use of back-up beepers shall be avoided near sensitive receptors to the extent feasible during nighttime hours (10:00 PM to 7:00 AM);</li> <li>• If impact equipment (e.g., jack hammers, pavement breakers, and rock drills) is used during construction, hydraulically or electric-powered equipment shall be used wherever feasible to avoid the noise associated with compressed-air exhaust from pneumatically powered tools. However, where use of pneumatically powered tools is unavoidable, an exhaust muffler on the compressed-air exhaust shall be used (a muffler can lower noise levels from the exhaust by up to about 10 dBA);</li> </ul> |                    |                      |                        |  |

**DRAFT INITIAL STUDY /  
MITIGATED NEGATIVE DECLARATION**

**DON WALLACE MULTI-USE  
TRAIL CONNECTOR PROJECT**

**LEAD AGENCY**

**COUNTY OF LOS ANGELES**  
Department of Parks and Recreation  
510 South Vermont Avenue  
Los Angeles, CA 90020

January 2014



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## **1.0 INTRODUCTION**

Following preliminary review of the proposed trail connector Project, the County of Los Angeles (the County) has determined that the Don Wallace Multi-Use Trail Connector is a “project” subject to the guidelines and regulations of the California Environmental Quality Act (CEQA). This Initial Study has been prepared to address potential impacts associated with the County of Los Angeles Don Wallace Multi-Use Trail Connector Project (proposed trail connector Project), as described below. This Initial Study addresses the direct, indirect, and cumulative environmental effects associated with implementation of the proposed trail connector Project.

### **1.1 STATUTORY AUTHORITY AND REQUIREMENTS**

In accordance with CEQA (Public Resources Code, Section 21000 - 21178.1), this Initial Study has been prepared to analyze the proposed trail connector Project in order to identify any potential significant impacts upon the environment that would result from implementation of the proposed trail connector Project. The purpose of this Initial Study is to inform the County and City decision-makers, affected agencies, and the public of potential environmental impacts associated with implementation of the proposed trail connector Project.

Following completion of the Initial Study, the County of Los Angeles will make a formal determination as to whether the proposed trail connector Project may have significant environmental impacts that cannot be mitigated or less than significant effects. A determination that a project may have less than significant effects on the environment would result in the preparation of a Negative Declaration or Mitigated Negative Declaration. A determination that a project may have significant impacts that cannot be mitigated to less than significant levels, would require the preparation of an Environmental Impact Report (EIR) to further evaluate issues identified in this Initial Study.

### **1.2 PURPOSE**

The purpose of an Initial Study is to: (1) identify environmental impacts; (2) provide the Lead Agency with information to use as the basis for deciding whether to prepare an EIR or Negative Declaration; (3) enable an applicant or Lead Agency to modify the proposed trail connector Project, mitigating adverse impacts before an EIR is prepared; (4) facilitate environmental assessment early in the design of the proposed trail connector Project; (5) provide documentation of the factual basis for the finding in a Negative Declaration that a project would not have a significant environmental effect; (6) eliminate needless EIRs; (7) determine whether a previously-prepared EIR could be used for the proposed trail connector Project; and (8) assist in the preparation of an EIR, if required, by focusing the EIR on the effects determined to be significant, identifying the effects determined not to be significant, and explaining the reasons for determining that potentially significant effects would not be significant.

Section 15063 of the State CEQA Guidelines identifies specific disclosure requirements for inclusion in an Initial Study. Pursuant to those requirements, an Initial Study shall include: (1) a description of the proposed trail connector Project, including the location of the proposed trail connector Project; (2) an identification of the environmental setting; (3) an identification of environmental effects by use of a checklist, matrix or other method, provided that entries on a checklist or other form are briefly explained to indicate that there is some evidence to support the entries; (4) a discussion of ways to mitigate significant effects identified, if any; (5) an examination of whether the proposed trail connector Project is compatible with existing zoning, plans, and other applicable land use controls; and (6) the name of the person or persons who prepared or participated in the preparation of the Initial Study.

### **1.3 CONSULTATION**

As soon as the Lead Agency determines that an Initial Study is required for the proposed trail connector Project, the Lead Agency begins informal consultations with all Responsible Agencies and Trustee Agencies that administer resources affected by the proposed trail connector Project. Consultations are conducted to obtain recommendations from those Responsible Agencies prior to initiation of the permit acquisition process. Any recommendations from these agencies are considered in the formulation of preliminary findings.

### **1.4 INCORPORATION BY REFERENCE**

Pertinent documents relating to this Initial Study have been cited and incorporated, in accordance with Sections 15148 and 15150 of the State CEQA Guidelines, to eliminate the need for inclusion of voluminous engineering and technical reports within the CEQA document. Of particular relevance are those previous EIRs that present information regarding descriptions of environmental settings, future development-related growth and cumulative impacts. This Initial Study has incorporated by reference the following documents, which are available for review at the following locations:

#### ***City of Calabasas General Plan***

The City of Calabasas General Plan serves as the major tool for directing growth within the City and presents a comprehensive plan to accommodate the City's growth. The *General Plan* analysis includes existing conditions for the City, including physical, social, cultural, and environmental resources and opportunities. The *General Plan* looks at trends, issues, and concerns that affect the region, includes City goals and objectives, and provides policies to guide development. The City of Calabasas *General Plan* was used to identify existing environmental conditions within the proposed trail connector Project area.

**Location:** City of Calabasas, Community Development Department, 100 Civic Center Way, Calabasas, CA 91302



### ***City of Calabasas Trails Master Plan***

The Calabasas Trails Master Plan provides a blueprint for the development of community trails over the next ten years. The purpose of the plan is to provide a continuous pedestrian, equestrian, and bicycle trail system that will incorporate trail connections to open spaces, public facilities, and nearby regional parks. The City of Calabasas Trails Master Plan was used to understand the vision the City has for the Las Virgenes Creek and the overall trail network.

**Location:** City of Calabasas, Community Development Department, 100 Civic Center Way, Calabasas, CA 91302

## **2.0 PROJECT DESCRIPTION**

### **2.1 PROJECT LOCATION & SETTING**

The proposed trail connector Project is located in Los Angeles County, approximately 25 miles from downtown Los Angeles, (see Exhibit 1, *Regional Vicinity Map*). Neighboring cities include Calabasas, Los Angeles, Agoura Hills, and Hidden Hills. A portion of the Calabasas City's northern boundary borders the Ventura County line.

The proposed trail connector Project site is located approximately ¼ mile west of Las Virgenes Road, just north of Agoura Road, and immediately south and north of the Ventura Freeway (US 101) (see Exhibit 2, *Project Location*). Approximately one half of the site is in the unincorporated area of Los Angeles County and the other half is in the City of Calabasas. . The proposed trail connector Project site is located within 1,500 linear feet of the Las Virgenes Creek, beginning at Agoura Road proceeding north under the US 101, traversing the concrete channel on the west side, and into the natural/informal trails within the Santa Monica Mountains Conservancy (SMMC) property. Portions of the proposed trail connector Project footprint are located within the Caltrans right-of-way (ROW) (approximately 30 feet south of the culvert and approximately 900 feet north of the culvert),(see Exhibit 3, *Project Footprint*).

### **2.2 BACKGROUND AND HISTORY**

The proposed trail connector Project is identified in the City of Calabasas Trails Master Plan (Las Virgenes Creek Trail) and the City of Calabasas Creeks Master Plan. The Trails Master Plan proposes a trail crossing under the 101 freeway at Las Virgenes Creek. According to the Trails Master Plan, this crossing would be the most viable crossing of the US 101 for trail users, and would allow pedestrians, equestrians and bicyclists to avoid the on and off ramps at the Las Virgenes Interchange. Although there are existing freeway overpasses that potentially connect on Las Virgenes Road to the east and other overhead roads to the west, they are narrow and were not designed for equestrian use. These options present safety issues and require securing complex land use rights starting from the existing creek through developed shopping

center parcels and high volume thoroughfares. Currently, no trail connection exists in the vicinity of the proposed trail connector Project to allow trail use between the SMMC property on the north side of the US 101 and the trail network within the City of Calabasas. However, trail users cross through the US 101 underpass informally.

The channel is heavily vegetated upstream (north) of the triple box culvert that passes under the US 101. Floodwalls have been constructed along both sides of the channel to direct floodflows under the US 101, thus, protecting the US 101 and adjacent properties during large storm events. The existing conditions of the proposed trail connector Project area can be seen in Exhibit 4, *Site Photo Index*, and Exhibits 5, 6, and 7, *Site Photos A, B, and C*. These photos show water flow and vegetation within the creek. Sediment and debris have accumulated along the drainage course. In some areas the debris is 2 to 4 feet deep. Dense vegetation has grown in the open channel reaches upstream of the culverts. The channel is perennial with clear water in the low flow of the channel.

In December 2007, the City of Calabasas completed a project called the Las Virgenes Creek Restoration Project. The project included the restoration of an approximately 440 foot long portion of the Las Virgenes Creek just downstream (south) of the US 101 culverts. The Las Virgenes Creek Restoration Project included the removal of the existing concrete channel and restoration of a native creekside habitat, enhancement of the biological environment, and planting native vegetation.

The proposed Don Wallace Trail is envisioned to connect the restored portion of the creek to the northern portions of the Las Virgenes Creek. Additionally, the Don Wallace Trail is envisioned to provide vital connections to a larger network of existing and future regional trails, ultimately providing continuous trails from the Pacific Ocean in Malibu to the interior areas of Los Angeles County and the Santa Monica Mountains (see Exhibit 8, *Mountains to Ocean Proximity* and Exhibit 9, *Area Trails Map*).

Prior to the construction of the Proposed Trail Connector, approval/permits would be required from the U.S. Army Corps of Engineers (USACE), California Department of Fish and Wildlife (CDFW), Regional Water Quality Control Board (RWQCB), Caltrans, Los Angeles County Department of Public Works/Flood Control District (LACDPW), and the City of Calabasas.

## **2.3 PROJECT CHARACTERISTICS**

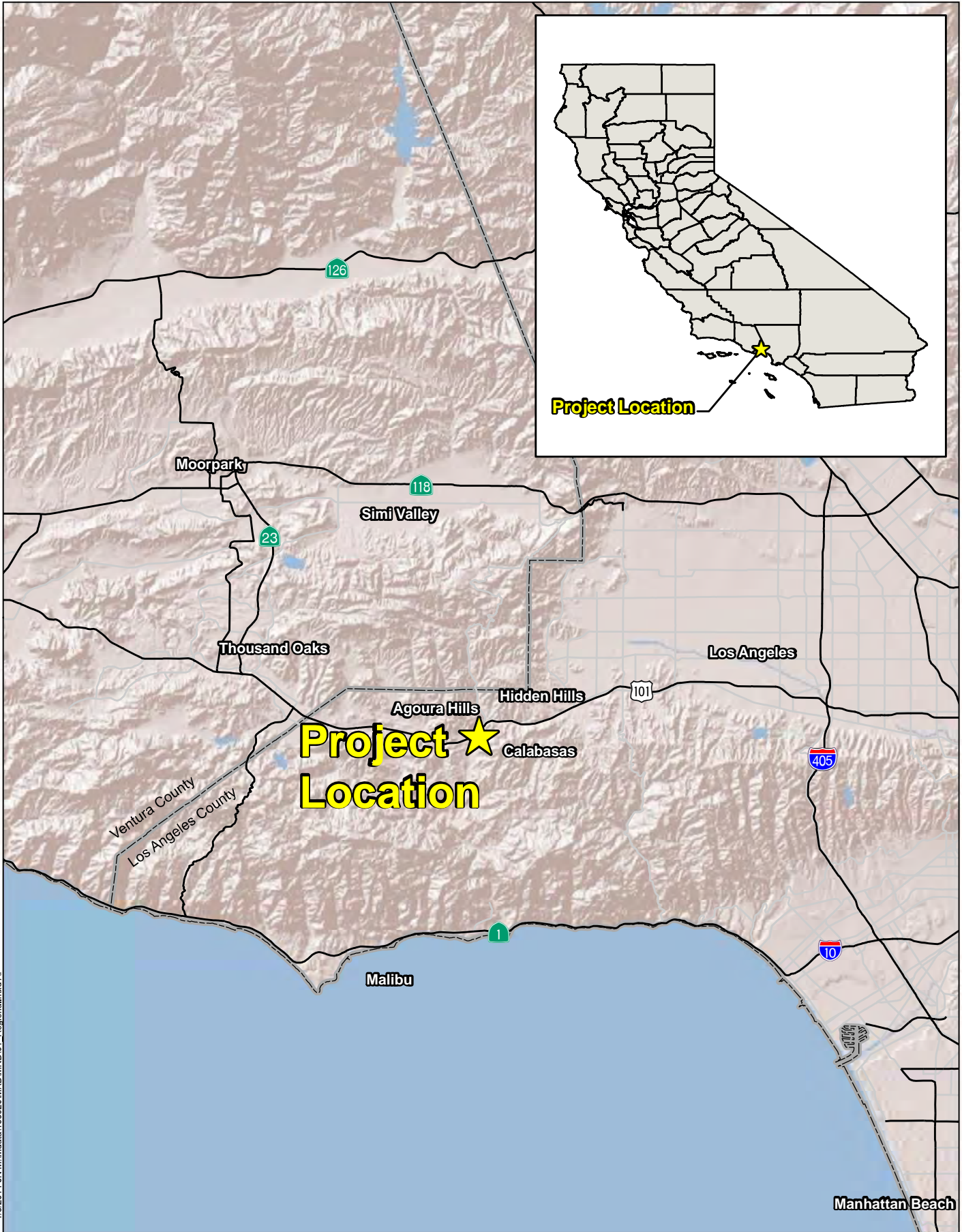
During development of the objectives, environmental issues and design criteria were taken into consideration.

### **Objectives:**

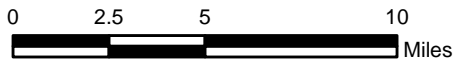
- Provide connectivity for trail systems on both sides of US 101, at the Las Virgenes Creek crossing;

- Minimize impacts to the environmental resources, including, but not limited to, the water, air, and biological resources;
- Minimize hydraulic and sedimentation impacts to the existing flood control project;
- Minimize disruption to the existing native vegetation.

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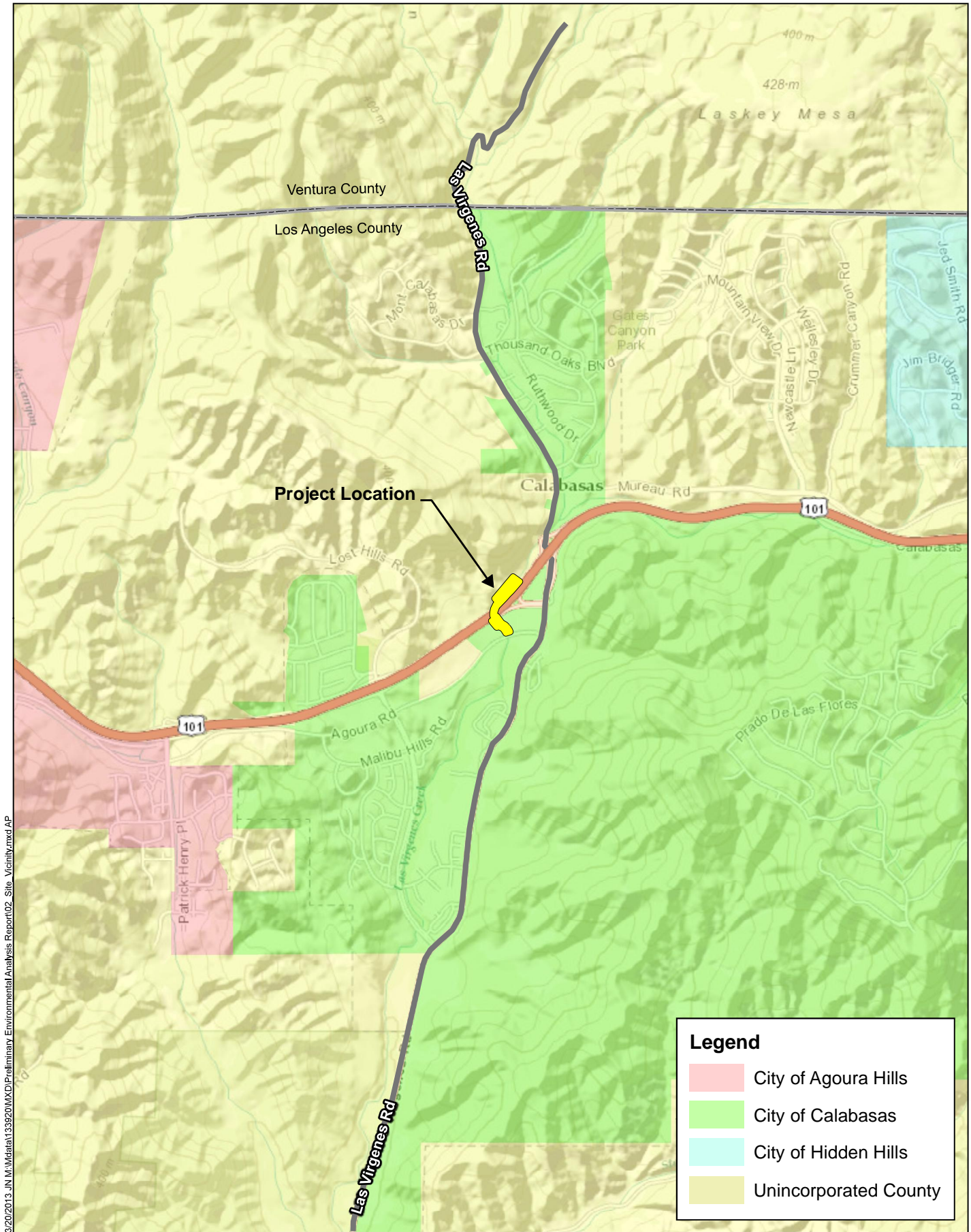


Source: ESRI Relief Map, National Highway Planning Network

DON WALLACE MULTI-USE TRAIL CONNECTOR  
DRAFT MITIGATED NEGATIVE DECLARATION

# Regional Vicinity

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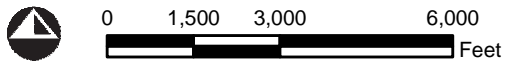
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**Legend**

- City of Agoura Hills
- City of Calabasas
- City of Hidden Hills
- Unincorporated County

DON WALLACE MULTIUSE TRAIL CONNECTOR  
DRAFT MITIGATED NEGATIVE DECLARATION

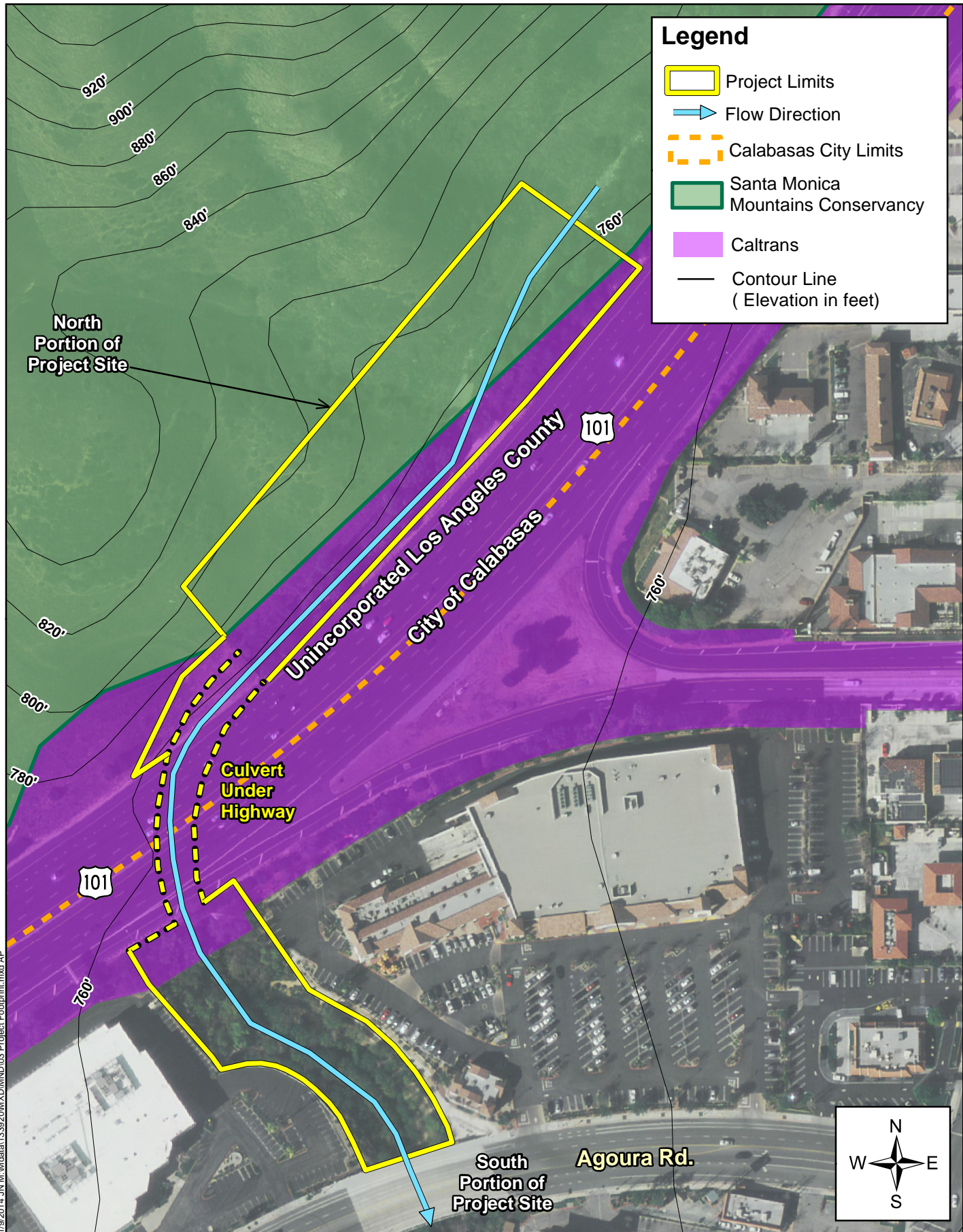
# Project Location



Source: ESRI World Topographic Basemap

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**Legend**

- Project Limits
- ▶ Flow Direction
- Calabasas City Limits
- Santa Monica Mountains Conservancy
- Caltrans
- Contour Line  
( Elevation in feet)

1/9/2014, 11:41:14 AM, M:\data\13392\DMX\DMIND\03 Project Footprint.mxd AP



Source: Eagle Aerial - 2012, LA County GIS Data Portal, USGS National Map Elevation Data Set



DON WALLACE MULTI-USE TRAIL CONNECTOR  
DRAFT MITIGATED NEGATIVE DECLARATION



**Project Footprint**

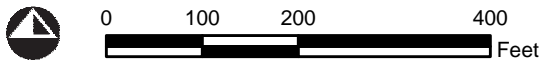
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**Legend**

-  Project Limits
-  Photo Location and Direction



Source: Eagle Aerial - 2012

DON WALLACE MULTI-USE TRAIL CONNECTOR  
DRAFT MITIGATED NEGATIVE DECLARATION

# Site Photo Index

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1. Looking upstream from the beginning of the project site at Agoura Road.



2. West side of the entrance of the triple box culvert looking upstream from the downstream end.



4. Looking northeast at the entrance of the triple box culverts from the downstream side.



3 Looking upstream at the entrance of the proposed trail from the downstream end.



6. Looking north from the northerly entrance of the western barrel of the culverts.



5. The downstream restored area looking upstream.

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7. Looking south from the northern entrance into the western barrel of culverts.



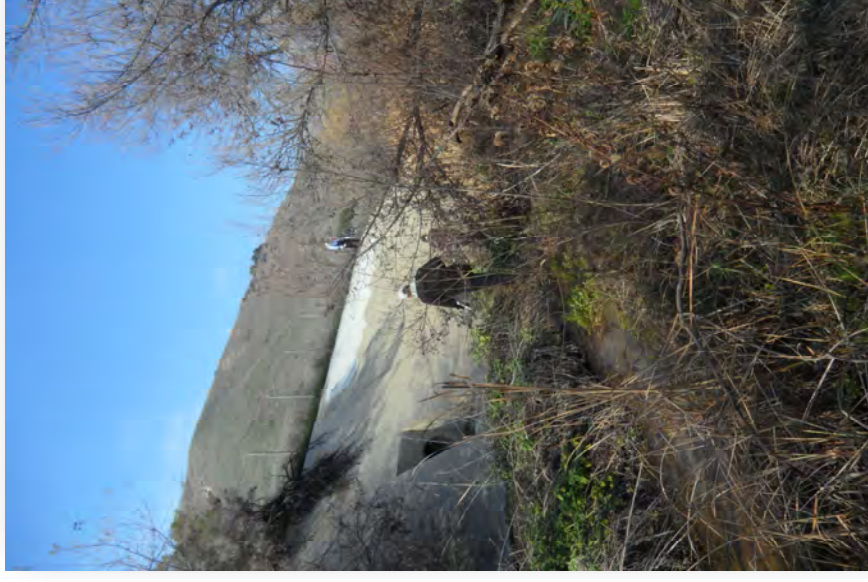
8. Looking upstream at the existing wingwall from the downstream end.



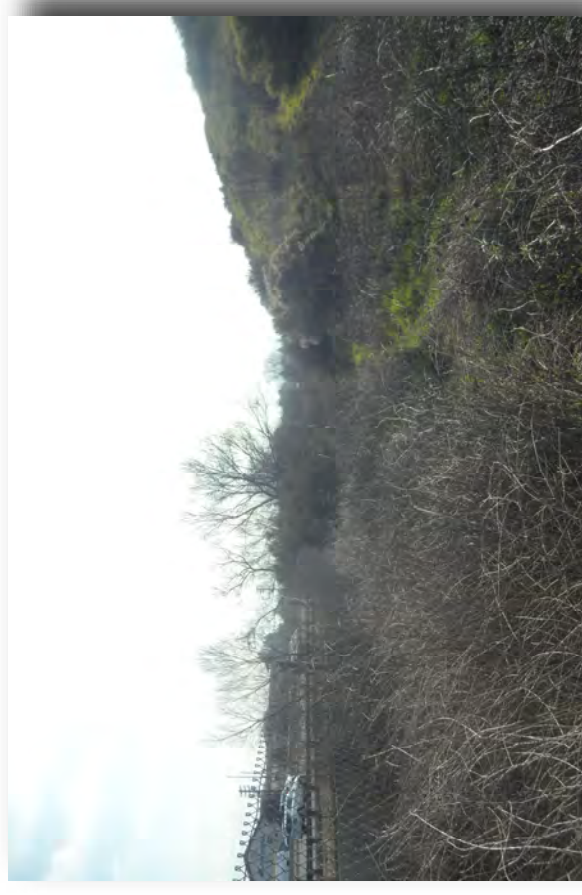
9. Looking upstream from the upstream side of the eastern culvert.



10. Looking upstream at the transition from the concrete channel to the natural channel.



11. Looking upstream up the westside of the channel to the Santa Monica Mountains Conservancy property.



12. Looking southwest from the exit of the proposed trail in the Santa Monica Mountains Conservancy property. SR-101 is located on the left portion of the photo.

DON WALLACE MULTITUDE TRAIL CONNECTOR  
DRAFT MITIGATED NEGATIVE DECLARATION

## Site Photos-B

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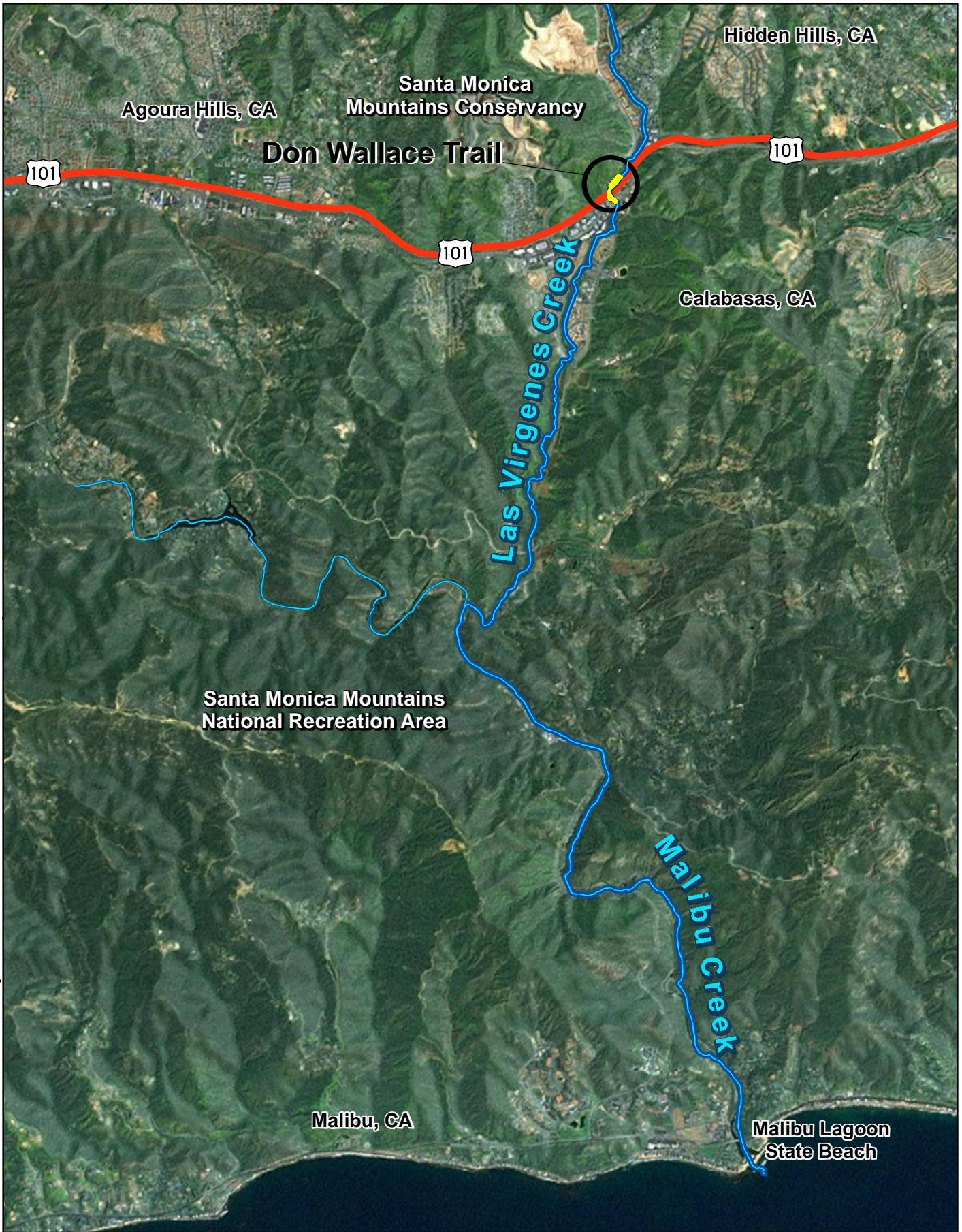


13. Looking west from the Santa Monica Mountains Conservancy property along the top of the channel bank.



14. View of riprap looking north from concrete channel.

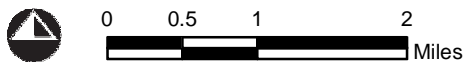
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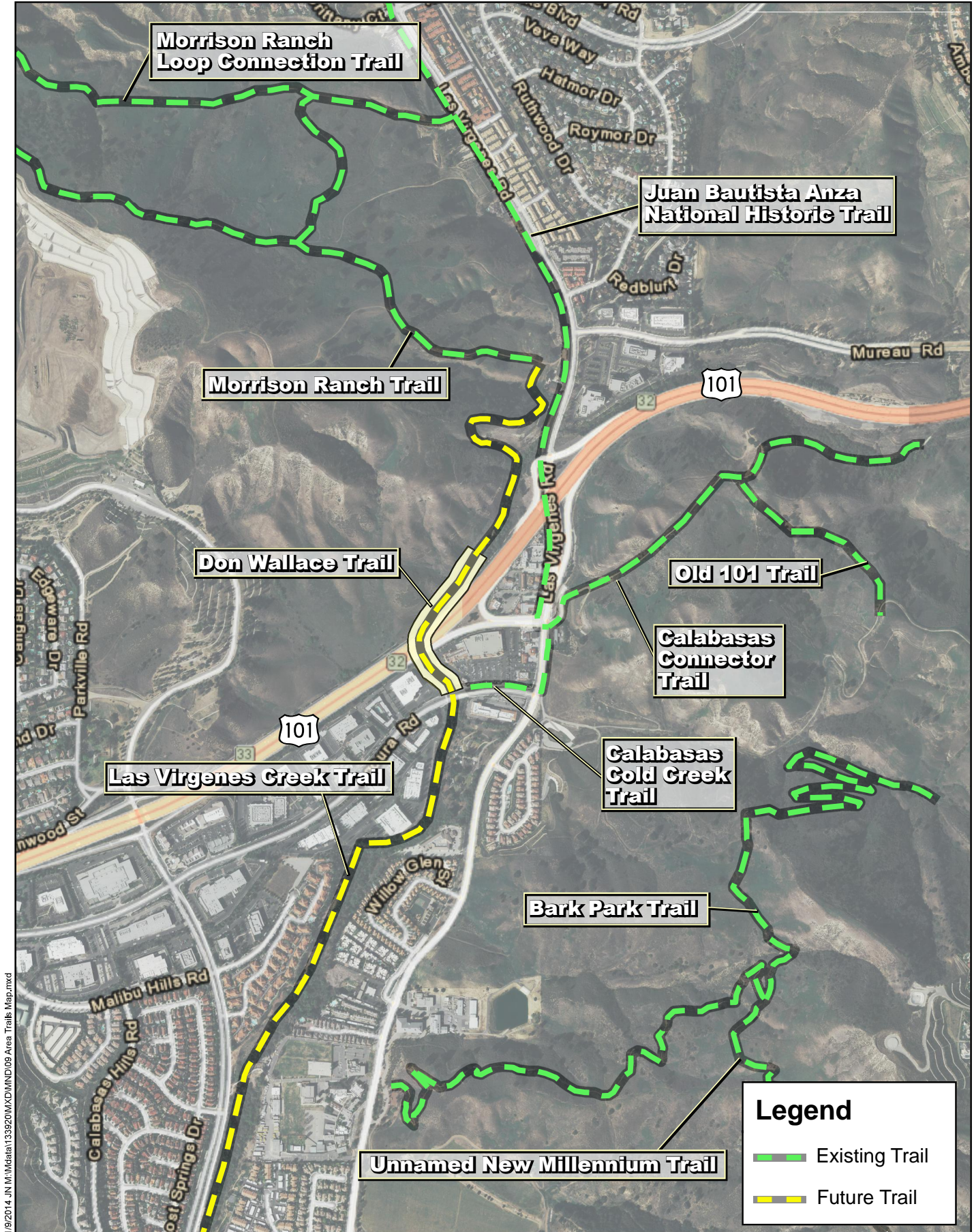
DON WALLACE MULTI-USE TRAIL CONNECTOR  
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# Mountains to Ocean Proximity

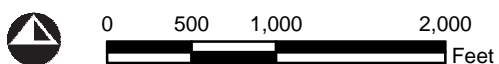


Source: ESRI World Imagery, National Hydrography Dataset

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Source: LA County GIS, Eagle Aerial 2012

DON WALLACE MULTI-USE TRAIL CONNECTOR  
DRAFT MITIGATED NEGATIVE DECLARATION

# Area Trails Map

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**Design Criteria:**

The proposed trail connector Project would be a Class III trail as designated by Los Angeles County Department of Parks and Recreation (DPR), which is a trail class that consists of multi-use recreation trails (County of Los Angeles Trails Manual, prepared in February 2011 (page 2-10)). The trail tread for Class III trails ranges from 12 to 18 inches and utilizes native materials for tread. A Class III trail has little to no drainage or crossing structures. Los Angeles County DPR will enter into a Joint Use Agreement with Caltrans to operate and maintain the trail. The existing drainage conveyance system under US 101 is currently owned and maintained by Caltrans. This system also includes a rectangular, open concrete channel located north of the US 101, an underground triple culvert channel consisting of three 15 feet high by 15 feet wide reinforced concrete box (RCB) cells located under US 101 (see Figure 1: US 101 Underground Culvert, 3 Cells, Cross Section), and the headwall at the downstream end of the RCB. It is therefore, critical that any modifications to this system meet with Caltrans approval. Therefore, the hydraulics analysis has been prepared to assess the impacts of the proposed trail connector Project from Agoura Road through the concrete channel north of US 101.

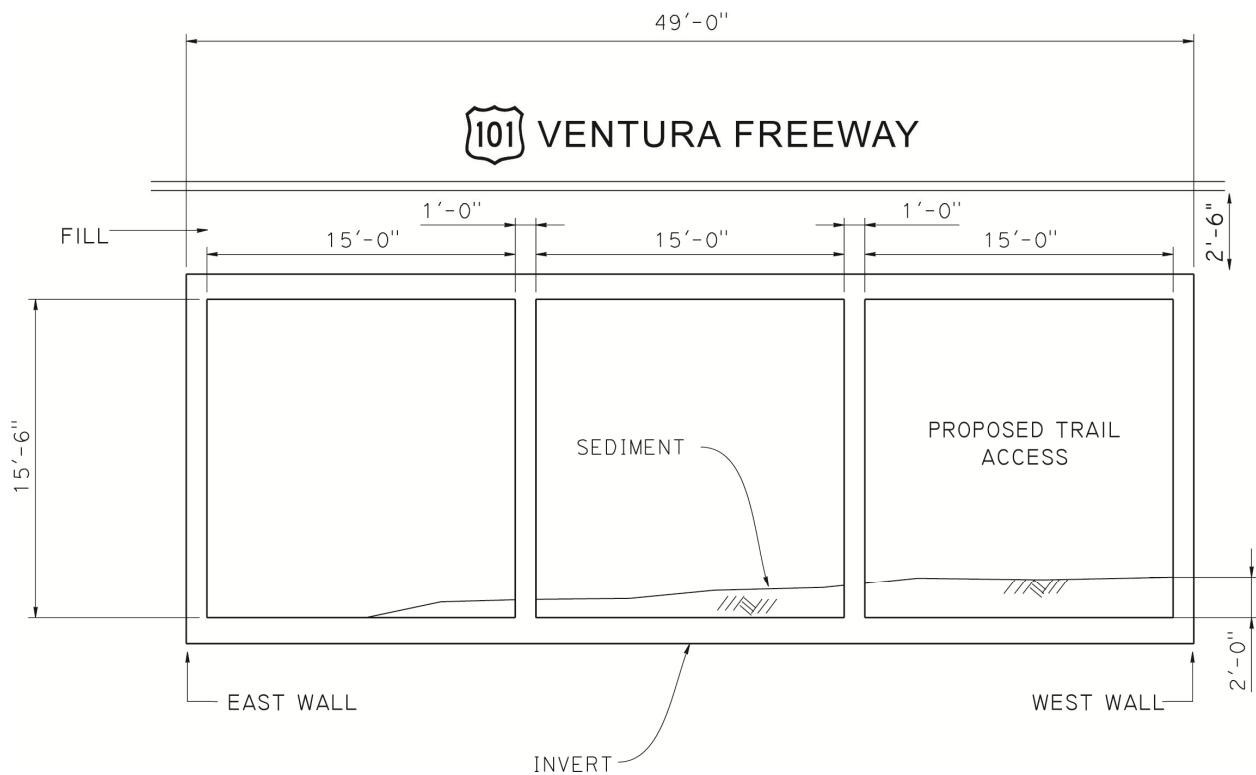


Figure 1: US 101 Underground Culvert (3 Cells) Cross Section

Several conceptual alternatives were examined during this study. The proposed trail connector Project was selected from the alternatives based on minimizing environmental concerns, constructability, and health and safety. The design will be consistent with the criteria shown above.

**Project Description:**

The Don Wallace Multi-Use Trail Connector Project is a proposed 1,500-foot long and 8 to 10-foot wide multi-use segment that would provide vital connections to a larger planned regional trail system from the SMMC property to Malibu Creek State Park. The proposed trail connector Project is a part of a larger planned trail system of the Los Angeles County and City of Calabasas as identified in their Trails Master Plans. The proposed trail connector Project is a critical component to provide a viable, safe and formal trail for recreational use.

The proposed trail connector Project would start with a turn-around area underneath Agoura Road Bridge. The trail would ramp up with an 8-foot wide soil cement trail at an 8% grade and along the upper (west) earthen channel bank of the Las Virgenes Creek. The trail would then descend at an 8% grade from the top of the channel towards the culverts under the US 101. The proposed trail would continue north under the US 101 through the western culvert. The trail would continue 400-feet north towards the open concrete channel area. Existing sediment within the west culvert would be removed. Upon exiting the culvert, a 10-foot wide by approximately 440-feet long area would be cleared from existing vegetation and sediment. The trail area would run along the west channel wall in the cleared area towards the upstream rip-rap channel bottom. An eight-inch high curb is proposed north of the culvert to divert flows to the middle and eastern culverts during rain events. Near the rip-rap channel area and beyond the Caltrans right-of-way limit, an 8-foot wide soil-cement trail would run upward at an 8% grade along the earthen channel's west bank. At 200-feet, the trail would reach the top of the channel bank and exit onto the SMMC land. It should be noted that the County requires that a minimum of 10% of each of its park facilities be in compliance with the American Disabilities Act (ADA), which mandates that no more than a 5% grade will be designed. 82% of the proposed trail connector Project is in compliance with ADA requirements. Thus, the trail connector Project would exceed the minimum ADA standards requirement. The proposed trail connector Project would reduce obstruction to flows by utilizing the existing concrete bottom channel for the base surface structure. It would also reduce impacts to vegetation by minimizing the need for construction equipment to be placed in the channel bottom north of US 101. An area of vegetation, 10 feet wide from the western wall of the concrete channel area would be removed with the implementation of the proposed trail connector Project (see Exhibit 10, *Trail Alignment*).



*Trail Safety Criteria*

The trail width would allow the safe passing of trail users going in opposite directions. The following are some of the safety features taken into consideration for construction of the proposed trail connector Project:

- Trail Surface: The trail surfaces would be a textured broom finish for concrete or soil cement finishes maximizing footing.
- Ramp Grades: The proposed designed grade of the ramps will be 8% or less per the Los Angeles County Trails Manual to allow access for proposed trail users.
- Signage: Signage would be proposed to warn trail users of potential hazards at the entrances to the channel. Signage would include warnings about wildlife (including bobcats and mountain lions), potential flood hazards during rain events, and acknowledgement that dogs must be leashed at all times per County Ordinance 10-32.010. Signage would also post the trail may be used from dawn to dusk.
- Gates: Gates would be located at the top of the ramps to restrict access to the channel during storm events.
- Lighting: Lighting within the culvert under the US 101 would be provided. The lighting would be on a timer that will restrict use of the culvert to daylight hours to discourage homeless encampments at night and for user safety. The electrical components of the lighting system would be encased to prevent damage or malfunction during large flood events.
- Mirrors: Convex mirrors will be placed near both ends of the culvert entrances in order to see the other culvert end.
- Security Patrols: The Los Angeles County Sheriffs Park Bureau and County maintenance crews would periodically patrol the proposed trail connector Project site.

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**Legend**

- Project Limits (4.5 Acres)
- Project Alignment**
- Proposed Trail
- Ramp Area

DON WALLACE MULTIUSE TRAIL CONNECTOR  
DRAFT MITIGATED NEGATIVE DECLARATION

# Project Alignment



Source: ESRI World Imagery

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*Removal of Sediment and Vegetation*

Sediment has been deposited throughout the channel and culverts in the trail connector segment. This sediment needs to be removed to maximize channel hydraulics and provide sufficient clearance for safe operation of the trail. Clearing and grubbing would be performed along the trail alignment during construction. For the area within the culvert and further upstream, it is estimated that during construction, 1,335 cubic yards of sediment would need to be removed from the concrete channel and box culvert, assuming a 440-foot long trail upstream of the box culvert area. The proposed trail connector Project is anticipated to remove 0.18 acres of vegetation. Construction of the proposed trail connector Project would require the temporary diversion of water flows. Fiber rolls (coconut straw waddles) would be used to temporarily divert the flows. A detailed Diversion Plan would be developed during the design phase of the proposed trail connector Project.

*Ramp Area Into Channel*

The proposed trail connector Project would begin under the west side of the Agoura Road Bridge at a turn-around, ramp up onto the channel bank, ramp down again near the southern entrance of the west culvert, traverse through the culvert and along the west channel wall to the rip-rap area, ramp up the rip-rap onto the SMMC property where it will connect to existing dirt trails. The 3 ramps will be 8-feet wide with an 8% grade. The ramps will be constructed with soil sediment or concrete. The trails in the channel will be 10-feet and at the existing grade.

*Staging Area and Construction Equipment*

One staging area will be used during construction. The staging area would occur on the north side of the US 101 freeway within of the proposed trail connector Project site, on a flat triangular portion of land adjacent to the westbound lanes of the US 101 within Caltrans right-of-way. The haul road from this site would be about 200 feet and allow access on the upstream end of the culvert.

The following table shows the estimated types and numbers of pieces of equipment and the hours of operation for the construction of the proposed trail connector Project:

**Table 2.3-1 Estimated Use of Construction Equipment**

| Type of Equipment      | Number of Equipment | Daily Operation Hours |
|------------------------|---------------------|-----------------------|
| Grader                 | 1                   | 6                     |
| Rubber Tire Dozer      | 1                   | 6                     |
| Tractor/Loader/Backhoe | 1                   | 7                     |
| Excavator              | 1                   | 8                     |
| Other Equipment        | 3                   | 8                     |
| Off Highway Truck      | 1                   | 1                     |

The disposal site would be the Calabasas Landfill, located at Lost Hills Road in the City of Calabasas. The Calabasas Landfill is located at 5300 Lost Hills Road, Agoura Hills, CA 91301. The disposal site is approximately 1.8 miles from the proposed trail connector Project site.

*Construction Duration:*

It is anticipated that the proposed trail connector Project would utilize 10 workers per day. Construction is estimated to commence in the spring of 2014 and it may take approximately three to six months to complete the construction. It is estimated that construction would be completed in fall of 2014. Prior to construction, vegetation within the channel and culvert would be cleared and grubbed. Water flowing during construction would be diverted into the current low flow channel in the left (looking downstream) or eastern culvert to minimize/avoid impacts to water quality. To minimize temporary construction impacts to birds and wildlife, vegetation clearing and grubbing would be performed outside of the migratory bird nesting season (February 1 through August 31).

*Future Maintenance:*

Operations and maintenance of the trail would be conducted by LA County DPR on annual basis. It is anticipated that approximately 300 cubic yards of sediment would be removed annually for maintenance. Equipment utilized for maintenance will likely include one grader, one rubber tire dozer, one tractor/loader/backhoe, one water truck, and one off highway truck.

## 3.0 INITIAL STUDY CHECKLIST

### 3.1 BACKGROUND

|   |
|---|
| <p><b><u>Project Title:</u></b></p> <p>Don Wallace Multi-Use Trail Connector</p>  |
| <p><b><u>Lead Agency Name and Address:</u></b></p> <p>County of Los Angeles Department of Parks and Recreation<br/>510 South Vermont Avenue<br/>Los Angeles, CA 90020</p> |
| <p><b><u>Contact Person and Phone Number:</u></b></p> <p>Bryan Moscardini, Environmental and Regulatory Permitting<br/>213-351-5133</p>                                   |
| <p><b><u>Project Location:</u></b></p> <p>Refer to Section 2.1, Project Location &amp; Setting, above.</p>  |
| <p><b><u>General Plan Designation:</u></b></p> <p>Open Space</p>  |

|   |
|---|
| <b><u>Zoning Classification:</u></b><br>Open Space  |
| <b><u>Description of the Project: (Describe the whole action involved, including but not limited to, later phases of the project, and any secondary, support or off-site features necessary for its implementation.)</u></b><br>Refer to Section 2.4, <i>Project Characteristics</i> , above. |
| <b><u>Surrounding Land Uses and Setting:</u></b><br>Commercial, Open Space  |

### **3.2 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED**

The environmental factors checked below would be potentially affected by this proposed trail connector Project, involving at least one impact that is a “Potentially Significant Impact”, as indicated by the checklist on the following pages.

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Aesthetics                    | <input type="checkbox"/> Agriculture Resources              | <input type="checkbox"/> Air Quality            |
| <input type="checkbox"/> Biological Resources          | <input type="checkbox"/> Cultural Resources                 | <input type="checkbox"/> Geology /Soils         |
| <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology / Water Quality          | <input type="checkbox"/> Land Use / Planning    |
| <input type="checkbox"/> Mineral Resources             | <input type="checkbox"/> Noise                              | <input type="checkbox"/> Population / Housing   |
| <input type="checkbox"/> Public Services               | <input type="checkbox"/> Recreation                         | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Utilities / Service Systems   | <input type="checkbox"/> Mandatory Findings of Significance |   |

### **3.3 EVALUATION OF ENVIRONMENTAL IMPACTS**

This section analyzes the potential environmental impacts associated with the proposed trail connector Project. The issue areas evaluated in this Initial Study include:

- Aesthetics
- Agriculture Resources
- Air Quality and Greenhouse Gas Emissions
- Biological Resources
- Cultural Resources
- Geology and Soils
- Greenhouse Gas Emissions

- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Mineral Resources
- Noise
- Population and Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities and Service Systems

The environmental analysis in this section is patterned after the Initial Study Checklist recommended by the County's CEQA Guidelines and used by the County in its environmental review process. For the preliminary environmental assessment undertaken as part of this Initial Study's preparation, a determination that there is a potential for significant effects indicates the need to more fully analyze the proposed trail connector Project's impacts and to identify mitigation.

For the evaluation of potential impacts, the questions in the Initial Study Checklist are stated and an answer is provided according to the analysis undertaken as part of the Initial Study. The analysis considers the long-term, direct, indirect, and cumulative impacts of the proposed trail connector Project. To each question, the following are the four possible responses:

- **No Impact.** The proposed trail connector Project would not have any measurable environmental impact on the environment.
- **Less Than Significant Impact.** The proposed trail connector Project would have the potential for impacting the environment, although this impact will be below established thresholds that are considered to be significant.
- **Less Than Significant With Mitigation Incorporated.** The proposed trail connector Project would have the potential to generate impacts which may be considered as a significant effect on the environment, although mitigation measures or changes to the proposed trail connector Project's physical or operational characteristics can reduce these impacts to levels that are less than significant.
- **Potentially Significant Impact.** The proposed trail connector Project would have impacts that are considered significant, and additional mitigation measures cannot reduce these impacts to less than significant levels.



Where potential impacts are anticipated to be significant, mitigation measures are be required, so that impacts may be avoided or reduced to insignificant levels.

## 4.0 Environmental Analysis

This section analyzes the potential environmental impacts that may result from the proposed trail connector Project. For the evaluation of potential impacts, the questions in the Initial Study Checklist (Section 3) are stated and answers are provided according to the analysis undertaken as part of the Initial Study. The analysis considers the proposed trail connector Project's short-term impacts (construction-related), and long-term impacts (operational-related).

### 4.1 AESTHETICS

|  | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact        | No Impact                |
|--|--------------------------------|---|-------------------------------------|--------------------------|
| AESTHETICS -- Would the project:   |                                |   |                                     |                          |
| a) Have a substantial adverse effect on a scenic vista?  | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Substantially degrade the existing visual character or quality of the site and its surroundings?  | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?                                    | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

***Would the Project:***

- a) *Have a substantial adverse effect on a scenic vista? Determination: Less Than Significant Impact.*

Surface elevations of the proposed trail connector Project site range from approximately 755 feet above mean sea level (msl) at the northern boundary of the proposed trail connector Project site to approximately 735 feet above msl at the southern boundary of the site. The proposed trail connector Project site consists of natural vegetation occurring within a concrete channel. Willow scrub, coastal sage scrub, and riparian habitat were all observed onsite. Water flows and sediment occur within the three concrete culverts located under the US 101 freeway. Water flows and sediment also occur both north and south of the culverts within the Las Virgenes Creek bottom. Concrete walls occur on both the left and right bank of the creek. Extensive graffiti is apparent in all three concrete culverts. These culvert walls are popular among graffiti artists. Spray paint cans, used paint brushes and large paint cans were seen littered on the channel floor.

The City of Calabasas General Plan identifies Las Virgenes Canyon as an environmental resource. The preservation of remaining open space lands and the protection of significant environmental features are, according to the General Plan, among the highest priorities in the City. Open space for public recreation includes setting aside public parks and recreational areas, as well as maintaining a system of trails that can be used for hiking, equestrian riding, and mountain biking. In addition to preserving existing open space, the General Plan calls for environmental design and site planning that works cohesively with nature to minimize the loss of resources and restore environmental quality that may have been compromised by past actions.

Implementation of the proposed trail connector Project would result in the development of a multi-use trail within the existing channel. Some minor native and non-native vegetation removal would occur in the southern portion of the proposed trail connector Project site near the previously restored area. Proposed impacts to the restored riparian vegetation south of USUS 101 will be temporary and any impact areas will be restored to the current condition. Approximately 0.18 acres of vegetation would be removed upstream of the box culverts for the trail. Impacted riparian vegetation will be mitigated by removal of non-native plants and enhancement plantings of native vegetation upstream of the proposed trail connector Project (see Exhibit 11, *Mitigation Enhancement Area*). Therefore, a minimal impact would occur in the proposed trail connector Project area.

As previously stated materials used to develop the trail would either be concrete or soil cement, which would blend in with the existing setting.

The proposed trail connector Project would be compatible with the existing scenic and aesthetic environment, and enhance the existing riparian environment. Operations and maintenance of the trail would be conducted by the LA County DPR on an as needed basis. It is anticipated that approximately 300 cubic yards of sediment would be removed per maintenance episode (once a year). This is not anticipated to result in any significant aesthetics impact. Impacts associated with the scenic vista would be less than significant for the proposed trail connector Project alignment.

b) *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? **Determination: Less Than Significant Impact.***

A portion of the US 101 adjacent to the proposed trail connector Project site is designated as an eligible state scenic highway. However, the proposed trail connector Project would be located in an existing concrete channel, and the vegetation that would be removed for the proposed trail connector Project alignment would be offset with native vegetation to be planted upstream of the proposed trail connector Project. Upon exiting the culvert, a 10-foot wide area by approximately 440-feet in length would be cleared from existing vegetation and sediment. The trail area would run along the west channel wall towards the upstream rip-rap channel bottom. Near the rip-rap channel area and beyond the Caltrans right-of-way limit, an 8-foot wide soil-cement trail would run upward along the earthen channel's west bank, at an 8% grade. At approximately 200-feet, the trail would reach the top of the channel bank and onto the SMMC land. This portion of the proposed trail connector Project could be seen from the US 101 freeway. However, materials used to develop this portion of the trail would be either concrete or soil cement, which would blend in with the existing setting. Therefore, less than significant impacts would occur.

c) *Substantially degrade the existing visual character or quality of the site and its surroundings? **Determination: Less Than Significant Impact.***

Refer to Response 4.1 (a), above.

Additionally, a portion of the proposed trail connector Project trail is within an enclosed channel culvert, located beneath the US 101. The culvert is constructed in a curved formation which makes it difficult to see through the channel culvert. A trail user would have to travel approximately 70 feet forward in order to see the other end of the culvert. The proposed trail includes lighting fixtures throughout the entire culvert area and will operate from sunrise to sunset. Also, convex mirrors will be placed near both ends of the culvert entrances in order to see the other culvert end. Impacts would be less than significant.

d) *Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? **Determination: Less Than Significant Impact.***

Lighting within the culvert under US 101 is proposed as part of the proposed trail connector Project. The lighting would be on a timer that would restrict use of the culvert to daylight hours. No additional lighting would be installed north or south of the culvert, and no significant sources of light or glare are proposed as part of the proposed trail connector Project. Temporary minor light and glare impacts may occur during operations and maintenance activities. However, as previously stated, these maintenance events are anticipated to occur approximately once every 3 to 5 years, and therefore, are not considered significant. Less than significant impacts would occur.

Potential Mitigation / Enhancement



101

Las Virgenes Rd

Culvert Under Highway

Agoura Rd.

Legend

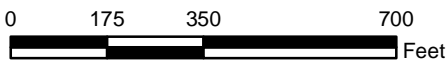


Project Limits



Potential Enhancement

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Source: Eagle Aerial - 2012, LA County GIS Data Portal, USGS National Map Elevation Data Set

DON WALLACE MULTI-USE TRAIL CONNECTOR  
DRAFT MITIGATED NEGATIVE DECLARATION

Mitigation Enhancement Area

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## 4.2 AGRICULTURE RESOURCES

|   | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact                           |
|---|--------------------------------|---|------------------------------|-------------------------------------|
| <p>AGRICULTURE RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the Project:</p> |                                |   |                              |                                     |
| a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?  | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?  | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?  | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| d) Result in the loss of forest land or conversion of forest land to non-forest use?  | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |

## 4.2 AGRICULTURE RESOURCES

|   | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact                           |
|---|--------------------------------|---|------------------------------|-------------------------------------|
| e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |

**Would the Project:**

- a) *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? **Determination: No Impact.***

The proposed trail connector Project site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Therefore, no impact would occur.

- b) *Conflict with existing zoning for agricultural use, or a Williamson Act contract? **Determination: No Impact.***

The proposed trail connector Project site is not zoned for agricultural use, and no Williamson Act contracts are associated with the proposed trail connector Project site. Therefore, no impact would occur.

- c) *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))? **Determination: No Impact.***

The proposed trail connector Project site is not zoned as forest land, timberland, or timberland production. Therefore, no impact would occur.

- d) *Result in the loss of forest land or conversion of forest land to non-forest use? **Determination: No Impact.***

Refer to Response 4.2 (c), above. No impact would occur.



e) *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? **Determination: No Impact.***

Refer to Response 4.2 (a), above. No impact would occur.

**4.3 AIR QUALITY**

|   | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact        | No Impact                |
|---|--------------------------------|---|-------------------------------------|--------------------------|
| <p>AIR QUALITY -- Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the Project:</p>   |                                |   |                                     |                          |
| a) Conflict with or obstruct implementation of the applicable air quality plan?   | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?  | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Result in a cumulatively considerable net increase of any criteria pollutant for which the region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Expose sensitive receptors to substantial pollutant concentrations?  | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e) Create objectionable odors affecting a substantial number of people?   | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

*Would the Project:*

- a) *Conflict with or obstruct implementation of the applicable air quality plan (South Coast Air Quality Management District)?* **Determination: Less Than Significant Impact.**

The proposed trail connector Project is located within the South Coast Air Basin (SCAB), which is governed by the South Coast Air Quality Management District (SCAQMD). Consistency with the 2012 Air Quality Management Plan (AQMP) means that a project is consistent with the goals, objectives, and assumptions in the respective plan to achieve the federal and state air quality standards.

The South Coast Air Quality Management District (SCAQMD) has designated significant emissions levels as surrogates for evaluating regional air quality impact significance independent of chemical transformation processes. A recreational roadway project has no direct operational air quality impacts. Project specific impacts would only result from construction activities. Projects with daily emissions that exceed any of the following emission thresholds shown in Table 4.3-1 are recommended by the SCAQMD to be considered significant under CEQA Guidelines:

**Table 4.3-1 SCAQMD Emissions Significance Thresholds (pounds/day)**

| Pollutant       | Emissions (Construction) |
|-----------------|--------------------------|
| ROG             | 75                       |
| NO <sub>x</sub> | 100                      |
| CO              | 550                      |
| PM-10           | 150                      |
| PM-2.5          | 55                       |
| SO <sub>x</sub> | 150                      |
| Lead            | 3                        |

Source: SCAQMD CEQA Air Quality Handbook, November, 1993 Rev

SCAQMD also states that additional indicators should be used as screening criteria to determine the need for further analysis with respect to air quality. The additional indicators are as follows:

- Project could interfere with the attainment of the federal or state ambient air quality standards by either violating or contributing to an existing or projected air quality violation;

- Project could result in population increases within the regional statistical area which would be in excess of that projected in the AQMP and in other than planned locations for the project's build-out year; and
- Project could generate vehicle trips that cause a CO hot spot.

### ***Construction Related Impacts***

The SCAQMD CEQA Air Quality Handbook also identifies various secondary significance criteria related to toxic, hazardous or odorous air contaminants. Hazardous air contaminants are also contained within the small diameter particulate matter ("PM-2.5") fraction of diesel exhaust. Such exhaust will be temporarily generated by heavy construction equipment.

Exhaust emissions will result from on and off-site heavy equipment. The types and numbers of equipment vary among contractors such that exhaust emissions cannot be quantified with certainty. For the proposed trail connector Project, the following schedule and grading quantities were assumed:

- Grading: 0.6 total acres disturbed
- Total length of construction: 3 months
- Total cubic yards of excavation/sediment to be removed: 1,335

Additionally, the following equipment was assumed to be utilized during construction:

- 1 Excavator
- 1 Grader
- 1 Off-highway truck
- 3 Off-highway truck
- 3 Other Construction Equipment
- 1 Rubber Tired Dozers
- 1 Tractors/Loaders/Backhoes

Dust is typically the primary concern during construction of new infrastructure. Because such emissions are not amenable to collection and discharge through a controlled source, they are called "fugitive emissions." Emission rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). These parameters are not known with any reasonable certainty prior to proposed trail connector Project development and may change from day to day. Any assignment of specific parameters to an unknown future date is speculative.

Table 4.3-2, *Short-Term Construction Emissions* identifies emissions anticipated with the construction of the proposed trail connector Project.

**Table 4.3-2 Short-Term Construction Emissions**

| Emissions Source  | Emissions (pounds per day) <sup>1</sup> |                 |            |                 |                  |                   |
|---|---|-----------------|------------|-----------------|------------------|-------------------|
|   | ROG                                     | NO <sub>x</sub> | CO         | SO <sub>x</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |
| Unmitigated Emissions   | 6.58                                    | 69.99           | 44.90      | 0.06            | 9.30             | 6.39              |
| Mitigated Emissions <sup>2</sup>  | 6.58                                    | 69.99           | 44.90      | 0.06            | 6.28             | 4.73              |
| <i>SCAQMD Threshold</i>   | <i>75</i>                               | <i>100</i>      | <i>550</i> | <i>150</i>      | <i>150</i>       | <i>55</i>         |
| <i>Is Threshold Exceeded?</i>   | <i>No</i>                               | <i>No</i>       | <i>No</i>  | <i>No</i>       | <i>No</i>        | <i>No</i>         |
| Notes:  |   |                 |            |                 |                  |                   |
| <ol style="list-style-type: none"> <li>1. Emissions calculated using the California Emissions Estimator Model (CalEEMod).</li> <li>2. The reduction/credits for construction emission mitigations are based on mitigation included in CalEEMod and as typically required by the SCAQMD (Rule 403). The mitigation includes the following: replace ground cover on disturbed areas quickly, water exposed surfaces three times daily, proper loading/unloading of mobile and other construction equipment, and paved road cleaning.</li> </ol> |   |                 |            |                 |                  |                   |
| Refer to <a href="#">Appendix A, Air Quality Emissions Data</a> , for assumptions used in this analysis.  |   |                 |            |                 |                  |                   |

As identified in Table 4.3-2, construction of the proposed trail connector Project would not exceed SCAQMD thresholds. Therefore, impacts would be less than significant.

### ***Operational Related Impacts***

Powered vehicles would only be allowed on the proposed trail for maintenance, inspection, and emergency actions. The trail would be used by pedestrians, mountain bikers and/or equestrians. As previously discussed, operations and maintenance of the trail would be conducted by LA County DPR yearly. It is anticipated that approximately 300 cubic yards of sediment would be removed per maintenance episode (once a year). Equipment utilized for maintenance will likely include one grader, one rubber tire dozer, one tractor/loader/backhoe, one water truck, and one off highway truck.

For the proposed trail connector Project, the following was assumed:

- Total cubic yards of excavation/sediment to be removed per each maintenance episode: 300.

Additionally, the following equipment was assumed to be utilized during each maintenance episode:

- 1 Off-highway truck
- 1 Rubber Tire Dozer
- 1 Skid steer loader
- 2 Tractor/loader/backhoe

Table 4.3-3, *Long Term Maintenance Emissions*, identifies emissions associated with maintenance

of the proposed trail connector Project.

**Table 4.3-3 Long Term Maintenance Emissions**

| Emissions Source  | Emissions (pounds per day) <sup>1</sup> |                 |            |                 |                  |                   |
|---|---|-----------------|------------|-----------------|------------------|-------------------|
|   | ROG                                     | NO <sub>x</sub> | CO         | SO <sub>x</sub> | PM <sub>10</sub> | PM <sub>2.5</sub> |
| Maintenance Emissions <sup>2</sup>  | 1.93                                    | 20.82           | 12.90      | 0.02            | 1.97             | 1.42              |
| <i>SCAQMD Threshold</i>   | <i>55</i>                               | <i>55</i>       | <i>550</i> | <i>150</i>      | <i>150</i>       | <i>55</i>         |
| <i>Is Threshold Exceeded?</i>   | <i>No</i>                               | <i>No</i>       | <i>No</i>  | <i>No</i>       | <i>No</i>        | <i>No</i>         |
| Notes:  |   |                 |            |                 |                  |                   |
| 1. Emissions calculated using the California Emissions Estimator Model (CalEEMod).  |   |                 |            |                 |                  |                   |
| 2. Maintenance emissions involve the use of off-road construction equipment that would remove sediment and debris on an annual basis. The maintenance of the trail would not include area or energy source emissions. |   |                 |            |                 |                  |                   |
| Refer to <u>Appendix A, Air Quality Emissions Data</u> , for assumptions used in this analysis.   |   |                 |            |                 |                  |                   |

As identified in Table 4.3-3, routine operations and maintenance of the proposed trail connector Project would not result in significant air quality impacts.

**Best Management Practices AIR-1: The following BMP's will be implemented:**

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered three times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.

- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the County regarding dust complaints. This person shall respond and take corrective action within 48 hours. The SCAQMD's phone number shall also be visible to ensure compliance with applicable regulations.

b) *Violate any air quality standard or contribute substantially to an existing or projected air quality violation? Determination: Less Than Significant Impact.*

Refer to Response 4.3 (a), above. Less than significant impacts would occur with the implementation of Best Management Practices AIR-1.

c) *Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? Determination: Less Than Significant Impact.*

Refer to Response 4.3 (a). Powered vehicles would only be allowed on the proposed trail for maintenance, inspection, and emergency actions. The trail would be used by pedestrians, mountain bikers and/or equestrians. As previously discussed, operations and maintenance of the trail would be conducted by LA County DPR on an as needed basis. It is anticipated that approximately 300 cubic yards of sediment would be removed per maintenance episode (once a year). Equipment utilized for maintenance will likely include one grader, one rubber tire dozer, one tractor/loader/backhoe, one water truck, and one off highway truck.

No significant emissions would occur as part of proposed trail connector Project operations and maintenance. Impacts would be less than significant.

d) *Expose sensitive receptors to substantial pollutant concentrations? Determination: Less Than Significant Impact.*

Sensitive receptors (i.e., children, senior citizens, and acutely or chronically ill people) are more susceptible to the effects of air pollution than the general population. Land uses that are considered sensitive receptors typically include residences, schools, playgrounds, childcare centers, hospitals, convalescent homes, and retirement homes. There is one sensitive receptor within one-quarter mile of the proposed trail connector Project. A ballroom dance and music

studio is located approximately 0.14 miles from the proposed trail connector Project site. No other sensitive receptors are located within one-quarter mile of the site. As stated in Response 4.3 (a), construction of the proposed trail connector Project would not exceed approved thresholds. Less than significant impacts would occur.

e) *Create objectionable odors affecting a substantial number of people?* **Determination: Less Than Significant Impact.**

Construction activities may generate detectable odors from heavy-duty equipment exhaust. Odors associated with diesel and gasoline fumes would occur during the construction phase and may affect residents in the vicinity of the proposed trail connector Project. However, these odors are considered temporary in nature and would cease upon the completion of construction. Adherence to Best Management Practices AIR-1, above, would reduce potential impacts to a level of less than significant.

#### 4.4 BIOLOGICAL RESOURCES

|  | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact                |
|--|--------------------------------|---|------------------------------|--------------------------|
| <b>BIOLOGICAL RESOURCES -- Would the project:</b>  |                                |   |                              |                          |
| a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? | <input type="checkbox"/>       | <input checked="" type="checkbox"/>                 | <input type="checkbox"/>     | <input type="checkbox"/> |
| b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?   | <input type="checkbox"/>       | <input checked="" type="checkbox"/>                 | <input type="checkbox"/>     | <input type="checkbox"/> |

**4.4 BIOLOGICAL RESOURCES**

|  | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact        | No Impact                           |
|--|--------------------------------|---|-------------------------------------|-------------------------------------|
| c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | <input type="checkbox"/>       | <input checked="" type="checkbox"/>                 | <input type="checkbox"/>            | <input type="checkbox"/>            |
| d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?                                   | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?  | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?   | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

***Would the Project:***

- a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?*  
***Determination: Less Than Significant Impact with Mitigation Incorporated.***



Eight sensitive species have been recorded as occurring in the general vicinity of the proposed trail connector Project site:

- Arroyo toad (*Anaxyrus californicus*);
- Western pond turtle (*Emys marmorata*);
- Coastal California gnatcatcher (*Polioptila californica californica*);
- California red-legged frog (*Rana draytonii*);
- Least Bell’s vireo (*Vireo bellii pusillus*);
- Braunton’s milk-vetch (*Astragalus brauntonii*);
- San Fernando Valley spineflower (*Chorizanthe parryi var. fernandia*); and
- Lyon’s pentachaeta (*Pentachaeta lyonii*).

Table 4.4-1 summarizes these species, lists their special status, specifies if federally-designated Critical Habitat has been established for them, and their potential to occur on the proposed trail connector Project site.

**Table 4.4-1: Special Status Species and Critical Habitat**

| Scientific Name<br>Common Name               | Status      | Critical Habitat | Preferred Habitat  | Potential for Occurrence<br>(Onsite)  |   |
|--|-------------|------------------|--|---|---|
| <b>Wildlife Species</b>                      |             |                  |  |   |   |
| <i>Anaxyrus californicus</i><br>arroyo toad  | Fed:<br>CA: | FE<br>CSC        | Designated Critical Habitat is not located near the project site | Semi-arid regions near washes or intermittent streams, including valley-foothill and desert riparian, desert wash, etc.   | Riparian/riverine habitat on the project site consists of a fully lined concrete channel with an accumulation of sediment and limited vegetation north of US 101. A restored area with a mixed riparian forest plant community occurs south of US 101. There is a single, perennial low flow channel that flows through the project site but does not provide suitable habitat for arroyo toad.         |
| <i>Emys marmorata</i><br>western pond turtle | Fed:<br>CA: | None<br>CSC      | NA   | A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation. Need basking sites and suitable upland habitat for water for egg-laying | Riparian/riverine habitat on the project site consists of a fully lined concrete channel with an accumulation of sediment and limited vegetation north of US 101. A restored area with a mixed riparian forest plant community occurs south of US 101. There is a single, perennial low flow channel that flows through the project site but does not provide suitable habitat for western pond turtle. |

| Scientific Name<br>Common Name   | Status               |                   | Critical Habitat   | Preferred Habitat  | Potential for Occurrence<br>(Onsite)   |
|--|----------------------|-------------------|--|--|--|
| <i>Polioptila californica californica</i><br>coastal California gnatcatcher  | Fed:<br>CA:          | FT<br>CSC         | Designated Critical Habitat is not located near the project site               | Obligate, permanent resident of coastal sage scrub below 2500 feet in south California   | North of the project site, outside of the project footprint, the coastal sage scrub habitat has the potential to provide suitable habitat for coastal California gnatcatcher. No suitable habitat occurs onsite.   |
| <i>Rana draytonii</i><br>California red-legged frog                          | Fed:<br>CA:          | FT<br>CSC         | Designated Critical Habitat is located 1.5 miles north of the project site     | Lowlands and foothills in or near permanent sources of deep water with dense shrubby or riparian vegetation  | Riparian/riverine habitat on the project site consists of a fully lined concrete channel with an accumulation of sediment and limited vegetation north of US 101. A restored area with a mixed riparian forest plant community occurs south of US 101. There is a single, perennial low flow channel that flows through the project site but does not provide suitable habitat for California red-legged frog. |
| <i>Vireo bellii pusillus</i><br>least Bell's vireo                           | Fed:<br>CA:          | FE<br>SE          | Designated Critical Habitat is not located near the project site               | Summer resident of southern California in low riparian in vicinity of water or dry river bottoms. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, baccharis, mesquite | The restored riparian area south of US Route 101 provides low quality habitat for LBVI. Since this area was restored and is surrounded by existing development, the probability of LBVI using the vegetation to nest is low. The nearest recorded sighting occurred in 2008 approximately 15 miles northwest of the project site.  |
| <b>Plant Species</b>   |                      |                   |  |  |  |
| <i>Astragalus brauntonii</i><br>Braunton's milk-vetch                        | Fed:<br>CA:<br>CNPS: | FE<br>CSC<br>1B.1 | Designated Critical Habitat is located 3.5 miles northwest of the project site | Closed-cone coniferous forest, chaparral, coastal scrub, valley and foothill grassland   | North of the project site, outside of the project footprint, the coastal sage scrub habitat has the potential to provide suitable habitat for Braunton's milk-vetch. However, no suitable habitat occurs onsite.   |
| <i>Chorizanthe parryi var. fernandina</i><br>San Fernando Valley spineflower | Fed:<br>CA:<br>CNPS: | FCE<br>SE<br>1B.1 | NA   | On sandy soils habitats associated with modelo formation. Seen most often in sparsely vegetated areas where soils are thin, compacted or bedrock is exposed. Also found along                                    | North of the project site, outside of the project footprint, the coastal sage scrub habitat has the potential to provide suitable habitat for San Fernando Valley spineflower. However, no suitable habitat occurs onsite.   |

| Scientific Name<br>Common Name  | Status   |                                | Critical Habitat  | Preferred Habitat   | Potential for Occurrence<br>(Onsite)  |
|---|--|--------------------------------|---|---|---|
|   |  |                                |   | interface between coastal sage scrub and non-native grassland   |   |
| <i>Pentachaeta lyonii</i><br>Lyon’s pentachaeta   | Fed:<br>CA:<br>CNPS:   | <b>FE</b><br><b>SE</b><br>1B.1 | Designated Critical Habitat is located 3 miles west of the project site | Chaparral, valley and foothill grassland. Edges of clearings in chaparral, usually between ecotone between grassland and chaparral or edges of firebreaks | North of the project site, outside of the project footprint, the coastal sage scrub habitat has the potential to provide suitable habitat for Lyon’s pentachaeta. However, no suitable habitat occurs onsite. |
| <b>U.S. Fish and Wildlife Service – Federal (Fed)</b><br>FE- Endangered<br>FT- Threatened<br>FCE- Candidate Endangered<br><br><b>California Department of Fish and Game – State (CA)</b><br>SE- Endangered<br>ST- Threatened<br>CSC- Species of Concern | <b>California Native Plant Society – (CNPS)</b><br><i>California Rare Plant Rank</i><br>1A Plants rare, threatened, or endangered in CA and elsewhere<br>1B Plants rare, threatened, or endangered in CA but more common elsewhere<br>2 Lack information to assign a rank (review list)<br>3 Limited Distribution or infrequent throughout a broader area in California (watch list) |                                |   |   |   |
|   | <i>Threat Ranks</i><br>0.1 Seriously threatened in California<br>0.2 Fairly threatened in California<br>0.3 Not very threatened in California  |                                |   |   |   |

A single day presence/absence survey was conducted on April 18, 2013 for least Bell’s vireo (LBVI) by walking meandering transects in the riparian plant community found in Las Virgenes Creek on the proposed trail connector Project site and within 500-feet of the proposed trail connector Project boundaries (upstream and downstream of the proposed trail connector Project site). Methods used to detect presence included direct observations and audible vocalizations. At 100-foot intervals, the biologist stopped walking and listened to the birds calling/singing in the area, for approximately 5 minutes.

No LBVI were detected during the presence/absence survey. LBVI are currently nesting at various locations throughout southern California and are readily identifiable by vocalization if they occur in an area. Based on the negative results of this presence/absence survey, and lack of recent and historical occurrences of LBVI in the vicinity of the proposed trail connector Project site, it can be presumed that LBVI do not use the riparian vegetation found within the proposed trail connector Project site for nesting.

Remnant swallow nests were identified within the triple box culvert. However, no active bird

usage of the nests were observed over the course of site visits during a one year period.

The riparian habitats on the proposed trail connector Project site and the coastal sage scrub habitat adjacent to the proposed trail connector Project site have the potential to provide refuge cover from predators, perching sites and favorable conditions for avian nesting that could be indirectly impacted by construction activities associated with the proposed trail connector Project. Nesting birds, particularly raptor species, are protected pursuant to the Migratory Bird Treaty Act (MBTA) and CDFW Code. If ground-disturbing activities or removal of any trees, shrubs, or any other potential nesting habitat are scheduled within the avian nesting season (nesting season generally extends from February 1 - August 31), a pre-construction clearance survey for nesting birds should be conducted within 3 days prior to any ground disturbing activities. No bats were identified during multiple site visits. However, as part of the nesting bird clearance survey, a pre-construction clearance survey should be conducted to ensure bats are not roosting within the triple concrete box culvert under US 101.

No special-status plant or wildlife species were observed on the proposed trail connector Project site, and none are anticipated to occur on the proposed trail connector Project site based on the condition of the habitat(s) on and surrounding the proposed trail connector Project area. Therefore, no impacts would occur to any species identified as candidate, sensitive, or special status that have the potential to occur in the area. Federally-designated critical habitat is not present within the proposed trail connector Project boundaries. Therefore, less than significant impacts would occur.

Operations and maintenance of the trail would be conducted by LA County DPR on an as needed basis. It is anticipated that approximately 300 cubic yards of sediment would be removed per maintenance episode (once a year). However, these maintenance events would occur once a year and would occur within the trail alignment. Less than significant impacts would occur.

The riparian habitats on the proposed trail connector Project site and the coastal sage scrub habitat adjacent to the proposed trail connector Project site have the potential to provide refuge cover from predators, perching sites and favorable conditions for avian nesting that could be indirectly impacted by construction activities associated with the proposed trail connector proposed trail connector Project. With the implementation of Mitigation Measure BIO-1, less than significant impacts would occur.

**Mitigation Measure BIO-1: Pre-construction clearance surveys for nesting birds is required if ground disturbing activities or removal of any trees, shrubs, or any other potential nesting habitat are scheduled within avian nesting season (nesting season generally extends from February 1-August 31). Pre-construction clearance surveys shall be conducted within 3 days prior to ground disturbing activities.**

As part of the nesting bird clearance survey, a pre-construction clearance survey shall be conducted to ensure bats are not roosting within the triple concrete box culvert under US 101.

**Mitigation Measure BIO-2:** If an active avian nest is discovered during the pre-construction clearance survey, construction activities will be rerouted, a no-work buffer<sup>1</sup> might have to be established around the nest, and delayed until the young have fledged. A biological monitor will be present to delineate the boundaries of the buffer area, if an active nest is observed, and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the qualified biologist has determined that young birds have successfully fledged, a monitoring report shall be prepared and submitted to the County of Los Angeles for review and approval prior to initiating construction activities within the buffer area. The monitoring report shall summarize the results of the nest monitoring, describe construction restrictions currently in place, and confirm that construction activities can proceed within the buffer area without jeopardizing the survival of the young birds. Construction within the designated buffer area shall not proceed until the written authorization is received by the applicant from CDFW.

b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service? Determination: Less Than Significant Impact with Mitigation Incorporated.*

Obstructions to fish passage in southern California streams has long been a concern to resource agencies and the public. The proposed trail connector Project trail would start along the upper (west) earthen channel bank of the Las Virgenes Creek, at the intersection of Agoura Road and the Las Virgenes Creek. An 8-foot wide soil-cement trail would descend at an 8% grade from the top of the channel towards the culverts under the US 101. The proposed trail connector Project trail would continue north under the US 101 through the western culvert. The trail would continue approximately 400-feet north towards the open concrete channel area. Existing sediment within the west culvert would be removed. Upon exiting the culvert, a 10-foot wide

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<sup>1</sup> The size of the buffer shall be determined by the biologist in consultation with CDFW, and shall be based on the nesting species, its sensitivity to disturbance, and expected types of disturbance. Typically these buffers range from 250 to 500 feet from the nest location.

area by approximately 440-feet in length would be cleared from existing vegetation and sediment. The trail area would run along the west channel wall towards the upstream rip-rap channel bottom. An eight-inch high curb is proposed north of the culvert to divert flows to the middle and eastern most culverts during rain events. Near the rip-rap channel area and beyond the Caltrans right-of-way limit, an 8-foot wide soil-cement trail would run upward along the earthen channel's west bank, at an 8% grade. At approximately 200-feet, the trail would reach the top of the channel bank and onto the SMMC land. The proposed trail connector Project would reduce obstruction to flows by utilizing the existing concrete bottom channel for base surface structure. It would also reduce impacts to vegetation by minimizing the need for construction equipment to be placed in the channel bottom north of US 101. An area of vegetation, approximately 10 feet wide from the western wall of the concrete channel area would be required to be removed with the implementation of the proposed trail connector Project .

The proposed trail connector Project site contains restored mixed riparian forest. Mixed riparian forests are composed of medium sized trees and tall shrubs such as sycamores (*Plantanus racemosa*) and boxelder (*Acer negundo*). The understory contains a greater proportion of smaller shrubs than is present in Valley oak woodlands. Mixed riparian forests may be dominated by tall (>30m) cottonwoods (*Populus fremontii*) and medium sized arroyo willows (*Salix lasiolepis*) and black willows (*Salix gooddingii*). Where there are openings, dense patches of California mugwort (*Artemesia douglasiana*) may form, and aggressive vines such as blackberry (*Rubus ursinus*) and grape (*Vitis vinifera*) can produce huge thickets in the understory. There may be openings where trees and shrubs are almost completely engulfed in grape, or dense walls of blackberry that has climbed up trees and shrubs. Mixed riparian forests include dense, closed canopy forests interspersed with openings, which adds to their complexity and potential resources for wildlife.

South of US 101, Las Virgenes Creek has been restored and planted with a mixed riparian forest plant community. Plant species that were included in the restoration plans include toyon (*Heteromeles arbutifolia*), California sycamore (*Platanus racemosa*), arroyo willow (*Salix lasiolepis*), cottonwood (*Populus fremontii*), California blackberry (*Rubus ursinus*), mugwort (*Artemesia douglasiana*), coyote brush (*Baccharis pilularis ssp. consanguinea*), California wildrose (*Rosa californica*), and other native shrubs.

The trail connector Project proposes to remove some native and non-native vegetation and replace it with native riparian vegetation upstream of the site, similar to what was planted downstream of the proposed trail connector Project by the City of Calabasas. It is anticipated that 0.18 acres of vegetation would be removed within the upstream area and ramp locations. To offset these impacts, as a proposed trail connector Project design feature, impacted riparian vegetation will be mitigated by planting native vegetation upstream of the proposed trail

connector Project (see Exhibit 10, *Mitigation Enhancement Area*). The County of Los Angeles would be responsible for planting the site.

A Jurisdictional Delineation was prepared for the proposed trail connector Project site in February 2013 and updated in December 2013. Las Virgenes Creek is a north to south trending perennial drainage that was determined to support non-wetland waters throughout its entire reach (Jurisdictional Delineation Report, RBF 2013). Las Virgenes Creek is a channelized drainage system with a single low-flow channel that flows through a broader active flood plain. Las Virgenes Creek is tributary to Malibu Creek which flows into the Pacific Ocean, a Traditional Navigable Water (TNW).

North of US 101, the low-flow channel flows along the southern wall of the culvert into the eastern cell of the triple box culvert under US 101. Surface water then traverses the eastern cell and connects into the restored portion of Las Virgenes Creek, south of US 101. The middle cell of the triple box culvert has approximately 2-12 inches of accumulated sediment on the northern half of its reach. The southern half of this cell receives water from overflows out of the low-flow channel which has prevented sediment from accumulating in this half of the cell. The western cell of the triple box culvert has approximately 3-4 feet of sediment accumulation and only receives water during large storm events.

Within the proposed trail connector Project boundaries, Las Virgenes Creek has two distinct reaches that are separated by US 101, where the Creek is channelized in a triple reinforced concrete box culvert. North of US 101, Las Virgenes Creek is contained in an open concrete channel with 15-foot high walls. In this area the channel is approximately 45 feet wide and extends north for 500 feet paralleling US 101. At that point the Creek continues to the north in an earthen bottom channel stabilized with rip-rap banks. South of US 101, Las Virgenes Creek was restored to a natural setting from a previously engineered concrete channel. The restored segment is 400 feet long and extends from the Caltrans right-of-way south of US 101 to Agoura Road.

Impacts are expected to Waters of the United States, and streambed and riparian habitats. Based on the 2013 Jurisdictional Delineation Report (refer to Appendix C), Tables 4.4-2 and 4.4-3 identify each regulatory agency and total jurisdiction onsite. Mitigation Measure BIO-2 would reduce potential impacts to a level of less than significant.

**Table 4.4-2: USACE/RWQCB Jurisdictional Summary**

| On-Site Area<br>acres/linear feet | Impacted Area<br>acres/linear feet |
|-----------------------------------|------------------------------------|
| 1.4 (1,500)                       | 0.18 (1,000)                       |

**Table 4.4-3: CDFW Jurisdictional Summary**

| On-Site Area (acres)     |                                | Impacted Area (acres) |                        |                                |
|--------------------------|--------------------------------|-----------------------|------------------------|--------------------------------|
| Jurisdictional Streambed | Associated Riparian Vegetation | Vegetated Streambed   | Un-Vegetated Streambed | Associated Riparian Vegetation |
| 1.8                      | 2.3                            | 0.11                  | 0.07                   | 0.08                           |

Implementation of Mitigation Measure BIO-3 would require the proposed trail connector Project applicant to acquire regulatory approvals prior to proposed trail connector Project construction and would reduce impacts to a level of less than significant.

**Mitigation Measure BIO-3: The Project Applicant is required to obtain the following regulatory approvals prior to commencement of any maintenance activities within the identified jurisdictional areas: United States Army Corps of Engineers (USACE) Clean Water Act Section 404 Permit; Regional Water Quality Control Board (RWQCB) Clean Water Act Section 401 Water Quality Certification; and CDFW Section 1602 Streambed Alteration Agreement.**

c) *Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? **Determination: Less Than Significant Impact with Mitigation.***

Refer to Response 4.4 (b), above. With implementation of Mitigation Measure BIO-3, less than significant impacts would occur.

d) *Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? **Determination: Less Than Significant Impact.***

An important linkage of this area is a small tributary of Las Virgenes Creek south of the proposed trail connector Project site named Liberty Canyon (west of the proposed trail connector Project site). The underpass of US 101 at Liberty Canyon Road along the drainage conveys relatively less vehicular traffic than other freeway crossings within several miles, and is one of the few active wildlife passage areas along the entire extent of US 101 through the Santa



Monica Mountains. All other watercourse and street crossings of the US 101 are constrained and many are impassible for wildlife.

The Las Virgenes Creek once provided refuge and a safe passage for wildlife to travel between the Ventura County Open Space and the Malibu Creek State Park. In 1977, approximately 440 linear feet of Las Virgenes Creek between US101 and the Agoura Road Bridge was lined with concrete, severely disrupting the wildlife corridor and removing all viable riparian habitats from this natural creek segment. Cemented-in flood channels have zero habitat value, no water cleansing and generate thermal pollution. The concrete channel removed vegetation, disturbed the creek's natural meander through the landscape, and constrained wildlife movement.

In 2007, a restoration plan was implemented by the City of Calabasas that restored a direct connection between the two existing riparian communities to the north and south of the concreted segment (south of US 101). The Las Virgenes Creek Restoration Project began in 2007 and included the removal of more than 3,600 square yards of concrete from the walls and floor of the channel. The proposed trail connector Project included planting of native materials once the concrete was removed. The restoration was anticipated to provide better cover for local wildlife and promote increased movement of wildlife and aquatic wildlife up and down the stream course. However, the triple box culvert under US 101 may receive infrequent use by wildlife due to its constrained nature. Operations and maintenance of the proposed trail connector Project is not anticipated to impact movement of wildlife, as maintenance would occur within the trail alignment and would occur infrequently (once a year). Implementation of the proposed trail connector Project is not anticipated to further inhibit wildlife movement. Less than significant impacts would occur.

*e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance? **Determination: No Impact.***

The proposed trail connector Project does not conflict with existing policies or ordinances protecting biological resources. Therefore, no impact would occur.

*f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? **Determination: Less Than Significant Impact.***

The proposed trail connector Project does not conflict with existing plans and policies protecting biological resources. Rather, the proposed trail connector Project would be constructed in accordance with the Las Virgenes Gateway Master Plan, the Malibu Creek Watershed Management Area Plan, and the Las Virgenes, McCoy and Dry Canyon Creeks Master Plan for Restoration. Therefore, no impact to adopted habitat conservation plans would occur.

### 4.5 CULTURAL RESOURCES

|  | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact        | No Impact                |
|--|--------------------------------|---|-------------------------------------|--------------------------|
| <b>CULTURAL RESOURCES -- Would the project:</b>  |                                |   |                                     |                          |
| a) Cause a substantial adverse change in the significance of a historical resource as defined in 15064.5?    | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5? | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?      | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d) Disturb any human remains, including those interred outside of formal cemeteries?                         | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**Would the Project:**

- a) Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines § 15064.5? **Determination: Less Than Significant Impact.**

Historic resources generally consist of buildings, structures, improvements, and remnants associated with a significant historic event or person(s) and/or have a historically significant style, design, or achievement. Damage to or demolition of such resources is typically considered to be a significant impact. Impacts to historic resources can occur through direct impacts, such as destruction or removal, and through indirect impacts, such as a change in the setting of a historic resource. The proposed trail connector Project site is located within a highly urbanized area of the City of Calabasas. According to the City of Calabasas General Plan EIR, the proposed trail connector Project site is not located in a culturally sensitive area or area of known historic resources (records search and survey conducted by Historical Environmental Archaeological Research Team, September 2007). Due to the fact that the proposed trail connector Project site is located within a channelized stream that has undergone significant geomorphic changes, it is unlikely that historic resources are present at the site. Therefore, less than significant impacts would occur.

- b) *Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines § 15064.5? **Determination: Less Than Significant Impact.***

Archaeological sites are locations that contain resources associated with former human activities, and may contain such resources as human skeletal remains, waste from tool manufacture, tool concentrations, and/or discoloration or accumulation of soil or food remains. The proposed trail connector Project site is located within a highly urbanized area of the City of Calabasas. According to the City of Calabasas General Plan EIR, the proposed trail connector Project site is not located in a culturally sensitive area or area of known archaeological resources (records search and survey conducted by Historical Environmental Archaeological Research Team, September 2007). Due to the fact that the proposed trail connector Project site is located within a channelized stream that has undergone significant geomorphic changes, it is unlikely that archaeological resources are present at the site. Therefore, less than significant impacts would occur.

- c) *Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? **Determination: Less Than Significant Impact.***

Paleontological resources are the preserved fossilized remains of plants and animals. Fossils and traces of fossils are preserved in sedimentary rock units, particularly fine- to medium-grained marine, lake, and stream deposits, such as limestone, siltstone, sandstone, or shale, and in ancient soils (paleosols). They are also found in coarse-grained sediments, such as conglomerates or coarse alluvium sediments. Fossils are rarely preserved in igneous or metamorphic rock units. Fossils may occur throughout a sedimentary unit and, in fact, are more likely to be preserved subsurface, where they have not been damaged or destroyed by previous ground disturbance, amateur collecting, or natural causes such as erosion. In contrast, archaeological and historic resources are often recognized by surface evidence of their presence. Surficial soils upslope of the channel consist of fill and colluvium. The fill at the site likely resulted from construction of the freeway and culvert. It is anticipated that the fill was locally derived. The colluvium at the site is the weathering product of the local bedrock. According to the City of Calabasas General Plan EIR, the proposed trail connector Project site is not located in a culturally sensitive area or area of known paleontological resources (records search and survey conducted by Historical Environmental Archaeological Research Team, September 2007). Due to the fact that the proposed trail connector Project site is located within a channelized stream that has undergone significant geomorphic changes, it is unlikely that paleontological resources are present at the site. Therefore, less than significant impacts would occur.

- d) *Disturb any human remains, including those interred outside of formal cemeteries? **Determination: Less Than Significant Impact.***

There are no known human remains within the vicinity of the proposed trail connector Project

site. Ground-disturbing activities, such as grading or excavation, have the potential to disturb human remains. If human remains are found, those remains would require proper treatment, in accordance with applicable laws. The Native American Graves Protection and Repatriation Act (NAGPRA) includes provisions for unclaimed and culturally unidentifiable Native American cultural items, intentional and inadvertent discovery of Native American cultural items on federal and tribal lands, and penalties for noncompliance and illegal trafficking. State of California Public Resources Health and Safety Code Section 7050.5-7055 describes the general provisions regarding human remains, including the requirements if any human remains are accidentally discovered during excavation of a site. As required by state law, the requirements and procedures set forth in Section 5097.98 of the California Public Resources Code would be implemented, including notification of the County Coroner, notification of the Native American Heritage Commission and consultation with the individual identified by the Native American Heritage Commission to be the “most likely descendant.” If human remains are found during excavation, excavation must stop in the vicinity of the find and any area that is reasonably suspected to overlie adjacent remains until the County Coroner has been called out, and the remains have been investigated and appropriate recommendations have been made for the treatment and disposition of the remains. Following compliance with federal and state regulations, which detail the appropriate actions necessary in the event human remains are encountered, impacts in this regard, would be considered less than significant.

**4.6 GEOLOGY AND SOILS**

|  | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact        | No Impact                |
|--|--------------------------------|---|-------------------------------------|--------------------------|
| <b>GEOLOGY AND SOILS -- Would the project:</b>   |                                |   |                                     |                          |
| a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:   |                                |   |                                     |                          |
| i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**4.6 GEOLOGY AND SOILS**

|  | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact        | No Impact                           |
|--|--------------------------------|---|-------------------------------------|-------------------------------------|
| 42.  |                                |   |                                     |                                     |
| ii) Strong seismic ground shaking?   | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| iii) Seismic-related ground failure, including liquefaction?   | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| iv) Landslides?  | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b) Result in substantial soil erosion or the loss of topsoil?  | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (2004), creating substantial risks to life or property?   | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?   | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

***Would the Project:***

- a) *Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:*

- i) *Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42. **Determination: Less Than Significant Impact.***

No known active or potentially active faults have been mapped within the proposed trail connector Project area and the area is not located in a Fault Rupture Hazard Zone as established by the Alquist-Priolo Earthquake Fault Zoning Act. Less than significant impacts would occur.

- ii) *Strong seismic ground shaking? **Determination: Less Than Significant Impact.***

The proposed trail connector Project site is located in a seismically active region of Southern California. Seismic shaking activity and intensity is dependent on the distance of the fault and earthquake epicenter. Active faults within the proposed trail connector Project vicinity are as follows:

**Table 4.6-1: Active Faults within Project Vicinity**

| Fault              | Approx. Distance (miles) | Direction from Project Site | Last Displacement |
|--------------------|--------------------------|-----------------------------|-------------------|
| Malibu Coast       | 1                        | South                       | Holocene          |
| Cayetano           | 3.5                      | North                       | Holocene          |
| San Fernando       | 3.5                      | Northeast                   | Historic          |
| Hollywood Fault    | 4                        | Southeast                   | Holocene          |
| San Gabriel        | 4.5                      | North                       | Holocene          |
| Newport Ingallwood | 4.5                      | Southeast                   | Holocene          |
| San Andreas        | 8                        | Northeast                   | Historic          |

To minimize potential damage to the proposed structures caused by groundshaking, all construction would comply with the latest California Building Code standards, as required by the City Municipal Code 9.04.030. Implementation of the California Building Code standards, which include provisions for seismic building designs, would ensure that impacts associated with groundshaking would be less than significant.

- iii) *Seismic-related ground failure, including liquefaction? **Determination: Less Than Significant Impact.***

Liquefaction is a phenomenon in which loose, saturated, relatively cohesion-less soil deposits lose shear strength during strong ground motions. Factors controlling liquefaction:

1. Seismic groundshaking of relatively loose, granular soils that are saturated or submerged can cause soils to liquefy and temporarily behave as a dense fluid. For liquefaction to occur, the following conditions have to occur: Intense seismic shaking;
2. Presence of loose granular soils prone to liquefaction; and
3. Saturation of soils due to shallow groundwater.

Surficial soils upslope of the channel consist of fill and colluvium. The fill at the site likely resulted from construction of the freeway and culvert. It is anticipated that the fill was locally derived. The colluvium at the site is the weathering product of the local bedrock.

The alluvial portion of the site, within the creek channel is within State and County Hazard Zones for Liquefaction. To minimize potential damage to the proposed structures caused by liquefaction, all construction would comply with the latest California Building Code standards, as required by the City Municipal Code 9.04.030. Implementation of the California Building Code standards, which include provisions for seismic building designs, would ensure that impacts associated with liquefaction would be less than significant.

*iv) Landslides? Determination: Less than Significant.*

The site is considered to have moderate potential for landslides or debris flows that originate from the hills northwest of the site. To minimize potential damage to the proposed structures caused by landslides, all construction would comply with the latest California Building Code standards, as required by the City Municipal Code 9.04.030. Implementation of the California Building Code standards, which include provisions for building designs, would ensure that impacts associated with landslides would be less than significant.

*b) Result in substantial soil erosion or the loss of topsoil? Determination: Less Than Significant Impact.*

Soil erosion is defined as the detachment and movement of soil particles by the erosive forces of wind or water. While the project proposes to remove sediment and some native and non-native plants, it would require with native riparian planting downstream of the Project and would mitigate potential for long-term erosion and soil loss. Therefore, less than significant impacts would occur.

- c) *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? **Determination: Less Than Significant Impact.***

Refer to Responses 4.6(a)(ii) through 4.6(a)(iv). Less than significant impacts would occur.

- d) *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (2004), creating substantial risks to life or property? **Determination: Less than Significant Impact.***

Expansive soils are those that undergo volume changes as moisture content fluctuates; swelling substantially when wet or shrinking when dry. Soil expansion can damage structures by cracking foundations, causing settlement and distorting structural elements. The project site is not located on a geologic unit or soils that are unstable or that could become unstable as part of the proposed trail connector Project. Therefore, less than significant impacts would occur.

- e) *Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? **Determination: No Impact.***

The proposed trail connector Project does not include the use of septic tanks or alternative wastewater disposal systems. The need for wastewater disposal would not be required. Therefore, no impacts would occur in this regard.

#### 4.7 GREENHOUSE GAS EMISSIONS

|  | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact        | No Impact                |
|--|--------------------------------|---|-------------------------------------|--------------------------|
| <b>GREENHOUSE GAS EMISSIONS -</b>  |                                |   |                                     |                          |
| Would the project:   |                                |   |                                     |                          |
| a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?      | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |



***Would the Project:***

- a) *Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment? **Determination: Less Than Significant Impact***

The analysis below includes a worst case scenario analysis for greenhouse gas emissions impacts associated with more impactful alternatives. Because of a reduction in construction equipment and construction duration for the Project fewer impacts would result than identified below. Therefore, the following analysis includes a conservative analysis of greenhouse gas emissions impacts.

The SCAB is currently in non-attainment for ozone and particulate matter. The 2012 AQMP states that “the overall control strategy for this Final Plan is designed to meet applicable federal and state requirements, including attainment of ambient air quality standards. The focus of the Plan is to demonstrate attainment of the federal PM<sub>2.5</sub> ambient air quality standard by 2015 and the federal 8-hour ozone standard by 2024, while making expeditious progress toward attainment of state standards. The proposed strategy, however, does not attain the previous federal 1-hour ozone standard by 2010 as previously required prior to the recent change in federal regulations.”

As previously stated, the proposed trail connector Project would create minor air quality impacts during construction, operations and maintenance. It is not anticipated that, even during construction, significant generation of greenhouse gases would occur. Implementation of Best Management Practices AIR-1, above, would reduce potential impacts to a level of less than significant.

- b) *Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases? **Determination: Less Than Significant Impact.***

California Governor Arnold Schwarzenegger issued Executive Order S-3-05 in June 2005, which established the following greenhouse gas emission reduction targets:

- 2010: Reduce greenhouse gas emissions to 2000 levels;
- 2020: Reduce greenhouse gas emissions to 1990 levels; and
- 2050: Reduce greenhouse gas emissions to 80 percent below 1990 levels.

Assembly Bill (AB) 32 requires that the California Air Resources Board (CARB) determine what the statewide greenhouse gas emissions level was in 1990, and approve a statewide greenhouse gas emissions limit that is equivalent to that level, to be achieved by 2020. CARB has approved a 2020 emissions limit of 427 metric tons of CO<sub>2</sub> equivalent.

Section 4.3 of this document identifies the emissions thresholds and construction equipment anticipated to be used during construction. As identified in Section 4.3, the proposed trail connector Project would create short term construction and periodic operations and maintenance related air quality impacts. However, these impacts would be below SCAQMD thresholds. Additionally, Best Management Practices GHG-1 would further reduce potential impacts.

**Best Management Practices GHG-1: Prior to issuance of any Grading Permit, the County Engineer and the Building Official shall confirm that the Grading Plan, Building Plans, and specifications stipulate that the following basic construction best management measures shall be implemented:**

- All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered three times per day.
- All haul trucks transporting soil, sand, or other loose material off-site shall be covered.
- All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
- All vehicle speeds on unpaved roads shall be limited to 15 mph.
- All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible.
- Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations [CCR]). Clear signage shall be provided for construction workers at all access points.
- All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.
- Post a publicly visible sign with the telephone number and person to contact at the County regarding dust complaints.

**This person shall respond and take corrective action within 48 hours. The SCAQMD’s phone number shall also be visible to ensure compliance with applicable regulations.**

Due to the nature of global climate change, it is not anticipated that any single –project would have a substantial effect on global climate change. It is difficult to deem a single development as individually responsible for a global temperature increase. In actuality, greenhouse gas emissions from a proposed trail connector Project would combine with emissions emitted across California, the U.S, and the world to cumulatively contribute to global climate change. The proposed trail connector Project would include the development and dedication of a multi-use trail within an existing channel. Construction operations and maintenance related air quality impacts are anticipated to be minimal and short in duration. No long term air quality impacts are anticipated to occur. Therefore, it is not anticipated that a cumulative impact would occur that would conflict with applicable greenhouse gas plans, policies, and/or regulations. Less than significant impacts would occur.

**4.8 HAZARDS AND HAZARDOUS MATERIALS**

|   | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact        | No Impact                           |
|---|--------------------------------|---|-------------------------------------|-------------------------------------|
| <b>HAZARDS AND HAZARDOUS MATERIALS - Would the project:</b>   |                                |   |                                     |                                     |
| a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?   | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?                                 | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

#### 4.8 HAZARDS AND HAZARDOUS MATERIALS

|  | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact        | No Impact                           |
|--|--------------------------------|---|-------------------------------------|-------------------------------------|
| d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?                                   | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?  | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?  | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?   | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

***Would the project:***

- a) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? **Determination: Less Than Significant Impact.***

The proposed trail connector Project does not include the construction of a use that would routinely transport, use or dispose of hazardous materials. No releases of hazardous materials or substances are expected to occur as a result of proposed trail connector Project implementation. Therefore, less than significant impacts would occur.

- b) *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? **Determination: Less Than Significant Impact.***

Refer to Response 4.8 (a). Less than significant impacts would occur.

- c) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? **Determination: No Impact.***

The proposed trail connector Project site is not located within one-quarter mile of an existing or proposed school. No impacts would occur.

- d) *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? **Determination: No Impact.***

According to the City of Calabasas, the proposed trail connector Project site is not listed as a hazardous materials site. No impacts would occur.

- e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area? **Determination: No Impact.***

The project site is not located within an airport land use area, or within two miles of a public use airport. No impacts would occur.

- f) *For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area? **Determination: No Impact.***

The proposed trail connector Project site is not located within the vicinity of a private airstrip. No impacts would occur.

g) *Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? **Determination: No Impact.***

Development of the proposed trail connector Project would occur within an existing channel, and would not interfere with an emergency response plan or evacuation plan. No impacts would occur.

h) *Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? **Determination: Less than Significant Impact.***

The proposed trail connector Project site is located adjacent to the Santa Monica Mountains Conservancy property, which consists of open space and natural vegetation that is susceptible to wildland fires. The City of Calabasas General Plan Consistency Review Program includes Fire Management Performance Standards for all new development in the area. The proposed trail connector Project would be required to adhere to these standards, which would reduce potential impacts to a level of less than significant.

#### 4.9 HYDROLOGY AND WATER QUALITY

|   | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact        | No Impact                |
|---|--------------------------------|---|-------------------------------------|--------------------------|
| <b>HYDROLOGY AND WATER QUALITY</b>  |                                |   |                                     |                          |
| -- Would the project:   |                                |   |                                     |                          |
| a) Violate any water quality standards or waste discharge requirements?   | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c) Substantially alter the existing   | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

### 4.9 HYDROLOGY AND WATER QUALITY

|   | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact        | No Impact                           |
|---|--------------------------------|---|-------------------------------------|-------------------------------------|
| drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?  |                                |   |                                     |                                     |
| d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?   | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| f) Otherwise substantially degrade water quality?   | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?  | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?   | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?  | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

### 4.9 HYDROLOGY AND WATER QUALITY

|   | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact        | No Impact                |
|---|--------------------------------|---|-------------------------------------|--------------------------|
| j) Inundation by seiche, tsunami, or mudflow? | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**Would the Project:**

a) *Violate any water quality standards or waste discharge requirements? Determination: Less Than Significant Impact.*

Minor impacts to water quality may occur from equestrian waste in this portion of the trail. Although equestrian waste is organic and biodegradable, many of its biological and chemical properties (such as sediment, phosphorus, and bacteria) can adversely impact water quality. Waste deposits from horses would occur infrequently and would be dispersed throughout the trail and not in one concentrated area. The proposed trail connector Project site is currently being used informally for equestrian purposes. Because equestrian waste is relatively dry at excretion, nutrients tend to dissipate rather quickly into the atmosphere. However, LA County DPR will clean up equestrian waste as part of the routine maintenance. The impacts of increased equestrian waste will occur when the regional trails are implemented. These impacts will be addressed in detail at the time of these designs. Minimal impacts from the proposed trail connector Project are anticipated.

Water quality impacts from short-term construction operations could consist of the discharge of pollutants such as sediment from grading operations, oil and grease from equipment, trash from worker and construction activities, heavy metals, pathogens, and other substances. Discharge of these pollutants into waters of the U.S. is regulated by the State Water Resources Control Board (SWRCB). Due to the nature of the proposed facilities, minimal long term operational impacts are anticipated.

The SWRCB has adopted General Permit No. CAS000002- *Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction Activity* (General Permit) for California that applies to most construction-related storm water discharges within California. The proposed trail connector Project is anticipated to disturb approximately 0.19 acres. The General Permit requires that project’s disturbing greater than one acre develop and implement a Storm Water Pollution Prevention Plan (SWPPP) that specifies Best Management Practices (BMPs) to prevent all construction pollutants from contacting storm water and with the intent of keeping all products of erosion from moving offsite into receiving waters. Should the area disturbed be increased during detailed design, the proposed trail connector Project would be



subject to the provisions of the General Permit, and would be required to submit a SWPPP to the SWRCB. Therefore, short-term construction operations would have a less than significant impact on water quality standards or discharge requirements.

Operations and maintenance of the trail would be conducted by LA County DPR on an as needed basis. It is anticipated that approximately 300 cubic yards of sediment would be removed per maintenance episode (once a year). However, these maintenance events would occur once a year and would occur within the trail alignment. Less than significant impacts would occur.

b) *Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?* **Determination: Less Than Significant Impact.**

The proposed trail connector Project does not require additional water supplies that could potentially deplete existing groundwater supply. Less than significant impacts would occur.

c) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site?* **Determination: Less Than Significant Impact.**

The proposed trail connector Project would not result in an increase in erosion or siltation on or offsite. Erosion control measures as described in the SWPPP would reduce potential impacts during construction of the proposed trail connector Project. Implementation of Best Management Practices HYD-1 and HYD-2 would further reduce impacts to less than significant.

**Best Management Practices HYD-1: The Los Angeles RWQCB would require that, prior to construction, a project SWPPP be prepared that identifies BMPs to reduce erosion of disturbed soils during construction activities. The plan would describe measures that would be used to minimize wind and water erosion and the transport of sediments during construction. The SWPPP would be subject to approval by the RWQCB, pursuant to the States NPDES Construction Permit requirements and Section 401 of the Clean Water Act. The plan would be prepared and approved before construction activities begin. At a minimum, the plan shall include the following measures:**

- **Temporary measures such as flow diversion, temporary ditches, and silt fencing.**
- **Surface disturbance of soil and vegetation would be kept to a minimum; existing access and maintenance roads would be used wherever feasible.**
- **Any stockpiled soil would be placed and sloped so that it would not be subject to accelerated erosion.**
- **Discharge of all project-related materials and fluids into the creek would be avoided to the extent possible by using hay bales or silt fences, constructing berms or barriers around construction materials, or installing geofabric in the area of disturbance.**
- **After ground-disturbing activities are complete, all graded or disturbed areas would be covered with protective material such as mulch, or re-seeded with native plant species. The plan would include details regarding seeding material, fertilizer, and mulching.**

**Best Management Practices HYD-2: Limit in-channel construction activities to low precipitation periods. Channel banks and bottom shall be dewatered during the construction period.**

d) *Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on or off-site? **Determination: Less Than Significant Impact.***

Refer to Response 4.9(c). Less than significant impacts would occur with implementation of Best Management Practices HYD-1 and HYD-2.

e) *Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff? **Determination: Less than Significant Impact.***

A Hydrology and Hydraulics Evaluation Report was prepared for the proposed trail connector Project. The hydraulics of Las Virgenes Creek at the design flow rate are controlled by the size of the culvert. The currently proposed trail connector Project will improve flow conditions by removing sediment and vegetation on the western side of the channel and culvert that are influencing flows in the channel. However, if channel maintenance was modeled by removing sediment and vegetation, and used as the existing condition, the channel would be smoother and have more flow capacity.. Drains into the proposed trail connector Project downstream of the culvert would see no changes at the design flow levels. A less than significant impact would occur.

f) *Otherwise substantially degrade water quality? **Determination: Less Than Significant . Best Management Practices***

Refer to Responses 4.9 (a through e) above.

g) *Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map? **Determination: No Impact.***

The proposed trail connector Project does not include the construction of housing. Therefore, no impacts would occur in this regard.

h) *Place within a 100-year flood hazard area structures which would impede or redirect flood flows? **Determination: Less Than Significant Impact.***

The purpose of the existing channel is to direct flows. An eight-inch curb is proposed north of the culvert to divert flows to the middle and eastern culverts during rain events. This design does not include significant alterations to the design of the channel or the ability to convey a 100-year flood. Less than significant impacts would occur.

i) *Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? **Determination: Less Than Significant Impact.***

The proposed trail connector Project includes the dedication of a trail in an existing channel and would not expose people or structures to a significant risk of flooding. Signage will be included to warn trail users not to utilize the trail during rainy conditions. Less than significant impacts would occur.

j) *Inundation by seiche, tsunami, or mudflow? **Determination: Less Than Significant Impact***

Refer to Response 4.9 (i). Less than significant impacts would occur.

**4.10 LAND USE AND RELEVANT PLANNING**

|   | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact        | No Impact                           |
|---|--------------------------------|---|-------------------------------------|-------------------------------------|
| <b>LAND USE AND PLANNING - Would the project:</b>   |                                |   |                                     |                                     |
| a) Physically divide an established community?  | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| c) Conflict with any applicable habitat conservation plan or natural community conservation plan?   | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

**Would the Project:**

a) *Physically divide an established community? Determination: No Impact.*

An example of a proposed trail connector Project that has the potential to divide an established community includes the construction of a new freeway or highway through an established neighborhood. Numerous land uses exist within the proposed trail connector Project area, primarily commercial, office, and open space. The proposed trail connector Project would include the development and dedication of a trail within an existing creek channel, and would not divide an established community. Therefore, no impacts would occur in this regard.

b) *Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? Determination: No Impact.*

The proposed trail connector Project site is designated as Open Space in the City of Calabasas General Plan Land Use Map. Should the proposed trail connector Project be implemented, the site would remain open space and would not conflict with the current land use designation. Therefore, no impact would occur.

c) *Conflict with any applicable habitat conservation plan or natural community conservation plan?*  
**Determination: Less Than Significant Impact.**

Refer to Response 4.4 (f) above. Less than significant impacts would occur.

**4.11 MINERAL RESOURCES**

|   | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact                           |
|---|--------------------------------|---|------------------------------|-------------------------------------|
| MINERAL RESOURCES -- Would the project:   |                                |   |                              |                                     |
| a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?                                | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |

**Would the Project:**

a) *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?* **Determination: No Impact.**

The proposed trail connector Project site does not contain known mineral resources and is not designated as aggregate in the City of Calabasas General Plan Land Use Map. Therefore, no impacts would occur.

b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan? **Determination: No Impact.**

Refer to Response 4.11 (a), above. No impacts are anticipated.

**4.12 NOISE**

|   | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact                           |
|---|--------------------------------|---|------------------------------|-------------------------------------|
| NOISE – Would the project result in:  |                                |   |                              |                                     |
| a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?   | <input type="checkbox"/>       | <input checked="" type="checkbox"/>                 | <input type="checkbox"/>     | <input type="checkbox"/>            |
| b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?   | <input type="checkbox"/>       | <input checked="" type="checkbox"/>                 | <input type="checkbox"/>     | <input type="checkbox"/>            |
| c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?  | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?  | <input type="checkbox"/>       | <input checked="" type="checkbox"/>                 | <input type="checkbox"/>     | <input type="checkbox"/>            |
| e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |

**4.12 NOISE**

|  | Potentially<br>Significant<br>Impact | Less Than<br>Significant<br>with<br>Mitigation<br>Incorporation | Less Than<br>Significant<br>Impact | No<br>Impact                        |
|--|--------------------------------------|---|------------------------------------|-------------------------------------|
| f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/>             | <input type="checkbox"/>  | <input type="checkbox"/>           | <input checked="" type="checkbox"/> |

**Would the Project result in:**

- a) *Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? **Determination: Less Than Significant With Mitigation Incorporated.***

The analysis below includes a worst case scenario analysis for noise impacts associated with more impactful alternatives. Because of a reduction in construction equipment and construction duration for the project, fewer impacts would result than identified below. Therefore, the following analysis includes a conservative analysis of noise impacts.

The proposed trail connector Project would result in temporary construction, as well as periodic operations and maintenance noise. Table 4.12-1, *Noise Receptors* identifies receptors to potential proposed trail connector Project noise impacts.

**Table 4.12-1 Noise Receptors**

| Receptor   | Direction from<br>Project Site | Distance from<br>Project<br>(in feet) | Estimated<br>Construction Noise<br>Level (Leq dBA) |
|------------|--------------------------------|---------------------------------------|--|
| Commercial | South                          | 175                                   | 77.7   |
| Commercial | East                           | 80                                    | 84.5   |
| Commercial | West                           | 130                                   | 80.3   |

Sections 17.20.160 (D) and (E) of the City of Calabasas Municipal Code establish standards for acceptable exterior and interior noise levels. These standards are intended to protect persons from excessive noise levels, which are detrimental to the public health, welfare and safety since they have the potential to: (i) interfere with sleep, communication, relaxation and the full enjoyment of property; (ii) contribute to hearing impairment and a wide range of adverse physiological stress conditions; and (iii) adversely affect the value of real property. It is the intent of the establishment of noise standards to protect persons from excessive noise levels within or near various residential developments and other specified noise-sensitive land uses.

Exceptions to the noise standards of Section 17.20.160 (D) are not applicable to noise from the following sources, and therefore, the proposed trail connector Project:

- Activities conducted in public parks, public playgrounds and public or private school grounds, including school athletic and entertainment events;
- Noise sources associated with construction, including the idling of construction vehicles, provided such activities do not take place before seven a.m. or after six p.m. on any day except Saturday in which no construction is allowed before eight a.m. or after five p.m.
- No construction is allowed on Sunday's or federal holidays. These requirements may be modified by a conditional use permit.
- Noise sources associated with work performed by private or public utilities in the maintenance or modification of their facilities;

Proposed trail connector Project construction is expected to last approximately 3-6 months. Temporary increases in local noise would result from construction activities involving heavy machinery. Ground-borne noise and other types of construction-related noise impacts would typically occur during the initial site preparation, which can create the highest levels of noise but is also generally the shortest of all construction phases. High ground-borne noise levels and other miscellaneous noise levels can be created by the operation of heavy-duty trucks, backhoes, bulldozers, excavators, front-end loaders, compactors, scrapers, and other heavy-duty construction equipment. Operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). Construction related noise could be noticeable to those uses adjacent to the site (commercial and office uses). As stated above, the proposed trail connector Project is exempt to City of Calabasas established noise standards. However, implementation of Mitigation Measure NOI-1 would reduce potential impacts.

**Mitigation Measure NOI-1:**

**Prior to the issuance of grading permits, feasible noise control measures shall be implemented to reduce daytime construction noise levels. Such control measures**



could include any of the following, as appropriate:

- To the extent possible, all mechanical equipment shall be oriented away from the nearest noise sensitive receptors; and
- All mechanical equipment shall be screened and enclosed to minimize noise.
- Construction contracts shall specify that all construction equipment, fixed or mobile, shall be equipped with properly operating and maintained mufflers and other state required noise attenuation devices;
- Construction noise reduction methods such as shutting off idling equipment, installing temporary acoustic barriers around stationary construction noise sources, maximizing the distance between construction equipment staging areas and occupied residential areas, and use of electric air compressors and similar power tools, rather than diesel equipment, shall be used where feasible; and
- During construction, stationary construction equipment shall be placed such that emitted noise is directed away from sensitive noise receivers.
- Operation of equipment requiring use of back-up beepers shall be avoided near sensitive receptors to the extent feasible during nighttime hours (10:00 PM to 7:00 AM);
- If impact equipment (e.g., jack hammers, pavement breakers, and rock drills) is used during construction, hydraulically or electric-powered equipment shall be used wherever feasible to avoid the noise associated with compressed-air exhaust from pneumatically powered tools. However, where use of pneumatically powered tools is unavoidable, an exhaust muffler on the compressed-air exhaust shall be used (a muffler can lower noise levels from the exhaust by up to about 10 dBA);

Operations and maintenance of the trail would be conducted by LA County DPR on an as-needed basis. It is anticipated that 300 cubic yards of sediment would be removed per maintenance episode (once a year). However, these maintenance events would occur once a year and would occur within the trail alignment, and therefore, would not create a significant source of noise. Less than significant impacts would occur.

- b) *Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?* **Determination: Less Than Significant with Mitigation Incorporated.**

Refer to Response 4.12 (a), above. Similar to temporary noise impacts, groundborne vibration would occur during the grading and construction, and would expose adjacent uses to increased noise/vibration levels. With the implementation of Mitigation Measure NOI-1 would reduce potential impacts to a level of less than significant.

- c) *A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?* **Determination: No Impact.**

The proposed trail connector Project would include the development of a multi-use trail and would not create a substantial permanent increase in ambient noise levels in the proposed trail connector Project vicinity. No impacts would occur.

- d) *A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?* **Determination: Less Than Significant with Mitigation Incorporated.**

Refer to Response 4.12 (a), above. Less than significant impacts would occur with the implementation of Measure NOI-1 listed above.

- e) *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?* **Determination: No Impact.**

As previously stated, the proposed trail connector Project site is not located within an airport land use plan or near a public airport. No impacts would occur.

- f) *For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?* **Determination: No Impact.**

The proposed trail connector Project site is not located within the vicinity of a private airstrip. No impacts would occur in this regard.

### 4.13 POPULATION AND HOUSING

|   | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact                           |
|---|--------------------------------|---|------------------------------|-------------------------------------|
| <b>POPULATION AND HOUSING --</b>  |                                |   |                              |                                     |
| Would the project:  |                                |   |                              |                                     |
| a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?   | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |
| c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?   | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |

**Would the Project:**

- a) *Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*  
**Determination: Less than Significant Impact.**

The proposed trail connector Project would not result in the development of new homes or businesses, and would not extend infrastructure that would attract large populations of people. Therefore, no impact would occur.

- b) *Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?* **Determination: No Impact.**

No homes are located within the proposed trail connector Project footprint. Therefore, no housing would be displaced. No impacts would occur.

c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? **Determination: No Impact.**

Refer to Response 4.13 (b), above. No impacts would occur in this regard.

### 4.14 PUBLIC SERVICES

|   | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact        | No Impact                           |
|---|--------------------------------|---|-------------------------------------|-------------------------------------|
| <b>PUBLIC SERVICES</b>  |                                |   |                                     |                                     |
| a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: |                                |   |                                     |                                     |
| Fire protection?  | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Police protection?  | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| Schools?  | <input type="checkbox"/>       | <input type="checkbox"/>                            |                                     | <input checked="" type="checkbox"/> |
| Parks?  | <input type="checkbox"/>       | <input type="checkbox"/>                            |                                     | <input checked="" type="checkbox"/> |
| Other public facilities?  | <input type="checkbox"/>       | <input type="checkbox"/>                            |                                     | <input checked="" type="checkbox"/> |

a) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*

1) *Fire protection? **Determination: Less Than Significant Impact.***

The proposed trail connector Project is located within an existing channel and would not affect response times or service ratios. The trail access could potentially have a positive impact on response times and increased access into the channel and adjacent areas by creating additional access for public services. This could be particularly important in the event of a spill or fire or other calamity caused by vehicles on the US 101 freeway. Additionally, the implementation of the proposed trail connector Project would not alter or increase the demand for fire protection services. Less than significant impacts would occur.

2) *Police protection? **Determination: Less Than Significant Impact.***

The proposed trail connector Project is located within an existing channel and would not affect response times or service ratios. The trail access could potentially have a positive impact on response times and increased access into the channel and adjacent areas by creating additional access for public services. This could be particularly important in the event of a spill or fire or other calamity caused by vehicles on the US 101 freeway. Additionally, the implementation of the proposed trail connector Project would not alter or increase the demand for police protection services. Less than significant impacts would occur.

3) *Schools? **Determination: No Impact.***

The proposed facilities would not generate students either directly or indirectly and would, therefore, not create significant impacts to school services.

4) *Parks? **Determination: No Impact.***

The proposed facilities would not generate residents either directly or indirectly and would, therefore, not create significant impacts to parks.

5) *Other public facilities? **Determination: No Impact.***

The proposed facilities would not generate residents either directly or indirectly and would, therefore, not create significant impacts to other public facilities.

**4.15 RECREATION**

|   | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact        | No Impact                |
|---|--------------------------------|---|-------------------------------------|--------------------------|
| RECREATION --   |                                |   |                                     |                          |
| a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?  | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?   | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| <p>a) <i>Would the proposed project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated? <b>Determination: Less than Significant Impact.</b></i></p> |                                |   |                                     |                          |

The proposed trail connector Project includes the development of a dedicated multi-use trail. The impacts associated with the development of the proposed trail connector Project are discussed throughout this document. Less than significant impacts would occur.

b) *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse effect on the environment? **Determination: Less than Significant Impact.***

Refer to Response 4.15 (a), above. Less than significant impacts would occur.

**4.16 TRANSPORTATION/TRAFFIC**

|   | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact        | No Impact                           |
|---|--------------------------------|---|-------------------------------------|-------------------------------------|
| <b>TRANSPORTATION/TRAFFIC --</b>  |                                |   |                                     |                                     |
| Would the project:  |                                |   |                                     |                                     |
| a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| b) Conflict with an applicable congestion management program, including, but not limited to, level-of-service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads and highways?  | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?   | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?  | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e) Result in inadequate emergency access?   | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

### 4.16 TRANSPORTATION/TRAFFIC

|  | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact                           |
|--|--------------------------------|---|------------------------------|-------------------------------------|
| f) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)? | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>     | <input checked="" type="checkbox"/> |

**Would the Project:**

- a) *Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit? **Determination: Less Than Significant Impact.***

Construction of the proposed trail connector Project would generate minimal traffic, and, therefore, would not affect levels of service of intersections, streets, highways, freeways, or alternative transportation modes. One staging area would be utilized during construction. The staging area would occur on the north side of the US 101 freeway upstream of the proposed trail connector Project site, on a flat triangular portion of land adjacent to the westbound lanes of the US 101 within Caltrans right-of-way. The haul road from this site would be about 200 feet in length and allow access on the upstream end of the culvert. Should this staging area be used, construction equipment would take access from the US 101 freeway. As a standard proposed trail connector Project design feature, a Traffic Management Plan would be implemented. The Traffic Management Plan would require agency-approved detour routes around the construction site to minimize impacts to traffic. Less than significant impacts would occur in this regard.

- b) *Conflict with an applicable congestion management program, including, but not limited to, level-of-service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways? **Determination: Less Than Significant Impact.***

Refer to Response 4.16 (a), above. Less than significant impacts would occur.



c) *Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? **Determination: No Impact.***

The proposed trail connector Project site is not in the vicinity of a public or private use airport. Additionally, due to the nature of the proposed facilities, the proposed trail connector Project would not result in a change in air traffic patterns. No impact would occur.

d) *Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)? **Determination: No Impact.***

Due to the nature and scope of the proposed trail connector Project, implementation would not increase hazards due to a design feature or incompatible uses. The proposed trail connector Project would be developed in an existing channel and would not affect roadway operations. The proposed trail connector Project would provide a safe way for trail users to cross the freeway. Therefore, no impacts would occur.

e) *Result in inadequate emergency access? **Determination: No Impact.***

The proposed trail connector Project would be constructed within an existing channel and would not result in inadequate emergency access. No impact would occur.

f) *Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)? **Determination: No Impact.***

The proposed trail connector Project would be consistent with City of Calabasas policies and programs supporting the development and use of trails and trail systems within the City. No impact would occur.

#### 4.17 UTILITIES AND SERVICE SYSTEMS

|   | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact        | No Impact                |
|---|--------------------------------|---|-------------------------------------|--------------------------|
| <b>UTILITIES AND SERVICE SYSTEMS B</b>  |                                |   |                                     |                          |
| Would the project:  |                                |   |                                     |                          |
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

#### 4.17 UTILITIES AND SERVICE SYSTEMS

|   | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact        | No Impact                           |
|---|--------------------------------|---|-------------------------------------|-------------------------------------|
| b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?                            | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?                                     | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?  | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?  | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| g) Comply with federal, state, and local statutes and regulations related to solid waste?   | <input type="checkbox"/>       | <input type="checkbox"/>                            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

***Would the Project:***

- a) *Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? **Determination: Less Than Significant Impact.***

Refer to Response 4.9 (a), above. Less than significant impacts would occur.

- b) *Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? **Determination: No Impact.***

The proposed trail connector Project does not propose the construction of new water or wastewater facilities nor would it require such facilities. Thus, no impact would occur in this regard.

- c) *Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? **Determination: Less Than Significant Impact.***

The proposed trail connector Project would be developed within an existing stormwater drainage channel. However, the proposed trail connector Project does not propose to expand the existing facility. The proposed trail connector Project does not propose new stormwater drainage facilities or significantly change or expand the existing facilities. Less than significant impacts would occur.

- d) *Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? **Determination: No Impact.***

The proposed trail connector Project would not require water supplies. No impact would occur.

- e) *Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? **Determination: No Impact.***

The proposed trail connector Project would not require wastewater treatment. No impact would occur.

- f) *Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? **Determination: Less Than Significant Impact.***

Construction debris and site preparation would generate solid waste that would need proper disposal of in the appropriate landfill. An approximate 1,100 linear feet of green waste and approximate 1,335 cubic yards of sediment would need to be processed in a landfill as a result of project construction. It is anticipated that waste generated by construction and periodic operations and maintenance activities of the proposed trail connector Project would be placed in the Calabasas Landfill, located at Lost Hills Road in the City of Agoura Hills. The anticipated closure date for the landfill is 2028. The generation of additional construction-related waste would only be temporary and would cease upon completion of the proposed trail connector Project. Solid waste generation during operations and maintenance of the trail is anticipated to be minimal, and would not result in a significant increase in waste for disposal in area landfills. The proposed trail connector Project would be required to be in compliance with adopted programs and federal, state, and local regulations pertaining to solid waste. Therefore, less than significant impacts would occur.

- g) *Comply with federal, state, and local statutes and regulations related to solid waste?*  
***Determination: Less Than Significant Impact.***

Refer to Response 4.17 (g), above. Less than significant impacts would occur.

**4.18 MANDATORY FINDINGS OF SIGNIFICANCE**

|  | Potentially Significant Impact | Less Than Significant with Mitigation Incorporation | Less Than Significant Impact | No Impact                |
|--|--------------------------------|---|------------------------------|--------------------------|
| <b>MANDATORY FINDINGS OF SIGNIFICANCE --</b>   |                                |   |                              |                          |
| a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/>       | <input checked="" type="checkbox"/>                 | <input type="checkbox"/>     | <input type="checkbox"/> |
| b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?   | <input type="checkbox"/>       | <input checked="" type="checkbox"/>                 | <input type="checkbox"/>     | <input type="checkbox"/> |
| c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?  | <input type="checkbox"/>       | <input checked="" type="checkbox"/>                 | <input type="checkbox"/>     | <input type="checkbox"/> |
| a). <i>Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of</i>                           |                                |   |                              |                          |

*California history or prehistory? Determination: Less Than Significant Impact with Mitigation Incorporated.*

As stated in various sections of this Initial Study, the proposed trail connector Project does not have the potential to result in significant impacts on the environment. Habitat for fish and wildlife were considered during alternative selection to sustain current habitat and allow for future improvements. With the implementation of mitigation measures identified throughout this document, impacts would be reduced to a level of less than significant.

*b). Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)? Determination: Less Than Significant With Mitigation Incorporated.*

No long-term significant impacts have been identified with the proposed trail connector Project. As previously stated, operations and maintenance of the trail would be conducted by LA County DPR on an as-needed basis. It is anticipated that approximately 300 cubic yards of sediment would be removed per maintenance episode (once a year).

After heavy rains the County would inspect the trail and prepare an inspection report. If the trail is damaged or eroded and would cause safety concerns for public use, it would be repaired during the summer following the rainy season. It is expected that the trail could require maintenance once a year. This repair would be minor and it may take about 15 to 30 days. Equipment utilized for repairs will likely include one grader, one rubber tire dozer, one tractor/loader/backhoe, one water truck, and one off highway truck. Due to the infrequent nature of these maintenance episodes, impacts are anticipated to be less than significant.

The proposed trail connector Project does include short term impacts that, when occurring concurrent with other proposed trail connector Project, have the potential to create significant impacts. According to the City of Calabasas, the following projects applications are currently under review:

**Table 4.18-1: Current Projects**

| Project   | Type   | Status  |
|---|--|---|
| BSVERCOM  | 3 single family residential lots   | MND approved; appealed to City Council            |
| Canyon Oaks   | 21,400 sf commercial building, senior housing, townhomes, 75 single family units | EIR currently being prepared                      |
| Calabasas Senior Center   | Senior Center located behind existing City Hall                                  | Community design workshops currently in progress  |
| Commercial Center at Las Virgenes Rd/Thousand Oaks Blvd                 | Commercial center with 25,820 sf of retail space and 35,074 sf of office space   | Project application in process                    |
| Las Virgenes-Triunfo JPA Solar Generation Project Recycled Pump Station | Construct one MW solar power electricity generation facility                     | MND approved                                      |
| Lost Hills Interchange Improvement Project                              | Widen Lost Hills Rd/101 interchange  | Project approved; funding currently being secured |
| Malamut Vintage Auto Dealership   | Automotive dealership  | Under construction                                |
| Paxton Calabasas Project  | 80 unit townhome complex   | Plans in review                                   |
| The Horizons  | Senior condominiums  | Under construction                                |
| Village at Calabasas  | 90 unit condominium complex  | Project application in process                    |

The only active project located near the proposed trail connector Project is the commercial center at Las Virgenes Road/Thousand Oaks Boulevard, which is currently in the project application process. Only two active projects are currently under construction. The remaining projects are in various stages of project approvals. It is anticipated that should the remaining active projects be approved, construction would be phased over time. Construction of the proposed Don Wallace Trail is anticipated to last approximately 3-6 months. Because the other active projects would be developed over a longer period of time, it is not anticipated that development of the proposed trail connector Project in conjunction with other active projects

would result in significant impacts. Additionally, with the implementation of mitigation measures as identified above, less than significant impacts would occur.

It should also be noted that the proposed Don Wallace Trail is envisioned to be an important link of a larger trail system that would extend from the Pacific Ocean to the Santa Monica Mountains. No applications for additional portions of the trail system are currently in place. When applications for additional portions of the trail are received by the appropriate jurisdiction, environmental review will be conducted to assess potential impacts.

c). *Does the project have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly? **Determination: Less Than Significant with Mitigation Incorporated.***

As stated in various sections of this Initial Study, the proposed trail connector Project does not have the potential to result in significant impacts on the environment. With the implementation of Mitigation Measures and Best Management Practices identified throughout this document, impacts would be reduced to a level of less than significant.



## 5.0 DETERMINATION

On the basis of this initial evaluation:

- ≡ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. A MITIGATED NEGATIVE DECLARATION will be prepared.
- ≡ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- ≡ I find that the proposed project MAY have a significant effect(s) on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or "potentially significant unless mitigated." An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- ≡ I find that although the proposed project could have a significant effect on the environment, there WILL NOT be a significant effect in this case because all potentially significant effects (a) have been analyzed adequately in an earlier EIR pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the proposed project.

Signature: \_\_\_\_\_



Date: 1/14/14

Printed Name:

Bryan Moscardini, Departmental Facilities Planner I

For:

County of Los Angeles  
Department of Parks and Recreation

## 6.0 REFERENCES

### LEAD AGENCY:

County of Los Angeles  
Department of Parks and Recreation  
510 South Vermont Avenue  
Los Angeles, CA 90020

Bryan Moscardini, Environmental and Regulatory Permitting

The following references were utilized during preparation of this Initial Study/Mitigated Negative Declaration:

- 2007 Air Quality Management Plan for the South Coast Air Basin*. South Coast Air Quality Management District (SCAQMD). 2007.
- City of Calabasas General Plan*. 2008.
- City of Calabasas Creeks Master Plan*. City of Calabasas. September 2006.
- City of Calabasas Trails Master Plan*. City of Calabasas. June 2007.
- Conceptual Design Report*. RBF Consulting. April 2013.
- County of Los Angeles Trails Manual*. Sapphos Environmental Inc. February 2011.
- Geotechnical Evaluation Report for the Don Wallace Multi-Use Trail Connector*. Kleinfelder. February 2013.
- Habitat Assessment for the Don Wallace Multi-Use Trail Connector Project*. RBF Consulting. December 2013.
- Hydrology and Hydraulics Evaluation Report*. CWE. February 2013.
- Jurisdictional Delineation Report*. RBF Consulting. December 2013.
- Las Virgenes Creek Restoration Project: Healing a Stream*. Alex Farassati, Ph.D. 2008.
- Las Virgenes Creek Restoration Project Initial Study*. City of Calabasas. 2007.

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**APPENDIX A**  
**AIR QUALITY DATA**

**Parenthetical CALEEMOD Assumptions  
For: Don Wallace Multi-Use Trail Project  
Date: January 2014**

## **CONSTRUCTION**

### **Grading (2014)**

- 1,335 cubic yards of excavation/sediment removal.
- 3 month duration.

#### **Equipment:**

| <b>Equipment Type</b>        | <b>Quantity</b> | <b>Hours of Daily Operation</b> |
|------------------------------|-----------------|---------------------------------|
| Excavators                   | 1               | 8                               |
| Graders                      | 1               | 6                               |
| Off-Highway Trucks           | 1               | 1                               |
| Off-Highway Trucks           | 3               | 8                               |
| Other Construction Equipment | 3               | 8                               |
| Rubber Tired Dozers          | 1               | 1                               |
| Tractors/Loaders/Backhoes    | 1               | 7                               |

## **MAINTENANCE**

- 267 cubic yards of excavation/sediment removal annually.

#### **Equipment:**

| <b>Equipment Type</b>     | <b>Quantity</b> | <b>Hours of Daily Operation</b> |
|---------------------------|-----------------|---------------------------------|
| Off-Highway Trucks        | 1               | 8                               |
| Rubber Tired Dozers       | 1               | 1                               |
| Skid Steer Loaders        | 1               | 8                               |
| Tractors/Loaders/Backhoes | 2               | 6                               |

## Don Wallace Multi-Use Trail Connector - Construction

### South Coast Air Basin, Winter

### 1.0 Project Characteristics

#### 1.1 Land Usage

| Land Uses                 | Size | Metric            | Lot Acreage | Floor Surface Area | Population |
|---------------------------|------|-------------------|-------------|--------------------|------------|
| User Defined Recreational | 0.60 | User Defined Unit | 0.60        | 24,000.00          | 0          |

#### 1.2 Other Project Characteristics

|                                 |                            |                                 |       |                                  |       |
|---------------------------------|----------------------------|---------------------------------|-------|----------------------------------|-------|
| <b>Urbanization</b>             | Urban                      | <b>Wind Speed (m/s)</b>         | 2.2   | <b>Precipitation Freq (Days)</b> | 31    |
| <b>Climate Zone</b>             | 8                          |                                 |       | <b>Operational Year</b>          | 2014  |
| <b>Utility Company</b>          | Southern California Edison |                                 |       |                                  |       |
| <b>CO2 Intensity (lb/MW hr)</b> | 630.89                     | <b>CH4 Intensity (lb/MW hr)</b> | 0.029 | <b>N2O Intensity (lb/MW hr)</b>  | 0.006 |

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project is a trail

Construction Phase - project schedule

Off-road Equipment - anticipated equipment

Trips and VMT - Removed sediment would be taken to the Calabasas Landfill located approximately 1.8 miles from the project site (5300 Lost Hills Road, Antelope Hills, CA)

Grading - site acreage

Construction Off-road Equipment Mitigation - dust control measures

| Table Name             | Column Name                    | Default Value | New Value |
|------------------------|--------------------------------|---------------|-----------|
| tblConstDustMitigation | CleanPavedRoadPercentReduction | 0             | 26        |
| tblConstructionPhase   | NumDays                        | 2.00          | 66.00     |
| tblGrading             | AcresOfGrading                 | 24.75         | 0.60      |

|                     |                            |        |           |
|---------------------|----------------------------|--------|-----------|
| tblGrading          | MaterialExported           | 0.00   | 1,335.00  |
| tblLandUse          | LandUseSquareFeet          | 0.00   | 24,000.00 |
| tblLandUse          | LotAcreage                 | 0.00   | 0.60      |
| tblOffRoadEquipment | HorsePower                 | 400.00 | 122.00    |
| tblOffRoadEquipment | LoadFactor                 | 0.38   | 0.44      |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00   | 0.00      |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00   | 1.00      |
| tblOffRoadEquipment | UsageHours                 | 1.00   | 7.00      |
| tblOffRoadEquipment | UsageHours                 | 6.00   | 7.00      |
| tblTripsAndVMT      | HaulingTripLength          | 20.00  | 2.00      |

## 2.0 Emissions Summary

### 2.1 Overall Construction (Maximum Daily Emission)

#### Unmitigated Construction

|              | ROG           | NOx            | CO             | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2         | Total CO2         | CH4           | N2O           | CO2e              |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|---------------|-------------------|
| Year         | lb/day        |                |                |               |               |               |               |                |               |               | lb/day        |                   |                   |               |               |                   |
| 2014         | 6.5756        | 69.9947        | 44.9040        | 0.0583        | 5.5987        | 3.7047        | 9.3033        | 2.9821         | 3.4083        | 6.3903        | 0.0000        | 6,122.3099        | 6,122.3099        | 1.7242        | 0.0000        | 6,158.5173        |
| <b>Total</b> | <b>6.5756</b> | <b>69.9947</b> | <b>44.9040</b> | <b>0.0583</b> | <b>5.5987</b> | <b>3.7047</b> | <b>9.3033</b> | <b>2.9821</b>  | <b>3.4083</b> | <b>6.3903</b> | <b>0.0000</b> | <b>6,122.3099</b> | <b>6,122.3099</b> | <b>1.7242</b> | <b>0.0000</b> | <b>6,158.5173</b> |

#### Mitigated Construction

|  | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--|-----|-----|----|-----|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-----|-----|------|
|--|-----|-----|----|-----|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-----|-----|------|

| Year         | lb/day        |                |                |               |               |               |               |               |               |               | lb/day        |                   |                   |               |               |                   |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------------|-------------------|---------------|---------------|-------------------|
| 2014         | 6.5756        | 69.9947        | 44.9040        | 0.0583        | 2.5752        | 3.7047        | 6.2798        | 1.3231        | 3.4083        | 4.7313        | 0.0000        | 6,122.3099        | 6,122.3099        | 1.7242        | 0.0000        | 6,158.5173        |
| <b>Total</b> | <b>6.5756</b> | <b>69.9947</b> | <b>44.9040</b> | <b>0.0583</b> | <b>2.5752</b> | <b>3.7047</b> | <b>6.2798</b> | <b>1.3231</b> | <b>3.4083</b> | <b>4.7313</b> | <b>0.0000</b> | <b>6,122.3099</b> | <b>6,122.3099</b> | <b>1.7242</b> | <b>0.0000</b> | <b>6,158.5173</b> |

|                          | ROG         | NOx         | CO          | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total   | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total  | Bio- CO2    | NBio-CO2    | Total CO2   | CH4         | N2O         | CO2e        |
|--------------------------|-------------|-------------|-------------|-------------|---------------|--------------|--------------|----------------|---------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Percent Reduction</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>54.00</b>  | <b>0.00</b>  | <b>32.50</b> | <b>55.63</b>   | <b>0.00</b>   | <b>25.96</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> |

### 3.0 Construction Detail

#### Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date   | Num Days Week | Num Days | Phase Description |
|--------------|------------|------------|------------|------------|---------------|----------|-------------------|
| 1            | Grading    | Grading    | 10/1/2014  | 12/31/2014 | 5             | 66       |                   |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0.6

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

| Phase Name | Offroad Equipment Type       | Amount | Usage Hours | Horse Power | Load Factor |
|------------|------------------------------|--------|-------------|-------------|-------------|
| Grading    | Concrete/Industrial Saws     | 0      | 8.00        | 81          | 0.73        |
| Grading    | Excavators                   | 1      | 8.00        | 162         | 0.38        |
| Grading    | Graders                      | 1      | 6.00        | 174         | 0.41        |
| Grading    | Off-Highway Trucks           | 1      | 1.00        | 400         | 0.38        |
| Grading    | Off-Highway Trucks           | 3      | 8.00        | 122         | 0.44        |
| Grading    | Other Construction Equipment | 3      | 8.00        | 171         | 0.42        |
| Grading    | Rubber Tired Dozers          | 1      | 7.00        | 255         | 0.40        |

|         |                           |   |      |    |      |
|---------|---------------------------|---|------|----|------|
| Grading | Tractors/Loaders/Backhoes | 1 | 7.00 | 97 | 0.37 |
|---------|---------------------------|---|------|----|------|

### Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Grading    | 11                      | 28.00              | 0.00               | 167.00              | 14.70              | 6.90               | 2.00                | LD_Mix               | HDT_Mix              | HHDT                  |

### **3.1 Mitigation Measures Construction**

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

### **3.2 Grading - 2014**

#### Unmitigated Construction On-Site

|               | ROG           | NOx            | CO             | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2 | NBio- CO2         | Total CO2         | CH4           | N2O | CO2e              |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category      | lb/day        |                |                |               |               |               |               |                |               |               | lb/day   |                   |                   |               |     |                   |
| Fugitive Dust |               |                |                |               | 5.2813        | 0.0000        | 5.2813        | 2.8978         | 0.0000        | 2.8978        |          |                   | 0.0000            |               |     | 0.0000            |
| Off-Road      | 6.3994        | 69.6511        | 42.4004        | 0.0543        |               | 3.6997        | 3.6997        |                | 3.4037        | 3.4037        |          | 5,764.8896        | 5,764.8896        | 1.7036        |     | 5,800.6649        |
| <b>Total</b>  | <b>6.3994</b> | <b>69.6511</b> | <b>42.4004</b> | <b>0.0543</b> | <b>5.2813</b> | <b>3.6997</b> | <b>8.9809</b> | <b>2.8978</b>  | <b>3.4037</b> | <b>6.3016</b> |          | <b>5,764.8896</b> | <b>5,764.8896</b> | <b>1.7036</b> |     | <b>5,800.6649</b> |

#### Unmitigated Construction Off-Site

|  | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--|-----|-----|----|-----|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-----|-----|------|
|--|-----|-----|----|-----|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-----|-----|------|



| Category     | lb/day        |               |               |                    |               |                    |               |               |                    |               | lb/day |                 |                 |               |  |                 |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|---------------|--------------------|---------------|--------|-----------------|-----------------|---------------|--|-----------------|
| Hauling      | 0.0286        | 0.1458        | 0.4401        | 2.3000e-004        | 4.4500e-003   | 2.0200e-003        | 6.4800e-003   | 1.2200e-003   | 1.8600e-003        | 3.0800e-003   |        | 23.0611         | 23.0611         | 3.1000e-004   |  | 23.0675         |
| Vendor       | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000        | 0.0000             | 0.0000        |        | 0.0000          | 0.0000          | 0.0000        |  | 0.0000          |
| Worker       | 0.1475        | 0.1978        | 2.0635        | 3.7200e-003        | 0.3130        | 2.9500e-003        | 0.3159        | 0.0830        | 2.7000e-003        | 0.0857        |        | 334.3592        | 334.3592        | 0.0203        |  | 334.7849        |
| <b>Total</b> | <b>0.1762</b> | <b>0.3436</b> | <b>2.5036</b> | <b>3.9500e-003</b> | <b>0.3174</b> | <b>4.9700e-003</b> | <b>0.3224</b> | <b>0.0842</b> | <b>4.5600e-003</b> | <b>0.0888</b> |        | <b>357.4203</b> | <b>357.4203</b> | <b>0.0206</b> |  | <b>357.8524</b> |

**Mitigated Construction On-Site**

|               | ROG           | NOx            | CO             | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2         | Total CO2         | CH4           | N2O | CO2e              |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category      | lb/day        |                |                |               |               |               |               |                |               |               | lb/day        |                   |                   |               |     |                   |
| Fugitive Dust |               |                |                |               | 2.2577        | 0.0000        | 2.2577        | 1.2388         | 0.0000        | 1.2388        |               |                   | 0.0000            |               |     | 0.0000            |
| Off-Road      | 6.3994        | 69.6511        | 42.4004        | 0.0543        |               | 3.6997        | 3.6997        |                | 3.4037        | 3.4037        | 0.0000        | 5,764.8896        | 5,764.8896        | 1.7036        |     | 5,800.6649        |
| <b>Total</b>  | <b>6.3994</b> | <b>69.6511</b> | <b>42.4004</b> | <b>0.0543</b> | <b>2.2577</b> | <b>3.6997</b> | <b>5.9574</b> | <b>1.2388</b>  | <b>3.4037</b> | <b>4.6425</b> | <b>0.0000</b> | <b>5,764.8896</b> | <b>5,764.8896</b> | <b>1.7036</b> |     | <b>5,800.6649</b> |

**Mitigated Construction Off-Site**

|          | ROG    | NOx    | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4         | N2O | CO2e     |
|----------|--------|--------|--------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|-----|----------|
| Category | lb/day |        |        |             |               |              |             |                |               |             | lb/day   |           |           |             |     |          |
| Hauling  | 0.0286 | 0.1458 | 0.4401 | 2.3000e-004 | 4.4500e-003   | 2.0200e-003  | 6.4800e-003 | 1.2200e-003    | 1.8600e-003   | 3.0800e-003 |          | 23.0611   | 23.0611   | 3.1000e-004 |     | 23.0675  |
| Vendor   | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000      | 0.0000         | 0.0000        | 0.0000      |          | 0.0000    | 0.0000    | 0.0000      |     | 0.0000   |
| Worker   | 0.1475 | 0.1978 | 2.0635 | 3.7200e-003 | 0.3130        | 2.9500e-003  | 0.3159      | 0.0830         | 2.7000e-003   | 0.0857      |          | 334.3592  | 334.3592  | 0.0203      |     | 334.7849 |

|       |        |        |        |             |        |             |        |        |             |        |  |          |          |        |  |          |
|-------|--------|--------|--------|-------------|--------|-------------|--------|--------|-------------|--------|--|----------|----------|--------|--|----------|
| Total | 0.1762 | 0.3436 | 2.5036 | 3.9500e-003 | 0.3174 | 4.9700e-003 | 0.3224 | 0.0842 | 4.5600e-003 | 0.0888 |  | 357.4203 | 357.4203 | 0.0206 |  | 357.8524 |
|-------|--------|--------|--------|-------------|--------|-------------|--------|--------|-------------|--------|--|----------|----------|--------|--|----------|

## Don Wallace Multi-Use Trail Connector - Construction

### South Coast Air Basin, Summer

### 1.0 Project Characteristics

#### 1.1 Land Usage

| Land Uses                 | Size | Metric            | Lot Acreage | Floor Surface Area | Population |
|---------------------------|------|-------------------|-------------|--------------------|------------|
| User Defined Recreational | 0.60 | User Defined Unit | 0.60        | 24,000.00          | 0          |

#### 1.2 Other Project Characteristics

|                                |                            |                                |       |                                  |       |
|--------------------------------|----------------------------|--------------------------------|-------|----------------------------------|-------|
| <b>Urbanization</b>            | Urban                      | <b>Wind Speed (m/s)</b>        | 2.2   | <b>Precipitation Freq (Days)</b> | 31    |
| <b>Climate Zone</b>            | 8                          |                                |       | <b>Operational Year</b>          | 2014  |
| <b>Utility Company</b>         | Southern California Edison |                                |       |                                  |       |
| <b>CO2 Intensity (lb/MWhr)</b> | 630.89                     | <b>CH4 Intensity (lb/MWhr)</b> | 0.029 | <b>N2O Intensity (lb/MWhr)</b>   | 0.006 |

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project is a trail

Construction Phase - project schedule

Off-road Equipment - anticipated equipment

Trips and VMT - Removed sediment would be taken to the Calabasas Landfill located approximately 1.8 miles from the project site (5300 Lost Hills Road, <sup>Antelope Hills, CA</sup>Antelope Hills, CA)

Grading - site acreage

Construction Off-road Equipment Mitigation - dust control measures

| Table Name             | Column Name                    | Default Value | New Value |
|------------------------|--------------------------------|---------------|-----------|
| tblConstDustMitigation | CleanPavedRoadPercentReduction | 0             | 26        |
| tblConstructionPhase   | NumDays                        | 2.00          | 66.00     |
| tblGrading             | AcresOfGrading                 | 24.75         | 0.60      |

|                     |                            |        |           |
|---------------------|----------------------------|--------|-----------|
| tblGrading          | MaterialExported           | 0.00   | 1,335.00  |
| tblLandUse          | LandUseSquareFeet          | 0.00   | 24,000.00 |
| tblLandUse          | LotAcreage                 | 0.00   | 0.60      |
| tblOffRoadEquipment | HorsePower                 | 400.00 | 122.00    |
| tblOffRoadEquipment | LoadFactor                 | 0.38   | 0.44      |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00   | 0.00      |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00   | 1.00      |
| tblOffRoadEquipment | UsageHours                 | 1.00   | 7.00      |
| tblOffRoadEquipment | UsageHours                 | 6.00   | 7.00      |
| tblTripsAndVMT      | HaulingTripLength          | 20.00  | 2.00      |

## 2.0 Emissions Summary

### 2.1 Overall Construction (Maximum Daily Emission)

#### Unmitigated Construction

|              | ROG           | NOx            | CO             | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2         | Total CO2         | CH4           | N2O           | CO2e              |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|---------------|-------------------|
| Year         | lb/day        |                |                |               |               |               |               |                |               |               | lb/day        |                   |                   |               |               |                   |
| 2014         | 6.5683        | 69.9747        | 44.9928        | 0.0585        | 5.5987        | 3.7046        | 9.3033        | 2.9821         | 3.4082        | 6.3903        | 0.0000        | 6,144.8157        | 6,144.8157        | 1.7241        | 0.0000        | 6,181.0227        |
| <b>Total</b> | <b>6.5683</b> | <b>69.9747</b> | <b>44.9928</b> | <b>0.0585</b> | <b>5.5987</b> | <b>3.7046</b> | <b>9.3033</b> | <b>2.9821</b>  | <b>3.4082</b> | <b>6.3903</b> | <b>0.0000</b> | <b>6,144.8157</b> | <b>6,144.8157</b> | <b>1.7241</b> | <b>0.0000</b> | <b>6,181.0227</b> |

#### Mitigated Construction

|  | ROG | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|--|-----|-----|----|-----|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-----|-----|------|
|--|-----|-----|----|-----|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-----|-----|------|

| Year         | lb/day        |                |                |               |               |               |               |               |               |               | lb/day        |                   |                   |               |               |                   |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-------------------|-------------------|---------------|---------------|-------------------|
| 2014         | 6.5683        | 69.9747        | 44.9928        | 0.0585        | 2.5752        | 3.7046        | 6.2798        | 1.3231        | 3.4082        | 4.7313        | 0.0000        | 6,144.8157        | 6,144.8157        | 1.7241        | 0.0000        | 6,181.0227        |
| <b>Total</b> | <b>6.5683</b> | <b>69.9747</b> | <b>44.9928</b> | <b>0.0585</b> | <b>2.5752</b> | <b>3.7046</b> | <b>6.2798</b> | <b>1.3231</b> | <b>3.4082</b> | <b>4.7313</b> | <b>0.0000</b> | <b>6,144.8157</b> | <b>6,144.8157</b> | <b>1.7241</b> | <b>0.0000</b> | <b>6,181.0227</b> |

|                          | ROG         | NOx         | CO          | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total   | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total  | Bio- CO2    | NBio-CO2    | Total CO2   | CH4         | N2O         | CO2e        |
|--------------------------|-------------|-------------|-------------|-------------|---------------|--------------|--------------|----------------|---------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Percent Reduction</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>54.00</b>  | <b>0.00</b>  | <b>32.50</b> | <b>55.63</b>   | <b>0.00</b>   | <b>25.96</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> |

### 3.0 Construction Detail

#### Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date   | Num Days Week | Num Days | Phase Description |
|--------------|------------|------------|------------|------------|---------------|----------|-------------------|
| 1            | Grading    | Grading    | 10/1/2014  | 12/31/2014 | 5             | 66       |                   |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0.6

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

| Phase Name | Offroad Equipment Type   | Amount | Usage Hours | Horse Power | Load Factor |
|------------|--------------------------|--------|-------------|-------------|-------------|
| Grading    | Concrete/Industrial Saws | 0      | 8.00        | 81          | 0.73        |
| Grading    | Excavators               | 1      | 8.00        | 162         | 0.38        |
| Grading    | Graders                  | 1      | 6.00        | 174         | 0.41        |
| Grading    | Off-Highway Trucks       | 1      | 1.00        | 400         | 0.38        |
| Grading    | Off-Highway Trucks       | 3      | 8.00        | 122         | 0.44        |

|         |                              |   |      |     |      |
|---------|------------------------------|---|------|-----|------|
| Grading | Other Construction Equipment | 3 | 8.00 | 171 | 0.42 |
| Grading | Rubber Tired Dozers          | 1 | 7.00 | 255 | 0.40 |
| Grading | Tractors/Loaders/Backhoes    | 1 | 7.00 | 97  | 0.37 |

**Trips and VMT**

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Grading    | 11                      | 28.00              | 0.00               | 167.00              | 14.70              | 6.90               | 2.00                | LD_Mix               | HDT_Mix              | HHDT                  |

**3.1 Mitigation Measures Construction**

- Replace Ground Cover
- Water Exposed Area
- Water Unpaved Roads
- Reduce Vehicle Speed on Unpaved Roads

**3.2 Grading - 2014**

**Unmitigated Construction On-Site**

|               | ROG           | NOx            | CO             | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2 | NBio- CO2         | Total CO2         | CH4           | N2O | CO2e              |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category      | lb/day        |                |                |               |               |               |               |                |               |               | lb/day   |                   |                   |               |     |                   |
| Fugitive Dust |               |                |                |               | 5.2813        | 0.0000        | 5.2813        | 2.8978         | 0.0000        | 2.8978        |          |                   | 0.0000            |               |     | 0.0000            |
| Off-Road      | 6.3994        | 69.6511        | 42.4004        | 0.0543        |               | 3.6997        | 3.6997        |                | 3.4037        | 3.4037        |          | 5,764.8896        | 5,764.8896        | 1.7036        |     | 5,800.6649        |
| <b>Total</b>  | <b>6.3994</b> | <b>69.6511</b> | <b>42.4004</b> | <b>0.0543</b> | <b>5.2813</b> | <b>3.6997</b> | <b>8.9809</b> | <b>2.8978</b>  | <b>3.4037</b> | <b>6.3016</b> |          | <b>5,764.8896</b> | <b>5,764.8896</b> | <b>1.7036</b> |     | <b>5,800.6649</b> |

**Unmitigated Construction Off-Site**

|              | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5      | PM2.5 Total   | Bio- CO2 | NBio- CO2       | Total CO2       | CH4           | N2O | CO2e            |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|---------------|-----|-----------------|
| Category     | lb/day        |               |               |                    |               |                    |               |                |                    |               | lb/day   |                 |                 |               |     |                 |
| Hauling      | 0.0251        | 0.1436        | 0.3688        | 2.3000e-004        | 4.4500e-003   | 1.9600e-003        | 6.4200e-003   | 1.2200e-003    | 1.8000e-003        | 3.0300e-003   |          | 23.5162         | 23.5162         | 2.9000e-004   |     | 23.5222         |
| Vendor       | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000         | 0.0000             | 0.0000        |          | 0.0000          | 0.0000          | 0.0000        |     | 0.0000          |
| Worker       | 0.1437        | 0.1800        | 2.2237        | 3.9700e-003        | 0.3130        | 2.9500e-003        | 0.3159        | 0.0830         | 2.7000e-003        | 0.0857        |          | 356.4099        | 356.4099        | 0.0203        |     | 356.8356        |
| <b>Total</b> | <b>0.1689</b> | <b>0.3236</b> | <b>2.5924</b> | <b>4.2000e-003</b> | <b>0.3174</b> | <b>4.9100e-003</b> | <b>0.3224</b> | <b>0.0842</b>  | <b>4.5000e-003</b> | <b>0.0887</b> |          | <b>379.9261</b> | <b>379.9261</b> | <b>0.0206</b> |     | <b>380.3578</b> |

**Mitigated Construction On-Site**

|               | ROG           | NOx            | CO             | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2         | Total CO2         | CH4           | N2O | CO2e              |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category      | lb/day        |                |                |               |               |               |               |                |               |               | lb/day        |                   |                   |               |     |                   |
| Fugitive Dust |               |                |                |               | 2.2577        | 0.0000        | 2.2577        | 1.2388         | 0.0000        | 1.2388        |               |                   | 0.0000            |               |     | 0.0000            |
| Off-Road      | 6.3994        | 69.6511        | 42.4004        | 0.0543        |               | 3.6997        | 3.6997        |                | 3.4037        | 3.4037        | 0.0000        | 5,764.8896        | 5,764.8896        | 1.7036        |     | 5,800.6649        |
| <b>Total</b>  | <b>6.3994</b> | <b>69.6511</b> | <b>42.4004</b> | <b>0.0543</b> | <b>2.2577</b> | <b>3.6997</b> | <b>5.9574</b> | <b>1.2388</b>  | <b>3.4037</b> | <b>4.6425</b> | <b>0.0000</b> | <b>5,764.8896</b> | <b>5,764.8896</b> | <b>1.7036</b> |     | <b>5,800.6649</b> |

**Mitigated Construction Off-Site**

|          | ROG    | NOx | CO | SO2 | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4 | N2O | CO2e |
|----------|--------|-----|----|-----|---------------|--------------|------------|----------------|---------------|-------------|----------|-----------|-----------|-----|-----|------|
| Category | lb/day |     |    |     |               |              |            |                |               |             | lb/day   |           |           |     |     |      |

|              |               |               |               |                    |               |                    |               |               |                    |               |  |                 |                 |               |  |                 |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|---------------|--------------------|---------------|--|-----------------|-----------------|---------------|--|-----------------|
| Hauling      | 0.0251        | 0.1436        | 0.3688        | 2.3000e-004        | 4.4500e-003   | 1.9600e-003        | 6.4200e-003   | 1.2200e-003   | 1.8000e-003        | 3.0300e-003   |  | 23.5162         | 23.5162         | 2.9000e-004   |  | 23.5222         |
| Vendor       | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000        | 0.0000             | 0.0000        |  | 0.0000          | 0.0000          | 0.0000        |  | 0.0000          |
| Worker       | 0.1437        | 0.1800        | 2.2237        | 3.9700e-003        | 0.3130        | 2.9500e-003        | 0.3159        | 0.0830        | 2.7000e-003        | 0.0857        |  | 356.4099        | 356.4099        | 0.0203        |  | 356.8356        |
| <b>Total</b> | <b>0.1689</b> | <b>0.3236</b> | <b>2.5924</b> | <b>4.2000e-003</b> | <b>0.3174</b> | <b>4.9100e-003</b> | <b>0.3224</b> | <b>0.0842</b> | <b>4.5000e-003</b> | <b>0.0887</b> |  | <b>379.9261</b> | <b>379.9261</b> | <b>0.0206</b> |  | <b>380.3578</b> |



## Don Wallace Multi-Use Trail Connector - Construction

### South Coast Air Basin, Annual

### 1.0 Project Characteristics

#### 1.1 Land Usage

| Land Uses                 | Size | Metric            | Lot Acreage | Floor Surface Area | Population |
|---------------------------|------|-------------------|-------------|--------------------|------------|
| User Defined Recreational | 0.60 | User Defined Unit | 0.60        | 24,000.00          | 0          |

#### 1.2 Other Project Characteristics

|                                 |                            |                                 |       |                                  |       |
|---------------------------------|----------------------------|---------------------------------|-------|----------------------------------|-------|
| <b>Urbanization</b>             | Urban                      | <b>Wind Speed (m/s)</b>         | 2.2   | <b>Precipitation Freq (Days)</b> | 31    |
| <b>Climate Zone</b>             | 8                          |                                 |       | <b>Operational Year</b>          | 2014  |
| <b>Utility Company</b>          | Southern California Edison |                                 |       |                                  |       |
| <b>CO2 Intensity (lb/MW hr)</b> | 630.89                     | <b>CH4 Intensity (lb/MW hr)</b> | 0.029 | <b>N2O Intensity (lb/MW hr)</b>  | 0.006 |

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project is a trail

Construction Phase - project schedule

Off-road Equipment - anticipated equipment

Trips and VMT - Removed sediment would be taken to the Calabasas Landfill located approximately 1.8 miles from the project site (5300 Lost Hills Road, <sup>Antelope Valley, CA</sup> Antelope Valley, CA)

Grading - site acreage

Construction Off-road Equipment Mitigation - dust control measures

| Table Name             | Column Name                    | Default Value | New Value |
|------------------------|--------------------------------|---------------|-----------|
| tblConstDustMitigation | CleanPavedRoadPercentReduction | 0             | 26        |
| tblConstructionPhase   | NumDays                        | 2.00          | 66.00     |
| tblGrading             | AcresOfGrading                 | 24.75         | 0.60      |

|                     |                            |       |           |
|---------------------|----------------------------|-------|-----------|
| tblGrading          | MaterialExported           | 0.00  | 1,335.00  |
| tblLandUse          | LandUseSquareFeet          | 0.00  | 24,000.00 |
| tblLandUse          | LotAcreage                 | 0.00  | 0.60      |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00  | 0.00      |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 2.00  | 1.00      |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00  | 1.00      |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00  | 1.00      |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00  | 1.00      |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00  | 3.00      |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 0.00  | 3.00      |
| tblOffRoadEquipment | PhaseName                  |       | Grading   |
| tblOffRoadEquipment | PhaseName                  |       | Grading   |
| tblOffRoadEquipment | PhaseName                  |       | Grading   |
| tblOffRoadEquipment | PhaseName                  |       | Grading   |
| tblOffRoadEquipment | PhaseName                  |       | Grading   |
| tblOffRoadEquipment | UsageHours                 | 1.00  | 7.00      |
| tblOffRoadEquipment | UsageHours                 | 6.00  | 7.00      |
| tblTripsAndVMT      | HaulingTripLength          | 20.00 | 2.00      |

## 2.0 Emissions Summary

### 2.1 Overall Construction

#### Unmitigated Construction

|              | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2       | Total CO2       | CH4           | N2O           | CO2e            |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Year         | tons/yr       |               |               |                    |               |               |               |                |               |               | MT/yr         |                 |                 |               |               |                 |
| 2014         | 0.2731        | 3.0645        | 1.7083        | 2.7700e-003        | 0.1846        | 0.1425        | 0.3271        | 0.0984         | 0.1311        | 0.2295        | 0.0000        | 265.1917        | 265.1917        | 0.0758        | 0.0000        | 266.7829        |
| <b>Total</b> | <b>0.2731</b> | <b>3.0645</b> | <b>1.7083</b> | <b>2.7700e-003</b> | <b>0.1846</b> | <b>0.1425</b> | <b>0.3271</b> | <b>0.0984</b>  | <b>0.1311</b> | <b>0.2295</b> | <b>0.0000</b> | <b>265.1917</b> | <b>265.1917</b> | <b>0.0758</b> | <b>0.0000</b> | <b>266.7829</b> |

**Mitigated Construction**

|              | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2       | Total CO2       | CH4           | N2O           | CO2e            |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Year         | tons/yr       |               |               |                    |               |               |               |                |               |               | MT/yr         |                 |                 |               |               |                 |
| 2014         | 0.2731        | 3.0645        | 1.7083        | 2.7700e-003        | 0.0848        | 0.1425        | 0.2273        | 0.0436         | 0.1311        | 0.1747        | 0.0000        | 265.1914        | 265.1914        | 0.0758        | 0.0000        | 266.7826        |
| <b>Total</b> | <b>0.2731</b> | <b>3.0645</b> | <b>1.7083</b> | <b>2.7700e-003</b> | <b>0.0848</b> | <b>0.1425</b> | <b>0.2273</b> | <b>0.0436</b>  | <b>0.1311</b> | <b>0.1747</b> | <b>0.0000</b> | <b>265.1914</b> | <b>265.1914</b> | <b>0.0758</b> | <b>0.0000</b> | <b>266.7826</b> |

|                          | ROG         | NOx         | CO          | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total   | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total  | Bio- CO2    | NBio-CO2    | Total CO2   | CH4         | N2O         | CO2e        |
|--------------------------|-------------|-------------|-------------|-------------|---------------|--------------|--------------|----------------|---------------|--------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Percent Reduction</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>54.06</b>  | <b>0.00</b>  | <b>30.51</b> | <b>55.66</b>   | <b>0.00</b>   | <b>23.86</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> | <b>0.00</b> |

**3.0 Construction Detail**

**Construction Phase**

| Phase Number | Phase Name | Phase Type | Start Date | End Date   | Num Days Week | Num Days | Phase Description |
|--------------|------------|------------|------------|------------|---------------|----------|-------------------|
| 1            | Grading    | Grading    | 10/1/2014  | 12/31/2014 | 5             | 66       |                   |

**Acres of Grading (Site Preparation Phase): 0**

**Acres of Grading (Grading Phase): 0.6**

**Acres of Paving: 0**

**Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)**

**OffRoad Equipment**



|              |               |               |               |                    |               |               |               |               |               |               |               |                 |                 |               |               |                 |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Off-Road     | 0.2675        | 3.0529        | 1.6244        | 2.6400e-003        |               | 0.1424        | 0.1424        |               | 0.1310        | 0.1310        | 0.0000        | 254.3281        | 254.3281        | 0.0752        | 0.0000        | 255.9064        |
| <b>Total</b> | <b>0.2675</b> | <b>3.0529</b> | <b>1.6244</b> | <b>2.6400e-003</b> | <b>0.1743</b> | <b>0.1424</b> | <b>0.3166</b> | <b>0.0956</b> | <b>0.1310</b> | <b>0.2266</b> | <b>0.0000</b> | <b>254.3281</b> | <b>254.3281</b> | <b>0.0752</b> | <b>0.0000</b> | <b>255.9064</b> |

**Unmitigated Construction Off-Site**

|              | ROG                | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5     | Exhaust PM2.5      | PM2.5 Total        | Bio- CO2      | NBio- CO2      | Total CO2      | CH4                | N2O           | CO2e           |
|--------------|--------------------|---------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category     | tons/yr            |               |               |                    |               |                    |               |                    |                    |                    | MT/yr         |                |                |                    |               |                |
| Hauling      | 9.1000e-004        | 4.9000e-003   | 0.0142        | 1.0000e-005        | 1.4000e-004   | 7.0000e-005        | 2.1000e-004   | 4.0000e-005        | 6.0000e-005        | 1.0000e-004        | 0.0000        | 0.6983         | 0.6983         | 1.0000e-005        | 0.0000        | 0.6985         |
| Vendor       | 0.0000             | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000             | 0.0000             | 0.0000        | 0.0000         | 0.0000         | 0.0000             | 0.0000        | 0.0000         |
| Worker       | 4.6000e-003        | 6.7200e-003   | 0.0697        | 1.2000e-004        | 0.0101        | 1.0000e-004        | 0.0102        | 2.6900e-003        | 9.0000e-005        | 2.7800e-003        | 0.0000        | 10.1653        | 10.1653        | 6.1000e-004        | 0.0000        | 10.1780        |
| <b>Total</b> | <b>5.5100e-003</b> | <b>0.0116</b> | <b>0.0839</b> | <b>1.3000e-004</b> | <b>0.0103</b> | <b>1.7000e-004</b> | <b>0.0104</b> | <b>2.7300e-003</b> | <b>1.5000e-004</b> | <b>2.8800e-003</b> | <b>0.0000</b> | <b>10.8635</b> | <b>10.8635</b> | <b>6.2000e-004</b> | <b>0.0000</b> | <b>10.8765</b> |

**Mitigated Construction On-Site**

|               | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2       | Total CO2       | CH4           | N2O           | CO2e            |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-----------------|-----------------|---------------|---------------|-----------------|
| Category      | tons/yr       |               |               |                    |               |               |               |                |               |               | MT/yr         |                 |                 |               |               |                 |
| Fugitive Dust |               |               |               |                    | 0.0745        | 0.0000        | 0.0745        | 0.0409         | 0.0000        | 0.0409        | 0.0000        | 0.0000          | 0.0000          | 0.0000        | 0.0000        | 0.0000          |
| Off-Road      | 0.2675        | 3.0529        | 1.6244        | 2.6400e-003        |               | 0.1424        | 0.1424        |                | 0.1310        | 0.1310        | 0.0000        | 254.3278        | 254.3278        | 0.0752        | 0.0000        | 255.9061        |
| <b>Total</b>  | <b>0.2675</b> | <b>3.0529</b> | <b>1.6244</b> | <b>2.6400e-003</b> | <b>0.0745</b> | <b>0.1424</b> | <b>0.2169</b> | <b>0.0409</b>  | <b>0.1310</b> | <b>0.1719</b> | <b>0.0000</b> | <b>254.3278</b> | <b>254.3278</b> | <b>0.0752</b> | <b>0.0000</b> | <b>255.9061</b> |

**Mitigated Construction Off-Site**

|              | ROG                | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5     | Exhaust PM2.5      | PM2.5 Total        | Bio- CO2      | NBio- CO2      | Total CO2      | CH4                | N2O           | CO2e           |
|--------------|--------------------|---------------|---------------|--------------------|---------------|--------------------|---------------|--------------------|--------------------|--------------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category     | tons/yr            |               |               |                    |               |                    |               |                    |                    |                    | MT/yr         |                |                |                    |               |                |
| Hauling      | 9.1000e-004        | 4.9000e-003   | 0.0142        | 1.0000e-005        | 1.4000e-004   | 7.0000e-005        | 2.1000e-004   | 4.0000e-005        | 6.0000e-005        | 1.0000e-004        | 0.0000        | 0.6983         | 0.6983         | 1.0000e-005        | 0.0000        | 0.6985         |
| Vendor       | 0.0000             | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000             | 0.0000             | 0.0000        | 0.0000         | 0.0000         | 0.0000             | 0.0000        | 0.0000         |
| Worker       | 4.6000e-003        | 6.7200e-003   | 0.0697        | 1.2000e-004        | 0.0101        | 1.0000e-004        | 0.0102        | 2.6900e-003        | 9.0000e-005        | 2.7800e-003        | 0.0000        | 10.1653        | 10.1653        | 6.1000e-004        | 0.0000        | 10.1780        |
| <b>Total</b> | <b>5.5100e-003</b> | <b>0.0116</b> | <b>0.0839</b> | <b>1.3000e-004</b> | <b>0.0103</b> | <b>1.7000e-004</b> | <b>0.0104</b> | <b>2.7300e-003</b> | <b>1.5000e-004</b> | <b>2.8800e-003</b> | <b>0.0000</b> | <b>10.8635</b> | <b>10.8635</b> | <b>6.2000e-004</b> | <b>0.0000</b> | <b>10.8765</b> |

## Don Wallace Multi-Use Trail Connector - Maintenance

### South Coast Air Basin, Winter

### 1.0 Project Characteristics

#### 1.1 Land Usage

| Land Uses                 | Size | Metric            | Lot Acreage | Floor Surface Area | Population |
|---------------------------|------|-------------------|-------------|--------------------|------------|
| User Defined Recreational | 0.60 | User Defined Unit | 0.60        | 24,000.00          | 0          |

#### 1.2 Other Project Characteristics

|                                |                            |                                |       |                                  |       |
|--------------------------------|----------------------------|--------------------------------|-------|----------------------------------|-------|
| <b>Urbanization</b>            | Urban                      | <b>Wind Speed (m/s)</b>        | 2.2   | <b>Precipitation Freq (Days)</b> | 31    |
| <b>Climate Zone</b>            | 8                          |                                |       | <b>Operational Year</b>          | 2014  |
| <b>Utility Company</b>         | Southern California Edison |                                |       |                                  |       |
| <b>CO2 Intensity (lb/MWhr)</b> | 630.89                     | <b>CH4 Intensity (lb/MWhr)</b> | 0.029 | <b>N2O Intensity (lb/MWhr)</b>   | 0.006 |

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project is a trail

Construction Phase - project schedule

Off-road Equipment - anticipated equipment

Trips and VMT - Removed sediment would be taken to the Calabasas Landfill located approximately 1.8 miles from the project site (5300 Lost Hills Road, Antelope Hills, CA)

Grading - site acreage

Construction Off-road Equipment Mitigation - dust control measures

| Table Name             | Column Name                    | Default Value | New Value |
|------------------------|--------------------------------|---------------|-----------|
| tblConstDustMitigation | CleanPavedRoadPercentReduction | 0             | 26        |
| tblConstructionPhase   | NumDays                        | 2.00          | 30.00     |
| tblGrading             | AcresOfGrading                 | 0.00          | 0.60      |

|                     |                            |       |           |
|---------------------|----------------------------|-------|-----------|
| tblGrading          | MaterialExported           | 0.00  | 267.00    |
| tblLandUse          | LandUseSquareFeet          | 0.00  | 24,000.00 |
| tblLandUse          | LotAcreage                 | 0.00  | 0.60      |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00  | 0.00      |
| tblTripsAndVMT      | HaulingTripLength          | 20.00 | 2.00      |

## 2.0 Emissions Summary

### 2.1 Overall Construction (Maximum Daily Emission)

#### Unmitigated Construction

|              | ROG           | NOx            | CO             | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2         | Total CO2         | CH4           | N2O           | CO2e              |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|---------------|-------------------|
| Year         | lb/day        |                |                |               |               |               |               |                |               |               | lb/day        |                   |                   |               |               |                   |
| 2015         | 1.9252        | 20.8161        | 12.9031        | 0.0228        | 0.9222        | 1.0445        | 1.9667        | 0.4553         | 0.9609        | 1.4162        | 0.0000        | 2,364.6526        | 2,364.6526        | 0.6669        | 0.0000        | 2,378.6572        |
| <b>Total</b> | <b>1.9252</b> | <b>20.8161</b> | <b>12.9031</b> | <b>0.0228</b> | <b>0.9222</b> | <b>1.0445</b> | <b>1.9667</b> | <b>0.4553</b>  | <b>0.9609</b> | <b>1.4162</b> | <b>0.0000</b> | <b>2,364.6526</b> | <b>2,364.6526</b> | <b>0.6669</b> | <b>0.0000</b> | <b>2,378.6572</b> |

#### Mitigated Construction

|              | ROG           | NOx            | CO             | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2         | Total CO2         | CH4           | N2O           | CO2e              |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|---------------|-------------------|
| Year         | lb/day        |                |                |               |               |               |               |                |               |               | lb/day        |                   |                   |               |               |                   |
| 2015         | 1.9252        | 20.8161        | 12.9031        | 0.0228        | 0.4786        | 1.0445        | 1.5230        | 0.2170         | 0.9609        | 1.1779        | 0.0000        | 2,364.6526        | 2,364.6526        | 0.6669        | 0.0000        | 2,378.6572        |
| <b>Total</b> | <b>1.9252</b> | <b>20.8161</b> | <b>12.9031</b> | <b>0.0228</b> | <b>0.4786</b> | <b>1.0445</b> | <b>1.5230</b> | <b>0.2170</b>  | <b>0.9609</b> | <b>1.1779</b> | <b>0.0000</b> | <b>2,364.6526</b> | <b>2,364.6526</b> | <b>0.6669</b> | <b>0.0000</b> | <b>2,378.6572</b> |



|                   | ROG  | NOx  | CO   | SO2  | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4  | N2O  | CO2e |
|-------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 48.11         | 0.00         | 22.56      | 52.34          | 0.00          | 16.83       | 0.00     | 0.00     | 0.00      | 0.00 | 0.00 | 0.00 |

### 3.0 Construction Detail

#### Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date  | Num Days Week | Num Days | Phase Description |
|--------------|------------|------------|------------|-----------|---------------|----------|-------------------|
| 1            | Grading    | Grading    | 1/1/2015   | 2/11/2015 | 5             | 30       |                   |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0.6

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

| Phase Name | Offroad Equipment Type    | Amount | Usage Hours | Horse Power | Load Factor |
|------------|---------------------------|--------|-------------|-------------|-------------|
| Grading    | Concrete/Industrial Saws  | 0      | 8.00        | 81          | 0.73        |
| Grading    | Off-Highway Trucks        | 1      | 8.00        | 400         | 0.38        |
| Grading    | Rubber Tired Dozers       | 1      | 1.00        | 255         | 0.40        |
| Grading    | Skid Steer Loaders        | 1      | 8.00        | 64          | 0.37        |
| Grading    | Tractors/Loaders/Backhoes | 2      | 6.00        | 97          | 0.37        |

#### Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Grading    | 5                       | 13.00              | 0.00               | 33.00               | 14.70              | 6.90               | 2.00                | LD_Mix               | HDT_Mix              | HHDT                  |

### 3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

### 3.2 Grading - 2015

#### Unmitigated Construction On-Site

|               | ROG           | NOx            | CO             | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2 | NBio- CO2         | Total CO2         | CH4           | N2O | CO2e              |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category      | lb/day        |                |                |               |               |               |               |                |               |               | lb/day   |                   |                   |               |     |                   |
| Fugitive Dust |               |                |                |               | 0.7750        | 0.0000        | 0.7750        | 0.4162         | 0.0000        | 0.4162        |          |                   | 0.0000            |               |     | 0.0000            |
| Off-Road      | 1.8531        | 20.6767        | 11.8644        | 0.0210        |               | 1.0425        | 1.0425        |                | 0.9591        | 0.9591        |          | 2,204.5172        | 2,204.5172        | 0.6581        |     | 2,218.3382        |
| <b>Total</b>  | <b>1.8531</b> | <b>20.6767</b> | <b>11.8644</b> | <b>0.0210</b> | <b>0.7750</b> | <b>1.0425</b> | <b>1.8175</b> | <b>0.4162</b>  | <b>0.9591</b> | <b>1.3753</b> |          | <b>2,204.5172</b> | <b>2,204.5172</b> | <b>0.6581</b> |     | <b>2,218.3382</b> |

#### Unmitigated Construction Off-Site

|          | ROG    | NOx    | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4         | N2O | CO2e     |
|----------|--------|--------|--------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|-----|----------|
| Category | lb/day |        |        |             |               |              |             |                |               |             | lb/day   |           |           |             |     |          |
| Hauling  | 0.0106 | 0.0569 | 0.1774 | 1.0000e-004 | 1.9400e-003   | 6.9000e-004  | 2.6200e-003 | 5.3000e-004    | 6.3000e-004   | 1.1600e-003 |          | 9.9017    | 9.9017    | 1.3000e-004 |     | 9.9044   |
| Vendor   | 0.0000 | 0.0000 | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000      | 0.0000         | 0.0000        | 0.0000      |          | 0.0000    | 0.0000    | 0.0000      |     | 0.0000   |
| Worker   | 0.0614 | 0.0824 | 0.8613 | 1.7300e-003 | 0.1453        | 1.2800e-003  | 0.1466      | 0.0385         | 1.1700e-003   | 0.0397      |          | 150.2337  | 150.2337  | 8.6200e-003 |     | 150.4146 |

|              |               |               |               |                    |               |                    |               |               |                    |               |  |                 |                 |                    |  |                 |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|---------------|--------------------|---------------|--|-----------------|-----------------|--------------------|--|-----------------|
| <b>Total</b> | <b>0.0720</b> | <b>0.1394</b> | <b>1.0387</b> | <b>1.8300e-003</b> | <b>0.1473</b> | <b>1.9700e-003</b> | <b>0.1492</b> | <b>0.0391</b> | <b>1.8000e-003</b> | <b>0.0409</b> |  | <b>160.1354</b> | <b>160.1354</b> | <b>8.7500e-003</b> |  | <b>160.3190</b> |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|---------------|--------------------|---------------|--|-----------------|-----------------|--------------------|--|-----------------|

**Mitigated Construction On-Site**

|                 | ROG           | NOx            | CO             | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2         | Total CO2         | CH4           | N2O | CO2e              |
|-----------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| <b>Category</b> | lb/day        |                |                |               |               |               |               |                |               |               | lb/day        |                   |                   |               |     |                   |
| Fugitive Dust   |               |                |                |               | 0.3313        | 0.0000        | 0.3313        | 0.1779         | 0.0000        | 0.1779        |               |                   | 0.0000            |               |     | 0.0000            |
| Off-Road        | 1.8531        | 20.6767        | 11.8644        | 0.0210        |               | 1.0425        | 1.0425        |                | 0.9591        | 0.9591        | 0.0000        | 2,204.5172        | 2,204.5172        | 0.6581        |     | 2,218.3382        |
| <b>Total</b>    | <b>1.8531</b> | <b>20.6767</b> | <b>11.8644</b> | <b>0.0210</b> | <b>0.3313</b> | <b>1.0425</b> | <b>1.3738</b> | <b>0.1779</b>  | <b>0.9591</b> | <b>1.1370</b> | <b>0.0000</b> | <b>2,204.5172</b> | <b>2,204.5172</b> | <b>0.6581</b> |     | <b>2,218.3382</b> |

**Mitigated Construction Off-Site**

|                 | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5      | PM2.5 Total   | Bio- CO2 | NBio- CO2       | Total CO2       | CH4                | N2O | CO2e            |
|-----------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| <b>Category</b> | lb/day        |               |               |                    |               |                    |               |                |                    |               | lb/day   |                 |                 |                    |     |                 |
| Hauling         | 0.0106        | 0.0569        | 0.1774        | 1.0000e-004        | 1.9400e-003   | 6.9000e-004        | 2.6200e-003   | 5.3000e-004    | 6.3000e-004        | 1.1600e-003   |          | 9.9017          | 9.9017          | 1.3000e-004        |     | 9.9044          |
| Vendor          | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000         | 0.0000             | 0.0000        |          | 0.0000          | 0.0000          | 0.0000             |     | 0.0000          |
| Worker          | 0.0614        | 0.0824        | 0.8613        | 1.7300e-003        | 0.1453        | 1.2800e-003        | 0.1466        | 0.0385         | 1.1700e-003        | 0.0397        |          | 150.2337        | 150.2337        | 8.6200e-003        |     | 150.4146        |
| <b>Total</b>    | <b>0.0720</b> | <b>0.1394</b> | <b>1.0387</b> | <b>1.8300e-003</b> | <b>0.1473</b> | <b>1.9700e-003</b> | <b>0.1492</b> | <b>0.0391</b>  | <b>1.8000e-003</b> | <b>0.0409</b> |          | <b>160.1354</b> | <b>160.1354</b> | <b>8.7500e-003</b> |     | <b>160.3190</b> |

## Don Wallace Multi-Use Trail Connector - Maintenance

### South Coast Air Basin, Summer

### 1.0 Project Characteristics

#### 1.1 Land Usage

| Land Uses                 | Size | Metric            | Lot Acreage | Floor Surface Area | Population |
|---------------------------|------|-------------------|-------------|--------------------|------------|
| User Defined Recreational | 0.60 | User Defined Unit | 0.60        | 24,000.00          | 0          |

#### 1.2 Other Project Characteristics

|                                 |                            |                                 |       |                                  |       |
|---------------------------------|----------------------------|---------------------------------|-------|----------------------------------|-------|
| <b>Urbanization</b>             | Urban                      | <b>Wind Speed (m/s)</b>         | 2.2   | <b>Precipitation Freq (Days)</b> | 31    |
| <b>Climate Zone</b>             | 8                          |                                 |       | <b>Operational Year</b>          | 2014  |
| <b>Utility Company</b>          | Southern California Edison |                                 |       |                                  |       |
| <b>CO2 Intensity (lb/MW hr)</b> | 630.89                     | <b>CH4 Intensity (lb/MW hr)</b> | 0.029 | <b>N2O Intensity (lb/MW hr)</b>  | 0.006 |

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project is a trail

Construction Phase - project schedule

Off-road Equipment - anticipated equipment

Trips and VMT - Removed sediment would be taken to the Calabasas Landfill located approximately 1.8 miles from the project site (5300 Lost Hills Road, <sup>Antelope Hills, CA</sup>Antelope Hills, CA)

Grading - site acreage

Construction Off-road Equipment Mitigation - dust control measures

| Table Name             | Column Name                    | Default Value | New Value |
|------------------------|--------------------------------|---------------|-----------|
| tblConstDustMitigation | CleanPavedRoadPercentReduction | 0             | 26        |
| tblConstructionPhase   | NumDays                        | 2.00          | 30.00     |
| tblGrading             | AcresOfGrading                 | 0.00          | 0.60      |

|                     |                            |       |           |
|---------------------|----------------------------|-------|-----------|
| tblGrading          | MaterialExported           | 0.00  | 267.00    |
| tblLandUse          | LandUseSquareFeet          | 0.00  | 24,000.00 |
| tblLandUse          | LotAcreage                 | 0.00  | 0.60      |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00  | 0.00      |
| tblTripsAndVMT      | HaulingTripLength          | 20.00 | 2.00      |

## 2.0 Emissions Summary

### 2.1 Overall Construction (Maximum Daily Emission)

#### Unmitigated Construction

|              | ROG           | NOx            | CO             | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2         | Total CO2         | CH4           | N2O           | CO2e              |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|---------------|-------------------|
| Year         | lb/day        |                |                |               |               |               |               |                |               |               | lb/day        |                   |                   |               |               |                   |
| 2015         | 1.9224        | 20.8078        | 12.9414        | 0.0229        | 0.9222        | 1.0444        | 1.9667        | 0.4553         | 0.9609        | 1.4162        | 0.0000        | 2,374.7791        | 2,374.7791        | 0.6669        | 0.0000        | 2,388.7834        |
| <b>Total</b> | <b>1.9224</b> | <b>20.8078</b> | <b>12.9414</b> | <b>0.0229</b> | <b>0.9222</b> | <b>1.0444</b> | <b>1.9667</b> | <b>0.4553</b>  | <b>0.9609</b> | <b>1.4162</b> | <b>0.0000</b> | <b>2,374.7791</b> | <b>2,374.7791</b> | <b>0.6669</b> | <b>0.0000</b> | <b>2,388.7834</b> |

#### Mitigated Construction

|              | ROG           | NOx            | CO             | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2         | Total CO2         | CH4           | N2O           | CO2e              |
|--------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|---------------|-------------------|
| Year         | lb/day        |                |                |               |               |               |               |                |               |               | lb/day        |                   |                   |               |               |                   |
| 2015         | 1.9224        | 20.8078        | 12.9414        | 0.0229        | 0.4786        | 1.0444        | 1.5230        | 0.2170         | 0.9609        | 1.1779        | 0.0000        | 2,374.7791        | 2,374.7791        | 0.6669        | 0.0000        | 2,388.7834        |
| <b>Total</b> | <b>1.9224</b> | <b>20.8078</b> | <b>12.9414</b> | <b>0.0229</b> | <b>0.4786</b> | <b>1.0444</b> | <b>1.5230</b> | <b>0.2170</b>  | <b>0.9609</b> | <b>1.1779</b> | <b>0.0000</b> | <b>2,374.7791</b> | <b>2,374.7791</b> | <b>0.6669</b> | <b>0.0000</b> | <b>2,388.7834</b> |



|         |   |       |      |       |       |      |      |        |         |      |
|---------|---|-------|------|-------|-------|------|------|--------|---------|------|
| Grading | 5 | 13.00 | 0.00 | 33.00 | 14.70 | 6.90 | 2.00 | LD_Mix | HDT_Mix | HHDT |
|---------|---|-------|------|-------|-------|------|------|--------|---------|------|

### 3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

### 3.2 Grading - 2015

#### Unmitigated Construction On-Site

|               | ROG           | NOx            | CO             | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2 | NBio- CO2         | Total CO2         | CH4           | N2O | CO2e              |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|----------|-------------------|-------------------|---------------|-----|-------------------|
| Category      | lb/day        |                |                |               |               |               |               |                |               |               | lb/day   |                   |                   |               |     |                   |
| Fugitive Dust |               |                |                |               | 0.7750        | 0.0000        | 0.7750        | 0.4162         | 0.0000        | 0.4162        |          |                   | 0.0000            |               |     | 0.0000            |
| Off-Road      | 1.8531        | 20.6767        | 11.8644        | 0.0210        |               | 1.0425        | 1.0425        |                | 0.9591        | 0.9591        |          | 2,204.5172        | 2,204.5172        | 0.6581        |     | 2,218.3382        |
| <b>Total</b>  | <b>1.8531</b> | <b>20.6767</b> | <b>11.8644</b> | <b>0.0210</b> | <b>0.7750</b> | <b>1.0425</b> | <b>1.8175</b> | <b>0.4162</b>  | <b>0.9591</b> | <b>1.3753</b> |          | <b>2,204.5172</b> | <b>2,204.5172</b> | <b>0.6581</b> |     | <b>2,218.3382</b> |

#### Unmitigated Construction Off-Site

|          | ROG         | NOx    | CO     | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4         | N2O | CO2e    |
|----------|-------------|--------|--------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|-----|---------|
| Category | lb/day      |        |        |             |               |              |             |                |               |             | lb/day   |           |           |             |     |         |
| Hauling  | 9.3200e-003 | 0.0561 | 0.1458 | 1.0000e-004 | 1.9400e-003   | 6.6000e-004  | 2.6000e-003 | 5.3000e-004    | 6.1000e-004   | 1.1400e-003 |          | 10.0977   | 10.0977   | 1.2000e-004 |     | 10.1002 |
| Vendor   | 0.0000      | 0.0000 | 0.0000 | 0.0000      | 0.0000        | 0.0000       | 0.0000      | 0.0000         | 0.0000        | 0.0000      |          | 0.0000    | 0.0000    | 0.0000      |     | 0.0000  |

|              |               |               |               |                    |               |                    |               |               |                    |               |  |                 |                 |                    |  |                 |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|---------------|--------------------|---------------|--|-----------------|-----------------|--------------------|--|-----------------|
| Worker       | 0.0600        | 0.0750        | 0.9312        | 1.8400e-003        | 0.1453        | 1.2800e-003        | 0.1466        | 0.0385        | 1.1700e-003        | 0.0397        |  | 160.1641        | 160.1641        | 8.6200e-003        |  | 160.3451        |
| <b>Total</b> | <b>0.0693</b> | <b>0.1312</b> | <b>1.0770</b> | <b>1.9400e-003</b> | <b>0.1473</b> | <b>1.9400e-003</b> | <b>0.1492</b> | <b>0.0391</b> | <b>1.7800e-003</b> | <b>0.0409</b> |  | <b>170.2618</b> | <b>170.2618</b> | <b>8.7400e-003</b> |  | <b>170.4452</b> |

**Mitigated Construction On-Site**

|               | ROG           | NOx            | CO             | SO2           | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2         | Total CO2         | CH4           | N2O | CO2e              |
|---------------|---------------|----------------|----------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|-------------------|-------------------|---------------|-----|-------------------|
| Category      | lb/day        |                |                |               |               |               |               |                |               |               | lb/day        |                   |                   |               |     |                   |
| Fugitive Dust |               |                |                |               | 0.3313        | 0.0000        | 0.3313        | 0.1779         | 0.0000        | 0.1779        |               |                   | 0.0000            |               |     | 0.0000            |
| Off-Road      | 1.8531        | 20.6767        | 11.8644        | 0.0210        |               | 1.0425        | 1.0425        |                | 0.9591        | 0.9591        | 0.0000        | 2,204.5172        | 2,204.5172        | 0.6581        |     | 2,218.3382        |
| <b>Total</b>  | <b>1.8531</b> | <b>20.6767</b> | <b>11.8644</b> | <b>0.0210</b> | <b>0.3313</b> | <b>1.0425</b> | <b>1.3738</b> | <b>0.1779</b>  | <b>0.9591</b> | <b>1.1370</b> | <b>0.0000</b> | <b>2,204.5172</b> | <b>2,204.5172</b> | <b>0.6581</b> |     | <b>2,218.3382</b> |

**Mitigated Construction Off-Site**

|              | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10       | PM10 Total    | Fugitive PM2.5 | Exhaust PM2.5      | PM2.5 Total   | Bio- CO2 | NBio- CO2       | Total CO2       | CH4                | N2O | CO2e            |
|--------------|---------------|---------------|---------------|--------------------|---------------|--------------------|---------------|----------------|--------------------|---------------|----------|-----------------|-----------------|--------------------|-----|-----------------|
| Category     | lb/day        |               |               |                    |               |                    |               |                |                    |               | lb/day   |                 |                 |                    |     |                 |
| Hauling      | 9.3200e-003   | 0.0561        | 0.1458        | 1.0000e-004        | 1.9400e-003   | 6.6000e-004        | 2.6000e-003   | 5.3000e-004    | 6.1000e-004        | 1.1400e-003   |          | 10.0977         | 10.0977         | 1.2000e-004        |     | 10.1002         |
| Vendor       | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000             | 0.0000        | 0.0000         | 0.0000             | 0.0000        |          | 0.0000          | 0.0000          | 0.0000             |     | 0.0000          |
| Worker       | 0.0600        | 0.0750        | 0.9312        | 1.8400e-003        | 0.1453        | 1.2800e-003        | 0.1466        | 0.0385         | 1.1700e-003        | 0.0397        |          | 160.1641        | 160.1641        | 8.6200e-003        |     | 160.3451        |
| <b>Total</b> | <b>0.0693</b> | <b>0.1312</b> | <b>1.0770</b> | <b>1.9400e-003</b> | <b>0.1473</b> | <b>1.9400e-003</b> | <b>0.1492</b> | <b>0.0391</b>  | <b>1.7800e-003</b> | <b>0.0409</b> |          | <b>170.2618</b> | <b>170.2618</b> | <b>8.7400e-003</b> |     | <b>170.4452</b> |



## Don Wallace Multi-Use Trail Connector - Maintenance South Coast Air Basin, Annual

### 1.0 Project Characteristics

#### 1.1 Land Usage

| Land Uses                 | Size | Metric            | Lot Acreage | Floor Surface Area | Population |
|---------------------------|------|-------------------|-------------|--------------------|------------|
| User Defined Recreational | 0.60 | User Defined Unit | 0.60        | 24,000.00          | 0          |

#### 1.2 Other Project Characteristics

|                                 |                            |                                 |       |                                  |       |
|---------------------------------|----------------------------|---------------------------------|-------|----------------------------------|-------|
| <b>Urbanization</b>             | Urban                      | <b>Wind Speed (m/s)</b>         | 2.2   | <b>Precipitation Freq (Days)</b> | 31    |
| <b>Climate Zone</b>             | 8                          |                                 |       | <b>Operational Year</b>          | 2014  |
| <b>Utility Company</b>          | Southern California Edison |                                 |       |                                  |       |
| <b>CO2 Intensity (lb/MW hr)</b> | 630.89                     | <b>CH4 Intensity (lb/MW hr)</b> | 0.029 | <b>N2O Intensity (lb/MW hr)</b>  | 0.006 |

#### 1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Project is a trail

Construction Phase - project schedule

Off-road Equipment - anticipated equipment

Trips and VMT - Removed sediment would be taken to the Calabasas Landfill located approximately 1.8 miles from the project site (5300 Lost Hills Road, Antelope Hills, CA)

Grading - site acreage

Construction Off-road Equipment Mitigation - dust control measures

| Table Name             | Column Name                    | Default Value | New Value |
|------------------------|--------------------------------|---------------|-----------|
| tblConstDustMitigation | CleanPavedRoadPercentReduction | 0             | 26        |
| tblConstructionPhase   | NumDays                        | 2.00          | 30.00     |
| tblGrading             | AcresOfGrading                 | 0.00          | 0.60      |

|                     |                            |       |           |
|---------------------|----------------------------|-------|-----------|
| tblGrading          | MaterialExported           | 0.00  | 267.00    |
| tblLandUse          | LandUseSquareFeet          | 0.00  | 24,000.00 |
| tblLandUse          | LotAcreage                 | 0.00  | 0.60      |
| tblOffRoadEquipment | OffRoadEquipmentUnitAmount | 1.00  | 0.00      |
| tblTripsAndVMT      | HaulingTripLength          | 20.00 | 2.00      |

## 2.0 Emissions Summary

### 2.1 Overall Construction

#### Unmitigated Construction

|              | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5     | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2      | Total CO2      | CH4                | N2O           | CO2e           |
|--------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Year         | tons/yr       |               |               |                    |               |               |               |                    |               |               | MT/yr         |                |                |                    |               |                |
| 2015         | 0.0288        | 0.3123        | 0.1938        | 3.4000e-004        | 0.0138        | 0.0157        | 0.0295        | 6.8200e-003        | 0.0144        | 0.0212        | 0.0000        | 32.2110        | 32.2110        | 9.0700e-003        | 0.0000        | 32.4016        |
| <b>Total</b> | <b>0.0288</b> | <b>0.3123</b> | <b>0.1938</b> | <b>3.4000e-004</b> | <b>0.0138</b> | <b>0.0157</b> | <b>0.0295</b> | <b>6.8200e-003</b> | <b>0.0144</b> | <b>0.0212</b> | <b>0.0000</b> | <b>32.2110</b> | <b>32.2110</b> | <b>9.0700e-003</b> | <b>0.0000</b> | <b>32.4016</b> |

#### Mitigated Construction

|              | ROG           | NOx           | CO            | SO2                | Fugitive PM10      | Exhaust PM10  | PM10 Total    | Fugitive PM2.5     | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2      | Total CO2      | CH4                | N2O           | CO2e           |
|--------------|---------------|---------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Year         | tons/yr       |               |               |                    |                    |               |               |                    |               |               | MT/yr         |                |                |                    |               |                |
| 2015         | 0.0288        | 0.3123        | 0.1938        | 3.4000e-004        | 7.1400e-003        | 0.0157        | 0.0228        | 3.2500e-003        | 0.0144        | 0.0177        | 0.0000        | 32.2110        | 32.2110        | 9.0700e-003        | 0.0000        | 32.4015        |
| <b>Total</b> | <b>0.0288</b> | <b>0.3123</b> | <b>0.1938</b> | <b>3.4000e-004</b> | <b>7.1400e-003</b> | <b>0.0157</b> | <b>0.0228</b> | <b>3.2500e-003</b> | <b>0.0144</b> | <b>0.0177</b> | <b>0.0000</b> | <b>32.2110</b> | <b>32.2110</b> | <b>9.0700e-003</b> | <b>0.0000</b> | <b>32.4015</b> |

|                   | ROG  | NOx  | CO   | SO2  | Fugitive PM10 | Exhaust PM10 | PM10 Total | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio-CO2 | Total CO2 | CH4  | N2O  | CO2e |
|-------------------|------|------|------|------|---------------|--------------|------------|----------------|---------------|-------------|----------|----------|-----------|------|------|------|
| Percent Reduction | 0.00 | 0.00 | 0.00 | 0.00 | 48.22         | 0.00         | 22.61      | 52.35          | 0.00          | 16.82       | 0.00     | 0.00     | 0.00      | 0.00 | 0.00 | 0.00 |

### 3.0 Construction Detail

#### Construction Phase

| Phase Number | Phase Name | Phase Type | Start Date | End Date  | Num Days Week | Num Days | Phase Description |
|--------------|------------|------------|------------|-----------|---------------|----------|-------------------|
| 1            | Grading    | Grading    | 1/1/2015   | 2/11/2015 | 5             | 30       |                   |

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0.6

Acres of Paving: 0

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0 (Architectural Coating – sqft)

#### OffRoad Equipment

| Phase Name | Offroad Equipment Type    | Amount | Usage Hours | Horse Power | Load Factor |
|------------|---------------------------|--------|-------------|-------------|-------------|
| Grading    | Concrete/Industrial Saws  | 0      | 8.00        | 81          | 0.73        |
| Grading    | Off-Highway Trucks        | 1      | 8.00        | 400         | 0.38        |
| Grading    | Rubber Tired Dozers       | 1      | 1.00        | 255         | 0.40        |
| Grading    | Skid Steer Loaders        | 1      | 8.00        | 64          | 0.37        |
| Grading    | Tractors/Loaders/Backhoes | 2      | 6.00        | 97          | 0.37        |

#### Trips and VMT

| Phase Name | Offroad Equipment Count | Worker Trip Number | Vendor Trip Number | Hauling Trip Number | Worker Trip Length | Vendor Trip Length | Hauling Trip Length | Worker Vehicle Class | Vendor Vehicle Class | Hauling Vehicle Class |
|------------|-------------------------|--------------------|--------------------|---------------------|--------------------|--------------------|---------------------|----------------------|----------------------|-----------------------|
| Grading    | 5                       | 13.00              | 0.00               | 33.00               | 14.70              | 6.90               | 2.00                | LD_Mix               | HDT_Mix              | HHDT                  |

### 3.1 Mitigation Measures Construction

Replace Ground Cover

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

### 3.2 Grading - 2015

#### Unmitigated Construction On-Site

|               | ROG           | NOx           | CO            | SO2                | Fugitive PM10 | Exhaust PM10  | PM10 Total    | Fugitive PM2.5     | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2      | Total CO2      | CH4                | N2O           | CO2e           |
|---------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category      | tons/yr       |               |               |                    |               |               |               |                    |               |               | MT/yr         |                |                |                    |               |                |
| Fugitive Dust |               |               |               |                    | 0.0116        | 0.0000        | 0.0116        | 6.2400e-003        | 0.0000        | 6.2400e-003   | 0.0000        | 0.0000         | 0.0000         | 0.0000             | 0.0000        | 0.0000         |
| Off-Road      | 0.0278        | 0.3102        | 0.1780        | 3.1000e-004        |               | 0.0156        | 0.0156        |                    | 0.0144        | 0.0144        | 0.0000        | 29.9986        | 29.9986        | 8.9600e-003        | 0.0000        | 30.1866        |
| <b>Total</b>  | <b>0.0278</b> | <b>0.3102</b> | <b>0.1780</b> | <b>3.1000e-004</b> | <b>0.0116</b> | <b>0.0156</b> | <b>0.0273</b> | <b>6.2400e-003</b> | <b>0.0144</b> | <b>0.0206</b> | <b>0.0000</b> | <b>29.9986</b> | <b>29.9986</b> | <b>8.9600e-003</b> | <b>0.0000</b> | <b>30.1866</b> |

#### Unmitigated Construction Off-Site

|          | ROG         | NOx         | CO          | SO2         | Fugitive PM10 | Exhaust PM10 | PM10 Total  | Fugitive PM2.5 | Exhaust PM2.5 | PM2.5 Total | Bio- CO2 | NBio- CO2 | Total CO2 | CH4         | N2O    | CO2e   |
|----------|-------------|-------------|-------------|-------------|---------------|--------------|-------------|----------------|---------------|-------------|----------|-----------|-----------|-------------|--------|--------|
| Category | tons/yr     |             |             |             |               |              |             |                |               |             | MT/yr    |           |           |             |        |        |
| Hauling  | 1.5000e-004 | 8.7000e-004 | 2.6000e-003 | 0.0000      | 3.0000e-005   | 1.0000e-005  | 4.0000e-005 | 1.0000e-005    | 1.0000e-005   | 2.0000e-005 | 0.0000   | 0.1363    | 0.1363    | 0.0000      | 0.0000 | 0.1363 |
| Vendor   | 0.0000      | 0.0000      | 0.0000      | 0.0000      | 0.0000        | 0.0000       | 0.0000      | 0.0000         | 0.0000        | 0.0000      | 0.0000   | 0.0000    | 0.0000    | 0.0000      | 0.0000 | 0.0000 |
| Worker   | 8.7000e-004 | 1.2700e-003 | 0.0132      | 3.0000e-005 | 2.1400e-003   | 2.0000e-005  | 2.1600e-003 | 5.7000e-004    | 2.0000e-005   | 5.9000e-004 | 0.0000   | 2.0762    | 2.0762    | 1.2000e-004 | 0.0000 | 2.0786 |

|              |                    |                    |               |                    |                    |                    |                    |                    |                    |                    |               |               |               |                    |               |               |
|--------------|--------------------|--------------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| <b>Total</b> | <b>1.0200e-003</b> | <b>2.1400e-003</b> | <b>0.0158</b> | <b>3.0000e-005</b> | <b>2.1700e-003</b> | <b>3.0000e-005</b> | <b>2.2000e-003</b> | <b>5.8000e-004</b> | <b>3.0000e-005</b> | <b>6.1000e-004</b> | <b>0.0000</b> | <b>2.2124</b> | <b>2.2124</b> | <b>1.2000e-004</b> | <b>0.0000</b> | <b>2.2149</b> |
|--------------|--------------------|--------------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|

**Mitigated Construction On-Site**

|               | ROG           | NOx           | CO            | SO2                | Fugitive PM10      | Exhaust PM10  | PM10 Total    | Fugitive PM2.5     | Exhaust PM2.5 | PM2.5 Total   | Bio- CO2      | NBio- CO2      | Total CO2      | CH4                | N2O           | CO2e           |
|---------------|---------------|---------------|---------------|--------------------|--------------------|---------------|---------------|--------------------|---------------|---------------|---------------|----------------|----------------|--------------------|---------------|----------------|
| Category      | tons/yr       |               |               |                    |                    |               |               |                    |               |               | MT/yr         |                |                |                    |               |                |
| Fugitive Dust |               |               |               |                    | 4.9700e-003        | 0.0000        | 4.9700e-003   | 2.6700e-003        | 0.0000        | 2.6700e-003   | 0.0000        | 0.0000         | 0.0000         | 0.0000             | 0.0000        | 0.0000         |
| Off-Road      | 0.0278        | 0.3102        | 0.1780        | 3.1000e-004        |                    | 0.0156        | 0.0156        |                    | 0.0144        | 0.0144        | 0.0000        | 29.9985        | 29.9985        | 8.9600e-003        | 0.0000        | 30.1866        |
| <b>Total</b>  | <b>0.0278</b> | <b>0.3102</b> | <b>0.1780</b> | <b>3.1000e-004</b> | <b>4.9700e-003</b> | <b>0.0156</b> | <b>0.0206</b> | <b>2.6700e-003</b> | <b>0.0144</b> | <b>0.0171</b> | <b>0.0000</b> | <b>29.9985</b> | <b>29.9985</b> | <b>8.9600e-003</b> | <b>0.0000</b> | <b>30.1866</b> |

**Mitigated Construction Off-Site**

|              | ROG                | NOx                | CO            | SO2                | Fugitive PM10      | Exhaust PM10       | PM10 Total         | Fugitive PM2.5     | Exhaust PM2.5      | PM2.5 Total        | Bio- CO2      | NBio- CO2     | Total CO2     | CH4                | N2O           | CO2e          |
|--------------|--------------------|--------------------|---------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|---------------|---------------|---------------|--------------------|---------------|---------------|
| Category     | tons/yr            |                    |               |                    |                    |                    |                    |                    |                    |                    | MT/yr         |               |               |                    |               |               |
| Hauling      | 1.5000e-004        | 8.7000e-004        | 2.6000e-003   | 0.0000             | 3.0000e-005        | 1.0000e-005        | 4.0000e-005        | 1.0000e-005        | 1.0000e-005        | 2.0000e-005        | 0.0000        | 0.1363        | 0.1363        | 0.0000             | 0.0000        | 0.1363        |
| Vendor       | 0.0000             | 0.0000             | 0.0000        | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000             | 0.0000        | 0.0000        | 0.0000        | 0.0000             | 0.0000        | 0.0000        |
| Worker       | 8.7000e-004        | 1.2700e-003        | 0.0132        | 3.0000e-005        | 2.1400e-003        | 2.0000e-005        | 2.1600e-003        | 5.7000e-004        | 2.0000e-005        | 5.9000e-004        | 0.0000        | 2.0762        | 2.0762        | 1.2000e-004        | 0.0000        | 2.0786        |
| <b>Total</b> | <b>1.0200e-003</b> | <b>2.1400e-003</b> | <b>0.0158</b> | <b>3.0000e-005</b> | <b>2.1700e-003</b> | <b>3.0000e-005</b> | <b>2.2000e-003</b> | <b>5.8000e-004</b> | <b>3.0000e-005</b> | <b>6.1000e-004</b> | <b>0.0000</b> | <b>2.2124</b> | <b>2.2124</b> | <b>1.2000e-004</b> | <b>0.0000</b> | <b>2.2149</b> |

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**APPENDIX B**  
**HABITAT ASSESSMENT**



# DON WALLACE MULTI-USE TRAIL CONNECTOR



## Calabasas, California

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### Habitat Assessment



Prepared For:  
**County of Los Angeles**  
**Department of Parks and Recreation**  
510 South Vermont Avenue  
Los Angeles, CA 90020



Prepared By:  
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February 19, 2013  
JN 133920

# **DON WALLACE**

## **MULTI-USE TRAIL CONNECTOR**

**CITY OF CALABASAS, LOS ANGELES COUNTY, CALIFORNIA**

### **Habitat Assessment**

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The undersigned certify that the statements furnished in this report and exhibits present data and information required for this biological evaluation, and the facts, statements, and information presented is a complete and accurate account of the findings and conclusions to the best of our knowledge and beliefs.



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Travis J. McGill  
Biologist  
Natural Resources



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Thomas J. McGill, Ph.D.  
Vice President  
Natural Resources

February 19, 2013



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## **Introduction**

This report contains an overview of RBF Consulting's (RBF) habitat assessment for the Don Wallace Multi-Use Trail Connector Project (Don Wallace Trail Connector) located in the City of Calabasas, Los Angeles County, California. The Don Wallace Multi-Use Trail Connector Project is hereinafter referred to as project site or site. The habitat assessment was conducted by RBF biologists Thomas J. McGill, Ph.D. and Travis J. McGill on January 18, 2013 to document baseline conditions and to identify sensitive habitats and/or species potentially occurring within the boundaries of the project site that could pose a constraint to development. Data gathered during the habitat assessment is being used to prepare a Natural Environment Study - Minimal Impacts (NES-MI) for formal submittal to Caltrans. A delineation of State and federal jurisdictional waters is being prepared under separate cover.

The habitat assessment evaluated the conditions of the habitat(s) within the boundaries of the project site to determine if the existing plant communities at the time of this survey have the potential to provide suitable habitat(s) for sensitive plant and wildlife species. The habitat assessment closely evaluated the project site for its potential to provide suitable habitat for California red-legged frog (*Rana draytonii*), and least Bell's vireo (*Vireo bellii pusillus*). Additionally, special attention was paid to sensitive habitats and/or undeveloped, natural areas having a higher potential to support sensitive plant and wildlife species.

## **Project Location**

The Don Wallace Multi-Use Trail Connection project, hereinafter referred to as project site or site, is generally located in the northwestern portion of the City of Calabasas, Los Angeles County, California (Exhibit 1, *Regional Vicinity*). The project site is depicted on the Calabasas United States Geological Survey (USGS) 7.5-minute quadrangle within Section 19 and 30, Township 1 north, Range 17 west (Exhibit 2, *Site Vicinity*). Specifically, the project site is located a quarter of a mile west of Las Virgenes Road, north of Agoura Road, and immediately north and south of U.S. Route 101 in association with Las Virgenes Creek (Exhibit 3, *Project Site*).

## **Project Background & Description**

The objective of the Don Wallace Multi-Use Trail Connection Project is to develop a safe and passable multi-use trail connector under U.S. Route 101. The project proposes to install a 1,100 foot trail segment under U.S. Route 101 that will provide a vital connection to a larger network of regional trails that will ultimately join with continuous trails that will provide a connection from the Pacific Ocean to the Santa Monica Mountains. The trail segment will start south of U.S. Route 101 within the Caltrans right-of-way, and will pass through the west cell of an existing triple reinforced concrete box culvert<sup>1</sup> under U.S. Route 101. Within the western cell, an 8x2 foot reinforced concrete overlay will be cast directly against the invert of the cell against the west wall surface. The trail segment will then extend out of the concrete box culvert on the north side of U.S. Route 101 into an existing open concrete culvert. From there, the trail connector will exit the north side of the open culvert through a break in the retaining wall. The exact location of the break in the retaining wall will be identified based on Consultant's studies, design, and consultation with Caltrans. Once out of the open concrete culvert, north of U.S. Route 101, the trail segment will connect with existing natural/informal trails on Santa Monica Mountain Conservancy (SMMC) land.

## **Methodology**

RBF's work effort included a literature review, including previously prepared reports, and a field survey to document baseline conditions and to determine if the project site has the potential to

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<sup>1</sup> Each cell of the triple reinforced concrete box culvert is 15x15 feet, totaling a width of 45 feet.

provide suitable habitat for sensitive biological resources. The plant communities were evaluated for their potential to provide suitable habitat that could support sensitive flora and fauna species as well as the identification of corridors and linkages that may support the movement of wildlife through the area.

Previously recorded occurrences of special status plant and wildlife species and their proximity to the project site were determined through a query of the California Department of Fish and Wildlife (CDFW) *California Natural Diversity Database* (CNDDDB), the California Native Plant Society's (CNPS) *Electronic Inventory of rare and Endangered Vascular Plants of California*, Calflora Database, compendia of special-status species published by CDFW, and United States Fish and Wildlife Service (USFWS) species listings.

Plant communities identified on aerial photographs during the literature review were confirmed via site reconnaissance. Site reconnaissance consisted of walking meandering transects through the plant communities and along boundaries between plant communities. The entire project site and surrounding habitats were surveyed on foot. All plant and wildlife species observed, as well as dominant plant species within each plant community, were recorded. Notes were taken during the survey of all plant and wildlife species observed and potential jurisdictional features were identified. Observations of animal species included scat, trails, tracks, burrows, nests, visual and aural observation. In addition, site characteristics such as soil condition, topography, presence of indicator species, condition of the plant communities, hydrology, and evidence of human use of the site were noted. The plant communities were classified in accordance with CDFW (2003) and Holland (1986), delineated on an aerial photograph, and then digitized into GIS Arcview. The Arcview application was used to compute the area of each plant community in acres.

## **Existing Site Conditions**

### ***General Land Uses***

The proposed project site is located on the northern foothills of the Santa Monica Mountains in an area that is composed of a mixture of developed and undeveloped land. The area immediately south of U.S. Route 101 is composed of a business park and commercial developments, whereas the land immediately north of U.S. Route 101 is undeveloped and part of the SMMC.

### ***Weather Conditions***

The region has a year-round Mediterranean Climate or Dry-Summer Subtropical zone climate, with warm, sunny, dry summers and cool, rainy winters. Vegetation is typical of Mediterranean environments, with chaparral/coastal sage scrub and grasses on the hillsides and numerous oaks. The area has slightly cooler temperatures than the surrounding areas, as it receives cooler air from the ocean through various hill and mountain passes. The temperature tends to be in the 70s (degrees Fahrenheit) during the summer and 50s during the winter. The warmest month of the year is August with an average temperature of 96. The average annual rainfall in the area is 12 to 13 inches but ranges from 4 to 25 inches. Rainfall also varies with elevation, with foothill areas receiving as much as 40 inches.

Weather conditions during the surveys included temperatures in the mid-60s (degrees Fahrenheit) and winds were minimal with no clouds present overhead. No precipitation was noted within 2 weeks of the field survey.

### ***Topography & Soils***

The project site is relatively flat with no areas of significant topographic relief. Surface elevations range from approximately 755 feet above mean sea level (msl) at the northeastern most boundary of

the project site to approximately 735 feet above msl at the southernmost reach of the project site near Agoura Road. On-site and adjoining soils were researched prior to the field visit using the USDA Natural Resources Conservation Service, Soil Survey (see Exhibit 4, *NRCS Soils Map*). A soil series is defined as a group of soils with similar profiles developed from similar parent materials under comparable climatic and vegetation conditions. These profiles include major horizons with similar thickness, arrangement, and other important characteristics, which may promote favorable conditions for certain biological resources. Specifically, soils mapped within the project boundaries are Fluvaquents - Riverwash complex (0-5% slopes), Urban land - xerorthents, landscaped, complex, rarely flooded (0-5% slopes) and Linne silty clay loam (9-15% slopes). The majority of the soils within the boundaries of the project site have been mechanically disturbed from development and channelization of watercourses for flood control purposes. These disturbances have removed most of the native soils from the project site.

### **Plant Communities**

Three plant communities were identified within project site: willow scrub, mixed riparian forest and coastal sage scrub (see Exhibit 5, Vegetation Map).

#### ***Willow Scrub***

The willow scrub plant community is composed of the young, newly established willows and cottonwoods that can survive the frequent physical battering and inundation from flooding. The presence of these young willows normally allows finer sediments to accumulate, with the result that additional riparian plants can become established. Willow scrub communities are frequently described as early successional habitats and are the first plant communities to form on newly established point bars along rivers.

North of U.S. Route 101, Las Virgenes creek is restricted to the 45 foot open concrete culvert. Over the years sediment has deposited on approximately 80 percent the concrete bottom (approximately 35-37 feet along the northern wall) leaving approximately 20 percent (approximately 8-10 feet along southern wall) sediment free. The accumulation of sediment ranges from 3 to 18 inches deep within the open culvert. An early successional willow scrub plant community has established on this sediment and is dominated by black willow (*Salix gooddingii*). The understory consists of leaf litter, cattails (*Typha* ssp.), watercress (*Nasturtium officinale*), nettle (*Urtica dioica*), wild carrot (*Daucus pusillus*), mugwort (*Artemisia douglasiana*), and non-native herbaceous plant species.

#### ***Mixed Riparian Forest (Restored)***

Mixed riparian forests are composed of medium sized trees and tall shrubs such as sycamores (*Plantanus racemosa*) and boxelder (*Acer negundo*). The understory contains a greater proportion of smaller shrubs than is present in Valley oak woodlands. Mixed riparian forests may be dominated by tall (>30m) cottonwoods and medium sized arroyo willows (*Salix lasiolepis*) and black willows. Where there are openings, dense patches of California mugwort may form, and aggressive vines such as blackberry and grape can produce huge thickets in the understory. There may be openings where trees and shrubs are almost completely engulfed in grape, or dense walls of blackberry that has climbed up trees and shrubs. Mixed riparian forests include dense, closed canopy forests interspersed with openings, which adds to their complexity and potential resources for wildlife.

South of U.S. Route 101, Las Virgenes creek has been restored and planted with a mixed riparian forest plant community. Plant species that were included in the restoration plans include toyon (*Heteromeles arbutifolia*), California sycamore, arroyo willow (*Salix lasiolepis*), cottonwood (*Populus fremontii*), California blackberry (*Rubus ursinus*), mugwort, coyote brush (*Baccharis pilularis* ssp. *consanguinea*), California wildrose (*Rosa californica*), and other native shrubs.

## **Coastal Sage Scrub**

Coastal sage scrub is comprised of low, soft-woody subshrubs, which grow up to about one meter (three feet) high. Many of the plants in this community are facultatively drought-deciduous. This association is typically found on dry sites, such as steep, south-facing slopes or clay-rich soils that are slow to release stored water.

The coastal sage scrub plant community is found north of the project site and Las Virgenes Creek. There are open, grassland areas throughout this plant community that are composed of introduced annual grasses and non-native plant species. Dominant plant species within the coastal sage scrub plant community observed north of the project site include black sage (*Salvia mellifera*), sagebrush (*Artemisia californica*) and coyote brush. Coyote melon (*Cucurbita palmata*) and golden bush (*Isocoma menziesii*) are also present within this community. Non-native plant species include mustard (*Hirschfeldia incana*), fennel (*Foeniculum vulgare*), thistle (*Cirsium* spp.), and non-native grasses.

## **Developed**

Developed areas are those that are paved or occupied with structures and roadways. The area south of U.S Route 101 is primarily developed with a business park and commercial developments. These developments surround Las Virgenes Creek which has resulted in the channelization of the Creek for flood control purposes.

## **Wildlife**

Wildlife, in general, was limited due to surrounding development and lack of undisturbed, natural habitat within the boundaries of the project footprint. However, the riparian vegetation that has established on the concrete culvert north of U.S. Route 101 and the restored mixed riparian forest south of U.S. Route 101 has the potential to provide suitable nesting opportunities for avian species.

The majority of the wildlife observed consisted of avian species. Avian species observed and heard during the survey included yellow-rumped warbler (*Dendroica coronata*), black phoebe (*Sayornis nigricans*), red-shouldered hawk (*Buteo lineatus*), song sparrow (*Melospiza melodia*), California towhee (*Pipilo crissalis*), spotted towhee (*Pipilo maculatus*), lesser goldfinch (*Spinus psaltria*), Nuttall's woodpecker (*Picoides nuttallii*), common yellowthroat (*Geothlypis trichas*), western scrub-jay (*Aphelocoma californica*), red-winged blackbird (*Agelaius phoeniceus*), and common raven (*Corvus corax*). Remnant cliff swallow (*Petrochelidon pyrrhonota*) mud nests were observed under the triple box culvert during the habitat assessment. Cliff swallows are migratory and only occur in this area during the breeding season.

The project site provides suitable habitat for a limited number of mammalian species acclimated to anthropogenic disturbances. However, most mammal species are nocturnal and are difficult to observe during a diurnal field visit. No mammals were observed during the habitat assessment. However, the remains of two mule deer (*Odocoileus hemionus*) were observed during the habitat assessment on top of the sediment within the open concrete culvert north of U.S. Route 101, and north of the project site in the undeveloped area on SMMC land.

A single tree frog (*Pseudacris cadaverina*) was observed on the concrete wall adjacent to the low-flow channel of Las Virgenes Creek in the open culvert north of U.S. Route 101. No reptiles or fish were observed during the survey.

## **Jurisdictional Features**

The United States Army Corps of Engineers (USACE) and the Regional Water Quality Control

Board (RWQCB) regulate discharge of fill into “waters of the United States” and “waters of the State” under Section 404 and 401 of the federal Clean Water Act (CWA), respectively. The CDFW regulates alterations to stream courses including adjacent riparian habitat areas under Section 1600 of the State Fish and Wildlife Code.

Las Virgenes Creek is a north to south trending perennial drainage that was determined to support non-wetland waters throughout its entire reach (Jurisdictional Delineation Report, RBF 2013). Las Virgenes Creek is a channelized drainage system with a single low-flow channel that flows through a broader active flood plain. Las Virgenes Creek is tributary to Malibu Creek which flows into the Pacific Ocean, a Traditional Navigable Water (TNW).

North of U.S. Route 101, the low-flow channel flows along the southern wall of the culvert into the eastern cell of the triple box culvert (under U.S. Route 101). Surface water then traverses the eastern cell and connects into the restored portion of Las Virgenes Creek, south of U.S. Route 101. The middle cell of the triple box culvert has approximately 2-12 inches of accumulated sediment on the southern half of its reach. The north half of this cell receives water from overflows out of the low-flow channel which has prevented sediment from accumulating in this half of the cell. The western cell of the triple box culvert has approximately 3-4 feet of sediment accumulation and only receives water during large storm events.

Within the project boundaries, Las Virgenes Creek has two distinct reaches that are separated by U.S. Route 101, where the Creek is channelized in a triple reinforced concrete box culvert. North of U.S. Route 101, Las Virgenes Creek is contained in an open concrete culvert with 15 foot walls that is approximately 45 feet wide and extends north for 500 feet paralleling U.S. Route 101. At that point the Creek continues to the north in an earthen bottom channel stabilized with rip-rap banks. South of U.S. Route 101, Las Virgenes Creek was restored to a natural setting from a previously engineered concrete channel. The restored segment is 400 feet long and extends from the Caltrans right-of-way south of U.S. Route 101 to Agoura Road.

The Don Wallace Multi-Use Trail Connection Project is currently in conceptual design stages and impacts to Las Virgenes Creek cannot be accurately determined at this time. However, impacts are expected to “WoUS”, “WoS”, and “streambed and riparian” habitats. Based on the 2013 Jurisdictional Delineation Report, Table 1 identifies each regulatory agency and total jurisdiction onsite.

**Table 1: Jurisdictional Summary**

| Agency | Total Jurisdiction On-Site<br>Acres |
|--------|-------------------------------------|
| USACE  | 1.3                                 |
| RWQCB  | 1.3                                 |
| CDFW   | 2.5                                 |

### **Sensitive Biological Resources**

Eight sensitive species have been recorded as occurring in the general vicinity of the project site:

- Arroyo toad (*Anaxyrus californicus*);
- Western pond turtle (*Emys marmorata*);
- Coastal California gnatcatcher (*Polioptila californica californica*);

- California red-legged frog (*Rana draytonii*);
- Least Bell's vireo (*Vireo bellii pusillus*);
- Braunton's milk-vetch (*Astragalus brauntonii*);
- San Fernando Valley spineflower (*Chorizanthe parryi var. fernandia*); and
- Lyon's pentachaeta (*Pentachaeta lyonii*).

Table 1 summarizes these species, lists their special status, specifies if federally designated Critical Habitat has been established for them, and their potential to occur on the project site.

**Table 2: Special Status Species and Critical Habitat**

| Scientific Name<br>Common Name   | Status               | Critical Habitat   | Preferred Habitat   | Potential for Occurrence<br>(Onsite)  |
|--|----------------------|--|---|---|
| <b>Wildlife Species</b>  |                      |  |   |   |
| <i>Anaxyrus californicus</i><br>arroyo toad                                  | Fed: FE<br>CA: CSC   | Designated Critical Habitat is not located near the project site           | Semi-arid regions near washes or intermittent streams, including valley-foothill and desert riparian, desert wash, etc.   | Riparian/riverine habitat on the project site consists of a fully lined concrete channel with an accumulation of sediment and limited vegetation north of U.S. Route 101. A restored areas with a mixed riparian forest plant community occurs south of U.S. Route 101. There is a single, perennial low flow channel that flows through the project site but does not provide suitable habitat for arroyo toad.                |
| <i>Emys marmorata</i><br>western pond turtle                                 | Fed: None<br>CA: CSC | NA   | A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation. Need basking sites and suitable upland habitat for water for egg-laying | Riparian/riverine habitat on the project site consists of a fully lined concrete channel with an accumulation of sediment and limited vegetation north of U.S. Route 101. A restored areas with a mixed riparian forest plant community occurs south of U.S. Route 101. There is a single, perennial low flow channel that flows through the project site but does not provide suitable habitat for western pond turtle.        |
| <i>Poliophtila californica californica</i><br>coastal California gnatcatcher | Fed: FT<br>CA: CSC   | Designated Critical Habitat is not located near the project site           | Obligate, permanent resident of coastal sage scrub below 2500 feet in south California  | North of the project site, outside of the project footprint, the coastal sage scrub habitat has the potential to provide suitable habitat for coastal California gnatcatcher. No suitable habitat occurs onsite.  |
| <i>Rana draytonii</i><br>California red-legged frog                          | Fed: FT<br>CA: CSC   | Designated Critical Habitat is located 1.5 miles north of the project site | Lowlands and foothills in or near permanent sources of deep water with dense shrubby or riparian vegetation   | Riparian/riverine habitat on the project site consists of a fully lined concrete channel with an accumulation of sediment and limited vegetation north of U.S. Route 101. A restored areas with a mixed riparian forest plant community occurs south of U.S. Route 101. There is a single, perennial low flow channel that flows through the project site but does not provide suitable habitat for California red-legged frog. |

|  |                      |  |  |   |   |
|--|----------------------|--|--|---|---|
| <b><i>Vireo bellii pusillus</i></b><br>least Bell's vireo  | Fed:<br>CA:          | <b>FE</b><br><b>SE</b>                 | Designated Critical Habitat is not located near the project site               | Summer resident of southern California in low riparian in vicinity of water or dry river bottoms. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, baccharis, mesquite                            | The restored riparian area south of US Route 101 provides low quality habitat for LBVI. Since this area was restored and is surrounded by existing development, the probability of LBVI using the vegetation to nest is low. The nearest recorded sighting occurred in 2008 approximately 15 miles northwest of the project site. |
| <b>Plant Species</b>   |                      |  |  |   |   |
| <b><i>Astragalus brauntonii</i></b><br>Braunton's milk-vetch   | Fed:<br>CA:<br>CNPS: | <b>FE</b><br><b>CSC</b><br><b>1B.1</b> | Designated Critical Habitat is located 3.5 miles northwest of the project site | Closed-cone coniferous forest, chaparral, coastal scrub, valley and foothill grassland  | North of the project site, outside of the project footprint, the coastal sage scrub habitat has the potential to provide suitable habitat for Braunton's milk-vetch. However, no suitable habitat occurs onsite.  |
| <b><i>Chorizanthe parryi var. fernandina</i></b><br>San Fernando Valley spineflower  | Fed:<br>CA:<br>CNPS: | <b>FCE</b><br><b>SE</b><br><b>1B.1</b> | NA   | On sandy soils habitats associated with modelo formation. Seen most often in sparsely vegetated areas where soils are thin, compacted or bedrock is exposed. Also found along interface between coastal sage scrub and non-native grassland | North of the project site, outside of the project footprint, the coastal sage scrub habitat has the potential to provide suitable habitat for San Fernando Valley spineflower. However, no suitable habitat occurs onsite.  |
| <b><i>Pentachaeta lyonii</i></b><br>Lyon's pentachaeta   | Fed:<br>CA:<br>CNPS: | <b>FE</b><br><b>SE</b><br><b>1B.1</b>  | Designated Critical Habitat is located 3 miles west of the project site        | Chaparral, valley and foothill grassland. Edges of clearings in chaparral, usually between ecotone between grassland and chaparral or edges of firebreaks   | North of the project site, outside of the project footprint, the coastal sage scrub habitat has the potential to provide suitable habitat for Lyon's pentachaeta. However, no suitable habitat occurs onsite.   |
| <p><b>U.S. Fish and Wildlife Service – Federal (Fed)</b><br/> FE- Endangered<br/> FT- Threatened<br/> FCE- Candidate<br/> Endangered</p> <p><b>California Department of Fish and Game – State (CA)</b><br/> SE- Endangered<br/> ST- Threatened<br/> CSC- Species of Concern</p> <p><b>California Native Plant Society – (CNPS)</b><br/> <i>California Rare Plant Rank</i><br/> 1A Plants rare, threatened, or endangered in CA and elsewhere<br/> 1B Plants rare, threatened, or endangered in CA but more common elsewhere<br/> 2 Lack information to assign a rank (review list)<br/> 3 Limited Distribution or infrequent throughout a broader area in California (watch list)</p> <p><b>Threat Ranks</b><br/> 0.1 Seriously threatened in California<br/> 0.2 Fairly threatened in California<br/> 0.3 Not very threatened in California</p> |                      |  |  |   |   |

**Critical Habitat**

All federal agencies are required to consult with the USFWS regarding activities they authorize, fund, or permit which may affect a federally listed species or its designated Critical Habitat. The



purpose of the consultation is to ensure that projects will not jeopardize the continued existence of the listed species or adversely modify or destroy its designated Critical Habitat. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highways Administration or a permit from the USACE). If there is a federal nexus, such as the need for a CWA Section 404 permit from the USACE, then the federal agency that is responsible for providing the funding or permit would consult with the USFWS.

The project site is not located within federally designated Critical Habitat. However, federally designated Critical Habitat for California red-legged frog (1.5 miles to the north), Braunton’s milk-vetch (3.5 miles to the northwest), and Lyon’s pentachaeta (3 miles to the west) occurs within the general vicinity of the project site (see Exhibit 6, *Critical Habitat Map*).

**Significant Ecological Areas**

The Significant Ecological Area (SEA) Program is a component of the Los Angeles County General Plan Conservation/Open Space Element. SEAs are ecologically important land and water systems that support sensitive habitat for plants and wildlife and have been designated for preservation of rare, threatened or endangered species and the conservation of biological diversity in the County. While SEAs are not preserves, they are areas where the County deems it important to facilitate a balance between development and resource conservation. Development activities in the SEAs are permitted, however, they are reviewed closely in order to conserve sensitive resources such as streams, oak woodlands and threatened or endangered species and their habitat.

The project site is located within the umbrella County #22 Santa Monica Mountains SEA, a newly proposed but unapproved SEA (see Exhibit 7, *Significant Ecological Areas*). The Santa Monica Mountains SEA is located within the Santa Monica Mountains in a mostly unincorporated area of the County that will incorporate 11 existing SEA’s plus additional land. Proposed SEA #22 will include nearly all of the canyons and ridges from the Ventura-Los Angeles County line, and east to Sullivan Canyon and from the edge of development along the coastline to the edge of development of the Ventura/Los Angeles County Line to the north.

**Table 3: Proposed versus Existing SEA Boundaries**

| Proposed               |             |              | Existing |                                     |             |              | Comparison  |
|------------------------|-------------|--------------|----------|-------------------------------------|-------------|--------------|---|
| SEA Name               | Total Acres | Uninc. Acres | SEA #    | SEA Name                            | Total Acres | Uninc. Acres |   |
| Santa Monica Mountains | 99,430      | 70,880       | 3        | Zuma Canyon                         | 3,202       | 2,900        | Consolidated with proposed Santa Monica Mountains SEA |
|                        |             |              | 4        | Upper La Sierra Canyon              | 287         | 287          | Consolidated with proposed Santa Monica Mountains SEA |
|                        |             |              | 5        | Malibu Canyon and Lagoon            | 3,680       | 3,500        | Consolidated with proposed Santa Monica Mountains SEA |
|                        |             |              | 6        | Las Virgenes                        | 500         | 250          | Consolidated with proposed Santa Monica Mountains SEA |
|                        |             |              | 7        | Hepatic Gulch                       | 15          | 15           | Consolidated with proposed Santa Monica Mountains SEA |
|                        |             |              | 8        | Malibu Creek State Park Buffer Area | 245         | 245          | Consolidated with proposed Santa Monica Mountains SEA |
|                        |             |              | 9        | Cold Creek                          | 1,522       | 1,522        | Consolidated with proposed Santa Monica Mountains SEA |
|                        |             |              | 10       | Tuna Creek                          | 1,491       | 1,350        | Consolidated with proposed Santa Monica Mountains SEA |
|                        |             |              | 11       | Temescal-Rustic-Sullivan Canyon     | 5,702       | 0            | Consolidated with proposed Santa Monica Mountains SEA |
|                        |             |              | 12       | Palo Comado Canyon                  | 2,496       | 1,000        | Consolidated with proposed Santa Monica Mountains SEA |

|                 |               |               |                  |               |               |   |
|-----------------|---------------|---------------|------------------|---------------|---------------|---|
|                 |               | 39            | Encino Reservoir | 2,071         | 0             | Consolidated with proposed Santa Monica Mountains SEA |
| <b>Subtotal</b> | <b>99,430</b> | <b>70,880</b> |                  | <b>21,241</b> | <b>11,099</b> |   |

\*Los Angeles County Significant Ecological Area Update Study, November 2000

Development activities within existing SEAs must obtain a SEA Conditional Use Permit (CUP), which will be reviewed by the Significant Ecological Area Technical Advisory Committee (SEATAC). However, the proposed project, as noted, is not located within an existing SEA and will not have to go through the SEA CUP permitting process.

### **Migratory Corridors and Linkages**

An important linkage of this area is a small tributary of Las Virgenes Creek south of the project site named Liberty Canyon (west of the project site). The underpass of U.S. Route 101 at Liberty Canyon Road along the drainage conveys relatively less vehicular traffic than other freeway crossings within several miles, and is one of the few active wildlife passage areas along the entire extent of U.S. Route 101 through the Santa Monica Mountains. All other watercourse and street crossings of U.S. Route 101 are constrained and many are impassible for wildlife.

The Las Virgenes Creek once provided refuge and a safe passage for wildlife to travel between the Ventura County Open Space and the Malibu Creek State Park. In 1977, approximately 440 linear feet of Las Virgenes Creek between Highway 101 and the Agoura Road Bridge was lined with concrete, severely disrupting the wildlife corridor and removing all viable riparian habitats from this natural creek segment. Cemented-in flood channels have zero habitat value, no water cleansing and generate thermal pollution. The concrete channel removed vegetation, disturbed the creek's natural meander through the landscape, and constrained wildlife movement.

In 2007, a restoration plan was implemented that restored a direct connection between the two existing riparian communities to the north and south of the concreted segment (south of U.S. Route 101). The restoration was anticipated to provide better cover for local wildlife and promote increased movement of wildlife and aquatic wildlife up and down the stream course. However, the triple box culvert under U.S. Route 101 may receive infrequent use by wildlife due to its constrained nature.

### **Conclusion**

Las Virgenes Creek has been channelized, eliminating natural habitats from the project site. However, a portion of Las Virgenes Creek was restored to a natural earthen channel and planted with a mixed riparian forest plant community just south of U.S. Route 101. This restored plant community provides suitable nesting opportunities for avian species, but does not provide undisturbed natural habitat for sensitive plant species. Las Virgenes Creek is still channelized in a concrete lined culvert north of U.S. Route 101 and does not provide suitable habitat for sensitive plant species or wildlife species.

No special-status plant or wildlife species were observed on the project site, and none are anticipated to occur on the project site based on the condition of the habitat(s) on and surrounding the project area. Therefore, no impacts would occur to any species identified as candidate, sensitive, or special status that have the potential to occur in the area. Federally-designated critical habitat is not present within the project boundaries.

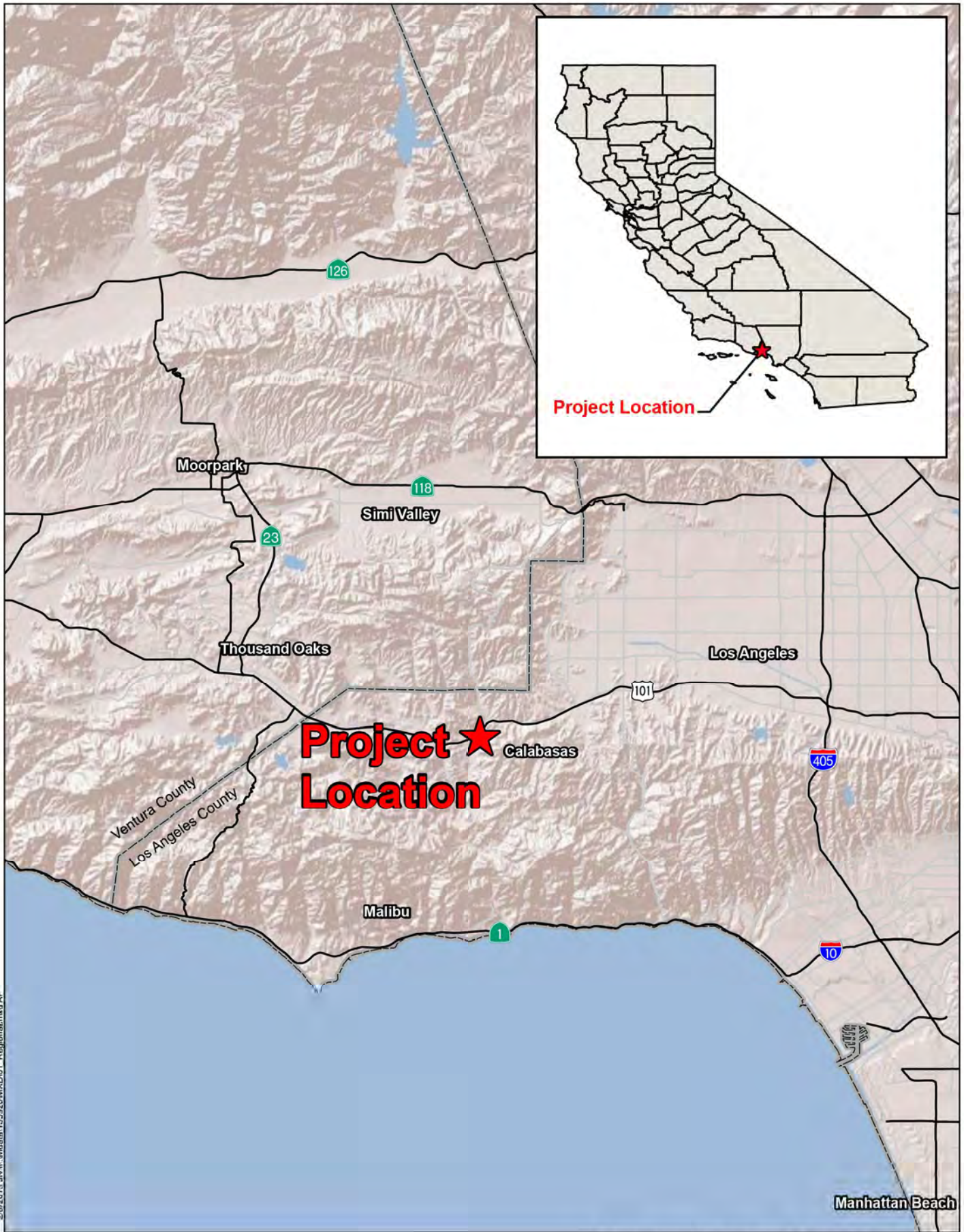
Based on the results of the 2013 Jurisdictional Delineation, the project applicant will likely need to obtain the following regulatory approvals prior to commencement of any maintenance activities within the identified jurisdictional areas: United States Army Corps of Engineers (USACE) Clean Water Act (CWA) Section 404 Permit; Regional Water Quality Control Board (RWQCB) CWA Section 401 Water Quality Certification; and, CDFW Section 1602 Streambed Alteration Agreement.

## **Recommendations**

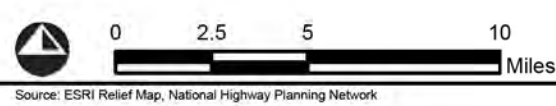
The riparian habitats on the project site and the coastal sage scrub habitat adjacent to the project site have the potential to provide refuge cover from predators, perching sites and favorable conditions for avian nesting that could be indirectly impacted by construction activities associated with the proposed project. Nesting birds, particularly raptor species, are protected pursuant to the Migratory Bird Treaty Act (MBTA) and CDFW Code. If ground-disturbing activities or removal of any trees, shrubs, or any other potential nesting habitat are scheduled within the avian nesting season (nesting season generally extend from February 1 - August 31), a pre-construction clearance survey for nesting birds should be conducted within 3 days prior to any ground disturbing activities. As part of the nesting bird clearance survey, a pre-construction clearance survey should be conducted to ensure bats are not roosting within the triple concrete box culvert under U.S. Route 101.

## **Appendix A**    *Exhibits*

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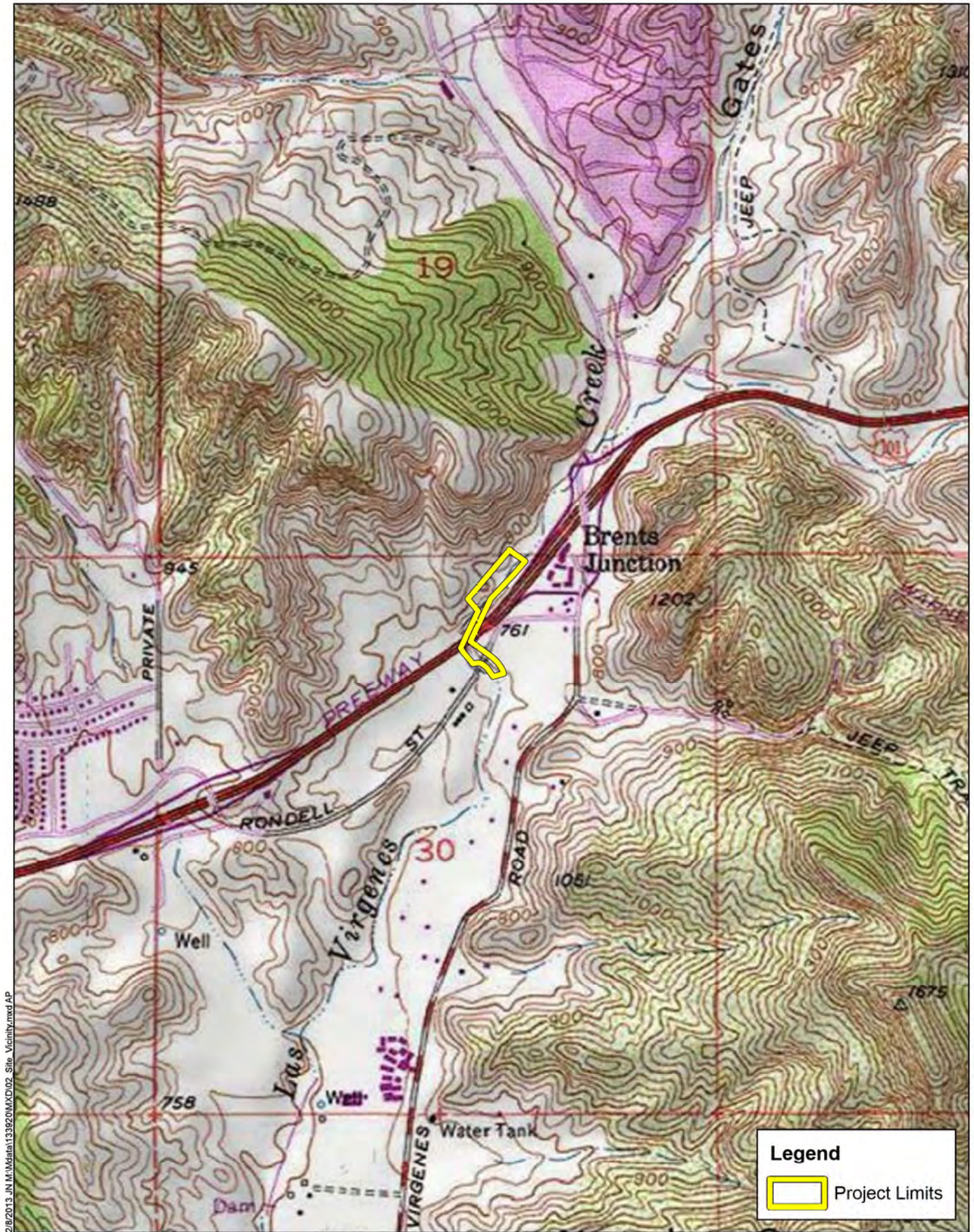


2/8/2018 10:41:41 AM \\Data\153920\MXD\01\_Regional.mxd AP



DON WALLACE MULTI-USE TRAIL CONNECTOR  
HABITAT ASSESSMENT

# Regional Vicinity



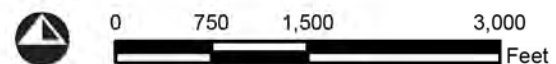
2/8/2013 11:11:41 AM Data: 133920\MXD\02\_Site\_Vicinity.mxd AP

**Legend**

Project Limits

DON WALLACE MULTI-USE TRAIL CONNECTOR  
HABITAT ASSESSMENT

## Site Vicinity




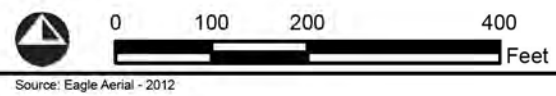
Source: ESRI USA Topographic Map, Calabasas Quadrangle



2/8/2013 11:41:13 AM Data\133520\MXD\03 Site\_Map.mxd AP

**Legend**

 Project Limits



Source: Eagle Aerial - 2012

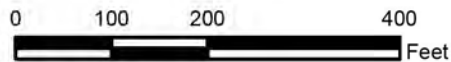
DON WALLACE MULTI-USE TRAIL CONNECTOR  
HABITAT ASSESSMENT

# Site Map



DON WALLACE MULTI-USE TRAIL CONNECTOR  
HABITAT ASSESSMENT

# NRCS Soils Map



Source: NRCS Soil Data Mart, Eagle Aerial - 2012



2/19/2013 JUN:Wdeta113920\MXD\HA-Exhibits\05\_Vegetation\_Map.mxd AP

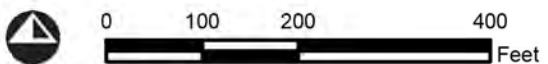


**Legend**

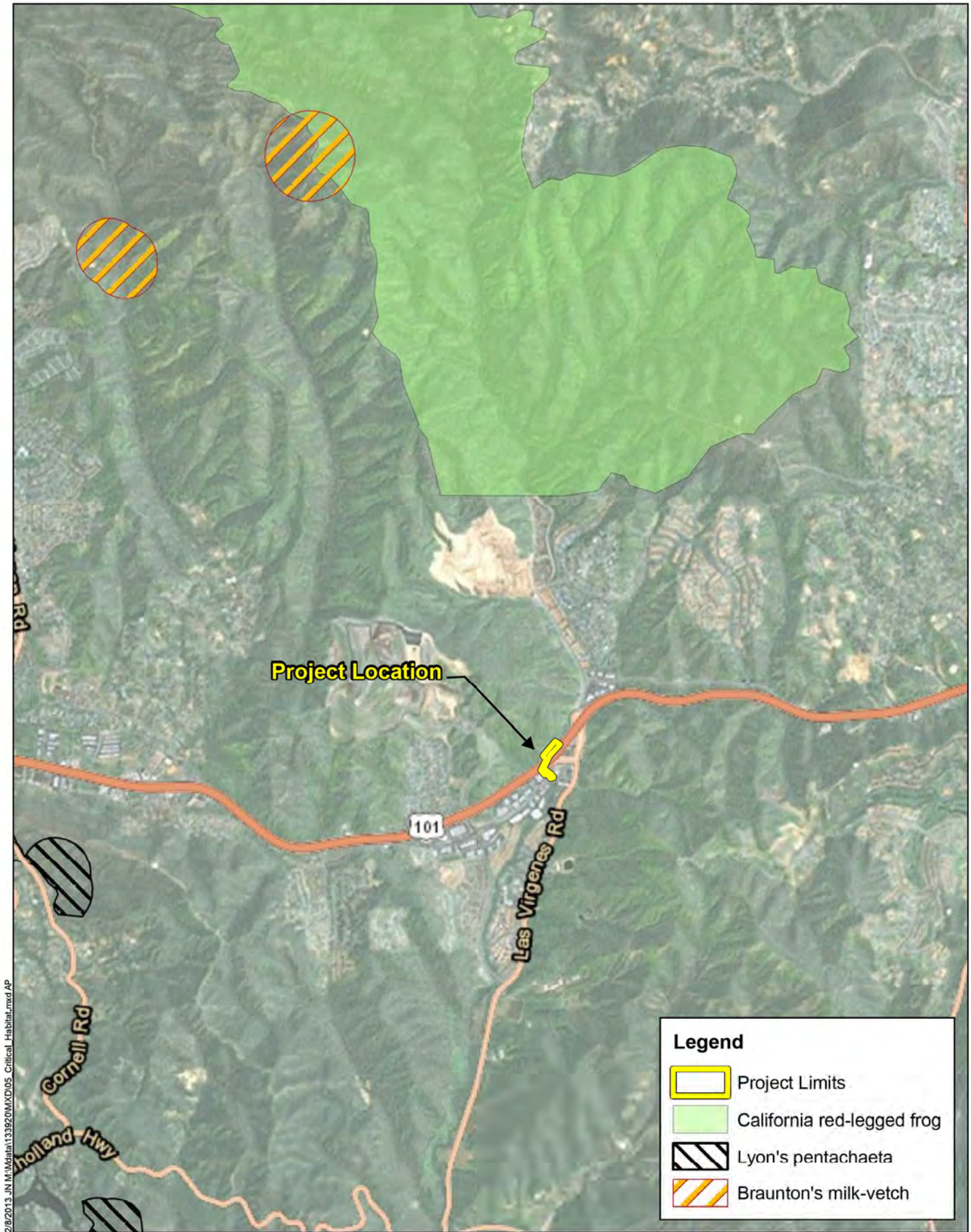
- Project Limits
- Coastal Sage Scrub (1.5 Acres)
- Mixed Riparian Forest [Restored] (1.2 Acres)
- Willow Scrub (0.9 Acres)
- Developed (0.6 Acres)
- Disturbed (0.1 Acres)

DON WALLACE MULTI-USE TRAIL CONNECTOR JURISDICTIONAL DELINEATION

# Vegetation Map







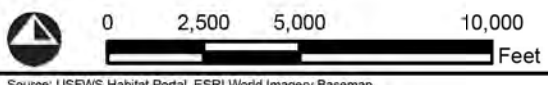
Source: Eagle Aerial - 2012



2/8/2013 11:41:33 AM Data133920\MXD\05 Critical Habitat.mxd AP

**Legend**

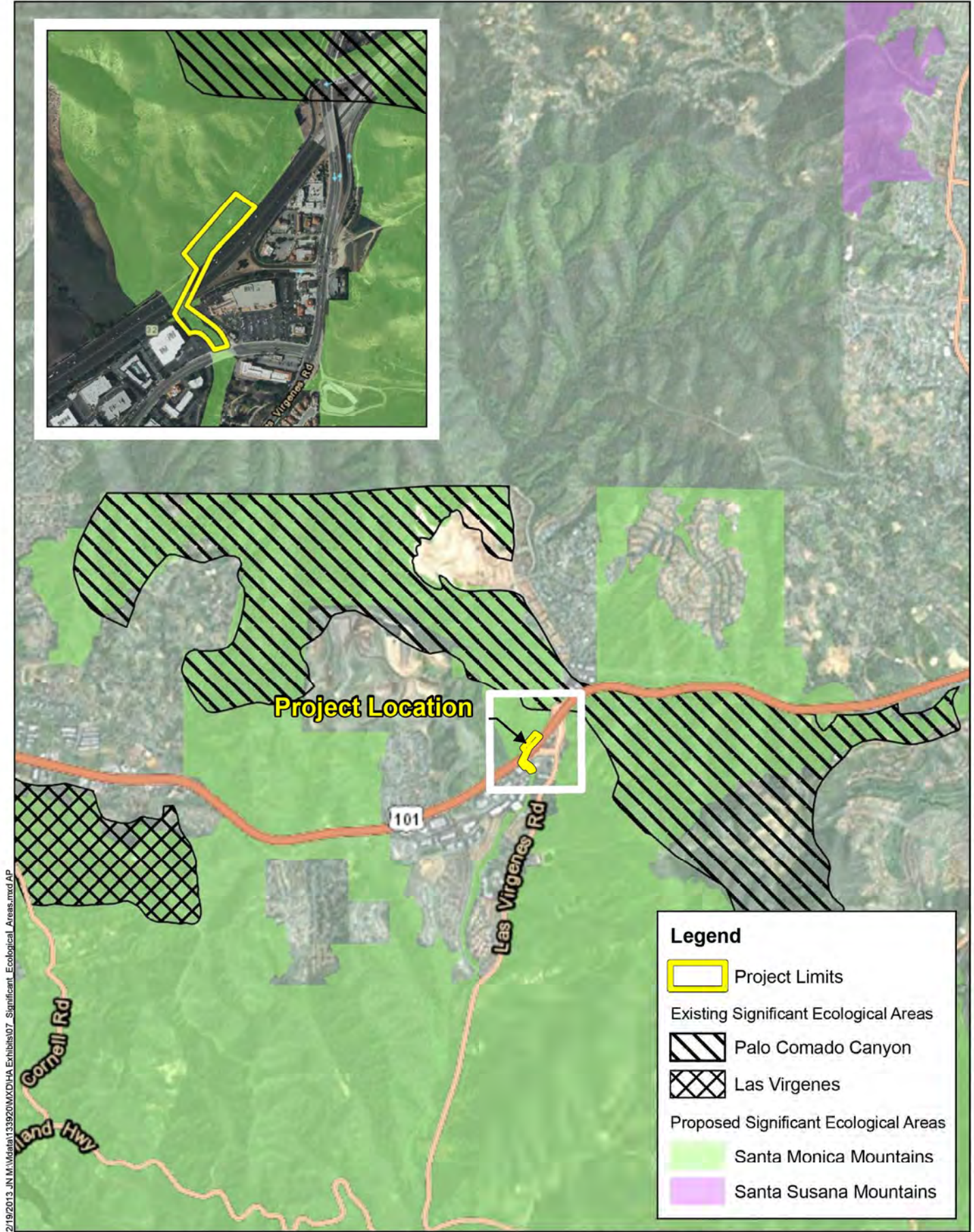
-  Project Limits
-  California red-legged frog
-  Lyon's pentachaeta
-  Braunton's milk-vetch



Source: USFWS Habitat Portal, ESRI World Imagery Basemap

DON WALLACE MULTI-USE TRAIL CONNECTOR  
HABITAT ASSESSMENT

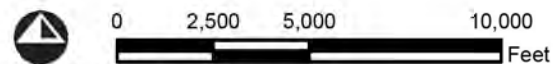
# Critical Habitat Map



2/19/2013\_J:\M:\W\data\133920\MXD\HA\_Exhibits\07\_Significant\_Ecological\_Areas.mxd\AP

**Legend**

-  Project Limits
- Existing Significant Ecological Areas
  -  Palo Comado Canyon
  -  Las Virgenes
- Proposed Significant Ecological Areas
  -  Santa Monica Mountains
  -  Santa Susana Mountains



Source: Los Angeles County GIS Data Portal, Eagle Aerial - 2012

DON WALLACE MULTI-USE TRAIL CONNECTOR  
HABITAT ASSESSMENT  
**Significant Ecological Areas**

**Appendix B**      *Site Photographs*

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**Photograph 1-** From Agoura Road, looking north along the restored portion of Las Virgenes Creek.



**Photograph 2-** Restored mixed riparian forest along Las Virgenes Creek, south of U.S. Route 101.



**Photograph 3-** Low flow channel flowing through the western cell of the triple concrete box culvert under U.S. Route 101.



**Photograph 4-** Sediment accumulation in the eastern cell of the triple concrete box culvert.



**Photograph 5-** North of U.S. Route 101, looking at the low flow channel along the southern wall of the open culvert, and the accumulated sediment on the northern wall of the open culvert.



**Photograph 6-** Willow scrub plant community on the accumulated sediment within the open culvert.



**Photograph 7-** Coastal sage scrub/non-native grassland north of the project site.



**Photograph 8-** Coastal sage scrub/non-native grassland north of the project site.



**Appendix C**     *Flora and Fauna Compendium*

---

## Flora Observed

| Scientific Name                                     | Common Name             |
|---|-------------------------|
| <i>Aesculus californica</i>                         | California buckeye      |
| <i>Artemisia californica</i>                        | Sagebrush               |
| <i>Artemisia douglasiana</i>                        | Mugwort                 |
| <i>Baccharis pilularis</i> ssp. <i>consanguinea</i> | Coyote brush            |
| <i>Baccharis salicifolia</i>                        | Mulefat                 |
| <i>Cirsium</i> spp.                                 | Thistle                 |
| <i>Cucurbita palmata</i>                            | Coyote melon            |
| <i>Daucus pusillus</i>                              | Wild carrot             |
| <i>Eschscholzia californica</i>                     | California poppy        |
| <i>Foeniculum vulgare</i>                           | Fennel                  |
| <i>Frangula californica</i>                         | California coffeeberry  |
| <i>Heteromeles arbutifolia</i>                      | Toyon                   |
| <i>Hirschfeldia incana</i>                          | Mustard                 |
| <i>Isocoma menziesii</i>                            | Golden bush             |
| <i>Juglans californica</i>                          | California black walnut |
| <i>Leptosyne gigantea</i>                           | Giant coreopsis         |
| <i>Lupinus longifolius</i>                          | Bush lupine             |
| <i>Mimulus aurantiacus</i> var. <i>rutilius</i>     | Maroon monkey flower    |
| <i>Nasturtium officinale</i>                        | Watercress              |
| <i>Plantanus racemosa</i>                           | Sycamore                |
| <i>Populus fremontii</i>                            | Cottonwood              |
| <i>Quercus agrifolia</i>                            | Coast live oak          |
| <i>Rosa californica</i>                             | California wildrose     |
| <i>Rubus ursinus</i>                                | California blackberry   |
| <i>Salix gooddingii</i>                             | Black willow            |
| <i>Salix lasiolepis</i>                             | Arroyo willow           |
| <i>Salvia mellifera</i>                             | Black sage              |
| <i>Symphoricarpos mollis</i>                        | Snowberry               |
| <i>Typha</i> ssp.                                   | Cattails                |
| <i>Urtica dioica</i>                                | Nettle                  |

## Fauna Observed

| Scientific Name               | Common Name           |
|-------------------------------|-----------------------|
| <b>Amphibia</b>               |                       |
| <i>Pseudacris cadaverina</i>  | California tree frog  |
| <b>Aves</b>                   |                       |
| <i>Agelaius phoeniceus</i>    | Red-winged blackbird  |
| <i>Aphelocoma californica</i> | Western scrub-jay     |
| <i>Buteo jamaicensis</i>      | Red-tailed hawk       |
| <i>Buteo lineatus</i>         | Red-shouldered hawk   |
| <i>Corvus corax</i>           | Common raven          |
| <i>Dendroica coronate</i>     | Yellow-rumped warbler |
| <i>Geothlypis trichas</i>     | Common yellowthroat   |
| <i>Melospiza melodia</i>      | Song sparrow          |
| <i>Picoides nuttallii</i>     | Nuttall's woodpecker  |
| <i>Pipilo crissalis</i>       | California towhee     |
| <i>Pipilo maculatus</i>       | Spotted towhee        |
| <i>Sayornis nigricans</i>     | Black phoebe          |
| <i>Spinus psaltria</i>        | Lesser goldfinch      |
| <b>Mammalia</b>               |                       |
| * <i>Odocoileus hemionus</i>  | Mule deer             |

\*Sign of species was observed.

- > Don Wallace 1.18.13
- >
- > OHHM plus 6 feet (3 each side)- rack, drift debris on trees Open water
- > 8 feet
- >
- > Water only in first channel, 3 15' box culverts, other 2 silted in
- > 30 feet on north side
- >
- > On north side
- > Cattails on sediment, willow
- > 8 feet of water along souther boundary of channel
- >
- > 12-14 inches of sediment organic soils with
- >
- > -Flora
- > Coyote bush
- > Toyon
- > Mugwort
- > Blk berry
- > Scrub oak
- > Cottonwood
- > Black willow
- > Cattails
- > Watercress
- > Nettle
- > Mex fan palm
- >
- > Pepper growing over
- >
- > -Fauna
- > Crow
- > Spotted towhee
- > Song sparrow
- > Yellowthroat
- > Remnant swallow mud nests
- > California towhee
- > Raven
- > Scrub jay
- > Red shoulder
- > Blk phoebe
- > Nuttals
- > Redwing
- >
- > Deer bones
- >
- > - Adjacent to side in the north
- > CSS
- > Coyote bush

- > Black sage
- > Artichoke thistle
- > Mustard
- > Fennel
- > Coast golden bush
- > Gourd
- > Sagebrush
- >
- > North of rip rap
- > Cottonwood, willow
  
- > Crawfish in bottom pool under bridge on southern outdated of project site
- >
- > Look at seed mix
- >
- > Swallows nesting in holes under bridge, no new mud nests
- >
- > Swallow mud nests under 101 culvert, but no activity, remnant
- >
- > Raccoon tracks in culvert
- > Canine tracks
- > Tree frogs
- >
- > Culvert north of 101 constant loud noise
- >
- > HOFI
- > SOSP
- > RWBL
- > BEWR
- > BLPH
- > LEGO
- > AMCO
- > SPTO
- > OATI
- > COYE
- > WEKI
- > CALT

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**APPENDIX C**  
**JURISDICTIONAL DELINEATION**

# **Don Wallace**

## **Multi-Use Trail Connector**

### **Jurisdictional Delineation Report**

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Prepared For:

**County of Los Angeles**  
**Department of Parks and Recreation**  
510 South Vermont Avenue  
Los Angeles, California 90020

Prepared By:



3300 East Guasti Road, Suite 100  
Ontario, California 91761  
Contact: Mr. Thomas J. McGill, Ph.D.  
909.974.4907

February 19, 2013

JN: 133920

# **Don Wallace**

## **Multi-Use Trail Connector**

**CITY OF CALABASAS, LOS ANGELES COUNTY, CALIFORNIA**

### **Jurisdictional Delineation Report**

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The undersigned certify that the statements furnished in this report and exhibits present data and information required for this Jurisdictional Delineation Report, and that the facts and information presented is a complete and accurate account of the findings and conclusion to the best of my knowledge and belief.



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Travis J. McGill  
Biologist  
Natural Resources



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Thomas J. McGill, Ph.D.  
Vice President  
Natural Resources

February 19, 2013



# Executive Summary

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The purpose of this Jurisdictional Delineation Report is to define areas within the Don Wallace Multi-Use Trail Connection Project site that may fall within the jurisdiction of the United States Army Corps of Engineers (USACE) as wetland- and non-wetland “waters of the U.S.” pursuant to Section 404 of the federal Clean Water Act (CWA); the Regional Water Quality Control Board (RWQCB) as “waters of the State” pursuant to Section 401 of the CWA and State Porter-Cologne Water Quality Control Act; and, the California Department of Fish and Wildlife (CDFW) as “streambed and riparian” habitat pursuant to Section 1600 et. seq. of the California Fish and Wildlife (CFW Code). Table S-1 identifies each regulatory agency and total jurisdiction onsite.

**Table 1: Jurisdictional Summary**

| Agency | Total Jurisdiction On-Site<br>Acres |
|--------|-------------------------------------|
| USACE  | 1.3                                 |
| RWQCB  | 1.3                                 |
| CDFW   | 2.5                                 |

The Don Wallace Multi-Use Trail Connection Project is currently in conceptual design stages and impacts to Las Virgenes Creek cannot be accurately determined at this time. Impacts are expected to “Waters of the United States”, “Waters of the State”, and “streambed and riparian” habitat. Based on the results of the 2013 Jurisdictional Delineation, the project applicant will likely need to obtain the following regulatory approvals prior to commencement of any maintenance activities within the identified jurisdictional areas: USACE CWA Section 404 Permit, RWQCB CWA Section 401 Water Quality Certification, and CDFW Section 1602 Streambed Alteration Agreement (SAA).

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**LIST OF ACRONYMS**

|       |  |
|-------|--|
| CDFW  | California Department of Fish and Wildlife |
| CFW   | California Fish and Wildlife               |
| CNDDB | California Natural Diversity Database      |
| CWA   | Clean Water Act                            |
| EPA   | Environmental Protection Agency            |
| GIS   | Geographic Information System              |
| GPS   | Ground Positioning System                  |
| msl   | Mean Sea Level                             |
| NRCS  | Natural Resources Conservation Service     |
| NWS   | National Weather Service                   |
| OHWM  | Ordinary High Water Mark                   |
| RBF   | RBF Consulting                             |
| RWQCB | Regional Water Quality Control Board       |
| SMBW  | Santa Monica Bay Watershed                 |
| SAA   | Streambed Alteration Agreement             |
| SMMC  | Santa Monica Mountain Conservancy          |
| TNW   | Traditional Navigable Water                |
| USACE | United States Army Corps of Engineers      |
| USDA  | United States Department of Agriculture    |
| USFWS | United States Fish and Wildlife Service    |
| USGS  | United States Geological Survey            |
| WoS   | Waters of the State                        |
| WoUS  | Waters of the United States                |

# Section 1 Introduction

---

At the request of Los Angeles County Third Supervisorial District, RBF Consulting (RBF) has prepared this Jurisdictional Delineation Report for the proposed Don Wallace Multi-Use Trail Connection Project (Don Wallace Trail Connector). The field delineation was conducted by RBF biologists, Thomas J. McGill, Ph.D. and Travis J. McGill on January 18, 2013 to document the results of a formal field delineation, including mapping and an evaluation of the resources that occur onsite; provide a discussion of the rationale employed in determining USACE, RWQCB, and CDFW jurisdiction, analyze the proposed project effects to potential jurisdictional areas; and provide recommendations regarding avoidance and minimization, permitting needs, and potential mitigation requirements.

A Jurisdictional Delineation Report is required to address potential impacts to wetland and non-wetland "Waters of the United States" (WoUS) that fall under the regulatory jurisdiction of the USACE pursuant to Section 404 of the CWA; "Waters of the State" (WoS) that fall under the regulatory jurisdiction of the RWQCB pursuant to Section 401 of the CWA and State Porter-Cologne Water Quality Control Act; and, "streambed and riparian" habitats that fall under the regulatory jurisdiction of the CDFW pursuant to Section 1600 et. seq. of the CFW Code. The regulatory framework governing the jurisdictional resources on the project site is discussed in detail in Appendix C, Regulatory Background. These regulatory requirements are current and continue to provide the necessary framework for this Jurisdictional Delineation Report.

## 1.1 PROJECT LOCATION

The Don Wallace Multi-Use Trail Connection project, hereinafter referred to as project site or site, is generally located in the northwestern portion of the City of Calabasas, Los Angeles County, California (Exhibit 1, *Regional Vicinity*). The project site is depicted on the Calabasas United States Geological Survey (USGS) 7.5-minute quadrangle within Section 19 and 30, Township 1 north, Range 17 west (Exhibit 2, *Site Vicinity*). Specifically, the project site is located a quarter of a mile west of Las Virgenes Road, north of Agoura Road, and immediately north and south of U.S. Route 101 in association with Las Virgenes Creek (Exhibit 3, *Project Site*).

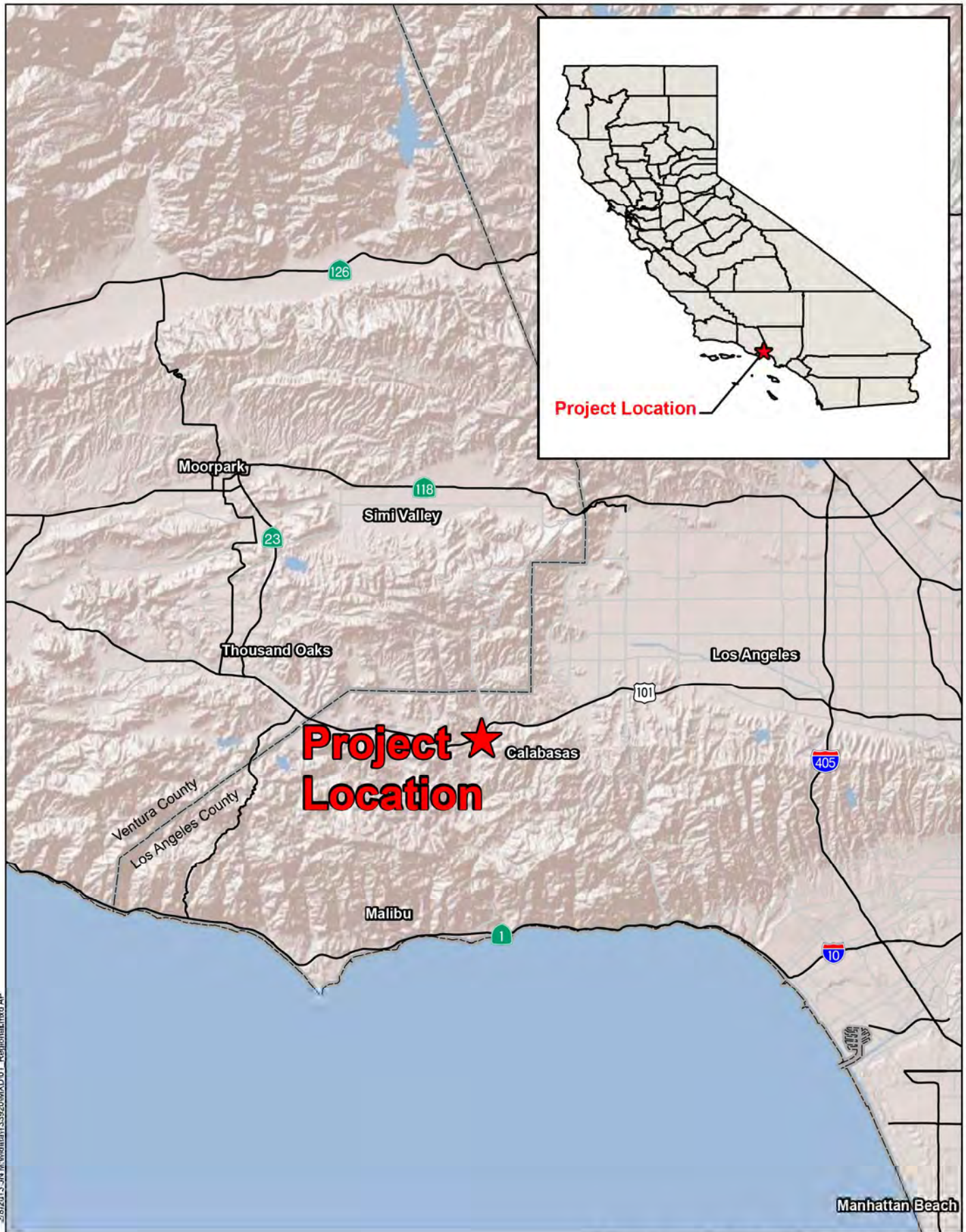
## 1.2 PROJECT BACKGROUND & DESCRIPTION

The objective of the Don Wallace Multi-Use Trail Connection Project is to develop a safe and passable multi-use trail connector under U.S. Route 101. The project proposes to install a 1,100 foot trail segment under U.S. Route 101 that will provide a vital connection to a larger network of regional trails that will ultimately join with continuous trails that will provide a connection from the Pacific Ocean to the Santa Monica Mountains. The trail segment will

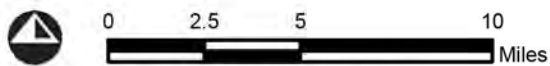
start south of U.S. Route 101 within the Caltrans right-of-way, and will pass through the west cell of an existing triple reinforced concrete box culvert<sup>1</sup> under U.S. Route 101. Within the western cell, an 8x2 foot reinforced concrete overlay will be cast directly against the invert of the cell against the west wall surface. The trail segment will then extend out of the concrete box culvert on the north side of U.S. Route 101 into an existing open concrete culvert. From there, the trail connector will exit the north side of the open culvert through a break in the retaining wall. The exact location of the break in the retaining wall will be identified based on Consultant's studies, design, and consultation with Caltrans. Once out of the open concrete culvert, north of U.S. Route 101, the trail segment will connect with existing natural/informal trails on Santa Monica Mountain Conservancy (SMMC) land.

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<sup>1</sup> Each cell of the triple reinforced concrete box culvert is 15x15 feet, totaling a width of 45 feet.

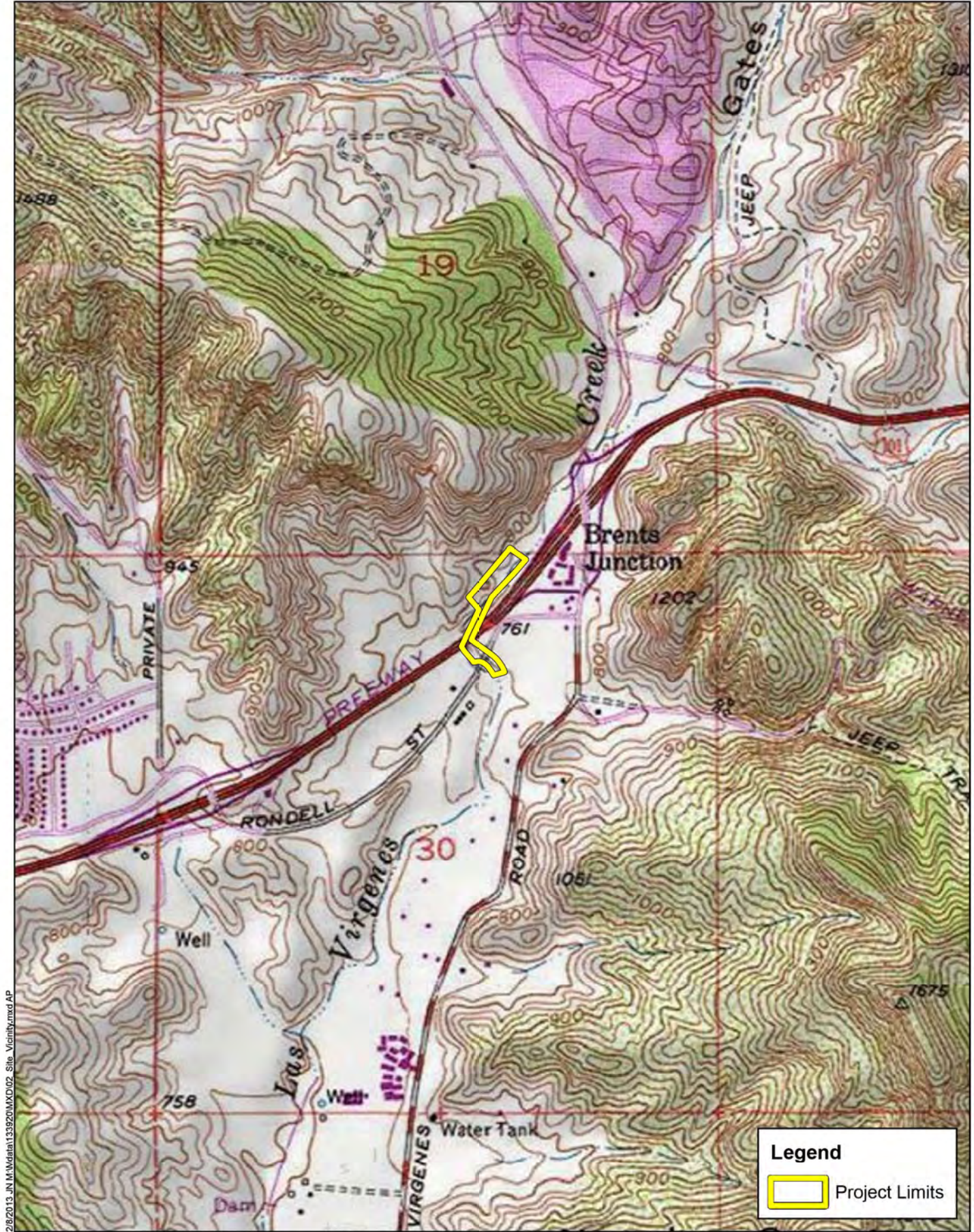


DON WALLACE MULTI-USE TRAIL CONNECTOR  
 JURISDICTIONAL DELINEATION  
**Regional Vicinity**



Source: ESRI Relief Map, National Highway Planning Network





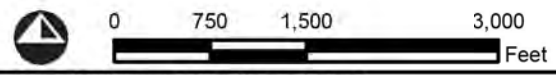
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**Legend**

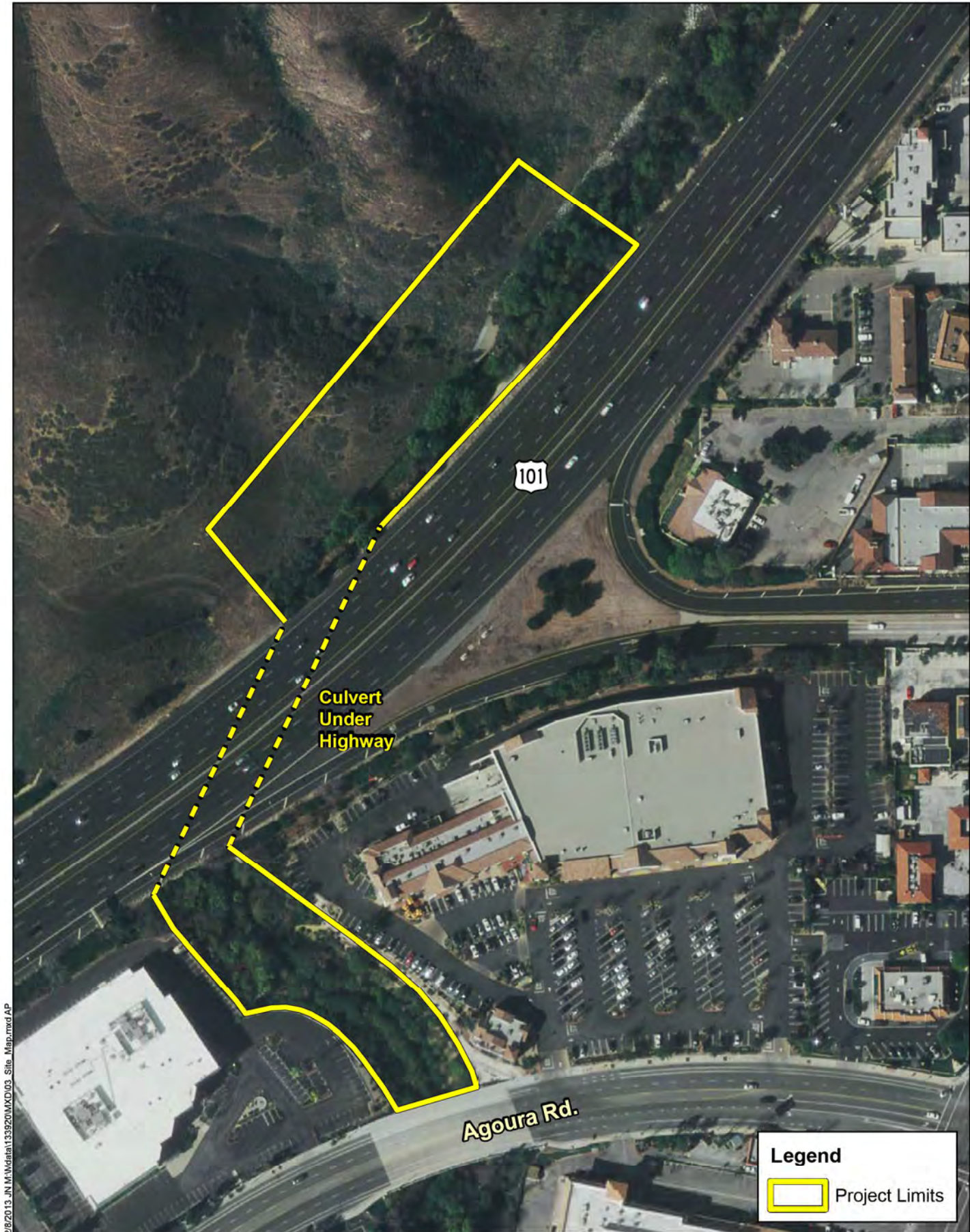
Project Limits

DON WALLACE MULTI-USE TRAIL CONNECTOR  
 JURISDICTIONAL DELINEATION

## Site Vicinity




Source: ESRI USA Topographic Map, Calabasas Quadrangle



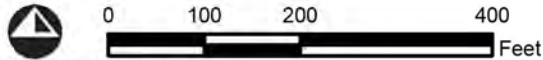
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**Legend**

 Project Limits

DON WALLACE MULTI-USE TRAIL CONNECTOR  
 JURISDICTIONAL DELINEATION

# Site Map



Source: Eagle Aerial - 2012

## **Section 2 Methodology**

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This Jurisdictional Delineation Report involved three tasks: 1) a literature review, 2) a review of recent and historical photographs, and topographic maps of the project area, and 3) a field delineation as outlined below.

### **2.1 LITERATURE REVIEW**

Prior to conducting the field delineation, a literature review and records search was conducted to determine watershed characteristics and the locations/types of aquatic resources that may be present within the study area. The following resources were reviewed:

- Las Virgenes Creek Restoration Project Monitoring Plan, April 2007;
- Calabasas and Malibu Beach USGS topographic maps;
- Google Earth version 7.0.2;
- USDA, NRCS soil mapping data;
- California Interagency Watershed Mapping Committee;
- Environmental Protection Agency (EPA) Enviromapper for water;
- Federal Emergency Management Agency (FEMA);
- United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI);
- National Weather Service (NWS) precipitation data; and
- USFWS Critical Habitat for Threatened and Endangered Species

The literature review provided a baseline from which to inventory jurisdictional resources occurring on the project site.

### **2.2 AERIAL PHOTOGRAPHS**

RBF procured a 1 inch = 150 feet aerial image of the site and compared it with the Calabasas California, USGS 7.5-minute topographic quadrangle map to identify drainage features within the survey area as indicated from topographic changes, blue-line features, or visible drainage patterns. The National Wetland Inventory was also reviewed to determine whether any wetland areas had been documented within the vicinity of the site. The United States Department of Agriculture (USDA) Soil Survey Map was reviewed to identify the soil series that occur on the site. The soil series mapped within the survey area were compared with the Field Office Official List of Hydric Soil Map Units for Los Angeles County to determine the presence or absence of designated hydric soils. The locations of potential jurisdictional areas were identified and plotted on current aerial imagery for reference in the

field. Target areas were cross-referenced with project plans to confirm potential impact areas. A complete list of references is provided in Section 7 of this report.

## 2.3 FIELD DELINEATION

The methodologies practiced during the field delineation and preparation of this Jurisdictional Delineation Report were conducted in accordance with regulations set forth in 33 CFR part 328 and the USACE guidance documents referenced below:

- USACE Wetlands Research Program Technical Report Y-87-1 (on-line edition), Wetlands Delineation Manual, Environmental Laboratory, 1987 (Wetland Manual; USACE 1987).
- USACE Guidelines for Jurisdictional Determinations for Waters of the United States in the Arid Southwest, June 2001 (Arid Southwest Guidelines; USACE 2001).
- USACE Minimum Standards for Acceptance of Preliminary Wetlands Delineations, November 30, 2001 (Minimum Standards; USACE 2001a).
- USACE Updated Datasheet for the Identification of the Ordinary High Water Mark in the Arid West Region of the Western United States, July 2010 (Arid West OHWM; USACE 2010).
- USACE Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), September 2008 (Arid West Supplement; USACE 2008a).

The field delineation was conducted by RBF biologists Thomas J. McGill, Ph.D. and Travis J. McGill on January 18, 2013. The delineation was conducted on foot and included a systematic inspection and evaluation of all hydrogeomorphic<sup>2</sup> features present within the survey area. The channel widths within Las Virgenes Creek were measured based on the discernible Ordinary High Water Mark (OHWM) in order to quantify acreage and linear feet of potential WoUS. Where there were observed changes in the OHWM width, transects were recorded to obtain an accurate representation of the entire reach of each feature. Width of streambed and bank, and associated riparian vegetation and/or wildlife resources were also measured in order to quantify potential jurisdictional streambed. The lateral extent potential jurisdictional streambed was measured from bank to bank at the top of the channel, or to the drip-line of the associated riparian vegetation where it extends beyond the bank of the channel.

Data on vegetation, soils, and hydrology characteristics were recorded at various sampling points located within areas presumed to support wetland conditions. Sampling point data was recorded in the field and later digitized on Wetland Determination Data Forms for the

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<sup>2</sup> Hydrogeomorphic features include land forms characterized by a specific origin, geomorphic setting, water source, and hydrodynamic.

Arid Southwest Region contained within Appendix B. At each sampling point, vegetation communities and habitat types were defined, and the percent dominance of hydrophytic vegetation was recorded. Soils were examined by excavating soil test pits (approximately 18" deep) to determine the presence of hydric soil indicators and anaerobic conditions beneath the surface, including physical factors affecting soils composition, matrix color, and the presence of oxidation-reduction (redox) features (e.g., mottles). All sample locations were examined for the presence of primary and secondary wetland hydrology indicators (e.g., surface water, saturation, water marks, sediment deposits, surface soil cracks, oxidized rhizospheres<sup>3</sup>, drainage patterns, etc.).

### Hydrophytic Vegetation

Hydrophytic vegetation is plant life that grows and is typically adapted for life in permanently or periodically saturated soils. The hydrophytic vegetation criterion is met if more than 50 percent of the dominant plant species from all strata (tree, shrub, herb, and woody vine layers) are considered hydrophytic. Hydrophytic species are those included in the National List of Plant Species that Occur in Wetlands: California Region, published by the USACE. Each species on that list is rated according to a wetland indicator category, as shown below. To be considered hydrophytic, the species must have wetland indicator status (i.e., be rated as OBL, FACW, or FAC).

- Obligate Wetland      OBL      Plants that occur almost always (estimated >99 percent) in wetlands under natural conditions, but which may also occur rarely (estimated <1 percent) in non-wetlands
- Facultative Wetland      FACW      Plants that occur usually (estimated >67 to 99 percent) in wetlands, but also occur (estimated 1 to 33 percent) in non-wetlands
- Facultative      FAC      Plants with similar likelihood (estimated 33 to 67 percent) of occurring in both wetlands and non-wetlands
- Facultative Upland      FACU      Plants that occur sometimes (estimated 1 to <33 percent) in wetlands, but occur more often (estimated >67 to 99 percent) in non-wetlands
- Upland      UPL      Plants that occur rarely (estimated 1 percent) in wetlands, but occur almost always (estimated >99 percent) in non-wetlands under natural conditions

### Hydric Soils

Hydric soils include soils that are saturated, inundated, flooded, or ponded for long enough periods of time (generally one week or more) during the growing season to develop anaerobic conditions within the upper surface horizons. A, flooding or ponding long enough during the growing season to develop anaerobic conditions in the upper part

<sup>3</sup> Oxidized rhizospheres, in the context of indicators of wetland hydrology, include iron oxide coatings or plaques on the surfaces of living roots and/or oxide coatings or linings on soil pores immediately surrounding living roots. Oxidized rhizospheres are the result of oxygen leaking out of living roots into the surrounding anoxic soil.

## **Wetland Hydrology**

Under natural conditions, development of hydrophytic vegetation and hydric soils is dependent on a third characteristic: wetland hydrology. Areas with wetland hydrology are those where the presence of water has an overriding influence on vegetation and soil characteristics due to anaerobic and reducing conditions, respectively (1987 Manual). The wetland hydrology parameter is satisfied if the area is seasonally inundated or saturated to the surface for a minimum of 14 consecutive days during the growing season in most years. Indicators commonly used to identify wetland hydrology include visual observation of inundation or saturation, watermarks, recent sediment deposits, surface scour, and oxidized root channels (rhizospheres) resulting from prolonged anaerobic conditions.

Data was collected using a hand-held Garmin 62 Ground Positioning System (GPS) Map62 unit and recorded on recent aerial imagery at a 1 inch = 150 feet scale. Other materials utilized in the field included a 30-meter tape measure, shovel, digital camera, and a Munsell color chart to identify soil types. Width and length measurements were entered into Geographical Information System (GIS) ArcView software to plot the location and dimensions of potential jurisdictional areas. The ArcView application was then used to compute potential jurisdictional areas in acres and linear feet. Acreage computations were verified using a 1 inch = 150 feet scale aerial imagery and data collected in the field.

A comprehensive discussion of the regulatory methodologies and criteria for determining jurisdictional areas is provided in Appendix D.

## **Section 3 Existing Conditions**

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### **3.1 GENERAL LAND USES**

The proposed project site is located on the northern foothills of the Santa Monica Mountains in an area that is composed of a mixture of developed and undeveloped land. The area immediately south of U.S. Route 101 is composed of a business park and commercial developments, whereas the land immediately north of U.S. Route 101 is undeveloped and part of the SMMC (see Exhibit 3).

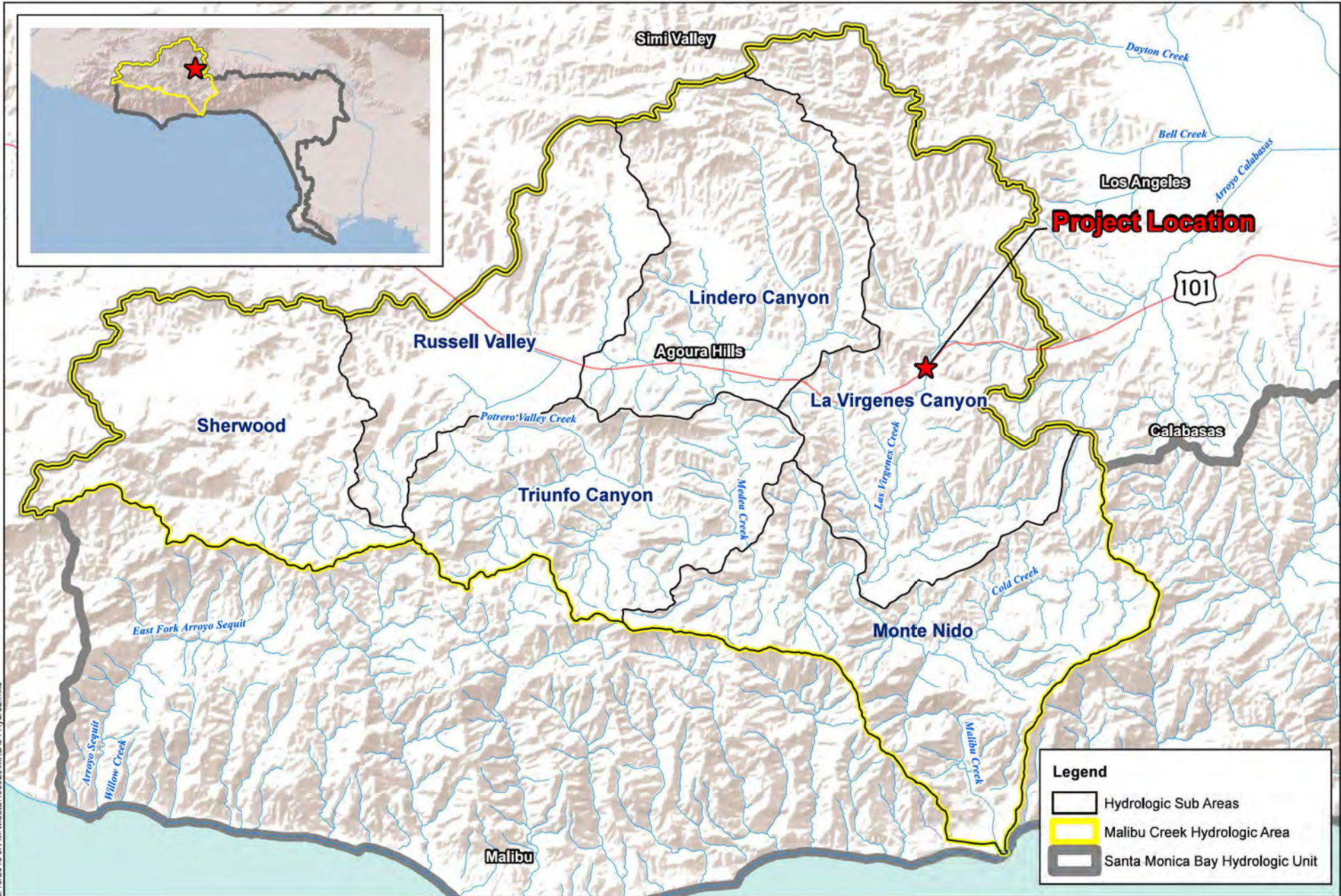
### **3.2 REGIONAL HYDROLOGIC SETTING**

#### **3.2.1 Watershed Area**

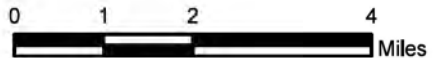
The project site is located within the Malibu Creek Hydrologic Area, the Las Virgenes Canyon subarea, of the Santa Monica Bay Hydrologic Unit (HUC 18070104) (Exhibit 4, *Regional Hydrologic Setting*). The Santa Monica Bay Watershed (SMBW) encompasses an area of 414 square miles. The boundary extends from the Los Angeles/Ventura County line to the northwest, to Point Fermin on the Palos Verdes Peninsula to the southeast. The 414 square mile land area that drains into the Bay follows the crest of the Santa Monica Mountains on the north to Griffith Park. From there it extends south and west across the Los Angeles coastal plain to include the area east of Ballona Creek and north of the Baldwin Hills. South of Ballona Creek the natural drainage is a narrow coastal strip between Playa del Rey and Palos Verdes. Surface water flows into the Bay through 28 catchment basins that can be grouped into nine subwatershed areas based on their geographic characteristics as shown in Exhibit 4. There are four major groundwater basins in the area, which correspond to geological features seen above the ground.

The SMBW includes several watersheds, the two largest being Malibu Creek to the north and Ballona Creek to the south. The Malibu Creek area contains mostly undeveloped mountain areas, large acreage residential properties and many natural stream reaches while Ballona Creek is predominantly channelized, and highly developed with both residential and commercial properties.

The Malibu Creek hydrologic area is one of the largest draining to Santa Monica Bay. With its discharge point to the Bay at the mouth of Malibu Creek and Lagoon, it drains an area of about 109 square miles. Approximately two-thirds of this hydrologic area lies in Los Angeles County and the remaining third in Ventura County. Much of the land is part of the Santa Monica Mountains National Recreation area and is under the purview of the National Parks Service. The region borders the eastern portion of Ventura County to the west and north, the North Coast subwatershed to the south, and portions of the Topanga Canyon subwatershed and Los Angeles River watershed to the east. Major tributaries contributing flows to Malibu



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Source: Calwater, ESRI Terrain Basemap

DON WALLACE MULTI-USE TRAIL CONNECTOR  
 JURISDICTIONAL DELINEATION  
**Regional Hydrological Setting**



Creek and Lagoon include Cold Creek, Lindero Creek, Las Virgenes Creek, Medea Creek, and Triunfo Creek. Additionally, five lakes and two reservoirs are located upstream from Malibu Creek; they are Malibou Lake, Lake Sherwood, Westlake Lake, Lake Lindero, Lake Eleanor, and the Las Virgenes and Century Reservoirs.

### **3.2.2 Pertinent Hydrogeomorphic Features**

Las Virgenes Creek, which generally flows north to south, is the only hydrogeomorphic feature that occurs within the project boundaries. Las Virgenes Creek is a channelized drainage system with a single low-flow channel that flows through a broader active flood plain. Las Virgenes Creek is tributary to Malibu Creek which flows into the Pacific Ocean, a Traditional Navigable Water (TNW).

North of U.S. Route 101, the low-flow channel flows along the southern wall of the culvert into the eastern cell of the triple box culvert (under U.S. Route 101). Surface water then traverses the eastern cell and connects into the restored portion of Las Virgenes Creek, south of U.S. Route 101. The middle cell of the triple box culvert has approximately 2-12 inches of accumulated sediment on the southern half of its reach. The north half of this cell receives water from overflows out of the low-flow channel which has prevented sediment from accumulating in this half of the cell. The western cell of the triple box culvert has approximately 3-4 feet of sediment accumulation and only receives water during large storm events.

Within the project boundaries, Las Virgenes Creek has two distinct reaches that are separated by U.S. Route 101, where the Creek is channelized in a triple reinforced concrete box culvert. North of U.S. Route 101, Las Virgenes Creek is contained in an open concrete culvert with 15 foot walls that is approximately 45 feet wide and extends north for 500 feet paralleling U.S. Route 101. At that point the Creek continues to the north in an earthen bottom channel stabilized with rip-rap banks. South of U.S. Route 101, Las Virgenes Creek was restored to a natural setting from a previously engineered concrete channel. The restored segment is 400 feet long and extends from the Caltrans right-of-way south of U.S. Route 101 to Agoura Road.

### **3.2.3 Weather Conditions**

The region has a year-round Mediterranean Climate or Dry-Summer Subtropical zone climate, with warm, sunny, dry summers and cool, rainy winters. Vegetation is typical of Mediterranean environments, with chaparral/coastal sage scrub and grasses on the hillsides and numerous oaks. The area has slightly cooler temperatures than the surrounding areas, as it receives cooler air from the ocean through various hill and mountain passes. The temperature tends to be in the 70s (degrees Fahrenheit) during the summer and 50s during the winter. The warmest month of the year is August with an average temperature of 96.

The average annual rainfall in the area is 12 to 13 inches but ranges from 4 to 25 inches. Rainfall also varies with elevation, with foothill areas receiving as much as 40 inches.

### 3.3 TOPOGRAPHY AND SOILS

Surface elevations range from approximately 755 feet above mean sea level (msl) at the northeastern most boundary of the project site to approximately 735 feet above msl at the southernmost reach of the project site near Agoura Road.

On-site and adjoining soils were researched prior to the field visit using the USDA Natural Resources Conservation Service, Soil Survey (Exhibit 5, *NRCS Soils Map*). A soil series is defined as a group of soils with similar profiles developed from similar parent materials under comparable climatic and vegetation conditions. These profiles include major horizons with similar thickness, arrangement, and other important characteristics, which may promote favorable conditions for certain biological resources. Specifically, soils mapped within the project boundaries are Fluvaquents - Riverwash complex (0-5% slopes), Urban land - xerorthents, landscaped, complex, rarely flooded (0-5% slopes) and Linne silty clay loam (9-15% slopes). The majority of the soils within the boundaries of the project site have been mechanically disturbed from development and channelization of watercourses for flood control purposes. These disturbances have removed most of the native soils from the project site.

### 3.4 VEGETATION

Three plant communities were identified within project site: willow scrub, mixed riparian forest and coastal sage scrub.

#### 3.4.1 Willow Scrub

The willow scrub plant community is composed of the young, newly established willows and cottonwoods that can survive the frequent physical battering and inundation from flooding. The presence of these young willows normally allows finer sediments to accumulate, with the result that additional riparian plants can become established. Willow scrub communities are frequently described as early successional habitats and are the first plant communities to form on newly established point bars along rivers.

North of U.S. Route 101, Las Virgenes creek is restricted to the 45 foot open concrete culvert. Over the years sediment has deposited on approximately 80 percent the concrete bottom (approximately 35-37 feet along the northern wall) leaving approximately 20 percent (approximately 8-10 feet along southern wall) sediment free. The accumulation of sediment ranges from 3 to 18 inches deep within the open culvert. An early successional willow scrub plant community has established on this sediment and is dominated by black willow (*Salix gooddingii*). The understory consists of leaf litter, cattails (*Typha* spp.), watercress



(*Nasturtium officinale*), nettle (*Urtica dioica*), wild carrot (*Daucus pusillus*), mugwort (*Artemisia douglasiana*), and non-native herbaceous plant species.

### 3.4.2 Mixed Riparian Forest (Restored)

Mixed riparian forests are composed of medium sized trees and tall shrubs such as sycamores (*Plantanus racemosa*) and boxelder (*Acer negundo*). The understory contains a greater proportion of smaller shrubs than is present in Valley oak woodlands. Mixed riparian forests may be dominated by tall (>30m) cottonwoods and medium sized arroyo willows (*Salix lasiolepis*) and black willows. Where there are openings, dense patches of California mugwort may form, and aggressive vines such as blackberry and grape can produce huge thickets in the understory. There may be openings where trees and shrubs are almost completely engulfed in grape, or dense walls of blackberry that has climbed up trees and shrubs. Mixed riparian forests include dense, closed canopy forests interspersed with openings, which adds to their complexity and potential resources for wildlife.

South of U.S. Route 101, Las Virgenes creek has been restored and planted with a mixed riparian forest plant community. Plant species that were included in the restoration plans include toyon (*Heteromeles arbutifolia*), California sycamore, arroyo willow (*Salix lasiolepis*), cottonwood (*Populus fremontii*), California blackberry (*Rubus ursinus*), mugwort, coyote brush (*Baccharis pilularis* ssp. *consanguinea*), California wildrose (*Rosa californica*), and other native shrubs.

### 3.4.3 Coastal Sage Scrub

Coastal sage scrub is comprised of low, soft-woody subshrubs, which grow up to about one meter (three feet) high. Many of the plants in this community are facultatively drought-deciduous. This association is typically found on dry sites, such as steep, south-facing slopes or clay-rich soils that are slow to release stored water.

The coastal sage scrub plant community is found north of the project site and Las Virgenes Creek. There are open, grassland areas throughout this plant community that are composed of introduced annual grasses and non-native plant species. Dominant plant species within the coastal sage scrub plant community observed north of the project site include black sage (*Salvia mellifera*), sagebrush (*Artemisia californica*) and coyote brush. Coyote melon (*Cucurbita palmata*) and golden bush (*Isocoma menziesii*) are also present within this community. Non-native plant species include mustard (*Hirschfeldia incana*), fennel (*Foeniculum vulgare*), thistle (*Cirsium* spp.), and non-native grasses.

### 3.4.4 Developed

Developed areas are those that are paved or occupied with structures and roadways. The area south of U.S Route 101 is primarily developed with a business park and commercial

developments. These developments surround Las Virgenes Creek which has resulted in the channelization of the Creek for flood control purposes.

### 3.5 SPECIAL STATUS SPECIES

The California Natural Diversity Database (CNDDDB) was queried for reported locations of listed and sensitive plant and wildlife species as well as sensitive natural plant communities on the Calabasas USGS 7.5-minute quadrangle. The literature search identified 11 special status wildlife species, 9 sensitive plant species, and 5 sensitive habitats as having the potential to occur within the Calabasas quadrangle. Summarized in Table 1 are 7 federally or State listed threatened or endangered species that have been recorded as occurring in the general vicinity of the project site. Table 1 lists their status, specifies if federally designated Critical Habitat has been established for them, and their potential to occur on the project site.

**Table 2: Special Status Species and Critical Habitat**

| Scientific Name<br>Common Name   | Status             | Critical<br>Habitat  | Preferred<br>Habitat   | Potential for Occurrence<br>(Onsite)  |
|--|--------------------|--|--|---|
| <b>Wildlife Species</b>  |                    |  |  |   |
| <i>Anaxyrus californicus</i><br>arrowy toad                                  | Fed: FE<br>CA: CSC | Designated Critical Habitat is not located near the project site           | Semi-arid regions near washes or intermittent streams, including valley-foothill and desert riparian, desert wash, etc.  | Riparian/riverine habitat on the project site consists of a fully lined concrete channel with an accumulation of sediment and limited vegetation north of U.S. Route 101. A restored areas with a mixed riparian forest plant community occurs south of U.S. Route 101. There is a single, perennial low flow channel that flows through the project site but does not provide suitable habitat for arrowy toad.                |
| <i>Poliophtila californica californica</i><br>coastal California gnatcatcher | Fed: FT<br>CA: CSC | Designated Critical Habitat is not located near the project site           | Obligate, permanent resident of coastal sage scrub below 2500 feet in south California   | North of the project site, outside of the project footprint, the coastal sage scrub habitat has the potential to provide suitable habitat for coastal California gnatcatcher. No suitable habitat occurs onsite.  |
| <i>Rana draytonii</i><br>California red-legged frog                          | Fed: FT<br>CA: CSC | Designated Critical Habitat is located 1.5 miles north of the project site | Lowlands and foothills in or near permanent sources of deep water with dense shrubby or riparian vegetation  | Riparian/riverine habitat on the project site consists of a fully lined concrete channel with an accumulation of sediment and limited vegetation north of U.S. Route 101. A restored areas with a mixed riparian forest plant community occurs south of U.S. Route 101. There is a single, perennial low flow channel that flows through the project site but does not provide suitable habitat for California red-legged frog. |
| <i>Vireo bellii pusillus</i><br>least Bell's vireo                           | Fed: FE<br>CA: SE  | Designated Critical Habitat is not located near the project site           | Summer resident of southern California in low riparian in vicinity of water or dry river bottoms. Nests placed along margins of bushes or on twigs projecting into | The restored riparian area south of US Route 101 provides low quality habitat for LBVI. Since this area was restored and is surrounded by existing development, the probability of LBVI using the vegetation to nest is low. The nearest recorded sighting occurred in 2008 approximately 15 miles northwest  |

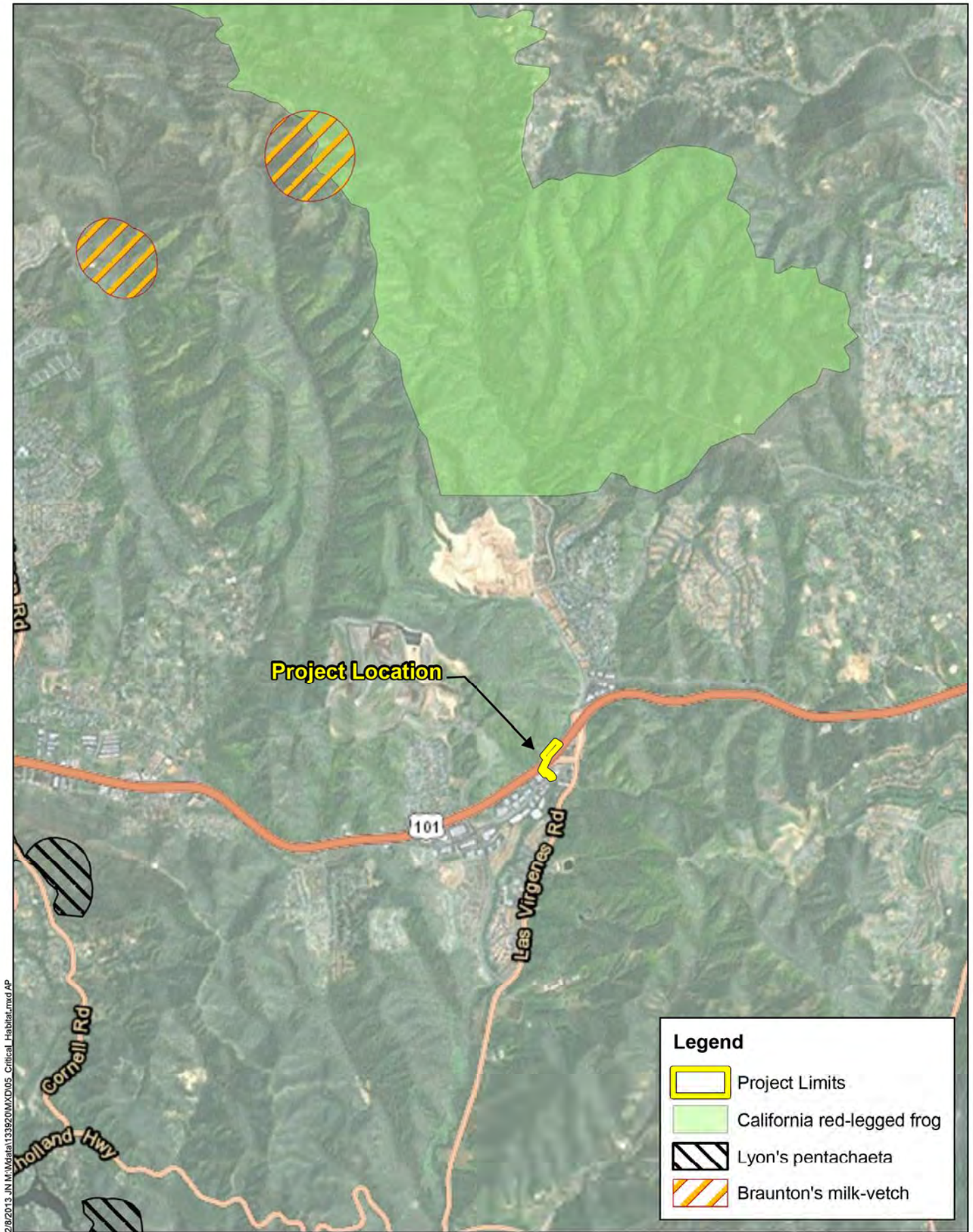
|   |                                  |  |   |  |
|---|----------------------------------|--|---|--|
|   |                                  |  | pathways, usually willow, baccharis, mesquite   | of the project site.   |
| <b>Plant Species</b>  |                                  |  |   |  |
| <b><i>Astragalus brauntonii</i></b><br>Braunton's milk-vetch  | Fed: FE<br>CA: CSC<br>CNPS: 1B.1 | Designated Critical Habitat is located 3.5 miles northwest of the project site | Closed-cone coniferous forest, chaparral, coastal scrub, valley and foothill grassland  | North of the project site, outside of the project footprint, the coastal sage scrub habitat has the potential to provide suitable habitat for Braunton's milk-vetch. However, no suitable habitat occurs onsite.           |
| <b><i>Chorizanthe parryi var. fernandina</i></b><br>San Fernando Valley spineflower   | Fed: FCE<br>CA: SE<br>CNPS: 1B.1 | Critical Habitat has not been designated                                       | On sandy soils habitats associated with modelo formation. Seen most often in sparsely vegetated areas where soils are thin, compacted or bedrock is exposed. Also found along interface between coastal sage scrub and non-native grassland | North of the project site, outside of the project footprint, the coastal sage scrub habitat has the potential to provide suitable habitat for San Fernando Valley spineflower. However, no suitable habitat occurs onsite. |
| <b><i>Pentachaeta lyonii</i></b><br>Lyon's pentachaeta  | Fed: FE<br>CA: SE<br>CNPS: 1B.1  | Designated Critical Habitat is located 3 miles west of the project site        | Chaparral, valley and foothill grassland. Edges of clearings in chaparral, usually between ecotone between grassland and chaparral or edges of firebreaks   | North of the project site, outside of the project footprint, the coastal sage scrub habitat has the potential to provide suitable habitat for Lyon's pentachaeta. However, no suitable habitat occurs onsite.              |
| <p><b>U.S. Fish and Wildlife Service – Federal (Fed)</b><br/>         FE- Endangered<br/>         FT- Threatened<br/>         FCE- Candidate Endangered</p> <p><b>California Department of Fish and Wildlife – State (CA)</b><br/>         SE- Endangered<br/>         ST- Threatened<br/>         CSC- Species of Concern</p> <p><b>California Native Plant Society – (CNPS)</b><br/> <i>California Rare Plant Rank</i><br/>         1A Plants rare, threatened, or endangered in CA and elsewhere<br/>         1B Plants rare, threatened, or endangered in CA but more common elsewhere<br/>         2 Lack information to assign a rank (review list)<br/>         3 Limited Distribution or infrequent throughout a broader area in California (watch list)</p> <p><i>Threat Ranks</i><br/>         0.1 Seriously threatened in California<br/>         0.2 Fairly threatened in California<br/>         0.3 Not very threatened in California</p> |                                  |  |   |  |

### 3.6 CRITICAL HABITAT

All federal agencies are required to consult with the United State Fish and Wildlife Service (USFWS) regarding activities they authorize, fund, or permit which may affect a federally listed species or its designated Critical Habitat. The purpose of the consultation is to ensure that projects will not jeopardize the continued existence of the listed species or adversely modify or destroy its designated Critical Habitat. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highways Administration or a permit from the USACE). If a there is a federal nexus, such as the need

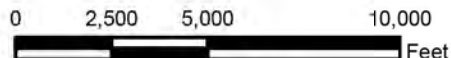
for a CWA Section 404 permit from the USACE, then the federal agency that is responsible for providing the funding or permit would consult with the USFWS.

The project site is not located within federally designated Critical Habitat. However, federally designated Critical Habitat for California red-legged frog (1.5 miles to the north), Braunton's milk-vetch (3.5 miles to the northwest), and Lyon's pentachaeta (3 miles to the west) occurs within the general vicinity of the project site (Exhibit 6, *Critical Habitat*).



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DON WALLACE MULTI-USE TRAIL CONNECTOR  
 JURISDICTIONAL DELINEATION  
**Critical Habitat Map**



Source: USFWS Habitat Portal, ESRI World Imagery Basemap



## **Section 4 Jurisdictional Delineation Results**

The following section provides a detailed discussion of jurisdictional resources on the property, incorporating findings related to vegetative communities, topography, soils, hydrology, and wetlands associated with Las Virgenes Creek.

### **4.1 SURVEY AREA**

The survey area for the field delineation encompasses Las Virgenes Creek through the proposed project footprint, associated riparian vegetation, and undeveloped land north of the project site on SMMC land. Las Virgenes Creek was delineated from approximately 500 feet north of U.S. Route 101, under U.S. Route 101 via a triple concrete box culvert, and south to Agoura Road.

### **4.2 FIELD CONDITIONS**

RBF biologist and wetland delineator Travis J. McGill, and RBF biologist Thomas J. McGill, Ph.D. visited the project site from approximately 8:00 a.m. to 11:00 a.m. on January 18, 2013 to verify existing conditions and document jurisdictional areas. Weather conditions during the surveys included temperatures in the mid-60s (degrees Fahrenheit) and winds were minimal with no clouds present overhead. No precipitation occurred within 2 weeks of the field survey.

### **4.3 SUMMARY OF JURISDICTIONAL AREAS**

#### **4.3.1 USACE Jurisdiction**

Las Virgenes Creek is a perennial creek maintaining year-round flows that are tributary to Malibu Creek, which flows into the Pacific Ocean (refer to Exhibits 7, *Jurisdictional Map*). This hydrogeomorphic feature was determined to contain non-wetland WoUS subject to the regulatory jurisdiction of the USACE (Table 2).

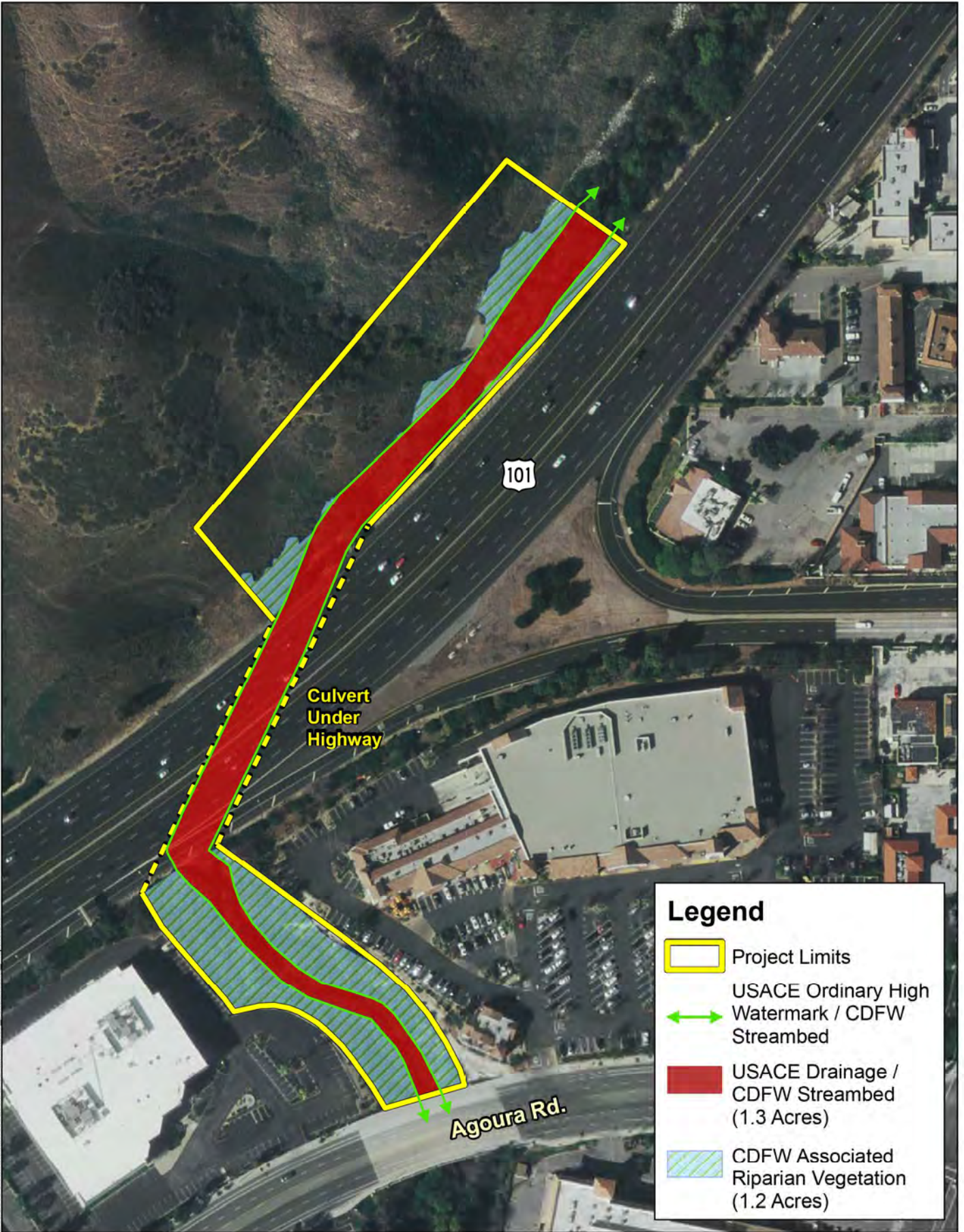
**Table 3: USACE Jurisdictional Areas**

| Hydrogeomorphic Feature | Non-Wetland "Water of the U.S."<br>Acres (linear feet) | Wetland "Waters of the U.S."<br>Acres |
|-------------------------|--|---------------------------------------|
| Las Virgenes Creek      | 1.3 (1,400)  | -                                     |
| <b>Total</b>            | <b>1.3 (1,400)</b>                                     | -                                     |





#### **4.3.2 RWQCB Jurisdiction**

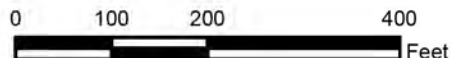
Las Virgenes Creek is a perennial creek maintaining year-round flows that are tributary to Malibu Creek (refer to Exhibits 7, *Jurisdictional Map*). This hydrogeomorphic feature was determined to contain non-wetland WoS subject to the regulatory jurisdiction of the RWQCB

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**Legend**

-  Project Limits
-  USACE Ordinary High Watermark / CDFW Streambed
-  USACE Drainage / CDFW Streambed (1.3 Acres)
-  CDFW Associated Riparian Vegetation (1.2 Acres)



Source: Eagle Aerial - 2012

DON WALLACE MULTI-USE TRAIL CONNECTOR  
 JURISDICTIONAL DELINEATION  
**Jurisdictional Map**

(Table 3). No isolated conditions were present on-site; therefore, the RWQCB’s jurisdiction is the same as the USACOE’s.

**Table 4: RWQCB Jurisdictional Areas**

| Hydrogeomorphic Feature | Non-Wetland “Water of the State” Acres (linear feet) | Wetland “Waters of the State” Acres |
|-------------------------|--|-------------------------------------|
| Las Virgenes Creek      | 1.3 (1,400)  | -                                   |
| <b>Total</b>            | <b>1.3 (1,400)</b>                                   | -                                   |

**4.3.3 CDFW Jurisdiction**

Las Virgenes Creek was determined to support both un-vegetated and riparian-vegetated streambed (refer to Exhibits 7, *Jurisdictional Map*). This hydrogeomorphic feature is subject to the regulatory jurisdiction of CDFW (Table 4).

**Table 5: CDFW Jurisdictional Areas**

| Hydrogeomorphic Feature | Un-Vegetated Streambed Acres (linear feet) | Riparian-Vegetated Streambed Acres (linear feet) |
|-------------------------|--|--|
| Las Virgenes Creek      | 1.3 (1,400)                                | 1.2 (940)  |
| <b>Total</b>            | <b>1.3 (1,400)</b>                         | <b>1.2 (940)</b>                                 |

**4.4 RATIONALE FOR JURISDICTIONAL DETERMINATION**

**4.4.1 Las Virgenes Creek**

Las Virgenes Creek is a north to south trending perennial drainage that was determined to support non-wetland waters throughout its entire reach. Las Virgenes Creek is a channelized drainage system with a single low-flow channel that flows through a broader active flood plain.

**Vegetation**

There are two distinct habitat types associated with Las Virgenes Creek in the project boundaries separated by U.S. Route 101; willow scrub and mixed riparian forest, as defined above.

North of U.S. Route 101 Las Virgenes creek is restricted to an open concrete culvert. Within this culvert sediment has accumulated on approximately 80 percent of the concrete bottom and a willow scrub plant community has established in this sediment on top of the concrete bottom. This plant community is dominated by black willow with leaf litter, cattails, watercress, nettle, wild carrot, mugwort, and non-native herbaceous plant species in the understory.

South of U.S. Route 101 Las Virgenes Creek, previously a concrete lined channel, has been restored with a mixed riparian forest plant community with a stable, natural, re-vegetated

channel. Plant species that were included in the restoration plans include toyon, California sycamore, arroyo willow, cottonwood, California blackberry, mugwort, coyote brush, California wildrose, and other native shrubs.

### **Soils**

NRCS soil surveys for the area define the natural soft bottom of Las Virgenes Creek as Fluvaquents - Riverwash complex. However, the channelization of Las Virgenes Creek and development south of U.S. Route 101 have mechanically disturbed these soils and are now mapped as Urban land - xerorthents, landscaped, complex. Prior to the restoration of Las Virgenes Creek south of U.S. Route 101, the drainage was concrete lined. Now the drainage has been returned to a stable, natural soft bottom. During the site survey, soil pits within the active floodplain revealed mostly large granulated sand with an undeveloped epipedon and no organic streaking or other indicators of developing hydric soil conditions.

### **Hydrology**

Las Virgenes Creek is a perennial creek, maintaining year-round flow. Secondary water sources may include nuisance runoff from adjacent developed areas. Surface water was present within Las Virgenes Creek being conveyed within a single low-flow channel approximately 8 feet wide through the entire project footprint. Surface water ranges from a depth of 1 to 3 inches within the open concrete culvert north of U.S. Route 101 while surface water south of U.S. Route 101 ranges from 6 to 26 inches within the restored area. Hydrology indicators observed in Las Virgenes Creek include surface water, sediment and deposits, wrack lines, and breaks in the slope.

### **Rationale for USACE Jurisdictional Determination**

Las Virgenes Creek was determined to only contain non-wetland WoUS. No wetland WoUS occur within the project footprint.

#### *Non-Wetland "Waters of the U.S."*

Evidence of an OHWM (i.e. drift and debris, water marks) was noted within the project footprint associated with Las Virgenes Creek, which totaled approximately 1.3 acres (1,400 linear feet) of non-wetland WoUS. The extent of non-wetland WoUS was measured according to a discernible OHWM, which was confirmed throughout the entire length of Las Virgenes Creek. North of U.S. Route 101 the OHWM was taken from the edges of each vertical concrete side and measured approximately 45 feet in width. South of U.S. Route 101 the OHWM ranged from approximately 25 to 50 feet based on drift deposits, wrack lines, and breaks in the slope within the restored area. Las Virgenes Creek flows southerly into Malibu Creek before continuing to the Pacific Ocean. Las Virgenes Creek is tributary to a TNW therefore regulated by the USACOE.

*Wetland "Waters of the U.S."*

No wetland WoUS associated with Las Virgenes Creek occur within the project footprint. Soil points were taken within Las Virgenes Creek at locations both within and immediately outside of the OHWM to confirm the absence of hydric soils. The results of these sample points were recorded within Wetland Determination Data Forms (Arid West Region) provided within Appendix B.

An area must exhibit all three wetland parameters (hydrophytic vegetation, hydric soils, and hydrology) described in the USACE Regional Supplement to be considered a jurisdictional wetland. Based on the results of the site visit, it was determined that Las Virgenes Creek exhibits signs of hydrology; however, no portion of Las Virgenes Creek within the project footprint contained a dominance of hydrophytic vegetation or hydric soils. Therefore, no USACE jurisdictional wetlands are located within those areas of Las Virgenes Creek within the project footprint.

Though sufficient hydrology and some hydrophytes (mulefat, willow, cottonwood) were present within the active floodplain, the absence of hydric soils indicators precludes the presence of any instream wetlands. Similarly, the absence of seasonally ponded depressions, hydrophytes, or indicators of wetland hydrology on the low terrace adjacent to Las Virgenes Creek precludes presence of adjacent wetlands within the restored area or the surveyed area.

**Rationale for RWQCB Jurisdictional Determination**

Las Virgenes Creek did not contain any isolated features; therefore, the RWQCB's jurisdiction is the same as the USACOE.

*Non-Wetland "Waters of the State"*

The RWQCB regulates the discharge of pollutants into WoUS (and State). Approximately 1.3 acres (1,400 linear feet) of non-wetland WoUS/State occur onsite.

*Wetland "Waters of the State"*

As discussed above, there are no wetland WoUS/State associated with Las Virgenes Creek.

**Rationale for CDFW Jurisdictional Determination**

Las Virgenes Creek was determined to contain both un-vegetated and riparian-vegetated streambed subject to the regulatory jurisdiction of the CDFW within the project footprint.

*Un-Vegetated Streambed*

Approximately, 1.2 acres (1,400 linear feet) of un-vegetated streambed was determined to exist within the project footprint associated with Las Virgenes Creek. Un-vegetated streambed includes both areas characterized by barren soils and areas of cobble, in addition to areas occupied by upland plant species that lack any functional riparian or wetland vegetation. In this case, the un-vegetated streambed was measured from the top of the un-vegetated banks for Las Virgenes Creek, as determined by bed and bank features and signs of flooding hydrology.

*Riparian-Vegetated Streambed*

Approximately 1.3 acres (940 linear feet) of vegetated streambed was determined to exist within the project footprint associated with Las Virgenes Creek. Riparian-vegetated streambed associated with Las Virgenes Creek includes area characterized by willow scrub and mixed riparian forest plant communities. These areas were measured according to the lateral extent of the drip-line associated with each vegetation community type. In most areas, the drip-line extends beyond the bed and bank for Las Virgenes Creek into upper terraced areas that are not subject to normal or flood surface water flows.

## **Section 5 Potential Jurisdictional Impacts**

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The Don Wallace Multi-Use Trail Connection Project is currently in conceptual design stages and impacts to Las Virgenes Creek cannot be accurately determined at this time. However, impacts are expected to “WoUS”, “WoS”, and “streambed and riparian” habitats.

### **United States Army Corps of Engineers**

The USACE regulates discharges of dredged or fill materials into WoUS and wetlands pursuant to Section 404 of the CWA. A CWA Section 404 permit will be required from the USACE Regulatory Division-Los Angeles District Office should activities occur within the identified WoUS.

### **Regional Water Quality Control Board**

The RWQCB regulates discharges to surface waters under the Federal CWA and the California Porter-Cologne Water Quality Control Act. The RWQCB jurisdiction extends to all WoS (including SWANCC and Rapanos conditions) and to all WoUS (including wetlands). A CWA Section 401 Water Quality Certification will be required should activities occur within the identified WoS.

### **California Department of Fish and Wildlife**

Alterations to “streambed and riparian” habitats fall under the regulatory jurisdiction of the CDFW pursuant to Section 1600 et. seq. of the CFW Code. A CDFW Section 1602 SAA will be required should activities occur within the identified “streambed and riparian” habitats.

## **Section 6 Conclusion and Recommendations**

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A formal jurisdictional delineation was conducted by RBF on January 18, 2013 that confirmed the presence of a single hydrogeomorphic feature supporting both federal and State jurisdictional waters associated with Las Virgenes Creek. Las Virgenes Creek is a perennial creek, maintaining year-round flow that is tributary to Malibu Creek which flows into the Pacific Ocean, a TNW.

### **6.1 REGULATORY AGENCY PERMITTING**

The delineation findings and pending project impacts to jurisdictional areas will require review by the USACE, RWQCB, and CDFW through the regulatory permitting process. Based on the delineation findings and likely project impacts, the project will likely require a USACE CWA Section 404 Permit, a RWQCB CWA Section 401 Water Quality Certification, and a CDFW Section 1602 SAA.

### **6.2 MITIGATION OPTIONS**

Mitigation for impacts to jurisdictional areas will be determined during the design phase, and subsequently, must be approved by the USACE, RWQCB, and CDFW during the regulatory permitting process. Mitigation is typically achieved through a number of options that include on-site and/or off-site creation, restoration, or enhancement. Mitigation is required to be in-kind (i.e. impacts to wetlands must be compensated by the creation, restoration, or enhancement of wetlands), and is typically mandated to provide biologically equivalent or superior functions and value to the impacted jurisdictional feature.



## Section 7 References

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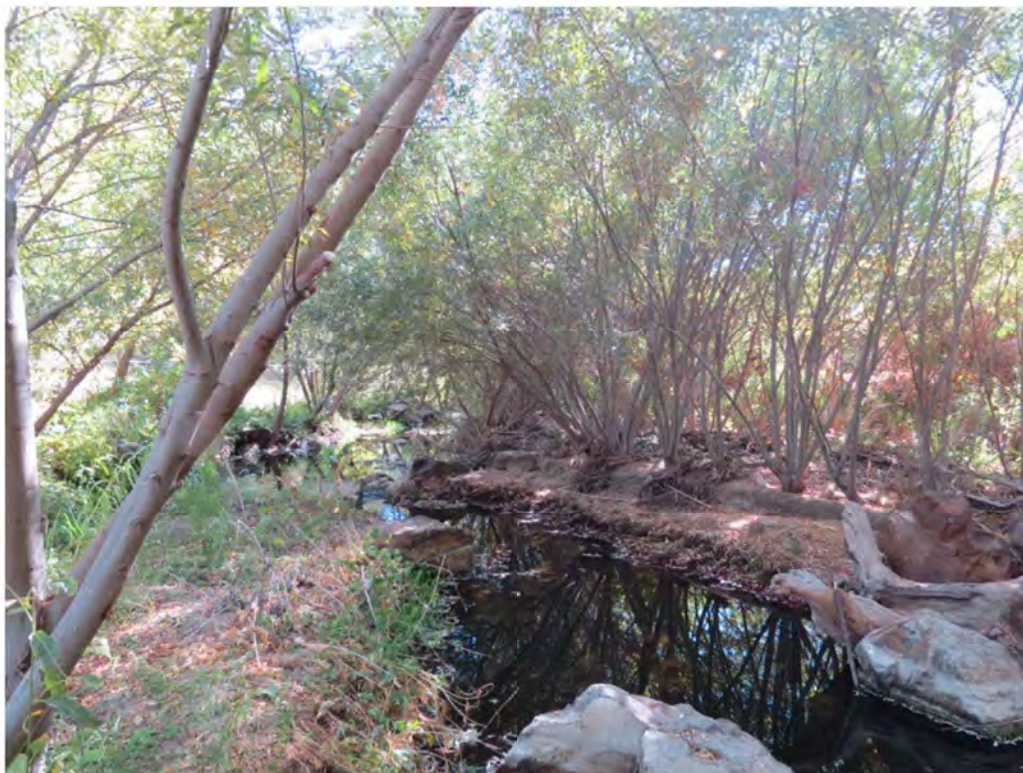
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**Appendix A**      *On-Site Photographs*

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**Photograph 1-** From Agoura Road, looking north along the restored portion of Las Virgenes Creek.



**Photograph 2-** Las Virgenes Creek south of U.S. Route 101.



**Photograph 3-** Low flow channel flowing through the western cell of the triple concrete box culvert under U.S. Route 101.



**Photograph 4-** Sediment accumulation in the eastern cell of the triple concrete box culvert.



**Photograph 5-** North of U.S. Route 101, looking at the low flow channel along the southern wall of the open culvert, and the accumulated sediment on the northern wall of the open culvert.



**Photograph 6-** Willow scrub plant community on the accumulated sediment within the open culvert.



**Photograph 7-** Las Virgenes Creek north (upstream) of the open culvert with rip rap stabilized banks.

**Appendix B**      *Arid West Wetland Delineation Data  
Forms*

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## WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Don Wallace Multi-Use Trail Connector City/County: Calabasas / Los Angeles Sampling Date: 1//18/2013  
 Applicant/Owner: Los Angeles County Department of Public Works State: CA Sampling Point: 1 of 1  
 Investigator(s): Tom McGill, Ph.D. and Travis McGill Section, Township, Range: 19 and 30 / 1 North / 17 West  
 Landform (hillslope, terrace, etc.): Stream Terrace Local relief (concave, convex, none): None Slope (%): 0-1  
 Subregion (LRR): C - Mediterranean California Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation  Soil  or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation  Soil  or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

|   |   |
|---|---|
| Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/><br>Hydric Soil Present? Yes <input type="radio"/> No <input checked="" type="radio"/><br>Wetland Hydrology Present? Yes <input checked="" type="radio"/> No <input type="radio"/> | Is the Sampled Area within a Wetland? Yes <input type="radio"/> No <input checked="" type="radio"/> |
| Remarks:  |   |

### VEGETATION

| Tree Stratum (Use scientific names.)   | Absolute % Cover | Dominant Species?   | Indicator Status | Dominance Test worksheet:   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
|--|------------------|---|------------------|---|-------------------|--------------|--|-------------|--|-------|---|--------------|----|-------|----|-------------|---|-------|----|--------------|--|-------|---|-------------|--|-------|---|----------------|----|-----|--------|--------------------------|--|--|------|
| 1. <i>Salix gooddingii</i>   | 30               | Yes   | FACW             | Number of Dominant Species That Are OBL, FACW, or FAC: <span style="border: 1px solid black; padding: 2px;">2</span> (A)  |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| 2. _____   |                  |   |                  | Total Number of Dominant Species Across All Strata: <span style="border: 1px solid black; padding: 2px;">2</span> (B)   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| 3. _____   |                  |   |                  | Percent of Dominant Species That Are OBL, FACW, or FAC: <span style="border: 1px solid black; padding: 2px;">100.0 %</span> (A/B)   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| 4. _____   |                  |   |                  | <b>Prevalence Index worksheet:</b><br><table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%;">Total % Cover of:</th> <th colspan="2" style="text-align: center;">Multiply by:</th> </tr> </thead> <tbody> <tr> <td>OBL species</td> <td style="border: 1px solid black; padding: 2px;"> </td> <td style="border: 1px solid black; padding: 2px;">x 1 =</td> <td style="border: 1px solid black; padding: 2px;">0</td> </tr> <tr> <td>FACW species</td> <td style="border: 1px solid black; padding: 2px;">30</td> <td style="border: 1px solid black; padding: 2px;">x 2 =</td> <td style="border: 1px solid black; padding: 2px;">60</td> </tr> <tr> <td>FAC species</td> <td style="border: 1px solid black; padding: 2px;">4</td> <td style="border: 1px solid black; padding: 2px;">x 3 =</td> <td style="border: 1px solid black; padding: 2px;">12</td> </tr> <tr> <td>FACU species</td> <td style="border: 1px solid black; padding: 2px;"> </td> <td style="border: 1px solid black; padding: 2px;">x 4 =</td> <td style="border: 1px solid black; padding: 2px;">0</td> </tr> <tr> <td>UPL species</td> <td style="border: 1px solid black; padding: 2px;"> </td> <td style="border: 1px solid black; padding: 2px;">x 5 =</td> <td style="border: 1px solid black; padding: 2px;">0</td> </tr> <tr> <td>Column Totals:</td> <td style="border: 1px solid black; padding: 2px;">34</td> <td style="border: 1px solid black; padding: 2px;">(A)</td> <td style="border: 1px solid black; padding: 2px;">72 (B)</td> </tr> <tr> <td colspan="3" style="text-align: right;">Prevalence Index = B/A =</td> <td style="border: 1px solid black; padding: 2px;">2.12</td> </tr> </tbody> </table> | Total % Cover of: | Multiply by: |  | OBL species |  | x 1 = | 0 | FACW species | 30 | x 2 = | 60 | FAC species | 4 | x 3 = | 12 | FACU species |  | x 4 = | 0 | UPL species |  | x 5 = | 0 | Column Totals: | 34 | (A) | 72 (B) | Prevalence Index = B/A = |  |  | 2.12 |
| Total % Cover of:  | Multiply by:     |   |                  |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| OBL species  |                  | x 1 =   | 0                |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| FACW species   | 30               | x 2 =   | 60               |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| FAC species  | 4                | x 3 =   | 12               |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| FACU species   |                  | x 4 =   | 0                |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| UPL species  |                  | x 5 =   | 0                |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| Column Totals:   | 34               | (A)   | 72 (B)           |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| Prevalence Index = B/A =   |                  |   | 2.12             |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| Total Cover: <span style="border: 1px solid black; padding: 2px;">30 %</span>                  |                  |   |                  |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| <b>Sapling/Shrub Stratum</b>   |                  |   |                  |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| 1. <i>Urtica dioica</i>  | 2                | Yes   | FAC              | <b>Hydrophytic Vegetation Indicators:</b><br><input checked="" type="checkbox"/> Dominance Test is >50%<br><input checked="" type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup><br><input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)<br><input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)<br><br><sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.  |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| 2. <i>Artemisia douglasiana</i>  | 2                | No  | FAC              |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| 3. _____   |                  |   |                  |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| 4. _____   |                  |   |                  |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| 5. _____   |                  |   |                  |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| Total Cover: <span style="border: 1px solid black; padding: 2px;">4 %</span>                   |                  |   |                  |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| <b>Herb Stratum</b>  |                  |   |                  |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| 1. _____   |                  |   |                  |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| 2. _____   |                  |   |                  |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| 3. _____   |                  |   |                  |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| 4. _____   |                  |   |                  |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| 5. _____   |                  |   |                  |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| 6. _____   |                  |   |                  |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| 7. _____   |                  |   |                  |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| 8. _____   |                  |   |                  |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| Total Cover: <span style="border: 1px solid black; padding: 2px;">  %</span>                   |                  |   |                  |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| <b>Woody Vine Stratum</b>  |                  |   |                  |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| 1. _____   |                  |   |                  |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| 2. _____   |                  |   |                  |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| Total Cover: <span style="border: 1px solid black; padding: 2px;">  %</span>                   |                  |   |                  |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| % Bare Ground in Herb Stratum <span style="border: 1px solid black; padding: 2px;">60 %</span> |                  | % Cover of Biotic Crust <span style="border: 1px solid black; padding: 2px;">  %</span> |                  |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |
| Hydrophytic Vegetation Present? Yes <input checked="" type="radio"/> No <input type="radio"/>  |                  |   |                  |   |                   |              |  |             |  |       |   |              |    |       |    |             |   |       |    |              |  |       |   |             |  |       |   |                |    |     |        |                          |  |  |      |

Remarks: The majority of the bare ground was covered in leaf litter.

**SOIL**

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

| Depth (inches) | Matrix        |     | Redox Features |   |                   |                  | Texture <sup>3</sup> | Remarks |
|----------------|---------------|-----|----------------|---|-------------------|------------------|----------------------|---------|
|                | Color (moist) | %   | Color (moist)  | % | Type <sup>1</sup> | Loc <sup>2</sup> |                      |         |
| 0-1            | Leaf Littler  |     |                |   |                   |                  |                      |         |
| 1-6            | 10 YR 2/2     | 100 | None           |   |                   |                  | Silty Loam           |         |
| 6-14           | 10 YR 3/4     | 100 | None           |   |                   |                  | Silty Loam           |         |
|                |               |     |                |   |                   |                  |                      |         |
|                |               |     |                |   |                   |                  |                      |         |
|                |               |     |                |   |                   |                  |                      |         |
|                |               |     |                |   |                   |                  |                      |         |

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix.    <sup>2</sup>Location: PL=Pore Lining, RC=Root Channel, M=Matrix.  
<sup>3</sup>Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

|  |   |   |
|--|---|---|
| <input type="checkbox"/> Histosol (A1)                     | <input type="checkbox"/> Sandy Redox (S5)           | <b>Indicators for Problematic Hydric Soils:<sup>4</sup></b> |
| <input type="checkbox"/> Histic Epipedon (A2)              | <input type="checkbox"/> Stripped Matrix (S6)       |   |
| <input type="checkbox"/> Black Histic (A3)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)             | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |   |
| <input type="checkbox"/> Stratified Layers (A5) (LRR C)    | <input type="checkbox"/> Depleted Matrix (F3)       |   |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR D)            | <input type="checkbox"/> Redox Dark Surface (F6)    |   |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) |   |
| <input type="checkbox"/> Thick Dark Surface (A12)          | <input type="checkbox"/> Redox Depressions (F8)     |   |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)          | <input type="checkbox"/> Vernal Pools (F9)          |   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)          |   |   |
|  |   |   |

<sup>4</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present.

**Restrictive Layer (if present):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks: \_\_\_\_\_

**HYDROLOGY**

**Wetland Hydrology Indicators:**

|  |   |
|--|---|
| <b>Primary Indicators (any one indicator is sufficient)</b>              | <b>Secondary Indicators (2 or more required)</b>                      |
| <input checked="" type="checkbox"/> Surface Water (A1)                   | <input type="checkbox"/> Water Marks (B1) (Riverine)                  |
| <input type="checkbox"/> High Water Table (A2)                           | <input checked="" type="checkbox"/> Sediment Deposits (B2) (Riverine) |
| <input type="checkbox"/> Saturation (A3)                                 | <input checked="" type="checkbox"/> Drift Deposits (B3) (Riverine)    |
| <input type="checkbox"/> Water Marks (B1) (Nonriverine)                  | <input type="checkbox"/> Drainage Patterns (B10)                      |
| <input checked="" type="checkbox"/> Sediment Deposits (B2) (Nonriverine) | <input type="checkbox"/> Dry-Season Water Table (C2)                  |
| <input checked="" type="checkbox"/> Drift Deposits (B3) (Nonriverine)    | <input type="checkbox"/> Thin Muck Surface (C7)                       |
| <input type="checkbox"/> Surface Soil Cracks (B6)                        | <input type="checkbox"/> Crayfish Burrows (C8)                        |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)       | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)    |
| <input type="checkbox"/> Water-Stained Leaves (B9)                       | <input type="checkbox"/> Shallow Aquitard (D3)                        |
| <input type="checkbox"/> Salt Crust (B11)                                | <input type="checkbox"/> FAC-Neutral Test (D5)                        |
| <input type="checkbox"/> Biotic Crust (B12)                              |   |
| <input type="checkbox"/> Aquatic Invertebrates (B13)                     |   |
| <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                      |   |
| <input type="checkbox"/> Oxidized Rhizospheres along Living Roots (C3)   |   |
| <input type="checkbox"/> Presence of Reduced Iron (C4)                   |   |
| <input type="checkbox"/> Recent Iron Reduction in Plowed Soils (C6)      |   |
| <input type="checkbox"/> Other (Explain in Remarks)                      |   |

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): 2-36

Water Table Present? Yes  No  Depth (inches): \_\_\_\_\_

Saturation Present? Yes  No  Depth (inches): \_\_\_\_\_

(includes capillary fringe)

Wetland Hydrology Present? Yes  No

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: \_\_\_\_\_

## **Appendix C**     *Regulatory Background*

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# Regulatory Background

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There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The USACE Regulatory Branch regulates activities pursuant to Section 404 of the Federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the CDFG regulates activities under the Fish and Wildlife Code Section 1600-1616, and the Regional Board regulates activities pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

## U.S. ARMY CORPS OF ENGINEERS

Since 1972, the USACE and U.S. Environmental Protection Agency (EPA) have jointly regulated the filling of “waters of the U.S.,” including wetlands, pursuant to Section 404 of the CWA. The USACE has regulatory authority over the discharge of dredged or fill material into the waters of the United States (WoUS) under Section 404 of the CWA. The USACE and EPA define “fill material” to include any “material placed in waters of the United States where the material has the effect of: (i) replacing any portion of a water of the United States with dry land; or (ii) changing the bottom elevation of any portion of the waters of the United States.” Examples include, but are not limited to, sand, rock, clay, construction debris, wood chips, and “materials used to create any structure or infrastructure in the waters of the United States.” The term WoUS is defined as follows<sup>4</sup>:

- (1) all waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- (2) all interstate waters including interstate wetlands;
- (3) all waters such as interstate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters: (i) which are or could be used by interstate or foreign travelers for recreational or other purposes; or (ii) from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (iii) which are used or could be used for industrial purpose by industries in interstate commerce;
- (4) all impoundments of waters otherwise defined as WoUS under the definition;
- (5) tributaries of waters identified in paragraphs (1)-(4) mentioned above;
- (6) the territorial seas; and,
- (7) wetlands adjacent to the waters identified in paragraphs (1)-(6) mentioned above.

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<sup>4</sup> CWA regulations 33 CFR §328.3(a).

Wetlands, a subset of jurisdictional waters, are jointly defined by the USACE and EPA as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.”<sup>5</sup> Wetlands generally include swamps, marshes, bogs, and similar areas.

The USACE regulatory program continues to evolve due to court rulings associated with litigation. Sections 2.1.1 and 2.1.2, below, briefly discuss court cases that have impacted the USACE jurisdiction over the past decade.

### **Solid Waste Agency of Northern Cook County v. US Army Corps of Engineers (Isolated Conditions)**

On January 9, 2001, the US Supreme Court issued the decision on *Solid Waste Agency of Northern Cook County v. United States Corps of Engineers* (SWANCC). The CWA regulates “navigable waters,” which is defined as “WoUS.” This definition has been interpreted broadly by the USACE and EPA, to the extent that it reflected Congress’ intention to regulate all waters that the Congress could constitutionally regulate under its commerce power (generally referred to as the Commerce Clause). Specifically, WoUS were regulated under Section 404 of the CWA if there was any possible connection to interstate commerce. The USACE stated that WoUS includes, among other things, *intrastate* waters:

- (1) that are or would be used as habitat by birds protected by migratory bird treaties; or
- (2) that are or would be used as habitat by other migratory birds that cross state lines; or
- (3) that are or would be used as habitat for endangered species; or
- (4) that are or would be used to irrigate crops sold in interstate commerce.

This approach was referred to as the Migratory Bird Rule. Although the SWANCC site was not a wetland, the USACE found that approximately 121 bird species dependent on aquatic environments were observed at the site; therefore, the site was jurisdictional. The USACE denied the 404 permit since they found that the preferred project alternative was not the least damaging practicable alternative. The SWANCC sued to challenge the USACE jurisdiction over the site, claiming that the USACE could not regulate non-navigable, isolated, intrastate waters based on the presence of migratory birds, and that Congress lacked authority under the Commerce Clause to grant the USACE such jurisdiction. Although the USACE prevailed in the lower courts, the US Supreme Court reversed the finding and invalidated the Migratory Bird Rule. It held that the rule is not a fairly supported interpretation of the term WoUS, and the USACE use of the “migratory bird rule,” adopted by the USACE and the EPA to interpret the reach of their Section 404 authority over discharges into “isolated waters” (including isolated wetlands), exceeded the authority granted by that section. In

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<sup>5</sup> CWA regulations 33 CFR §328.3(b).

summary, the USACE does not regulate isolated water with no interstate or foreign commerce connection.

### **Rapanos v. United States (Significant Nexus Test)**

On June 19, 2006, the U.S. Supreme Court decision on the *Rapanos v. United States* 547 U.S. 715 (2006) (Rapanos) case further limited the definition of wetlands and WoUS under the CWA. The Rapanos decision was a 4-1-4 plurality opinion since the majority of the Justices could not agree on a direction to give the lower court. Four Justices advocated a narrower interpretation of the CWA to hold that WoUS excludes intermittent or ephemeral streams and wetlands without a continuous surface connection to navigable waters (only permanent or continuous flowing bodies into navigable waters would be regulated). The other four Justices held to the prior interpretation that WoUS, including any waters that were tributary to and had a hydrologic connection with navigable waters, were regulated. Justice Kennedy, in his opinion, stated that WoUS should be determined on a case-by-case basis by the USACE, specifically based on whether a waterbody has a “significant nexus” to a navigable river.

The USACE and EPA released a memorandum on June 5, 2007, with further clarification on December 2, 2008, in order to provide guidance in implementing the U.S. Supreme Court’s decision. In accordance with the decision, the USACE will assert jurisdiction over traditional navigable waters (TNWs) and all wetlands adjacent to TNWs, as well as non-navigable tributaries of TNWs that are relatively permanent waters (RPW) (i.e., the tributaries typically flow year-round or have a continuous flow at least seasonally) and wetlands with a continuous surface connection that directly abut such tributaries; however, the agencies will evaluate jurisdiction over the following features based on a fact-specific analysis to determine whether they have a significant nexus with a TNW:

- Non-navigable tributaries that are not relatively permanent (do not flow typically year-round or have a continuous flow at least seasonally);
- Wetlands adjacent to such tributaries; and,
- Wetlands adjacent to, but that do not directly abut, a relatively permanent non-navigable tributary.

A case-by-case “significant nexus” analysis is conducted to determine whether the waters noted above and their adjacent wetlands are jurisdictional. A “significant nexus” may be found where waters, including adjacent wetlands, affect the chemical, physical, or biological integrity of downstream TNWs. The significant nexus analysis also includes consideration of hydrologic and ecologic factors relative to TNWs. RBF’s methodology regarding significant nexus determinations is discussed in Section 3.0.

## REGIONAL WATER QUALITY CONTROL BOARD

Applicants for a federal license or permit for activities which may discharge to waters of the United States must seek Water Quality Certification from the state or Indian tribe with jurisdiction.<sup>6</sup> Such Certification is based on a finding that the discharge will meet water quality standards and other applicable requirements. In California, Regional Boards issue or deny Certification for discharges within their geographical jurisdiction. Water Quality Certification must be based on a finding that the proposed discharge will comply with water quality standards, which are defined as numeric and narrative objectives in each Regional Board's Basin Plan. Where applicable, the State Water Resources Control Board has this responsibility for projects affecting waters within multiple Regional Boards. The Regional Board's jurisdiction extends to all waters of the State (includes SWANCC and Rapanos conditions) and to all WoUS, including wetlands.

Additionally, the California *Porter-Cologne Water Quality Control Act* gives the State very broad authority to regulate waters of the State, which are defined as any surface water or groundwater, including saline waters. The Porter-Cologne Act has become an important tool in the post SWANCC and Rapanos regulatory environment, with respect to the state's authority over isolated and insignificant waters. Generally, any person proposing to discharge waste into a water body that could affect its water quality must file a Report of Waste Discharge in the event that there is no Section 404/401 nexus. Although "waste" is partially defined as any waste substance associated with human habitation, the Regional Board also interprets this to include fill discharged into water bodies.

## CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE

*California Fish and Wildlife Code Sections 1600-1616* establish a fee-based process to ensure that projects conducted in and around lakes, rivers, or streams do not adversely impact fish and wildlife resources, or, when adverse impacts cannot be avoided, ensures that adequate mitigation and/or compensation is provided.

*Fish and Wildlife Code Section 1602* requires any person, state, or local governmental agency or public utility to notify the CDFG before beginning any activity that will do one or more of the following:

- (1) substantially obstruct or divert the natural flow of a river, stream, or lake;
- (2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or
- (3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake.

*Fish and Wildlife Code Section 1602* applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the state. The Fish and Wildlife's regulatory authority extends to include riparian habitat (including wetlands) supported by a river, stream, or lake regardless of the presence

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<sup>6</sup> Title 33, United States Code, Section 1341; Clean Water Act Section.

or absence of hydric soils and saturated soil conditions. Generally, the CDFG takes jurisdiction to the top of bank of the stream or to the outer limit of the adjacent riparian vegetation (outer drip line), whichever is greater. Notification is generally required for any project that will take place in or in the vicinity of a river, stream, lake, or their tributaries. This includes rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life and watercourses having a surface or subsurface flow that support or have supported riparian vegetation.

Any of the below criteria could be applicable in determining what constitutes a stream depending on the potential for the proposed activity to adversely affect fish and other stream-dependent wildlife resources.

- (1) The term “stream” can include intermittent and ephemeral streams, rivers, creeks, dry washes, sloughs, blue-line streams based on United States Geological Survey (USGS) maps, and watercourses with subsurface flows. Canals, aqueducts, irrigation ditches, and other means of water conveyance can also be considered streams if they support aquatic life, riparian vegetation, or stream-dependent terrestrial wildlife.
- (2) Biological components of a stream may include aquatic and riparian vegetation, along with all aquatic animals including fish, amphibians, reptiles, invertebrates, and terrestrial species which derive benefits from the stream system.
- (3) As a physical system, a stream not only includes water (at least on an intermittent or ephemeral basis), but also a bed or channel, a bank and/or levee, in-stream features such as logs or snags, and various flood plains depending on the return frequency of the flood event being considered (i.e., 10, 50, or 100 years, etc.).
- (4) The lateral extent of a stream can be measured in several ways depending on a particular situation and the type of fish or wildlife resource at risk. The following criteria are presented in order from the most inclusive to the least inclusive:
  - (a) The flood plain of a stream can be the broadest measurement of a stream’s lateral extent depending on the return frequency of the flood event used. For most flood control purposes, the 100-year flood plain exists for many streams. However, the 100-year flood plain may include significant amounts of upland or urban habitat and therefore may not be appropriate in many cases.
  - (b) The outer edge of riparian vegetation is generally used as the line of demarcation between riparian and upland habitats and is therefore a reasonable and identifiable boundary for the lateral extent of a stream. In most cases, the use of this criterion should result in protecting the fish and wildlife resources at risk.
  - (c) Most streams have a natural bank which confines flows to the bed or channel except during flooding. In some instances, particularly on smaller streams or dry washes with little or no riparian habitat, the bank should be used to mark the lateral extent of a stream.



- (d) A levee or other artificial stream bank would also be used to mark the lateral extent of a stream. However, in many instances, there can be extensive areas of valuable riparian habitat located behind a levee.

**Appendix D**     *Regulatory Methodology*

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# Regulatory Methodology

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The following is a summary of the regulatory methodology and criteria for determining jurisdictional D.

## WATERS OF THE U.S. AND STATE WATERS

The limits of the USACE jurisdiction in non-tidal waters extend to the OHWM, which is defined as “. . . that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.”<sup>7</sup> An OHWM can be determined by the observation of a natural line impressed on the bank; shelving; changes in the character of the soil; destruction of terrestrial vegetation; presence of litter and debris; wracking; vegetation matted down, bent, or absent; sediment sorting; leaf litter disturbed or washed away; scour; deposition; multiple observed flow events; bed and banks; water staining; and/or change in plant community. The Regional Board shares the USACE jurisdictional methodology, unless SWANCC or Rapanos conditions are present. In the latter case, the Regional Board considers such drainages to be jurisdictional waters of the State. The CDFG’s jurisdiction extends to the top of bank of the stream/channel or to the limit (outer dripline) of the adjacent riparian vegetation.

## WETLANDS

For this project location, USACE jurisdictional wetlands are delineated using the methods outlined in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0* (USACE, 2008). This document is one of a series of Regional Supplements to the 1987 USACE Wetland Delineation Manual (USACE Manual). According to the USACE Manual, identification of wetlands is based on a three-parameter approach involving indicators of hydrophytic vegetation, hydric soil, and wetland hydrology. In order to be considered a wetland, an area must exhibit at least minimal characteristics within these three (3) parameters. The Regional Supplement presents wetland indicators, delineation guidance, and other information that is specific to the Arid West Region. In the field, vegetation, soils, and evidence of hydrology have been examined using the methodology listed below and documented on USACE wetland data sheets, when applicable. It should be noted that both the Regional Board and the CDFG jurisdictional wetlands encompass those of the USACE.

### Vegetation

Nearly 5,000 plant types in the United States may occur in wetlands. These plants, often referred to as hydrophytic vegetation, are listed in regional publications by the U.S. Fish and Wildlife Service (USFWS). In general, hydrophytic vegetation is present when the plant community is dominated by species that can tolerate prolonged inundation or soil saturation during growing season. Hydrophytic

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<sup>7</sup> CWA regulations 33 CFR §328.3(e).

vegetation decisions are based on the assemblage of plant species growing on a site, rather than the presence or absence of particular indicator species. Vegetation strata are sampled separately when evaluating indicators of hydrophytic vegetation. A stratum for sampling purposes is defined as having 5 percent or more total plant cover. The following vegetation strata are recommended for use across the Arid West:

- ◆ *Tree Stratum*: Consists of woody plants 3 inches or more in diameter at breast height (DBH);
- ◆ *Sapling/shrub stratum*: Consists of woody plants less than 3 inches in DBH, regardless of height;
- ◆ *Herb stratum*: Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size; and,
- ◆ *Woody vines*: Consists of all woody vines, regardless of size.

The following indicator is applied per the test method below.<sup>8</sup> Hydrophytic vegetation is present if any of the indicators are satisfied.

#### Indicator 1 – Dominance Test

Cover of vegetation is estimated and is ranked according to their dominance. Species that contribute to a cumulative total of 50% of the total dominant coverage, plus any species that comprise at least 20% (also known as the “50/20 rule”) of the total dominant coverage, are recorded on a wetland data sheet. Wetland indicator status in California (Region 0) is assigned to each species using *The List of Plant Species that Occur in Wetlands* (USFWS, 1988). If greater than 50% of the dominant species from all strata were Obligate, Facultative-wetland, or Facultative species, the criteria for wetland vegetation is considered to be met. Plant indicator status categories are described below:

- ◆ *Obligate Wetland (OBL)*: Plants that occur almost always (estimated >99 percent) in wetlands under natural conditions, but which may also occur rarely (estimated <1 percent) in non-wetlands (e.g., *Spartina alterniflora*, *Taxodium distichum*);
- ◆ *Facultative Wetland (FACW)*: Plants that occur usually (estimated >67 to 99 percent) in wetlands, but also occur (estimated 1 to 33 percent) in non-wetlands (e.g., *Fraxinus pennsylvanica*, *Cornus stolonifera*);
- ◆ *Facultative (FAC)*: Plants with similar likelihood (estimated 33 to 67 percent) of occurring in both wetlands and non-wetlands (e.g., *Gleditsia triacanthos*, *Smilax rotundifolia*);

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<sup>8</sup> Although the Dominance Test is utilized in the majority of wetland delineations, other indicator tests may be employed. If one indicator of hydric soil and one primary or two secondary indicators of wetland hydrology are present, then the Prevalence Test (Indicator 2) may be performed. If the plant community satisfies the Prevalence Test, then the vegetation is hydric. If the Prevalence Test fails, then the Morphological Adaptation Test may be performed, where the delineator analyzes the vegetation for potential morphological features.

- ◆ *Facultative Upland (FACU)*: Plants that occur sometimes (estimated 1 to <33 percent) in wetlands, but occur more often (estimated >67 to 99 percent) in non-wetlands (e.g., *Quercus rubra*, *Potentilla arguta*); and,
- ◆ *Obligate Upland (UPL)*: Plants that occur rarely (estimated 1 percent) in wetlands, but occur almost always (estimated >99 percent) in non-wetlands under natural conditions (e.g., *Pinus echinata*, *Bromus mollis*).

## **Hydrology**

Wetland hydrology indicators are presented in four (4) groups, which include:

### Group A – Observation of Surface Water or Saturated Soils

Group A is based on the direct observation of surface water or groundwater during the site visit.

### Group B – Evidence of Recent Inundation

Group B consists of evidence that the site is subject to flooding or ponding, although it may not be inundated currently. These indicators include water marks, drift deposits, sediment deposits, and similar features.

### Group C – Evidence of Recent Soil Saturation

Group C consists of indirect evidence that the soil was saturated recently. Some of these indicators, such as oxidized rhizopheres surrounding living roots and the presence of reduced iron or sulfur in the soil profile, indicate that the soil has been saturated for an extended period.

### Group D – Evidence from Other Site Conditions or Data

Group D consists of vegetation and soil features that indicate contemporary rather than historical wet conditions, and include shallow aquitard and the FAC-neutral test.

If wetland vegetation criteria is met, the presence of wetland hydrology is evaluated at each transect by recording the extent of observed surface flows, depth of inundation, depth to saturated soils, and depth to free water in the soil test pits. The lateral extent of the hydrology indicators are used as a guide for locating soil pits for evaluation of hydric soils and jurisdictional areas. In portions of the stream where the flow is divided by multiple channels with intermediate sand bars, the entire area between the channels is considered within the OHWM and the wetland hydrology indicator is considered met for the entire area.

## **Soils**

A hydric soil is a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper 16-20 inches.<sup>9</sup> The concept of hydric soils includes soils developed under sufficiently wet conditions to support the growth and regeneration of hydrophytic vegetation. Soils that are sufficiently wet because of artificial measures are included in the concept of hydric soils. It should also be noted that the limits of wetland hydrology indicators are used as a guide for locating soil pits. If any hydric soil features are located, progressive pits are dug moving laterally away from the active channel until hydric features are no longer present within the top 20 inches of the soil profile.

Once in the field, soil characteristics are verified by digging soil pits along each transect to an excavation depth of 20 inches; in areas of high sediment deposition, soil pit depth may be increased. Soil pit locations are usually placed within the drainage invert or within adjoining vegetation. At each soil pit, the soil texture and color are recorded by comparison with standard plates within a *Munsell Soil Chart* (1994). Munsell Soil Charts aid in designating color labels to soils, based by degrees of three simple variables – hue, value, and chroma. Any indicators of hydric soils, such as organic accumulation, iron reduction, translocation, and accumulation, and sulfate reduction, are also recorded.

Hydric soil indicators are present in three groups, which include:

#### All Soils

“All soils” refers to soils with any United States Department of Agriculture (USDA) soil texture. Hydric soil indicators within this group include histosol, histic epipedon, black histic, hydrogen sulfide, stratified layers, 1 cm muck, depleted below dark surface, and thick dark surface.

#### Sandy Soils

“Sandy soils” refers to soil materials with a USDA soil texture of loamy fine sand and coarser. Hydric soil indicators within this group include sandy mucky mineral, sandy gleyed matrix, sandy redox, and stripped matrix.

#### Loamy and Clayey Soils

“Loamy and clayey soils” refers to soil materials with a USDA soil texture of loamy very fine sand and finer. Hydric soil indicators within this group include loamy mucky mineral, loamy gleyed matrix, depleted matrix, redox dark surface, depleted dark surface, redox depressions, and vernal pools.

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<sup>9</sup> According to the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0 (Corps 2008), growing season dates are determined through on-site observations of the following indicators of biological activity in a given year: (1) above-ground growth and development of vascular plants, and/or (2) soil temperature.

## **SWANCC WATERS**

The term “isolated waters” is generally applied to waters/wetlands that are not connected by surface water to a river, lake, ocean, or other body of water. In the presence of isolated conditions, the Regional Board and CDFG take jurisdiction through the application of the OHWM/streambed and/or the 3-parameter wetland methodology utilized by the USACE.

## **RAPANOS WATERS**

The USACE will assert jurisdiction over non-navigable, not relatively permanent tributaries and their adjacent wetlands where such tributaries and wetlands have a significant nexus to a TNW. The flow characteristics and functions of the tributary itself, in combination with the functions performed by any wetlands adjacent to the tributary, determine if these waters/wetlands significantly affect the chemical, physical, and biological integrity of the TNWs. Factors considered in the significant nexus evaluation include:

- (1) The consideration of hydrologic factors including, but not limited to, the following:
  - volume, duration, and frequency of flow, including consideration of certain physical characteristics of the tributary
  - proximity to the TNW
  - size of the watershed average annual rainfall
  - average annual winter snow pack
- (2) The consideration of ecologic factors including, but not limited to, the following:
  - the ability for tributaries to carry pollutants and flood waters to TNWs
  - the ability of a tributary to provide aquatic habitat that supports a TNW
  - the ability of wetlands to trap and filter pollutants or store flood waters
  - maintenance of water quality

Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow) and ditches (including roadside ditches) excavated wholly in, and draining only, uplands and that do not carry a relatively permanent flow of water, are generally not considered jurisdictional waters.

In the presence of Rapanos drainage conditions, the Regional Board and CDFG take jurisdiction via the OHWM and/or the 3-parameter wetland methodology utilized by the USACE.

## **Appendix E      Regulatory Approval Process**

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# **Regulatory Approval Process**

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The following is a summary of the various permits, agreements, and certifications required before construction activities take place within the jurisdictional areas.

## **U.S. ARMY CORPS OF ENGINEERS**

The USACE regulates discharges of dredged or fill materials into WoUS and wetlands pursuant to Section 404 of the CWA. A permit will be required from the USACE prior to commencement of any construction activities (i.e., dredge or fill) within the USACE delineated jurisdictional areas.

## **REGIONAL WATER QUALITY CONTROL BOARD**

The Regional Board regulates discharges to surface waters under the Federal CWA and the California Porter-Cologne Water Quality Control Act. Although there is no notification requirement for the USACE permit, CWA 401 Water Quality Certification from the Regional Board will be required prior to construction activities. The Regional Board also requires that CEQA compliance be obtained prior to obtaining the 401 Certification.

Once an application has been deemed complete, the Regional Board has between 60 days and 1 year in which to make a decision. The State has 60 days from the date of receipt of a valid request for water quality standards certification.<sup>10</sup> The USACE district engineer may specify a longer (up to one year) or shorter time, if he or she determines that a longer or shorter time is reasonable. If processing and review of the 401 application will take more than 60 days, the Regional Board will request additional time from the USACE. Please note that even when an application has been deemed complete, the Regional Board has the option of denial without prejudice. This is not a reflection on the project, but a means to stop the clock until the required information has been received.

The Regional Board is required to have a minimum 21-day public comment period before any action is taken on a 401 application.<sup>11</sup> The period closes when the Regional Board acts on the 401 application. The public comment period does not close after a certain number of days because proposed projects tend to change through the 401 process and the public is allowed to review and comment on the changed project. The public comment period starts as soon as an application has been received. Additionally, the Regional Board requires that water quality concerns related to urban storm water runoff be addressed. Any 401 Certification application submitted to the Regional Board should incorporate the use of Best Management Practices (BMPs) for the treatment of pollutants carried by storm water runoff in order to be considered a complete application. The Regional Board also requires a 401 Certification Application Fee, which is dependent on the amount and type of impacts.

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<sup>10</sup> (33 CFR Section 325.2 (b) (1) (ii)).

<sup>11</sup> 23 California Code of Regulations (CCR) § 3858 (a)

## **CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE**

The CDFG regulates alterations to streambed under the California Fish and Wildlife Code. At the time of this delineation, no CDFG jurisdictional impacts were proposed; however, the CDFG must be notified should any activities alter jurisdictional streambed. Upon a formal notification, the CDFG will determine whether the notification package (application) is complete. The CDFG will make this determination within 30 calendar days of receiving the notification package if the application is for a regular agreement (i.e., an agreement for a term of five years or less); however, the 30-day time period does not apply to notifications for long-term agreements (i.e., agreements for a term greater than five years). Once the notification package is deemed complete, CDFG will process a Draft Agreement as described below.

If a SAA is required, the CDFG may require an on-site inspection and a draft agreement. The draft agreement will include measures to protect fish and wildlife resources while conducting the project. For regular agreements, the CDFG will submit a draft agreement to the applicant within 60 calendar days after the notification is deemed complete. The 60-day time period does not apply to notifications for long-term agreements, since these are often large or complex projects.

The applicant then has 30 calendar days to notify CDFG whether the measures in the draft agreement are acceptable. After CDFG receives the signed draft agreement, it will make it final by signing it. The CDFG Application fee associated with the notification package varies and is dependent upon the total cost of the project and type of agreement (i.e., Regular or Long-Term).

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**APPENDIX D**  
**HYDROLOGY AND HYDRAULICS REPORT**

# **Don Wallace Multi-Use Trail Connector Phase 1 - Hydrology and Hydraulics Evaluation Report**



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## 1. Project Background

As with any multi-use trail, viable connections and access points give trails their appeal. The Don Wallace Multi-Use “Trail Connection” Project (Don Wallace Trail Project) consists of a short distance (connector) trail, which is a crucial needed segment of a larger planned trail “network” from the Pacific Ocean in Malibu to the interior areas of the County beyond the coastal zone. The project trail segment is located approximately ¼ mile west of Las Virgenes Road, just north of Agoura Road, to immediately south of Route 101 in the City of Calabasas.

The project will traverse along Las Virgenes Creek, which is a modified, earthen-bottom flood control channel. The trail will start where Caltrans right-of-way begins north of the underpass of Agoura Road, proceed north under Route 101 which is owned by the California Department of Transportation (Caltrans), and continue along the hard-bottom channel box culvert owned by Caltrans. The trail will traverse up concrete walls/embankments then and transition to natural/informal trails on Santa Monica Mountains Conservancy (SMMC) lands.

The project will provide a direct route and vital connection to the Santa Monica Mountains Conservancy Open Space (within Los Angeles County jurisdiction) as well as formal existing, planned and informal or “de-facto” trails within the regional context. Currently, no such continuous trail exists in the built environment based on the above concept. Although alignments “on paper” exist, many parts of the trail are undeveloped and some portions are missing vital land rights.

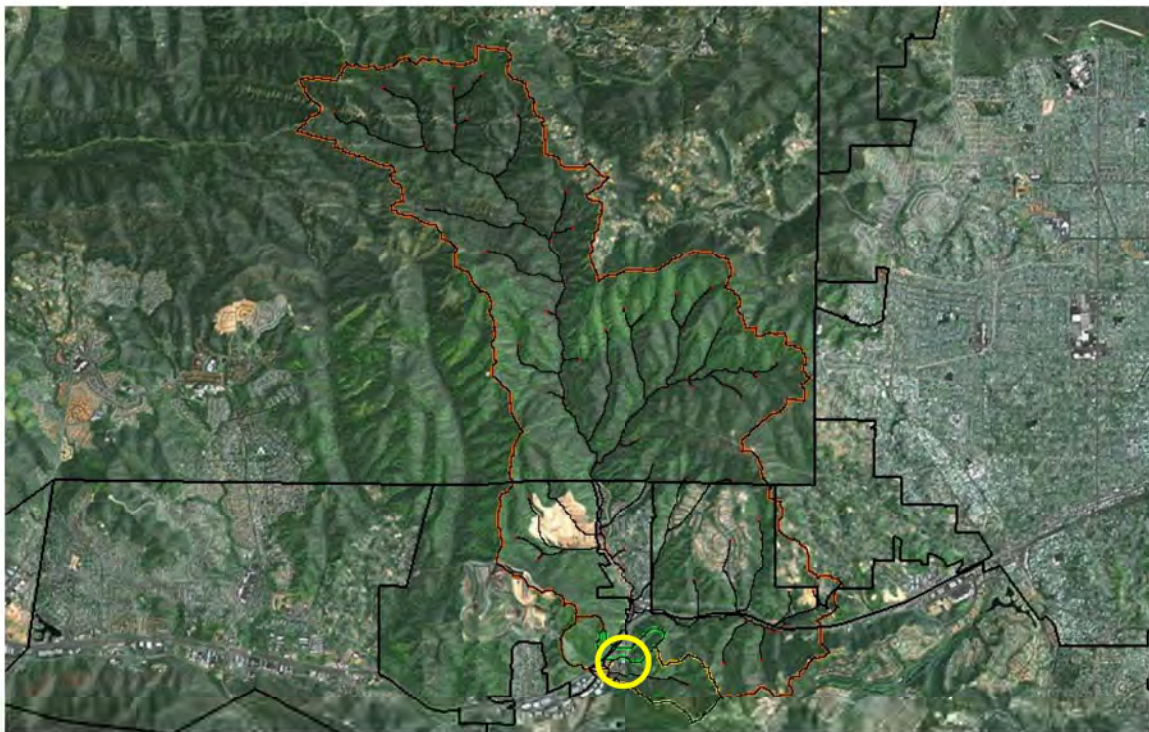
The primary intent of the project is to “connect” a specific section or segment of a planned continuous trail network, in proximity to and encompassing various jurisdictions. This particular segment is significantly important to provide a viable/safe formal trail option that does not currently exist.

In order to gain approval from Army Corps of Engineers (Corps), California Department of Fish and Wildlife (CDFW), Los Angeles County Regional Water Quality Control Board, Caltrans, Los Angeles County Department of Public Works/Flood Control District (LACDPW), and City of Calabasas (City), the impacts to the stream must be quantified. As part of this process, a Phase 1 Hydrology and Hydraulics analysis was completed for the section of Las Virgenes Creek that is near the proposed trail segment.

## 2. Hydrology

Las Virgenes Creek begins in Ventura County in the Simi Hills and flows south through the Santa Monica Mountains. Las Virgenes Creek is the largest tributary to Malibu Creek, which is the second-largest stream flowing into Santa Monica Bay. The City straddles Las Virgenes Creek's middle reach for a distance of 3.5 miles. The hills are vegetated with native grass and chaparral. The region has a mean annual rainfall of 17.84 inches. The watershed upstream of the project area is mostly undeveloped and in natural condition. Figure 2-1 shows the watershed tributary to the project area. The black lines represent city boundaries within the County of Los Angeles, the colored boundaries indicate subarea boundaries, and the yellow circle indicates the project area. The proposed project does not change the hydrologic characteristics of the watershed and so the existing and proposed conditions are equivalent.

Several agencies have jurisdictions regarding design flows for the culvert. Corps, Caltrans, LACDPW, and City have jurisdiction within the area impacted by this project. The Corps allows use of the SCS and Unit Hydrograph methods for flow calculations. Caltrans allows the use of regression equations, statistical analysis of runoff gage data, and the Soil Conservation Service (SCS) hydrologic methods as acceptable methods for flow calculations. The County of Los Angeles requires use of the Modified Rational Method for flow Calculations.



**Figure 2-1 Map of Las Virgenes Creek Watershed Tributary to Project Area**

The flow rates using the Modified Rational Method from LACDPW were provided by the LACDPW. Flow rates using the USGS Regression Analysis Equations for the South Coast Region of California were also used to determine flow rates. The difference between the two methods was extreme, and so a hydrologic study using the SCS method was conducted to determine flow rates through the project area.

Table 2-1 shows the rainfall for the Las Virgenes Creek watershed upstream of the freeway.

| <b>Table 2-1 Rainfall in Project Watershed</b> |                                |
|--|--------------------------------|
| <b>Recurrence Interval</b>                     | <b>24-hr Rainfall (inches)</b> |
| 2-yr   | 2.85                           |
| 5-yr   | 4.30                           |
| 10-yr  | 5.26                           |
| 25-yr  | 6.47                           |
| 50-yr  | 7.37                           |
| 100-yr   | 8.27                           |

Table 2-2 shows the hydrologic characteristics of the subareas used for the hydrologic studies used for this report.

| <b>Table 2-2 Hydrologic Characteristics of Watershed</b> |                |                 |                  |              |                  |                 |               |                 |
|--|----------------|-----------------|------------------|--------------|------------------|-----------------|---------------|-----------------|
|  | <b>Area</b>    | <b>Land Use</b> | <b>Soil Type</b> | <b>Cover</b> | <b>Condition</b> | <b>SCS Soil</b> | <b>SCS CN</b> | <b>Ia (in.)</b> |
|  | <b>(acres)</b> | <b>% Imp.</b>   | <b>#</b>         |              |                  |                 |               |                 |
| Subarea 1  | 7777.25        | 5.92            | 34               | Chaparral    | Poor             | C               | 85            | 0.35            |
| Subarea 2  | 58.3           | 17.97           | 34               | Chaparral    | Poor             | C               | 85            | 0.35            |
| Subarea 3  | 94.55          | 10.55           | 36               | Chaparral    | Poor             | C               | 85            | 0.35            |
| Subarea 4  | 242.01         | 7.94            | 34               | Chaparral    | Poor             | C               | 85            | 0.35            |

Table 2-3 shows the runoff peak flow rates for the watershed tributary to the culvert passing under the 101 Freeway.

| <b>Table 2-3 Hydrologic Flow Rates by Method</b> |                        |                   |                                 |
|--|------------------------|-------------------|---------------------------------|
| <b>Recurrence Interval</b>                       | <b>USGS Regression</b> | <b>SCS Method</b> | <b>LACDPW Modified Rational</b> |
| 2-yr   | 89.8                   | 2,102             |                                 |
| 5-yr   | 356                    | 3,599             |                                 |
| 10-yr  | 700                    | 4,582             |                                 |
| 25-yr  | 1,528                  | 5,816             |                                 |
| 50-yr  | 2,397                  | 6,723             | 8,760 / 9,915*                  |
| 100-yr   | 3,384                  | 7,644             |                                 |

\* Burned flow rate using the LACDPW method.

As can be seen in Table 2-3, the estimated runoff rates vary significantly. The flow rate used to design the triple box culvert under the 101 Freeway is currently unknown and is being sought for analysis of the project. However, for the Phase 1 analysis, the flow values provided by LACDPW will be used to analyze the culvert hydraulics for the existing and proposed conditions because they are the largest values and provide the worst case scenario.



### 3. Hydraulic Analysis

The proposed project requires modifying one of the 15-foot by 15.5-foot box culverts under the 101 Freeway to add the equestrian/pedestrian trail from the south side of the 101 Freeway to the north side. The currently proposed trail will be 8 feet wide and raised 2 feet above the invert of the current box culvert. This will create an obstruction of approximately 16 square feet, which represents approximately three percent of the existing flow area. The hydraulic analysis of the Las Virgenes Creek is required to understand the impacts of this restriction on water surface elevations, flow velocities, and scour potential.

#### 3.1 Existing Hydraulic Conditions

Las Virgenes Creek transitions from a natural channel to a rectangular concrete channel approximately 450 feet upstream from the triple box culvert that runs beneath the 101 Freeway. This section of concrete lined channel has sediment deposition, which has allowed vegetation to grow on the channel invert and restrict the flow area. The vegetation growth increases friction loss and increases the water surface elevations from the design condition. These impacts reduce the amount of flow that can pass through the system at a given water surface elevation. The slope of the natural section up through the transition is 0.0098 ft/ft. The slope of the rectangular concrete channel from the transition to the culvert is 0.0057 ft/ft.

The triple box culvert is relatively clear of vegetation due to its length, but is impacted by some sediment deposition, which reduces flow areas during the lower flow events. The velocities for high flow events are sufficient to remove deposited sediments and move them downstream. The slope of the triple box culvert is 0.0057 ft/ft.

The section of the creek between the 101 Freeway and Agoura Road was restored to a more natural condition when the concrete lining was removed and a natural cross-section with rock drop structures and native vegetation was installed between 2007 and 2008. This section is much wider than the lined channel upstream and was designed to carry a flow of approximately 12,000 cfs. The channel remains natural as it flows under the Agoura Road bridge and continues downstream to confluence with Malibu Creek. The slope of the natural channel from the culvert to the bridge is 0.016 ft/ft. Downstream of the bridge it is 0.0074 ft/ft.

Analysis of the creek was conducted using the HEC-RAS program developed by the Corps. Figure 3-1 shows the cross-sections used for modeling the stream in HEC-RAS. The topographic data from above the transition structure to approximately 200 feet south of Agoura Road was based on a topographic survey conducted in January 2013. The remainder of the channel topography was obtained from the LAR-IAC LiDAR survey of 2006, which had a resolution of approximately 2 feet. The reach was modeled for a sufficient length upstream and downstream to allow the model to resolve numerical issues related to boundary condition estimation without influencing the project reach.



**Figure 3-1 HEC-RAS Cross-Sections from Topographic and LiDAR Survey Data**

The LACDPW uses a Manning's  $n$  value of 0.085 for all channels that are earth-bottom and are not permitted for routine maintenance. This roughness value simulates reduced flow area and increased friction loss related to vegetation growth. This value was used for all natural sections of this channel. Field inspections verified the reasonableness of this value. Figure 3-2 and 3-3 show typical growth in the upstream and downstream sections of the 101 Freeway.



**Figure 3-2 Typical Vegetation in Las Virgenes Creek Upstream of 101 Freeway**



**Figure 3-3 Typical Vegetation in Las Virgenes Creek Downstream of 101 Freeway**

The west culvert of the triple box culvert has fine sediment deposition up to 4 feet deep caused by backwater in the barrel. The backwater appears to be caused by both upstream and downstream vegetation blocking flows through the barrel. The middle barrel has 0-2 feet of deposition, while the east barrel is relatively clear. Manning's  $n$  roughness through the culvert was estimated to be 0.015 based on

expected roughness and field investigations. The eastern culvert was mostly clear of sediments and the surface was worn by years of scour by sand. The center culvert had approximately 2 feet of fine silts and clays deposited along the bottom. The western box had 2 feet of deposition of fine sediments on the upstream end and 4 feet on the downstream end. The deposits indicate settling during backwater or ineffective flow when fines can drop from the slow moving water. Figure 3-4 shows a photograph that is typical of the concrete in the box culverts.



**Figure 3-4 Invert in West Barrel of Triple Box Culvert Under 101 Freeway**

The hydraulic analysis of existing conditions modeled the culverts as partially blocked on the west and center boxes, with the east box clear of sediment. The existing condition also modeled the channel as being natural, even though the system upstream of the culvert is lined with concrete. The reason for this can be seen in Figure 3-4.

The bridge on Agoura Road was modeled using the as-built drawings and survey data obtained during the Phase 1 topographic survey. The piers were modeled using the bridge/culvert tools in HEC-RAS with semi-circular pier nose and tails and a continuous pier wall. The highest energy method was used for pier modeling. The utility crossing just downstream of the bridge was not modeled for this initial analysis, but will be added to the models for alternative analysis. The impacts of the crossing are expected to be minimal due to the heavily vegetated nature of the natural channel. The current analysis does not account for buildup of debris on bridge piers and culvert walls. Debris loading may cause significant reductions in flow area, causing flows to exceed channel banks. Figure 3-5 shows the water surface profile for the modeled reach using the LACDPW  $Q_{50-Burned}$  flow rate of 9,915 cfs. This is the maximum flow expected and is used for the analysis of the system.

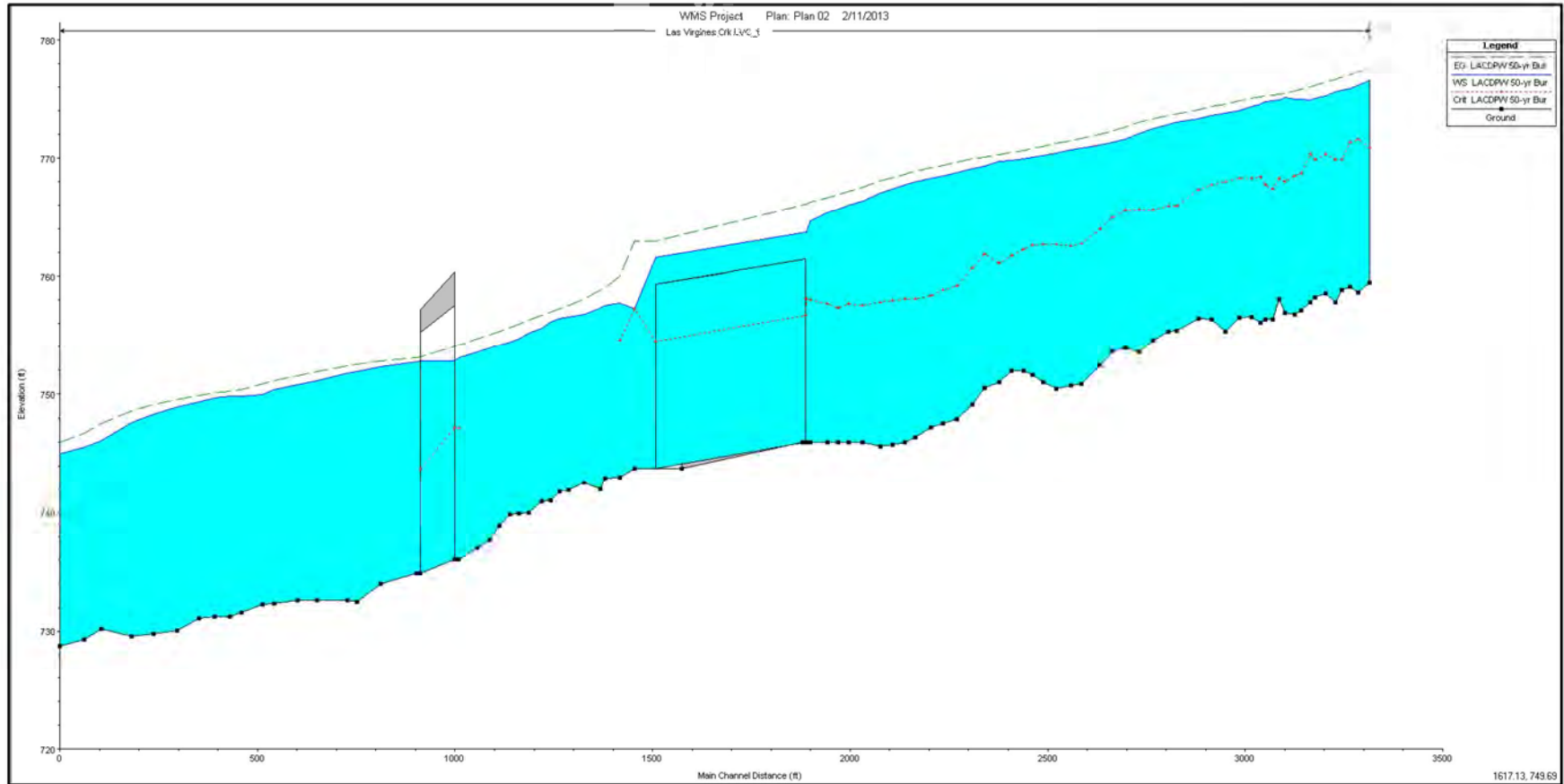


Figure 3-5 Existing Conditions Water Surface Profile - 9,915 cfs

In the existing conditions, flows begin overtopping the triple box culvert for flow rates greater than approximately 6,700 cfs. This flow condition corresponds to flow rates equivalent to a 50-yr flow based on the SCS method hydrology study conducted for this analysis.

The existing conditions analysis showed that the bridge at Agoura Rd is adequately sized for the design capacities of the channel. The existing conditions upstream of the Caltrans triple box culvert reduce velocities and increase depths to a point where flows overtop the culverts due to capacity reduction. The water depths upstream of the culvert reach 17.7 feet, which is 2.2 feet higher than the culvert soffit.

### 3.2 Proposed Conditions Hydraulics

The next step in the hydraulic analysis of the Don Wallace Multi-Use Trail analysis required evaluating potential impacts related to installation of the trail. Analysis of the proposed trail additions to the channel for this project include the following assumptions:

1. Channel upstream of the triple box culvert is cleared of sediment and vegetation to approximately 100 feet upstream of the culvert
2. Sediment accumulation is removed from culvert boxes
3. A trail 8 feet wide and 2 feet tall is installed in the west culvert box
4. The trail upstream of the culvert cuts through the channel wall and slopes up to the trail area outside of the flow area, reducing the flow obstruction in the channel

Figure 3-6 shows the results of the proposed conditions model for the LACDPW flow rate of 9,915 cfs. As can be seen, even with the assumptions made above, the channel still overtops the 101 Freeway. The other flow rates were evaluated and it was found that overtopping began to occur after the SCS 100-yr flow rate of approximately 7,600 cfs, as shown in Figure 3-7. Channel conditions were modified upstream and downstream by reducing friction losses within acceptable ranges. However, the modifications did not impact the flow rate that could pass through the culvert. This indicates that the culvert is inlet controlled, and only changes in the size of the culvert will allow larger flows to pass through the culvert.

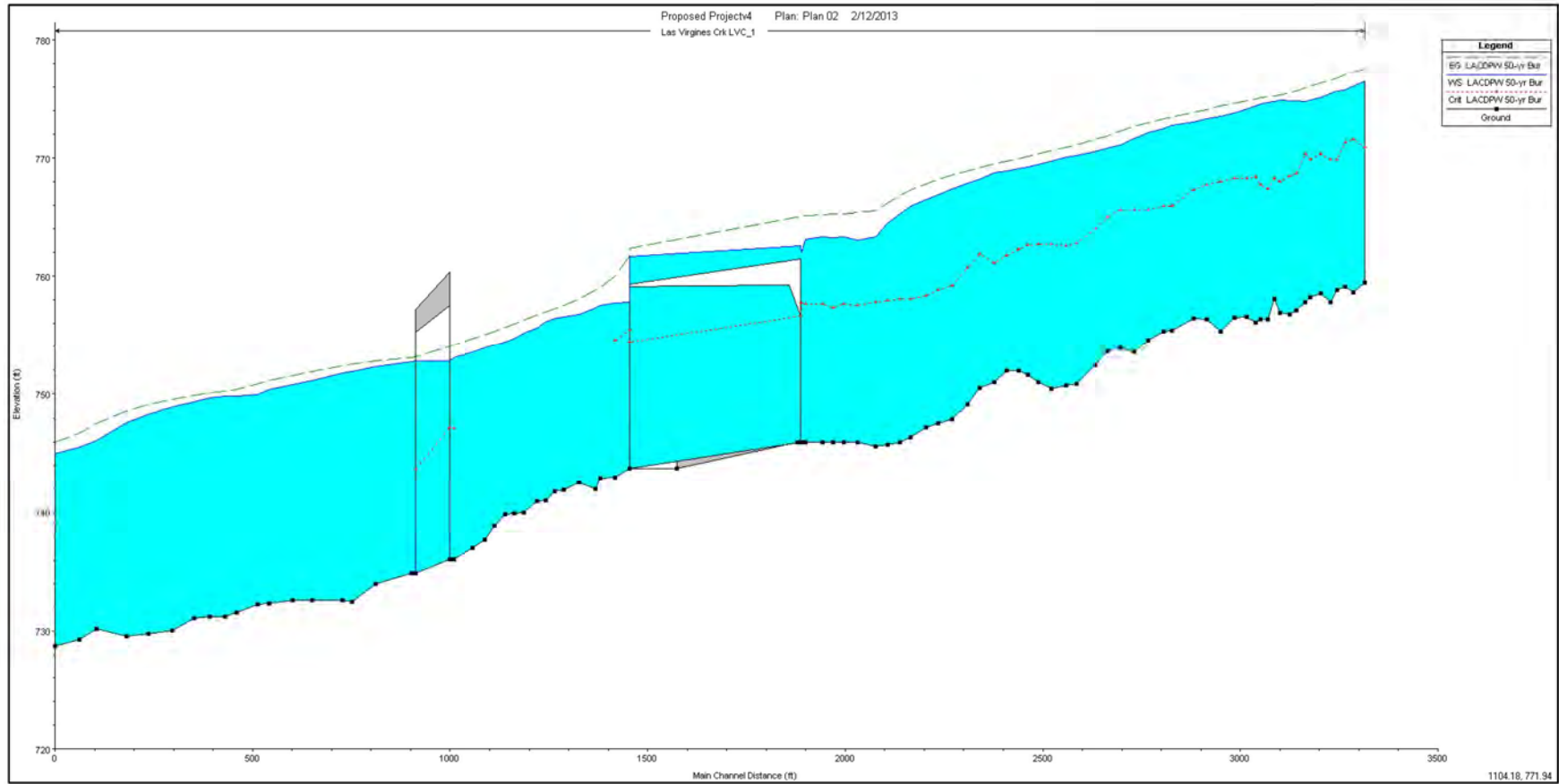


Figure 3-6 Proposed Project Water Surface Elevation - 9,915 cfs

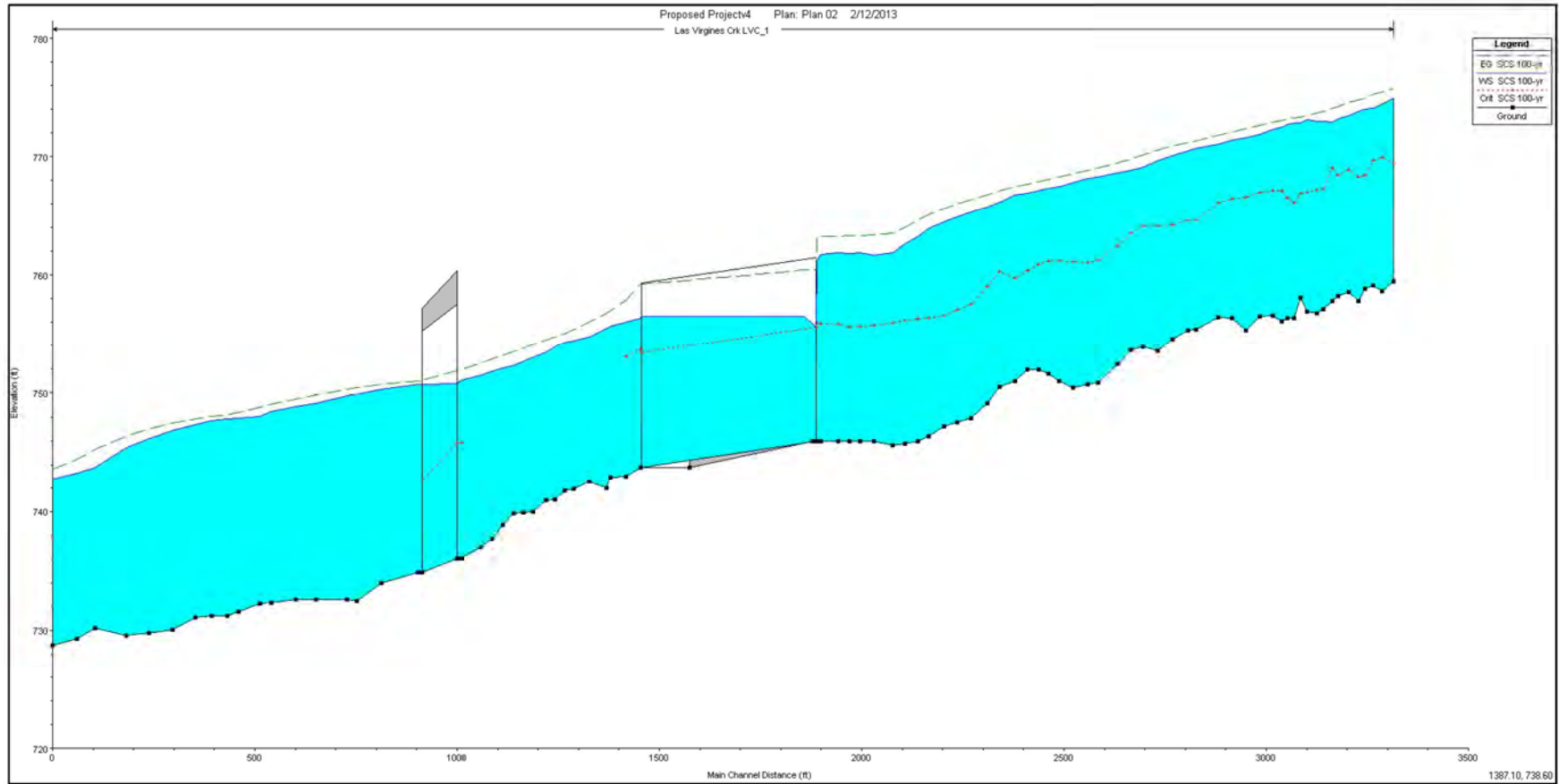


Figure 3-7 Proposed Condition Water Surface Profile – 7,600 cfs



### 3.3 Hydraulics Conditions Analysis Conclusion

As can be seen in Figures 3-5 through 3-7, the hydraulics of Las Virgenes Creek at the design flow rate are controlled by the size of the culvert. The currently proposed project will improve flow conditions by removing sediment and vegetation that are influencing flows in the channel. However, if channel maintenance was modeled by removing sediment and vegetation, and used as the existing condition, the channel would be smoother and have more flow capacity. If the maintained channel were used as the existing condition, and then blocked with the proposed trail, water depths would rise approximately 0.2 feet in the sections upstream of the culvert. Drains into the project downstream of the culvert would see no changes at the design flow levels. These impacts are considered very minimal and would have little impact on drains.

However, removal of sediment and vegetation may not be allowed and will be contingent on Caltrans and regulatory agency approval. Project alternatives will be developed based on input from the agencies and will be included in the Phase 2 Hydrology and Hydraulics Report.

## 4. Phase 2 Work

No hydraulic loads were calculated for the project at this time. They will be analyzed during the Phase 2 Hydrology and Hydraulics study which will be conducted when trail alternatives and structures have been defined.

Scour analysis will also be conducted as part of the alternatives analysis in the Phase 2 Hydrology and Hydraulics report. Based on the analysis above, scour conditions will not change in the currently proposed conditions.

# **Appendix A**

## **HEC-RAS Analysis Existing Conditions**

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| River Sta | Q Total<br>(cfs) | Min Ch.<br>El.<br>(ft) | W.S.<br>Elev.<br>(ft) | Crit.<br>W.S.<br>(ft) | E.G.<br>Elev.<br>(ft) | E.G.<br>Slope<br>(ft/ft) | Vel.<br>Chnl.<br>(ft/s) | Flow<br>Area<br>(sq ft) | Top<br>Width<br>(ft) | Froude<br># Chl. |
|-----------|------------------|------------------------|-----------------------|-----------------------|-----------------------|--------------------------|-------------------------|-------------------------|----------------------|------------------|
| 3216.65   | 9915.2           | 759.44                 | 776.54                | 770.91                | 777.56                | 0.008134                 | 8.41                    | 1266.11                 | 113.69               | 0.4              |
| 3188.117  | 9915.2           | 758.62                 | 776.14                | 771.6                 | 777.29                | 0.010034                 | 9.02                    | 1204.85                 | 118.64               | 0.44             |
| 3167.872  | 9915.2           | 759.1                  | 775.84                | 771.32                | 777.07                | 0.011041                 | 9.34                    | 1186.98                 | 134.88               | 0.47             |
| 3146.391  | 9915.2           | 758.87                 | 775.76                | 769.85                | 776.81                | 0.008495                 | 8.48                    | 1291.55                 | 144.95               | 0.41             |
| 3130.227  | 9915.2           | 757.84                 | 775.56                | 769.88                | 776.65                | 0.009145                 | 8.68                    | 1287.73                 | 159.73               | 0.42             |
| 3105.55   | 9915.2           | 758.59                 | 775.25                | 770.37                | 776.41                | 0.010229                 | 8.97                    | 1240.62                 | 160                  | 0.45             |
| 3079.331  | 9915.2           | 758.22                 | 775.03                | 769.91                | 776.15                | 0.009355                 | 8.79                    | 1272.83                 | 166.51               | 0.43             |
| 3066.73   | 9915.2           | 757.84                 | 774.91                | 770.38                | 776.03                | 0.009661                 | 8.9                     | 1290.26                 | 175.62               | 0.45             |
| 3044.796  | 9915.2           | 757.11                 | 774.98                | 768.68                | 775.77                | 0.005948                 | 7.45                    | 1548.08                 | 193.18               | 0.36             |
| 3028.766  | 9915.2           | 756.79                 | 774.97                | 768.5                 | 775.64                | 0.00528                  | 6.9                     | 1666.74                 | 203.75               | 0.33             |
| 3003.789  | 9915.2           | 756.92                 | 775.08                | 768.04                | 775.45                | 0.003087                 | 5.15                    | 2120.79                 | 212.3                | 0.26             |
| 2988.212  | 9915.2           | 758.08                 | 774.91                | 768.31                | 775.38                | 0.004226                 | 5.74                    | 1912.96                 | 219.95               | 0.3              |
| 2971.791  | 9915.2           | 756.35                 | 774.85                | 767.4                 | 775.31                | 0.003818                 | 5.62                    | 1947.56                 | 216.31               | 0.28             |
| 2954.689  | 9915.2           | 756.35                 | 774.74                | 767.77                | 775.23                | 0.004243                 | 5.84                    | 1845.65                 | 206.27               | 0.3              |
| 2940.329  | 9915.2           | 756.07                 | 774.57                | 768.4                 | 775.16                | 0.00524                  | 6.32                    | 1695.47                 | 198.52               | 0.33             |
| 2919.038  | 9915.2           | 756.61                 | 774.36                | 768.26                | 775.03                | 0.00572                  | 6.73                    | 1595.55                 | 190.13               | 0.34             |
| 2886.885  | 9915.2           | 756.48                 | 774.01                | 768.29                | 774.82                | 0.006862                 | 7.35                    | 1462.63                 | 176.93               | 0.38             |
| 2853.042  | 9915.2           | 755.33                 | 773.77                | 768                   | 774.58                | 0.006919                 | 7.37                    | 1445.35                 | 173.31               | 0.38             |
| 2817.552  | 9915.2           | 756.38                 | 773.59                | 767.71                | 774.33                | 0.006262                 | 6.95                    | 1490.45                 | 163.72               | 0.36             |
| 2784.618  | 9915.2           | 756.43                 | 773.32                | 767.31                | 774.1                 | 0.007268                 | 7.13                    | 1413.42                 | 145.63               | 0.38             |
| 2730.01   | 9915.2           | 755.4                  | 773.04                | 765.93                | 773.72                | 0.005763                 | 6.61                    | 1524.93                 | 148.45               | 0.34             |
| 2709.069  | 9915.2           | 755.35                 | 772.81                | 765.94                | 773.58                | 0.006589                 | 7.02                    | 1425.1                  | 138.3                | 0.36             |
| 2670.066  | 9915.2           | 754.56                 | 772.48                | 765.61                | 773.3                 | 0.007125                 | 7.3                     | 1365.3                  | 128.46               | 0.38             |
| 2635.075  | 9915.2           | 753.54                 | 772.07                | 765.6                 | 773.01                | 0.008926                 | 7.79                    | 1279.54                 | 128.87               | 0.42             |
| 2598.822  | 9915.2           | 753.86                 | 771.59                | 765.61                | 772.65                | 0.010651                 | 8.27                    | 1210.32                 | 132.18               | 0.45             |
| 2567.235  | 9915.2           | 753.65                 | 771.33                | 765.01                | 772.32                | 0.009142                 | 7.98                    | 1248.82                 | 123.68               | 0.42             |
| 2536.013  | 9915.2           | 752.44                 | 771.13                | 764.01                | 772.03                | 0.007806                 | 7.59                    | 1313.04                 | 125.43               | 0.39             |
| 2487.9    | 9915.2           | 750.85                 | 770.83                | 762.8                 | 771.65                | 0.00682                  | 7.32                    | 1382.67                 | 151.71               | 0.37             |
| 2460.545  | 9915.2           | 750.73                 | 770.69                | 762.54                | 771.46                | 0.00608                  | 7.09                    | 1441.25                 | 164.09               | 0.35             |
| 2425.125  | 9915.2           | 750.43                 | 770.41                | 762.69                | 771.23                | 0.006768                 | 7.31                    | 1426.54                 | 193.03               | 0.37             |
| 2391.18   | 9915.2           | 751                    | 770.2                 | 762.7                 | 771                   | 0.006693                 | 7.24                    | 1439.27                 | 193.49               | 0.37             |
| 2364.99   | 9915.2           | 751.61                 | 770.05                | 762.66                | 770.82                | 0.006265                 | 7.1                     | 1489.58                 | 198.44               | 0.36             |
| 2340.914  | 9915.2           | 751.98                 | 769.95                | 762.29                | 770.65                | 0.005647                 | 6.82                    | 1555.17                 | 199.81               | 0.34             |
| 2311.132  | 9915.2           | 751.96                 | 769.82                | 761.74                | 770.48                | 0.005113                 | 6.64                    | 1623.86                 | 211.36               | 0.32             |
| 2280.898  | 9915.2           | 751                    | 769.7                 | 761.15                | 770.32                | 0.004482                 | 6.43                    | 1697.06                 | 222.13               | 0.31             |
| 2243.379  | 9915.2           | 750.53                 | 769.33                | 761.9                 | 770.11                | 0.006342                 | 7.28                    | 1539.33                 | 227.59               | 0.36             |
| 2212.371  | 9915.2           | 749.13                 | 769.15                | 760.71                | 769.91                | 0.006011                 | 7.3                     | 1605.5                  | 256.63               | 0.34             |
| 2172.656  | 9915.2           | 747.91                 | 768.79                | 759.2                 | 769.66                | 0.006236                 | 7.73                    | 1488.79                 | 203.93               | 0.33             |
| 2138.319  | 9915.2           | 747.53                 | 768.52                | 758.86                | 769.41                | 0.007957                 | 7.87                    | 1452.48                 | 195.36               | 0.34             |
| 2106.272  | 9915.2           | 747.19                 | 768.28                | 758.37                | 769.18                | 0.006952                 | 7.87                    | 1453.93                 | 195.99               | 0.34             |
| 2068.624  | 9915.2           | 746.41                 | 768                   | 758.11                | 768.9                 | 0.007877                 | 7.85                    | 1442.25                 | 195.41               | 0.35             |
| 2041.485  | 9915.2           | 745.94                 | 767.71                | 758.07                | 768.65                | 0.010319                 | 8.05                    | 1387.8                  | 187.76               | 0.36             |
| 2010.004  | 9915.2           | 745.73                 | 767.37                | 757.95                | 768.35                | 0.008161                 | 8.19                    | 1370.53                 | 186.58               | 0.37             |

| River Sta | Q Total<br>(cfs) | Min Ch.<br>El.<br>(ft) | W.S.<br>Elev.<br>(ft) | Crit.<br>W.S.<br>(ft) | E.G.<br>Elev.<br>(ft) | E.G.<br>Slope<br>(ft/ft) | Vel.<br>Chnl.<br>(ft/s) | Flow<br>Area<br>(sq ft) | Top<br>Width<br>(ft) | Froude<br># Chl. |
|-----------|------------------|------------------------|-----------------------|-----------------------|-----------------------|--------------------------|-------------------------|-------------------------|----------------------|------------------|
| 1980.275  | 9915.2           | 745.6                  | 767.03                | 757.79                | 768.08                | 0.010123                 | 8.46                    | 1317.15                 | 186.07               | 0.38             |
| 1933.259  | 9915.2           | 745.94                 | 766.36                | 757.55                | 767.56                | 0.011574                 | 8.98                    | 1222.24                 | 176.03               | 0.42             |
| 1898.965  | 9915.2           | 746                    | 766.02                | 757.66                | 767.17                | 0.010164                 | 8.78                    | 1241.29                 | 174.35               | 0.4              |
| 1872.781  | 9915.2           | 746                    | 765.64                | 757.36                | 766.88                | 0.011719                 | 9.06                    | 1185.61                 | 162.77               | 0.42             |
| 1844.601  | 9915.2           | 746                    | 765.39                | 757.68                | 766.63                | 0.006814                 | 9.07                    | 1177.01                 | 155.53               | 0.42             |
| 1801.784  | 9915.2           | 746                    | 764.73                | 758.05                | 766.26                | 0.009186                 | 10                      | 1040.09                 | 132.77               | 0.49             |
| 1800      | 9915.2           | 746                    | 763.72                | 758.12                | 766.05                | 0.019792                 | 12.27                   | 821.03                  | 106.16               | 0.66             |
| 1610.892  | Culvert          |                        |                       |                       |                       |                          |                         |                         |                      |                  |
| 1421      | 9915.2           | 743.8                  | 757.29                | 757.29                | 762.96                | 0.094055                 | 19.11                   | 518.92                  | 45.74                | 1                |
| 1420      | 9915.2           | 743                    | 757.74                | 754.56                | 760                   | 0.024089                 | 12.06                   | 822.26                  | 75.72                | 0.64             |
| 1382.847  | 9915.2           | 742.95                 | 757.52                |                       | 759.03                | 0.016642                 | 9.88                    | 1003.53                 | 103.21               | 0.56             |
| 1371.122  | 9915.2           | 742                    | 757.36                |                       | 758.83                | 0.016652                 | 9.72                    | 1020.45                 | 107.54               | 0.56             |
| 1329.15   | 9915.2           | 742.51                 | 756.82                |                       | 758.11                | 0.015084                 | 9.13                    | 1085.61                 | 118.2                | 0.53             |
| 1291.183  | 9915.2           | 741.88                 | 756.57                |                       | 757.53                | 0.01096                  | 7.86                    | 1260.98                 | 138.07               | 0.46             |
| 1268.41   | 9915.2           | 741.78                 | 756.45                |                       | 757.25                | 0.009237                 | 7.19                    | 1415.18                 | 191.53               | 0.42             |
| 1245.57   | 9915.2           | 740.98                 | 756.17                |                       | 757.02                | 0.009853                 | 7.48                    | 1396.36                 | 212.51               | 0.43             |
| 1222.929  | 9915.2           | 740.95                 | 755.62                |                       | 756.74                | 0.01275                  | 8.54                    | 1205.71                 | 190                  | 0.49             |
| 1190.475  | 9915.2           | 739.98                 | 755.23                |                       | 756.32                | 0.012424                 | 8.44                    | 1231.82                 | 193.73               | 0.48             |
| 1165.771  | 9915.2           | 739.92                 | 754.75                |                       | 755.98                | 0.01394                  | 8.94                    | 1138.76                 | 168.68               | 0.5              |
| 1141.432  | 9915.2           | 739.81                 | 754.44                |                       | 755.66                | 0.012679                 | 8.89                    | 1138.92                 | 156.9                | 0.49             |
| 1115.504  | 9915.2           | 738.85                 | 754.16                |                       | 755.33                | 0.011382                 | 8.69                    | 1149.29                 | 138.51               | 0.46             |
| 1090.807  | 9915.2           | 737.7                  | 753.88                |                       | 755.06                | 0.011065                 | 8.72                    | 1137.69                 | 105.75               | 0.46             |
| 1060.665  | 9915.2           | 737                    | 753.52                |                       | 754.72                | 0.011063                 | 8.79                    | 1128.12                 | 98.17                | 0.46             |
| 1012.324  | 9915.2           | 736.02                 | 753.05                | 747.13                | 754.2                 | 0.009983                 | 8.58                    | 1155.71                 | 94.9                 | 0.43             |
| 959       | Bridge           |                        |                       |                       |                       |                          |                         |                         |                      |                  |
| 905.814   | 9915.2           | 734.85                 | 752.75                |                       | 753.1                 | 0.002751                 | 4.72                    | 2102.73                 | 174.56               | 0.24             |
| 815.586   | 9915.2           | 734                    | 752.31                |                       | 752.79                | 0.003862                 | 5.58                    | 1778.35                 | 145.03               | 0.28             |
| 755.436   | 9915.2           | 732.47                 | 751.89                |                       | 752.5                 | 0.005663                 | 6.28                    | 1578.95                 | 144.33               | 0.33             |
| 730.687   | 9915.2           | 732.58                 | 751.72                |                       | 752.36                | 0.005467                 | 6.4                     | 1549.23                 | 132.98               | 0.33             |
| 654.163   | 9915.2           | 732.63                 | 751.11                |                       | 751.87                | 0.007257                 | 6.99                    | 1418.43                 | 132.87               | 0.38             |
| 604.325   | 9915.2           | 732.58                 | 750.81                |                       | 751.52                | 0.006281                 | 6.75                    | 1467.85                 | 129.42               | 0.35             |
| 544.353   | 9915.2           | 732.3                  | 750.4                 |                       | 751.13                | 0.006622                 | 6.86                    | 1449.13                 | 138.91               | 0.36             |
| 515.474   | 9915.2           | 732.28                 | 749.98                |                       | 750.88                | 0.009855                 | 7.63                    | 1301.57                 | 143.5                | 0.43             |
| 462.494   | 9915.2           | 731.6                  | 749.86                |                       | 750.41                | 0.005072                 | 5.98                    | 1663.88                 | 162.05               | 0.32             |
| 434.574   | 9915.2           | 731.25                 | 749.81                |                       | 750.26                | 0.003872                 | 5.38                    | 1850.47                 | 173.26               | 0.28             |
| 395.315   | 9915.2           | 731.23                 | 749.67                |                       | 750.1                 | 0.003769                 | 5.23                    | 1905.97                 | 183.86               | 0.28             |
| 356.399   | 9915.2           | 731.06                 | 749.38                |                       | 749.92                | 0.005289                 | 5.88                    | 1702.76                 | 181.51               | 0.32             |
| 299.619   | 9915.2           | 730.05                 | 748.96                |                       | 749.58                | 0.006482                 | 6.29                    | 1602.84                 | 191.19               | 0.35             |
| 240.746   | 9915.2           | 729.8                  | 748.3                 |                       | 749.13                | 0.007979                 | 7.37                    | 1406.63                 | 176.05               | 0.39             |
| 185.385   | 9915.2           | 729.58                 | 747.61                |                       | 748.62                | 0.009999                 | 8.12                    | 1267.1                  | 162.32               | 0.44             |
| 107.714   | 9915.2           | 730.2                  | 746.09                |                       | 747.53                | 0.01945                  | 9.64                    | 1057.55                 | 174.87               | 0.59             |
| 63.961    | 9915.2           | 729.28                 | 745.59                |                       | 746.74                | 0.013521                 | 8.63                    | 1173.71                 | 187.23               | 0.5              |
| 3.123     | 9915.2           | 728.73                 | 745.04                | 739.07                | 745.97                | 0.010013                 | 7.74                    | 1288.08                 | 169.53               | 0.44             |

## **Appendix B**

# **HEC-RAS Analysis Proposed Conditions**

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| River Sta | Q Total (cfs) | Min Ch El (ft) | W.S. Elev (ft) | Crit W.S. (ft) | E.G. Elev (ft) | E.G. Slope (ft/ft) | Vel Chnl (ft/s) | Flow Area (sq ft) | Top Width (ft) | Froude # Chl |
|-----------|---------------|----------------|----------------|----------------|----------------|--------------------|-----------------|-------------------|----------------|--------------|
| 3216.65   | 9915.2        | 759.44         | 776.48         | 770.91         | 777.51         | 0.008279           | 8.46            | 1258.35           | 113.62         | 0.41         |
| 3188.117  | 9915.2        | 758.62         | 776.06         | 771.6          | 777.23         | 0.01026            | 9.09            | 1195.31           | 118.52         | 0.45         |
| 3167.872  | 9915.2        | 759.1          | 775.74         | 771.32         | 777            | 0.011369           | 9.44            | 1173.98           | 134.75         | 0.47         |
| 3146.391  | 9915.2        | 758.87         | 775.66         | 769.85         | 776.73         | 0.008741           | 8.57            | 1277.24           | 144.88         | 0.42         |
| 3130.227  | 9915.2        | 757.84         | 775.45         | 769.88         | 776.57         | 0.009458           | 8.79            | 1270.06           | 159.63         | 0.43         |
| 3105.55   | 9915.2        | 758.59         | 775.11         | 770.37         | 776.32         | 0.010666           | 9.11            | 1219.76           | 159.89         | 0.46         |
| 3079.331  | 9915.2        | 758.22         | 774.89         | 769.91         | 776.05         | 0.009815           | 8.94            | 1248.93           | 166.27         | 0.44         |
| 3066.73   | 9915.2        | 757.84         | 774.75         | 770.38         | 775.92         | 0.010218           | 9.08            | 1262.36           | 175.44         | 0.46         |
| 3044.796  | 9915.2        | 757.11         | 774.83         | 768.68         | 775.64         | 0.006252           | 7.58            | 1518.2            | 192.97         | 0.36         |
| 3028.766  | 9915.2        | 756.79         | 774.82         | 768.5          | 775.51         | 0.005558           | 7.02            | 1634.91           | 203.52         | 0.34         |
| 3003.789  | 9915.2        | 756.92         | 774.93         | 768.04         | 775.31         | 0.003233           | 5.23            | 2088.76           | 212.08         | 0.26         |
| 2988.212  | 9915.2        | 758.08         | 774.75         | 768.31         | 775.24         | 0.004463           | 5.84            | 1877.55           | 219.65         | 0.3          |
| 2971.791  | 9915.2        | 756.35         | 774.69         | 767.4          | 775.16         | 0.004025           | 5.72            | 1912.1            | 215.95         | 0.29         |
| 2954.689  | 9915.2        | 756.35         | 774.57         | 767.77         | 775.08         | 0.004484           | 5.95            | 1810.52           | 205.93         | 0.3          |
| 2940.329  | 9915.2        | 756.07         | 774.39         | 768.4          | 775            | 0.005567           | 6.44            | 1659.62           | 198.03         | 0.34         |
| 2919.038  | 9915.2        | 756.61         | 774.16         | 768.26         | 774.87         | 0.006086           | 6.87            | 1559.04           | 188.3          | 0.35         |
| 2886.885  | 9915.2        | 756.48         | 773.79         | 768.29         | 774.64         | 0.007361           | 7.52            | 1424.26           | 174.62         | 0.39         |
| 2853.042  | 9915.2        | 755.33         | 773.53         | 768            | 774.39         | 0.007476           | 7.55            | 1403.8            | 171.56         | 0.39         |
| 2817.552  | 9915.2        | 756.38         | 773.34         | 767.71         | 774.11         | 0.006778           | 7.12            | 1448.91           | 161.15         | 0.37         |
| 2784.618  | 9915.2        | 756.43         | 773.03         | 767.31         | 773.86         | 0.007949           | 7.33            | 1372.84           | 142.32         | 0.4          |
| 2730.01   | 9915.2        | 755.4          | 772.74         | 765.93         | 773.45         | 0.006058           | 6.79            | 1480.94           | 143.02         | 0.35         |
| 2709.069  | 9915.2        | 755.35         | 772.49         | 765.94         | 773.3          | 0.00725            | 7.23            | 1381.54           | 134.07         | 0.38         |
| 2670.066  | 9915.2        | 754.56         | 772.12         | 765.61         | 773            | 0.007851           | 7.54            | 1320.16           | 124.25         | 0.39         |
| 2635.075  | 9915.2        | 753.54         | 771.66         | 765.6          | 772.68         | 0.009823           | 8.1             | 1228.23           | 123.25         | 0.44         |
| 2598.822  | 9915.2        | 753.86         | 771.11         | 765.61         | 772.28         | 0.011939           | 8.67            | 1149.21           | 123.11         | 0.48         |
| 2567.235  | 9915.2        | 753.65         | 770.81         | 765.01         | 771.9          | 0.010236           | 8.37            | 1187.16           | 115.22         | 0.45         |
| 2536.018  | 9915.2        | 752.44         | 770.59         | 764.01         | 771.57         | 0.009005           | 7.97            | 1247.24           | 117.43         | 0.42         |
| 2497.9    | 9915.2        | 750.85         | 770.22         | 762.8          | 771.15         | 0.007931           | 7.72            | 1298.99           | 129.25         | 0.39         |
| 2460.545  | 9915.2        | 750.73         | 770.07         | 762.54         | 770.93         | 0.006724           | 7.46            | 1353.76           | 125.53         | 0.37         |
| 2425.125  | 9915.2        | 750.43         | 769.72         | 762.69         | 770.66         | 0.00833            | 7.8             | 1307.27           | 147.75         | 0.4          |
| 2391.18   | 9915.2        | 751            | 769.44         | 762.7          | 770.37         | 0.008427           | 7.79            | 1310.81           | 151.81         | 0.41         |
| 2364.99   | 9915.2        | 751.61         | 769.24         | 762.66         | 770.15         | 0.008059           | 7.69            | 1338.07           | 174.85         | 0.4          |
| 2340.914  | 9915.2        | 751.98         | 769.1          | 762.29         | 769.94         | 0.007308           | 7.41            | 1395.37           | 180.71         | 0.38         |
| 2311.132  | 9915.2        | 751.96         | 768.92         | 761.74         | 769.72         | 0.006675           | 7.24            | 1445.44           | 184.57         | 0.36         |
| 2280.898  | 9915.2        | 751            | 768.77         | 761.15         | 769.52         | 0.005905           | 7.04            | 1504.59           | 192.21         | 0.35         |
| 2243.379  | 9915.2        | 750.53         | 768.19         | 761.9          | 769.22         | 0.009176           | 8.24            | 1302.53           | 193.9          | 0.42         |
| 2212.371  | 9915.2        | 749.13         | 767.86         | 760.71         | 768.93         | 0.009082           | 8.43            | 1307.02           | 214.08         | 0.41         |
| 2172.656  | 9915.2        | 747.91         | 767.4          | 759.2          | 768.56         | 0.00902            | 8.77            | 1239.59           | 162.76         | 0.4          |
| 2138.319  | 9915.2        | 747.53         | 766.94         | 758.86         | 768.19         | 0.012252           | 9.14            | 1178.71           | 152.89         | 0.41         |
| 2106.272  | 9915.2        | 747.19         | 766.51         | 758.37         | 767.81         | 0.011189           | 9.26            | 1152.75           | 147.52         | 0.43         |
| 2068.624  | 9915.2        | 746.41         | 765.97         | 758.11         | 767.34         | 0.013729           | 9.47            | 1108.66           | 138.67         | 0.45         |
| 2041.485  | 9915.2        | 745.94         | 765.27         | 758.07         | 766.87         | 0.020776           | 10.19           | 1007.88           | 122.25         | 0.5          |
| 2010.004  | 9915.2        | 745.73         | 764.48         | 757.95         | 766.24         | 0.018227           | 10.67           | 947.75            | 109.9          | 0.53         |
| 1980.275  | 9915.2        | 745.6          | 763.35         | 757.79         | 765.53         | 0.027509           | 11.85           | 838.63            | 82.3           | 0.6          |

| River Sta | Q Total (cfs) | Min Ch El (ft) | W.S. Elev (ft) | Crit W.S. (ft) | E.G. Elev (ft) | E.G. Slope (ft/ft) | Vel Chnl (ft/s) | Flow Area (sq ft) | Top Width (ft) | Froude # Chl |
|-----------|---------------|----------------|----------------|----------------|----------------|--------------------|-----------------|-------------------|----------------|--------------|
| 1933.259  | 9915.2        | 745.94         | 763.07         | 757.55         | 765.4          | 0.000908           | 12.23           | 811.81            | 77.25          | 0.64         |
| 1898.965  | 9915.2        | 746            | 763.32         | 757.66         | 765.25         | 0.000671           | 11.16           | 892.73            | 93.32          | 0.57         |
| 1872.781  | 9915.2        | 746            | 763.29         | 757.36         | 765.24         | 0.000712           | 11.21           | 889.7             | 91.57          | 0.57         |
| 1844.601  | 9915.2        | 746            | 763.35         | 757.67         | 765.18         | 0.00062            | 10.87           | 920.28            | 96.09          | 0.55         |
| 1801.784  | 9915.2        | 746            | 763.14         | 757.7          | 765.14         | 0.000695           | 11.35           | 877.48            | 90.29          | 0.59         |
| 1800      | 9915.2        | 746            | 761.99         | 757.78         | 765.03         | 0.001038           | 13.98           | 709.25            | 45.37          | 0.62         |
| 1610.892  | Culvert       |                |                |                |                |                    |                 |                   |                |              |
| 1421      | 9915.2        | 743.8          | 757.8          | 755.51         | 761.72         | 0.047831           | 15.88           | 624.34            | 45.74          | 0.76         |
| 1420      | 9915.2        | 743            | 757.74         | 754.56         | 760            | 0.024089           | 12.06           | 822.26            | 75.72          | 0.64         |
| 1382.847  | 9915.2        | 742.95         | 757.52         |                | 759.03         | 0.016642           | 9.88            | 1003.53           | 103.21         | 0.56         |
| 1371.122  | 9915.2        | 742            | 757.36         |                | 758.83         | 0.016652           | 9.72            | 1020.45           | 107.54         | 0.56         |
| 1329.15   | 9915.2        | 742.51         | 756.82         |                | 758.11         | 0.015084           | 9.13            | 1085.61           | 118.2          | 0.53         |
| 1291.183  | 9915.2        | 741.88         | 756.57         |                | 757.53         | 0.01096            | 7.86            | 1260.98           | 138.07         | 0.46         |
| 1268.41   | 9915.2        | 741.78         | 756.45         |                | 757.25         | 0.009237           | 7.19            | 1415.18           | 191.53         | 0.42         |
| 1245.57   | 9915.2        | 740.98         | 756.17         |                | 757.02         | 0.009853           | 7.48            | 1396.36           | 212.51         | 0.43         |
| 1222.929  | 9915.2        | 740.95         | 755.62         |                | 756.74         | 0.01275            | 8.54            | 1205.71           | 190            | 0.49         |
| 1190.475  | 9915.2        | 739.98         | 755.23         |                | 756.32         | 0.012424           | 8.44            | 1231.82           | 193.73         | 0.48         |
| 1165.771  | 9915.2        | 739.92         | 754.75         |                | 755.98         | 0.01394            | 8.94            | 1138.76           | 168.68         | 0.5          |
| 1141.432  | 9915.2        | 739.81         | 754.44         |                | 755.66         | 0.012679           | 8.89            | 1138.92           | 156.9          | 0.49         |
| 1115.504  | 9915.2        | 738.85         | 754.16         |                | 755.33         | 0.011382           | 8.69            | 1149.29           | 138.51         | 0.46         |
| 1090.807  | 9915.2        | 737.7          | 753.88         |                | 755.06         | 0.011065           | 8.72            | 1137.69           | 105.75         | 0.46         |
| 1060.665  | 9915.2        | 737            | 753.52         |                | 754.72         | 0.011063           | 8.79            | 1128.12           | 98.17          | 0.46         |
| 1012.324  | 9915.2        | 736.02         | 753.05         | 747.13         | 754.2          | 0.009983           | 8.58            | 1155.71           | 94.9           | 0.43         |
| 959       | Bridge        |                |                |                |                |                    |                 |                   |                |              |
| 905.814   | 9915.2        | 734.85         | 752.75         |                | 753.1          | 0.002751           | 4.72            | 2102.73           | 174.56         | 0.24         |
| 815.586   | 9915.2        | 734            | 752.31         |                | 752.79         | 0.003862           | 5.58            | 1778.35           | 145.03         | 0.28         |
| 755.436   | 9915.2        | 732.47         | 751.89         |                | 752.5          | 0.005663           | 6.28            | 1578.95           | 144.33         | 0.33         |
| 730.687   | 9915.2        | 732.58         | 751.72         |                | 752.36         | 0.005467           | 6.4             | 1549.23           | 132.98         | 0.33         |
| 654.163   | 9915.2        | 732.63         | 751.11         |                | 751.87         | 0.007257           | 6.99            | 1418.43           | 132.87         | 0.38         |
| 604.325   | 9915.2        | 732.58         | 750.81         |                | 751.52         | 0.006281           | 6.75            | 1467.85           | 129.42         | 0.35         |
| 544.353   | 9915.2        | 732.3          | 750.4          |                | 751.13         | 0.006622           | 6.86            | 1449.13           | 138.91         | 0.36         |
| 515.474   | 9915.2        | 732.28         | 749.98         |                | 750.88         | 0.009855           | 7.63            | 1301.57           | 143.5          | 0.43         |
| 462.494   | 9915.2        | 731.6          | 749.86         |                | 750.41         | 0.005072           | 5.98            | 1663.88           | 162.05         | 0.32         |
| 434.574   | 9915.2        | 731.25         | 749.81         |                | 750.26         | 0.003872           | 5.38            | 1850.47           | 173.26         | 0.28         |
| 395.315   | 9915.2        | 731.23         | 749.67         |                | 750.1          | 0.003769           | 5.23            | 1905.98           | 183.86         | 0.28         |
| 356.399   | 9915.2        | 731.06         | 749.38         |                | 749.92         | 0.005289           | 5.88            | 1702.77           | 181.51         | 0.32         |
| 299.619   | 9915.2        | 730.05         | 748.96         |                | 749.58         | 0.006482           | 6.29            | 1602.85           | 191.2          | 0.35         |
| 240.746   | 9915.2        | 729.8          | 748.3          |                | 749.13         | 0.007978           | 7.37            | 1406.65           | 176.05         | 0.39         |
| 185.385   | 9915.2        | 729.58         | 747.61         |                | 748.62         | 0.009999           | 8.12            | 1267.12           | 162.33         | 0.44         |
| 107.714   | 9915.2        | 730.2          | 746.09         |                | 747.53         | 0.019447           | 9.64            | 1057.62           | 174.88         | 0.59         |
| 63.961    | 9915.2        | 729.28         | 745.59         |                | 746.74         | 0.013519           | 8.63            | 1173.81           | 187.24         | 0.5          |
| 3.123     | 9915.2        | 728.73         | 745.04         | 739.07         | 745.97         | 0.010013           | 7.74            | 1288.09           | 169.53         | 0.44         |



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**APPENDIX E**  
**HYDRAULICS CONSISTENCY LETTER**



GAIL FARBER, Director

# COUNTY OF LOS ANGELES

## DEPARTMENT OF PUBLIC WORKS

*"To Enrich Lives Through Effective and Caring Service"*

900 SOUTH FREMONT AVENUE  
ALHAMBRA, CALIFORNIA 91803-1331  
Telephone: (626) 458-5100  
<http://dpw.lacounty.gov>

ADDRESS ALL CORRESPONDENCE TO:  
P.O. BOX 1460  
ALHAMBRA, CALIFORNIA 91802-1460

May 9, 2013

IN REPLY PLEASE  
REFER TO FILE: WR-3

Mr. Hamid Toossi, PE  
Caltrans District 7  
100 South Main Street, MS-12  
Los Angeles, CA 90012

Dear Mr. Toossi:

### DON WALLACE CONNECTOR TRAIL PROJECT - LAS VIRGENES CREEK

This is to follow up on a request made by the Department of Parks and Recreation regarding the current hydrology for the Las Virgenes Creek, near the Caltrans SR101 intersection. My staff has reviewed the hydrology data for the project area and found that the Capital Flood of 9,980 cubic feet per second (cfs) corresponds to the burned watershed and complies with our 2002 updated hydrology method. The hydrology study for determining the Capital Flood of 14,500 cfs was done in 1964 prior to updating the hydrology method.

Therefore, we recommend the burned peak flow of 9,980 cfs to be used for sizing the SR101 culvert at Las Virgenes Creek. We do not recommend bulking the Capital Flood upstream of the SR101 culvert. We hope this clarifies any misunderstanding. If you have any comments, please contact me at (626) 458-6100 or at [cstone@dpw.lacounty.gov](mailto:cstone@dpw.lacounty.gov) or Dr. Iraj Nasserri at (626) 458-6124 or at [inasserri@dpw.lacounty.gov](mailto:inasserri@dpw.lacounty.gov).

Very truly yours,

GAIL FARBER  
Director of Public Works

CHRISTOPHER STONE  
Assistant Deputy Director  
Water Resources Division

**RBF ONTARIO**

MAY 16 2013

**RECEIVED**

IN:yg

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cc: Supervisor Zev Yaroslavsky (Maria Chong-Castillo)  
RBF Consulting (Juan Villalobos)

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**APPENDIX F**  
**GEO TECHNICAL EVALUATION REPORT**



Geotechnical Evaluation Report  
Don Wallace Multi-Use Trail Connector

Los Angeles County  
Parks and Recreation

For

RBF Consulting

February 11, 2013  
Revised February 13, 2013

Project No. 132162

## **INTRODUCTION**

This Geotechnical Evaluation Report provides a summary of Kleinfelder's work performed to complete Phase I – Milestone 3 for the subject project. Phase I – Milestone 3 included:

- Geotechnical/geologic site reconnaissance performed Friday February 1, 2013; reviewing access to the site for future field investigation;
- Assessment of the general geologic conditions affecting the area, and evaluation of their potential impacts on the project; and
- Preparation of this technical memorandum to summarize our observations of the existing site conditions and general geologic conditions.

## **PROJECT INFORMATION**

We understand that the project will create a crossing for the Las Virgenes Creek Trail, from the Santa Monica Mountains to Malibu Creek State Park, under State Route 101 (SR 101) north of Agoura Road in Calabasas, Plate 1, Site Vicinity Map. The trail undercrossing will be made by modifying the west cell of an existing triple- 15-foot by 15-foot cast-in-place reinforced concrete box culvert (existing drainage structure for the Las Virgenes Creek undercrossing of SR 101) and the north wall of the existing U-shaped open concrete channel that parallels SR 101 and abuts the box culvert.

We understand that modifications to the existing box culvert undercrossing of SR 101 will include a concrete overlay of the invert of the west cell. On the north side of SR 101, to join existing trails on Santa Monica Mountains Conservancy (SMMC) land, the trail connector will exit the culvert and open concrete channel by breaking through the northern channel retaining wall.

Breaking through the channel retaining wall will require construction of two new retaining walls, one on each side of the trail connector, where the trail will ramp up/out onto SMMC lands. The location of the break in the channel retaining wall has not yet been determined, but we anticipate that it could be positioned near the intersection of the box culvert and open channel. The inclination of the ramp up/out onto SMMC lands has not yet been determined and/or communicated to us. We anticipate that the ramp will be about 10 feet wide. The highest portion of the retaining walls on either side of the trail ramp would occur at the intersection of the open concrete channel which is about 15 feet in height.

## **GEOLOGIC SETTING**

### **Regional Geology**

The site is located in the downstream end of Gates Canyon along Las Virgenes Creek. Gates Canyon separates the Calabasas Highlands to the east and southeast from the Simi Hills to the west and northwest. The Calabasas Highlands and Simi Hills are part of the Transverse Ranges Geomorphic Province of California. The Transverse Ranges province is characterized by roughly east-west trending structure that is oblique to the typical

northwest-southeast structure of coastal California. The intense north-south tectonic “squeezing” of the transverse ranges has resulted in one of the most rapidly rising regions on earth (CGS, 2002).

The site is regionally mapped as underlain by surficial deposits of Holocene-age alluvium, consisting of mixtures of sand, silt and clay within the creek channel, and gray, thinly bedded, siliceous shale of the Monterey Formation forming the local underlying bedrock. A gray, bedded claystone of the upper Topanga Formation underlies the Monterey Formation and may be exposed in the canyon bottom locally, as a result of the northeast dipping structure, Plate 2, Regional Geologic Map (Dibblee, 1992,).

### **Surface Water Conditions**

Surface water flow at the site is generally towards the south, within the Las Virgenes Creek channel. The Creek channel is anticipated to contain runoff from both a 100-year flood (1% annual chance) and a 500-year flood (0.2 % annual chance). The floodwater elevation from a 100-year flood at the north end of the culvert is anticipated to be 759 feet (MSL) (FEMA, 2008).

### **Groundwater Conditions**

The historic high groundwater level is reported by the State to have occurred between 10 and 20 feet below ground surface at the site, within the creek channel alluvium, Plate 3, Historic High Groundwater Map (CGS, 2001). The local bedrock may contain water locally along bedding planes and fractures but is generally not considered water bearing. Fluctuations of the groundwater level, localized zones of perched water, and soil moisture content should be anticipated during and following the rainy season.

## **GEOLOGIC HAZARDS**

### **Faulting and Ground Rupture**

Earthquakes and faulting occur as the tectonic plates, which comprise the Earth’s crust, or lithosphere, move relative to one-another. Ground rupture occurs when movement on a fault deep within the earth breaks through to the ground surface. Fault rupture almost always follows pre-existing faults, which are zones of weakness. Rupture may occur suddenly during an earthquake or slowly in the form of fault creep. Sudden displacements are more damaging to structures because they are accompanied by shaking.

The site is not located within a State of California Alquist-Priolo Earthquake Fault Zone, (Hart and Bryant, 1999). The site is between the Malibu Coast Fault (Solstice Fault) located approximately 8.5 miles southwest of the site and the Simi-Santa Susana Fault zone located approximately 11 miles north-northwest of the site Plate 4, Fault Zone Map.

### **Landslides**

Landslides and other forms of mass wasting, including mud flows, debris flows, soil slips, and rock falls occur as soil or rock moves down slope under the influence of gravity. Landslides are frequently triggered by intense rainfall or seismic shaking. The site is located

between the Calabasas Highlands and the Simi Hills which are both within State designated Seismic Hazard Zones for Earthquake Induced-Landslides, Plate 5, Seismic Hazard Zones Map (CGS, 1998). The potential at the site for landslides or debris flows that originate from the hills northwest of the site is moderate.

## **Liquefaction**

Liquefaction occurs when loose, coarse-grained or silty soils are subjected to strong shaking resulting from earthquake motions. The coarse-grained or silty soils typically lose a portion or all of their shear strength, and regain strength sometime after the shaking stops. Soil movements (both vertical and lateral) have been observed under these conditions due to consolidation of the liquefied soils. The alluvial portion of the site, within the creek channel is within State and County Hazard Zones for Liquefaction, Plate 5, Seismic Hazard Zones Map (CGS, 1998).

## **SITE OBSERVATIONS**

On Friday February 1, 2013 Kleinfelder visited the site to perform our geotechnical/geologic site reconnaissance. The purpose of this site reconnaissance was to assess site access and constraints, look for bedrock outcrops and/or cuts, and observe surface vegetation and surface soil conditions.

### **Site Access**

Access to the site is limited. The site is accessible by foot from the parking lot of the Creekside Village shopping center through a man gate located near the rear of the development (see Photo 1). The site is also accessible by foot from the Caltrans right-of-way along the north side of the SR 101 through a man gate located near the intersection of the box culvert and the open concrete channel (see Photo 2). The site may be accessible from SMMC lands but likely only by foot. There appears to be sufficient room for equipment staging on the freeway side of the fence on the north side of SR 101 (see Photo 3). For Phase II – Milestone 4, Geotechnical Investigation, we recommend that field exploration work be performed from the freeway side of the fence on the north side of SR 101 using a truck-mounted drill rig and a backhoe.

### **Bedrock Outcrops**

Bedrock outcrops were not observed at the location of the proposed retaining walls. Bedrock at the location of the proposed retaining walls is obscured by fill and colluvium. The colluvium at the site may grade into underlying bedrock. A bedrock cut was observed along Las Virgenes Road near the exit from the north bound SR 101, which is in proximity to the site. Bedrock exposed in the cut along Las Virgenes Road appears to dip to the northeast which is consistent with published geologic mapping, Plate 2, Regional Geologic Map (Dibblee, 1992).

Shallow bedrock at the site may be affected by weathering and slope creep. The effects of slope creep on the strength and structure of the underlying bedrock will be assessed during the geotechnical investigation.

## **Surface Vegetation and Surface Soil Conditions**

The location of the proposed retaining walls, upslope of the channel, is vegetated with shrubs and grasses. It is not anticipated the vegetation at the site will affect our ability to perform the geotechnical investigation.

A significant amount of sediment has collected within the concrete channel. The collection of sediment in the channel has resulted in thick vegetation including trees.

A survey of potentially sensitive plant species was not within the scope of our reconnaissance. We understand that plant surveys are being performed by others.

Surficial soils upslope of the channel appear to consist of fill and colluvium. The fill at the site likely resulted from construction of the freeway and culvert. We anticipate that the fill was locally derived. The colluvium at the site is the weathering product of the local bedrock. The thickness of the fill and alluvium will be assessed during the proposed geotechnical investigation.

## **PRELIMINARY CONCLUSIONS AND RECOMMENDATIONS**

Based on our observations during the geotechnical / geologic site reconnaissance we anticipate that bedrock will be encountered at relatively shallow depths (i.e., probably less than 5 to 10 feet). Provided that Phase II – Milestone 4, Geotechnical Investigation, confirms shallow and favorable bedrock bedding conditions, we anticipate that:

- The proposed retaining walls could be supported in the near surface bedrock or overexcavated and recompacted fill/alluvium and consist of a U-shaped structure (two parallel cantilever walls connected with a concrete floor);
- Allowable bearing pressure for foundation design could fall within a range of 2,000 psf to 4,000 psf but this needs to be evaluated based on field exploration, laboratory testing and engineering analysis;
- We anticipate that temporary back-cuts for construction on the order of 1:1 (H:V) may be feasible. Additional site characterization, subsurface sampling, and laboratory testing is planned for Phase II, Milestone 4, Geotechnical Investigation. The stability of temporary back-cuts will be evaluated by performing slope stability calculations using the soil and rock strength parameters resulting from our aforementioned laboratory analysis;
- Lateral earth pressures considered for design of the retaining walls would consist of active and/or at-rest pressures for locally derived level and/or sloping backfill;
- Evaluation of whether the active or at-rest condition is appropriate for design will depend on the flexibility of the walls. Walls that are free to rotate at least 0.002 radians (deflection at the top of the wall of at least  $0.002 \times H$ , where H is the unbalanced wall height) may be designed for the active condition. Walls that are not capable of this movement should be assumed rigid and designed for the at-rest condition;



- In addition to active and/or at-rest pressures, lateral loading due to potential expansive soil pressures should be evaluated during Phase II – Milestone 4;
- Evaluation of the corrosion potential of the site soils will be performed and recommendations made as to the type of concrete to be used for construction as part of the scope performed during Phase II, Milestone 4, Geotechnical Investigation;
- If a shallow groundwater condition is present or develops at the site, the U-shaped structure could be subjected to hydrostatic uplift forces. This potential should be evaluated in the design; and
- If a drainage system will not be installed, the walls should be designed to resist hydrostatic pressure in addition to the earth pressure.

The above considerations preliminary and need to be further evaluated based on field exploration, laboratory testing and engineering analysis during Phase II – Milestone 4. For Phase II – Milestone 4, we recommend that field exploration work be performed from the freeway side of the fence on the north side of SR 101 using a truck-mounted drill rig and a backhoe. This should allow for the drilling to achieve a sufficient depth to collect samples of the underlying bedrock for strength testing; and increase the possibility that the proposed test pit extends through upper bedding that could be affected by weathering and slope creep.

## LIMITATIONS

This letter was prepared to provide preliminary geologic and geotechnical opinions based on initial observations made during a brief visit to the project site and our review and interpretation of readily accessible geologic information contained in Kleinfelder's in-house files and from web-based research. Other site specific information, such as Caltrans Logs of Test Borings for the Las Virgenes Creek Channel, may be available or exist that has not been reviewed or studied and could add to our understanding and further site analyses. The information presented herein is for preliminary planning purposes, and should not be relied upon for the basis of design. Additional field exploration, laboratory testing, and engineering analysis must be performed during Phase II – Milestone 4.

This work was performed in a manner consistent with that level of care and skill ordinarily exercised by other members of the profession practicing in the same locality, under similar conditions and at the date the services are provided. It is possible that conditions could vary between or beyond the data evaluated. We make no other representation, guarantee or warranty, express or implied, regarding the services, communication (oral or written), report, opinion, or instrument of service provided.

Regulations and professional standards applicable to our engineering services are continually evolving. Techniques are, by necessity, often new and relatively untried. Different professionals may reasonably adopt different approaches to similar problems. As such, our services are intended to provide the client with a source of professional advice, opinions and recommendations based on a limited data, observations, and tests.

The authorized scope of our services for Phase I – Milestone 3 did not include subsurface exploration, sampling, laboratory testing, geotechnical engineering analysis, earthquake engineering study, foundation analysis or design, or construction recommendations.

## CLOSING

We trust the information that has been presented herein addresses your immediate needs for this assignment. Please address any questions or comments regarding the information presented in this letter to the principal authors identified below. We thank you for the opportunity to provide Kleinfelder's professional engineering services and look forward to working with you on this project.

Respectfully Submitted,  
**KLEINFELDER WEST, INC.**



Darrin G. Hasham, PG, CEG  
Project Geologist



C. Eric Philips, PE, GE  
Project Manager II /  
Senior Geotechnical Engineer



Attachments:   References  
                      Photos 1, 2, and 3  
                      Plate 1, Site Vicinity Map  
                      Plate 2, Regional Geologic Map  
                      Plate 3, Historic High Groundwater Map  
                      Plate 4, Fault Zone Map  
                      Plate 5, Seismic Hazard Zones Map

## REFERENCES

- California Geologic Survey (CGS), 2001, Seismic Hazards Zone Report for the Calabasas 7.5-Minute Quadrangle SHZR 06, Los Angeles County, California, last revised January 13, 2006.
- California Geologic Survey (CGS), 2002, California Geomorphic Provinces, CGC Note 36.
- California Geologic Survey (CGS), 1998, State of California Seismic Hazards Zones, Calabasas Quadrangle, Official Map Released February 1, 1998.
- Dibblee, Thomas W. Jr., 1992, Geologic Map of the Calabasas Quadrangle, Los Angeles and Ventura Counties, California, Dibblee Foundation Map #DF-37, scale 1:24,000.
- FEMA, 2008, Map Service Center, Flood Insurance Rate Map (FIRM) Panel 06037C1264F, effective September 26, 2008, (<http://store.msc.fema.gov/webapp/wcs/stores>).
- Hart, Earl W., and Bryant, William A., 1999, Fault-Rupture Hazard Zones in California: Alquist-Priolo Earthquake Fault Zoning Act with Index to Earthquake Fault Zones Maps, California Division of Mines and Geology, Special Publication 42, revised 1997, supplements 1 and 2 added 1999.

## PHOTOS



Photo 1, Man Gate from the parking lot of the Creekside Village shopping center



Photo 2, Man Gate located near the intersection of the box culvert and the open concrete channel, north side of the SR 101



Photo 3, proposed equipment staging area on the freeway side of the fence on the north side of SR 101

## PLATES



ATTACHED IMAGES: Aerial-Image\_Calabasasa-CA\_790\_8-26-12.jpg Images: CA\_Calabasas\_288764\_1952\_24000\_geo.png  
 RIVERSIDE, CA

PLOTTED: 13 Feb 2013, 1:40pm, dfahmney

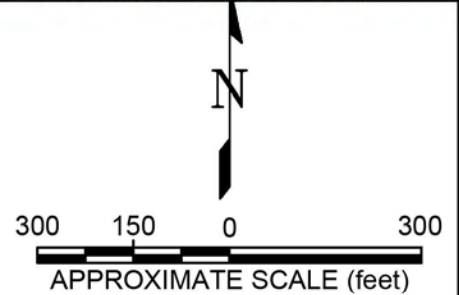
CAD FILE: L:\2013\CADD\Don-Wallace-Trail LAYOUT: 1



AERIAL SOURCE: Google Earth Pro, dated 08/26/12

TOPO SOURCE: U.S.G.S. 7.5' Topographic series,  
 Calabasas, California Quadrangle,  
 1952 photorevised 1967.

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| PROJECT NO. | 132162       |
| DRAWN:      | 02/2013      |
| DRAWN BY:   | DMF          |
| CHECKED BY: | DH           |
| FILE NAME:  | 132162p1.dwg |

**SITE VICINITY MAP**

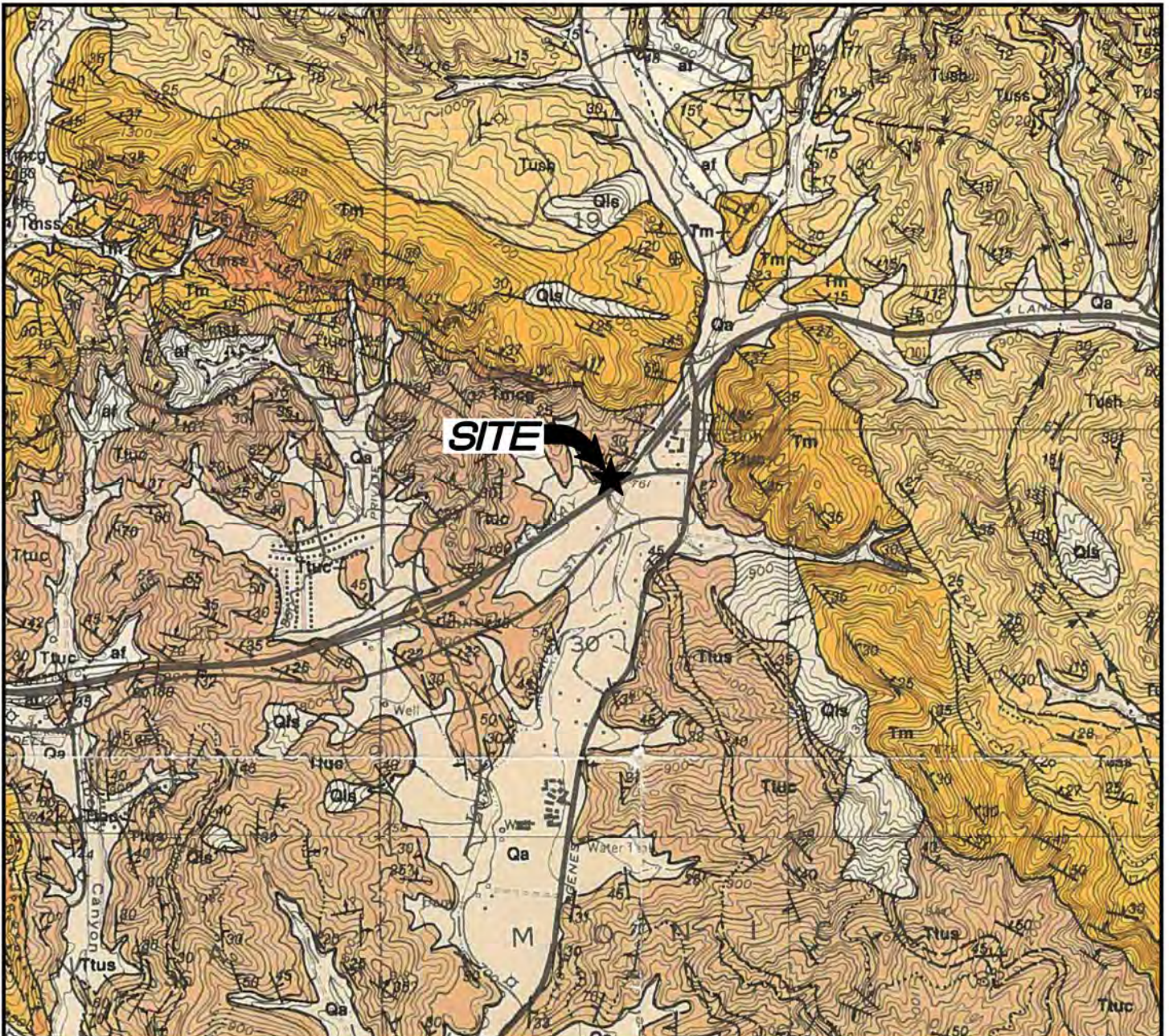
LOS ANGELES COUNTY DEPARTMENT OF  
 OF PARKS AND ERCEATION  
 DON WALLACE MULTI-USE CONNECTOR TRAIL  
 CALABASAS, CALIFORNIA

PLATE  
**1**

ATTACHED IMAGES: GEOLOGIC-MAP.png Images: GEOLOGIC-MAP-LEGEND.png Images: ozn\_calab\_SEIS\_HAZ.png  
 RIVERSIDE, CA

PLOTTED: 13 Feb 2013, 1:41pm, dfahrney

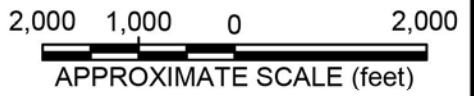
CAD FILE: L:\2013\CADD\Don-Wallace-Trail LAYOUT: 1



**LEGEND:**

- Qa** SURFICIAL SEDIMENTS
- Qls** LANDSLIDE DEBRIS
- Tm** MONTEREY FORMATION
- Ttuc** UPPER TOPANGA FORMATION

SOURCE: U.S.G.S. 7.5' Topographic series, Calabasas, California Quadrangle, 1967, photorevised 1976. Geologic Map of the Calabasas Quadrangle, by Thomas W. Dibblee, Jr., 1992 (DF-37)



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| PROJECT NO. | 132162       |
| DRAWN:      | 02/2013      |
| DRAWN BY:   | DMF          |
| CHECKED BY: | DH           |
| FILE NAME:  | 132162p2.dwg |

**REGIONAL GEOLOGIC MAP**

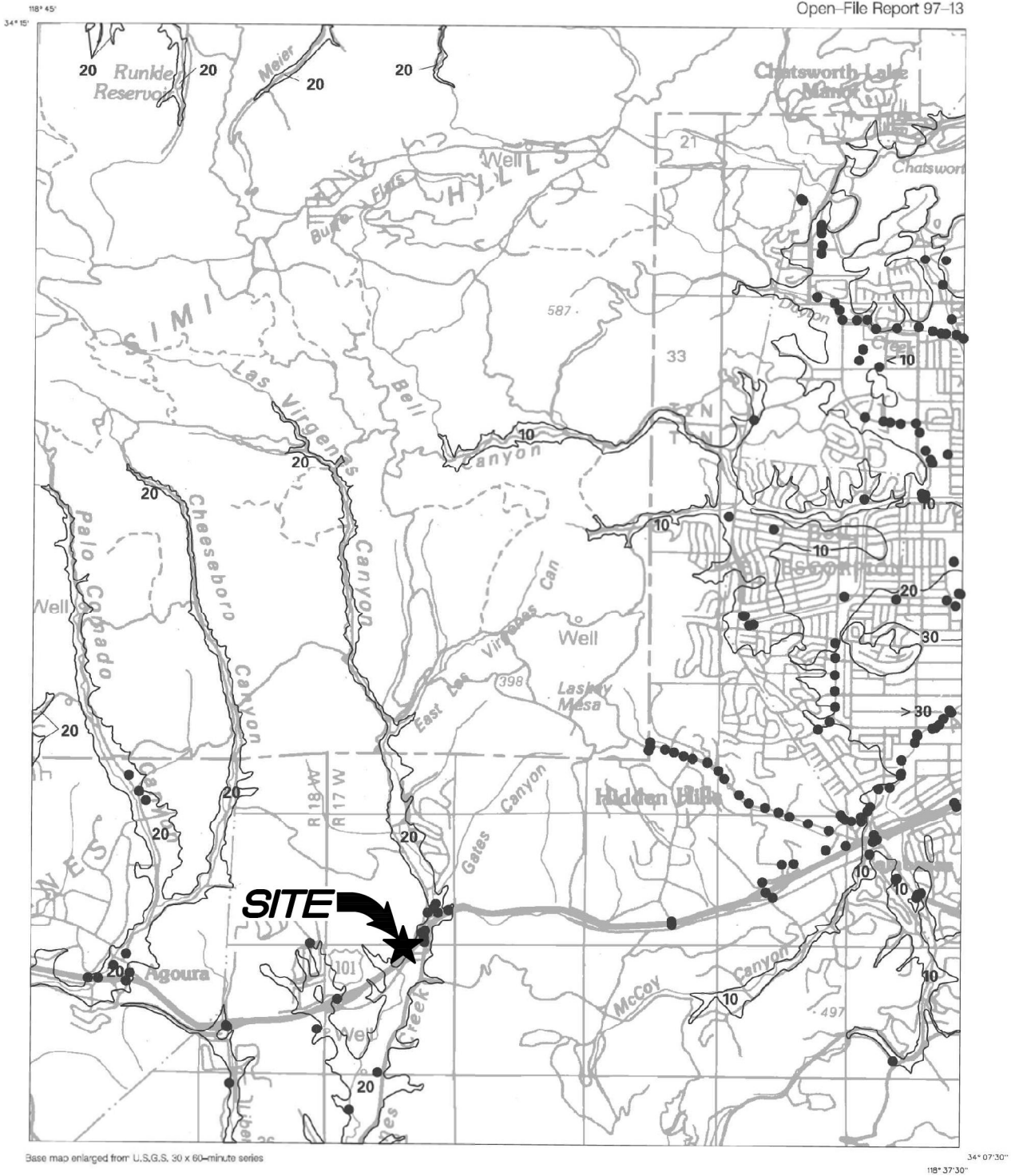
LOS ANGELES COUNTY DEPARTMENT OF  
 OF PARKS AND ERCEATION  
 DON WALLACE MULTI-USE CONNECTOR TRAIL  
 CALABASAS, CALIFORNIA

PLATE

**2**

PLOTTED: 13 Feb 2013, 1:43pm, dfahmey

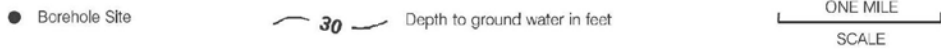
CAD FILE: L:\2013\CADD\Don-Wallace-Trail LAYOUT: 1



Base map enlarged from U.S.G.S. 30 x 60-minute series

18° 37'30"

Plate 1.2 Depth to historically high ground water, and locations of boreholes used in this study, Calabasas 7.5-minute Quadrangle, California



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ATTACHED IMAGES: calab\_eval\_hist\_H2O.png

ATTACHED XREFS: RIVERSIDE, CA

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| PROJECT NO. | 132162       |
| DRAWN:      | 02/2013      |
| DRAWN BY:   | DMF          |
| CHECKED BY: | DH           |
| FILE NAME:  | 132162p3.dwg |

**HISTORIC HIGH GROUNDWATER MAP**

LOS ANGELES COUNTY DEPARTMENT OF OF PARKS AND ERCREATION  
DON WALLACE MULTI-USE CONNECTOR TRAIL  
CALABASAS, CALIFORNIA

PLATE  
**3**

ATTACHED IMAGES: Aerial-Image\_Calabasasa-CA\_8.5mi\_8-26-12.jpg

ATTACHED XREFS: RIVERSIDE, CA

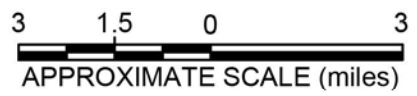
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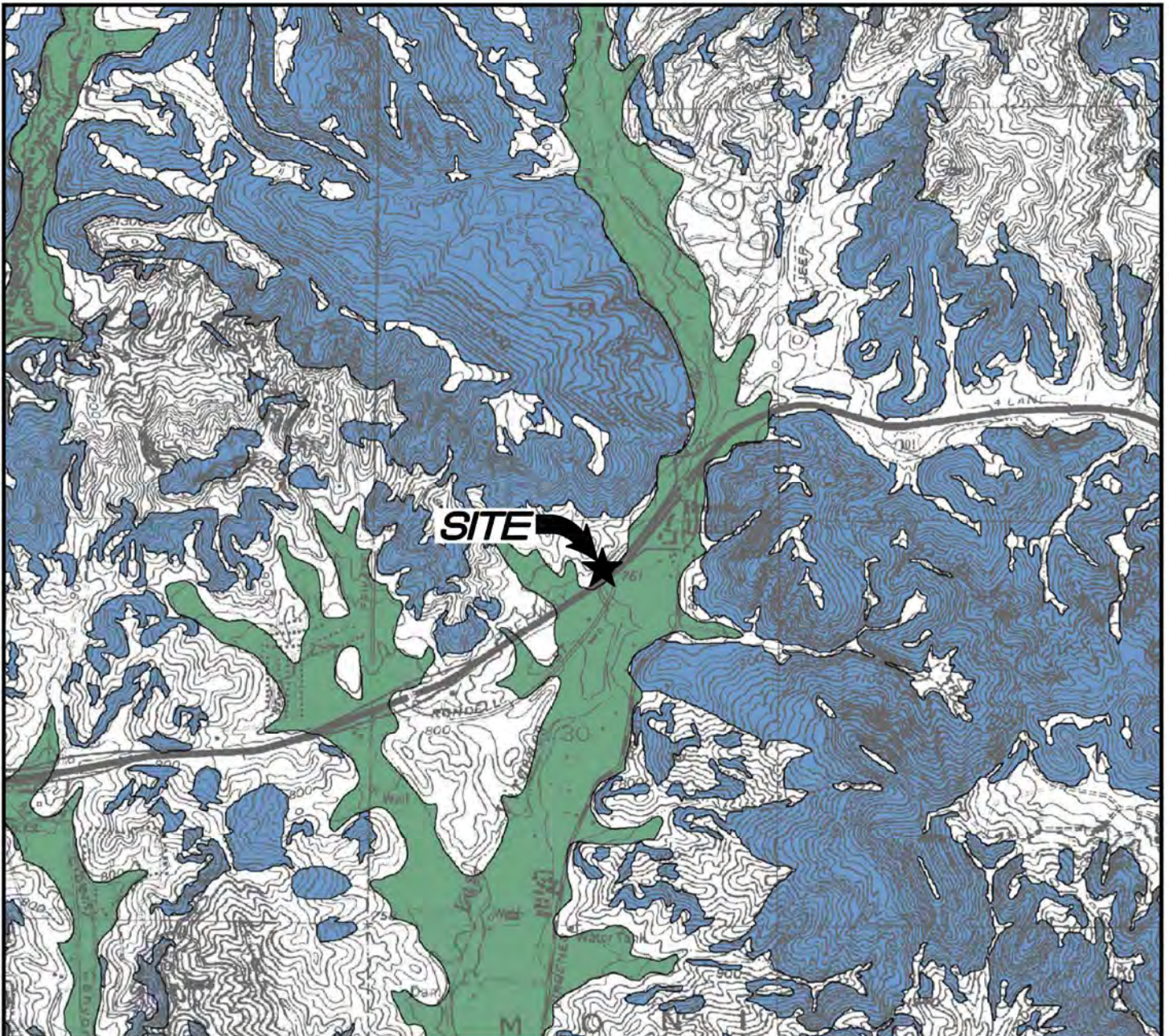
SOURCE: Google Earth Pro, dated 08/26/12

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|-------------------------|--------------------|-----------------------|--|
|                         | PROJECT NO. 132162 | <b>FAULT ZONE MAP</b> | PLATE  |
|                         | DRAWN: 02/2013     |                       | LOS ANGELES COUNTY DEPARTMENT OF OF PARKS AND ERCREATION<br>DON WALLACE MULTI-USE CONNECTOR TRAIL<br>CALABASAS, CALIFORNIA |
| DRAWN BY: DMF           |                    |                       |  |
| CHECKED BY: DH          |                    |                       |  |
| FILE NAME: 132162p4.dwg |                    |                       |  |

ATTACHED IMAGES: ozn\_calab\_SEIS\_HAZ.png  
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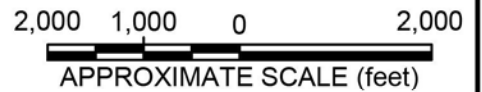


**MAP EXPLANATION**


**Zones of Required Investigation:**

-  **Liquefaction**  
Areas where historic occurrence of liquefaction, or local geological, geotechnical and groundwater conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.
-  **Earthquake-Induced Landslides**  
Areas where previous occurrence of landslide movement, or local topographic, geological, geotechnical and subsurface water conditions indicate a potential for permanent ground displacements such that mitigation as defined in Public Resources Code Section 2693(c) would be required.

SOURCE: U.S.G.S. 7.5' Topographic series, Calabasas, California Quadrangle, 1952, photorevised 1967. Seismic Hazard Zones, released 02/01/1998



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|   |                    |   |          |
|---|--------------------|---|----------|
|  | PROJECT NO. 132162 | <b>SEISMIC HAZARD ZONES MAP</b><br><br>LOS ANGELES COUNTY DEPARTMENT OF OF PARKS AND ERCREATION<br>DON WALLACE MULTI-USE CONNECTOR TRAIL<br>CALABASAS, CALIFORNIA | PLATE    |
|   | DRAWN: 02/2013     |   | <b>5</b> |
|   | DRAWN BY: DMF      |   |          |
|   | CHECKED BY: DH     |   |          |
| FILE NAME: 132162p5.dwg   |                    |   |          |