

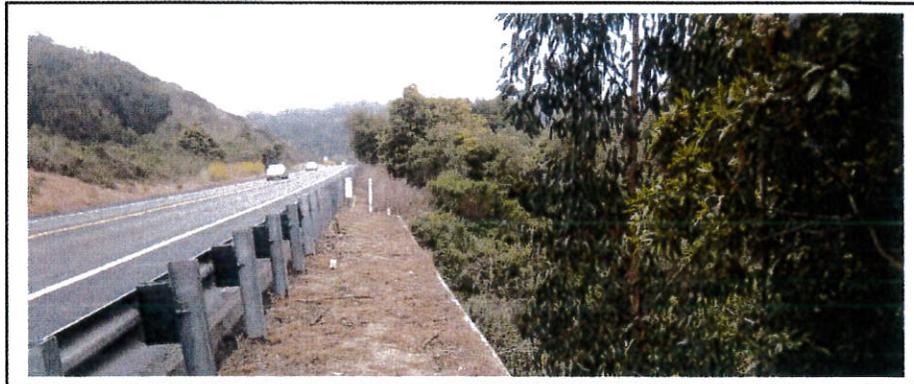
Las Positas Retaining Wall

On former State Route 225/Las Positas Rd. in the City of Santa Barbara,
1.5 miles South of U.S. 101 along Arroyo Burro Creek

05-SB-225-1.5

#0512000084

Initial Study with Proposed Mitigated Negative Declaration



The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 USC 327.

August 2016



General Information About This Document

What's in this document:

The California Department of Transportation (Caltrans) has prepared this Initial Study, which examines the potential environmental impacts of alternatives being considered for the proposed project in Santa Barbara County, California. The document describes why the project is being proposed, alternatives for the project, the existing environment that could be affected by the project, and potential impacts from each of the alternatives, and the proposed avoidance, minimization, and/or mitigation measures.

What you should do:

- Please read this Initial Study. Additional copies of this document are available at the Caltrans district office at 50 Higuera Street, San Luis Obispo, CA 93401 and at the Santa Barbara County Central Library 40 East Anapamu Street Santa Barbara, CA 93101. This document can be downloaded at the following website: <http://www.dot.ca.gov/d5/index.html>
- We welcome your comments. If you have any concerns regarding the proposed project, send your written comments to Caltrans by the deadline. Submit comments via U.S. mail to Caltrans at the following address:

Matt Fowler, Senior Planner
Central Coast Environmental Analysis
California Department of Transportation
50 Higuera Street
San Luis Obispo, CA 93401

- Submit comments via email to: matt.c.fowler@dot.ca.gov
- Submit comments by the deadline: 11/10/16.

What happens next:

After comments are received from the public and reviewing agencies, Caltrans may 1) give environmental approval to the proposed project, 2) do additional environmental studies, or 3) abandon the project. If the project is given environmental approval and funding is appropriated, Caltrans could design and construct all or part of the project.

Printing this document: To save paper, this document has been set up for two-sided printing (to print the front and back of a page). Blank pages occur where needed throughout the document to maintain proper layout of the chapters and appendices.

For individuals with sensory disabilities, this document is available in Braille, in large print, on audiocassette, or on computer disk. To obtain a copy in one of these alternate formats, please call or write to Caltrans, Attn: Matt Fowler, Central Coast Environmental Analysis, 50 Higuera Street, San Luis Obispo, CA 93401; (805) 542-4603 (Voice), or use the California Relay Service 1 (800) 735-2929 (TTY), 1 (800) 735-2929 (Voice) or 711.

Construct a soil nail retaining wall on former State Route 225/Las Positas Rd.
at post mile 1.5 in the City of Santa Barbara

**INITIAL STUDY
with Proposed Mitigated Negative Declaration**

Submitted Pursuant to: (State) Division 13, California Public Resources Code
(Federal) 42 USC 4332(2)(C)

THE STATE OF CALIFORNIA
Department of Transportation

8/8/16
Date of Approval


Matthew Fowler
Senior Environmental Planner
California Department of Transportation
CEQA Lead Agency

The following person(s) may be contacted for additional information concerning this document:

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Proposed Mitigated Negative Declaration

Pursuant to: Division 13, Public Resources Code

Project Description

The California Department of Transportation (Caltrans) proposes to remove the undermined portion of the existing retaining wall at Post Mile 1.5 on former State Route 225/Las Positas Rd. and construct a soil nail wall in the same alignment. The proposed project is on former State Route 225/Las Positas Rd. in the City of Santa Barbara in Santa Barbara County.

Determination

This proposed Mitigated Negative Declaration is included to give notice to interested agencies and the public that it is Caltrans' intent to adopt a Mitigated Negative Declaration for this project. This does not mean that Caltrans' decision regarding the project is final. This Mitigated Negative Declaration is subject to change based on comments received by interested agencies and the public.

Caltrans has prepared an Initial Study for this project and, pending public review, expects to determine from this study that the proposed project would not have a significant effect on the environment for the following reasons: The proposed project would have no adverse effect on land use, growth, visual/aesthetics, geology/soils/seismic/topography, hazardous waste or materials, invasive species, farmlands/timberlands, utilities/emergency services, traffic and transportation/pedestrian and bicycle facilities, air quality, noise and vibration, or climate change, community impacts, cultural resources, hydrology and floodplain, paleontology, plants and will be consistent with coastal policies with appropriate measures incorporated.

The proposed project would have less than significant effect on natural communities, animal species, threatened and endangered species, wetlands and other waters, with the incorporation of the following mitigation measures:

- Impacts to jurisdictional waters will be temporary as a result of a temporary stream diversion. Temporary impacts to riparian habitat as result of clearing space for necessary construction will be mitigated by the replanting of riparian vegetation.
- Avoidance and minimization measures for federally listed steelhead, tidewater goby, and California red-legged frog will include surveys, monitoring, and relocation of these species (if necessary) by approved biologists during stream diversion and construction.
- California species of special concern (e.g., Coast Range newt, western pond turtle, and two-striped garter snake) will be relocated (if necessary) by approved biologists during stream diversion and construction.
- Pre-construction surveys and implementation of construction buffers (if necessary) will avoid impacts to nesting birds.

 Matthew Fowler
 Senior Environmental Planner
 District 5
 California Department of Transportation

 Date

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Chapter 1 **Proposed Project**

1.1 Introduction

Caltrans is the lead agency under the California Environmental Quality Act (CEQA).

Caltrans proposes the repair of an existing retaining wall at Post Mile 1.5 along the southbound (SB) side of Las Positas Road in the City of Santa Barbara. Figures 1-1 and 1-2 show project vicinity and location maps.

This project is being funded by the District SHOPP Minor A Program Roadway Protective Betterments (201.150), in the 2017/2018 fiscal year. The project is eligible for federal funding.

1.2 Purpose and Need

1.2.1 Purpose

The purpose of this project is to prevent failure of Las Positas Road at Post Mile 1.5 due to a retaining wall that has been undermined by Arroyo Burro Creek.

1.2.2 Need

As a result of scouring by the Arroyo Burro Creek, the existing retaining wall at Post Mile 1.5 on former State Route 225/Las Positas Rd. has been undermined. If the wall is not repaired, further scouring and undermining of its foundation will occur resulting in eventual failure. Las Positas Road (formerly Route 225) has been relinquished to the city of Santa Barbara and repairing this wall is the final step to relinquish the highway in a state of good repair.

1.3 Project Description

The proposed project is to replace the undermined portion of the existing retaining wall with a soil nail retaining wall. A soil nail retaining wall is built from the top down to the bottom. The wall is supported by horizontal nails drilled through the wall and into the retained earth behind it. The nails are placed in a grid across the face of the wall and act as anchors. A soil nail wall is analogous to a piece of plywood that is nailed to studs to form a wall except the nails are longer and go into the earth. The length of the nails, the spacing and overall number of nails, and the weight of the soil bearing on the nails provides stability for the retaining wall.

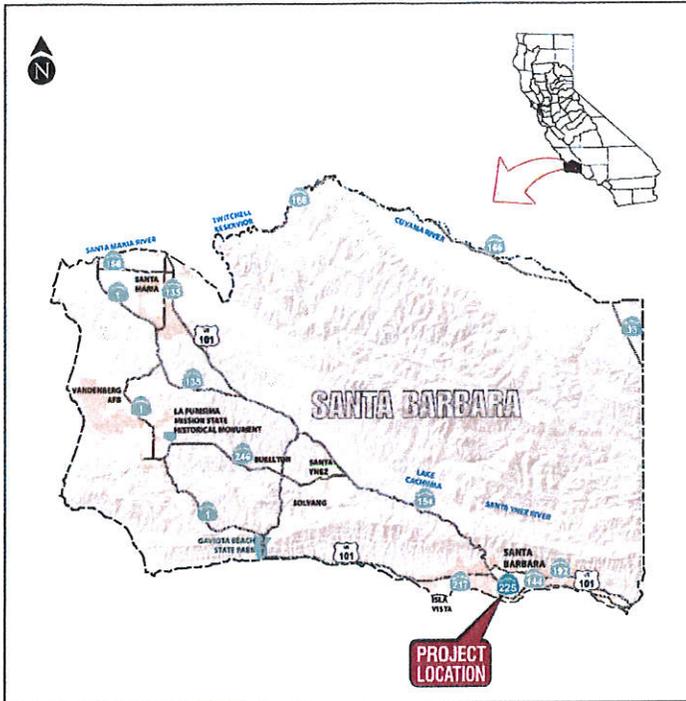


Figure 1-1 Project Vicinity Map

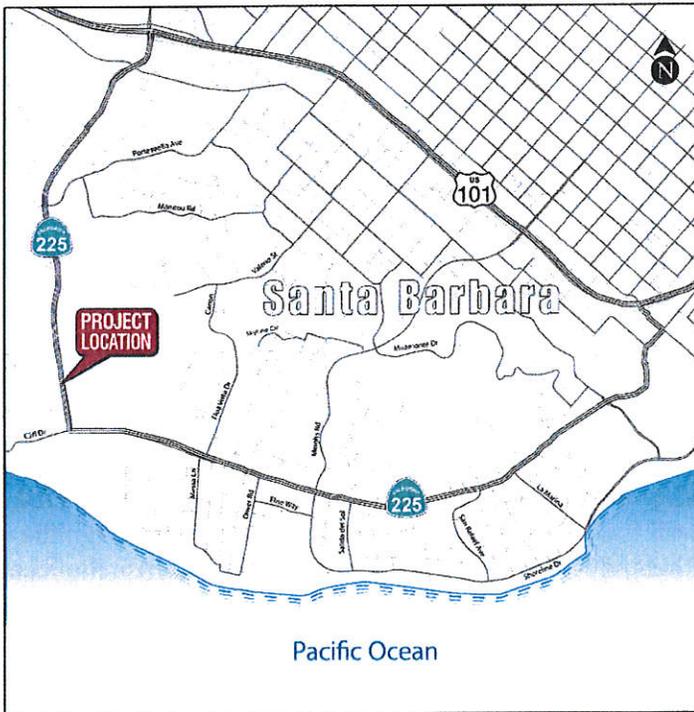


Figure 1-2 Project Location Map

1.4 Project Alternatives

1.4.1 Build Alternatives

Build (Soil Nail Retaining Wall)

This alternative proposes to remove the undermined portion of the existing retaining wall and construct a soil nail wall on the same alignment. The soil nail design is a top down construction method. The existing wall would be removed in lifts and the soil nails would be constructed beginning at the top of the existing wall and building down to the creek bottom. The replacement soil nail wall will connect to the existing Type 1 wall north of the undermined segment. A bench would likely have to be established at the face of the wall to drill and place the soil nails. The bench would be excavated down as the nails are constructed to the base of the wall. The wall foundation is a strip footing that is below the scour elevation determined by a hydraulics analysis. No shoring would be necessary as the soil nail wall would act as its own shoring system. Other work includes reconstructing guard rail and roadway delineation for temporary traffic handling during construction. Work within the creek bed is not anticipated and there would be minimal impacts to traffic.

1.4.2 No-Build (No-Action) Alternative

The no-build alternative does not address current or future deterioration of the retaining wall and/or the safety concerns of the users of former State Route 225/Las Positas Rd. By not repairing the wall it will eventually fail causing damage to Arroyo Burro Creek and roadway closure.

1.5 Alternatives Considered but Eliminated from Further Discussion

Micropile Repair

This alternative would leave the existing retaining wall in place and the foundation would be repaired using Cast in Drilled Hole (CIDH) Micropiles. The Micropile design is a top down construction method. Holes would be drilled from the roadway down to bedrock, the steel pile can be placed and then the hole would be backfilled with concrete. The micropiles would be offset in front of the existing footing and tied to the footing using a footing cap. Rock Slope Protection (RSP) would be required to protect the slope from future erosion around the micropiles and the wall foundation from future scour. The RSP would be keyed in at the creek bottom and placed up to the footing cap at a maximum slope of 1:1. Access to the creek bottom and the base of the wall would be required to key in the RSP and to construct the footing cap. Disturbance to the edge of the creek would occur to construct the RSP keyway.

The Micropile repair alternative was rejected due to the poor integrity of the existing footing in the vicinity of the repair. There is visible cracking therefore the cap

connection from the micropiles to the existing footing was determined to have too much uncertainty and risk of failure.

Type 1 Retaining Wall

This alternative proposed to remove the undermined portion of the existing retaining wall and construct a new Type 1 retaining wall in the same alignment. The spread footing Type 1 wall requires bottom-up construction and therefore a large excavation and footprint. The height of the new retaining wall would range from 18 to 30 feet with the top of the spread footing being below the scour elevation determined by Hydraulics. RSP would be keyed in at the toe of the slope and placed at a 1:1 slope in front of the Type 1 wall to protect it from future scour. This alternative would require shoring in the form of a temporary soil nail wall. The excavation for the spread footing would daylight at the centerline of the roadway reducing the highway to 1 lane requiring a temporary signal during construction. Work would occur below the creek bottom and near Arroyo Burro Creek. Other work would include earthwork to rebuild the fill to sub-base grade, reconstruction of the roadway structural section, guardrail, and delineation. This alternative would impact the edge of the creek to excavate for the Type 1 footing and place the RSP keyway. There are utility conflicts and relocation that would be required due to the excavation for the Type 1 wall.

This Type 1 retaining wall alternative was rejected because of the size of the excavation required for a bottom up construction method. The excavation would cause unnecessary impacts to the creek, utilities, and primarily traffic. Temporary traffic impacts would be severe because the highway would be reduced to 1 lane and a temporary signal would be installed for the duration of construction. Permanent and temporary impacts to Arroyo Burro Creek riparian forest would be larger causing more impacts to habitat for endangered species and coastal zone resources listed in Chapter 2.

1.6 Permits and Approvals Needed

Agency	Permit/Approval	Status
Regional Water Quality Control Board	Section 401 of the Clean Water Act, discharge into waters of the U.S	Would be obtained before construction
U.S. Army Corps of Engineers	Section 404 of the Clean Water Act, discharge of dredged or fill materials into waters of the U.S	Would be obtained before construction
California Department of Fish and Wildlife	Section 1602 of the Fish and Game Code, Streambed Alteration Agreement	Would be obtained before construction
National Oceanic and Atmospheric Administration Fisheries Service	Section 7 of the Federal Endangered Species Act	Would be obtained before the final environmental document
City of Santa Barbara	Coastal Development Permit	Would be obtained before construction
U.S. Fish and Wildlife Service	Section 7 of the Federal Endangered Species Act	Would be obtained before the final environmental document

Chapter 2 **Affected Environment, Environmental Consequences, and Avoidance, Minimization, and/or Mitigation Measures**

As part of the scoping and environmental analysis done for the project, the following environmental issues were considered, but no adverse impacts were identified. Therefore, no further discussion of these issues is included in this document.

- **AESTHETICS**—The project would not be visible from the roadway or local streets and the overall existing vegetated character of the corridor and surrounding area would remain unchanged. (Visual Impact Assessment, July 2015)
- **AGRICULTURE AND FOREST RESOURCES**—No Farmlands/Timberlands would be affected within the project limits. (2014 Santa Barbara County Farm Mapping)
- **AIR QUALITY**—The project would not result in any long-term effects on local air quality, would not produce any pollutant or any air emissions and would not violate any air-quality standard (Air Quality Report, December 2015)
- **CULTURAL RESOURCES**—Archival research shows no cultural resources within the proposed project or the immediate vicinity. A visit to the project area determined that the area is located in a road cut made to accommodate the highway alignment. (Cultural Resources Screened Undertaking Memo March, 2013)
- **GEOLOGY AND SOILS**—The project site is not within an earthquake fault zone as outlined in the Alquist-Priolo Earthquake Fault Zoning Act; therefore, no known earthquake faults will be impacted. No steep slopes or unstable soils occur in the project vicinity and the soils at the project site do not have a high clay content or exhibit expansive properties that would create substantial risks to life or property. (Preliminary Geotechnical Design Report, May 2013)
- **HAZARDS AND HAZARDOUS MATERIALS**—The project would not introduce hazardous materials that would create a hazard to the public or environment. There will be no materials generated by the project, all material will be used on site. (Initial Site Assessment, October 2015)
- **HYDROLOGY AND WATER QUALITY**—The project location is located adjacent to the Arroyo Burro Floodplain and will not encroach on the existing floodplain/floodway. By incorporating Standard Best Management Practices there will be no Water Quality impacts. (Location Hydraulic Study, September 2015) (Water Quality Assessment, January 2016)

- MINERAL RESOURCES—The project does not include any mining or other excavation that would result in the loss of any important mineral resource. (Project Description, November 2015)
- NOISE—Construction of a soil nail wall would not increase the long-term noise or vibration levels; the project would not increase roadway capacity. (Noise Study Memo, December 2015)
- POPULATION AND HOUSING— The project proposes to repair the retaining wall at PM 1.5 on State Route 225 and would not contribute to increase population or housing. (Project Description, November 2015)
- PUBLIC SERVICES—The project does not include activities that would affect any public services. (Project Description, November 2015)
- PARKS AND RECREATIONAL FACILITIES—The project does not include the use of existing neighborhood or recreational parks or facilities. (Project Description, November 2015)
- TRANSPORTATION/TRAFFIC—The project would allow Las Positas Rd. to remain in operation during construction. A Traffic Management Plan would be used in accordance with Caltrans special provisions to minimize impacts to service providers. (Traffic Management Plan Memo, August 2015)
- UTILITIES AND SERVICE SYSTEMS—A Traffic Management Plan would be used in accordance with Caltrans special provisions to minimize impacts on service providers. Two lanes of traffic will be maintained and no utilities will be impacted (Traffic Management Plan Memo, August 2015)
- PLANT SPECIES—No special-status species were found in the biological study area for the project. No critical habitat for federally or state listed plant species occurs with the project limits. (Natural Environment Study, September 2015)

2.1 Human Environment

2.1.1 Existing and Future Land Use

Affected Environment

The prevalent land uses surrounding the project area consist of single family residential and open space/recreational (Elings Park).

A-1 Single Residential Unit

These zones are restricted residential districts of low density in which the principal use of land is for single residential units; together with recreation, assembly and education facilities required to serve the community. The regulations for these districts are designed and intended to establish, maintain and protect the essential characteristics of the districts, to develop and sustain a suitable environment for domestic life including the raising of children, and to prohibit all activities which would tend to be inharmonious with or injurious to the preservation of a residential

environment. Commercial uses are strictly limited because commercial uses may result in adverse impacts on surrounding residential uses including, but not limited to, increased levels of commercial and residential vehicle traffic, parking demand, light and glare, and noise

Parks and Recreation

The Park and Recreation Zone is established in order to protect and preserve publicly owned park and beach lands for the benefit and enjoyment of present and future generations of residents and visitors. The zone is also established to promote uses of park lands which are compatible with the surrounding land uses and categories within which the respective parks are assigned and to encourage the protection of the City's open space through conservation and appropriate development.

The purpose and intent of this zone is to establish categories of park and recreation facilities and/or land and establish an appropriate system of review for proposed uses, improvements and/or development. The regulations of this zone are designed to maintain and protect neighborhoods that are adjacent to parks and recreation facilities, while providing for the appropriate types and/or intensity of land use of parks and recreation facilities, for the benefit of the community

Environmental Consequences

Implementation and construction of the Build Alternative would occur within the existing City of Santa Barbara right-of-way, with no right-of-way required for temporary construction easements. No changes to existing land uses and/or density would occur as a result of the project. No areas in the project area identified for future development would be made directly more accessible with implementation of the project. The project would not change the low density nature nor would it impact the recreational area or open space.

Avoidance, Minimization, and/or Mitigation Measures

Implementation and construction of the proposed Build Alternative or No-Build Alternative would not have long-term effects on land uses in the project area; therefore, no mitigation is required

2.1.2 Consistency with State, Regional, and Local Plans and Programs

Affected Environment

A policy consistency analysis was done to review the applicable policies from the various agencies having jurisdiction over the region. All applicable policies are summarized and per the California Environmental Quality Act standards, potential inconsistencies with local plans are discussed

City of Santa Barbara General Plan and Local Coastal Plan

In December 2011, the City Council adopted the updated *Plan Santa Barbara* General Plan. This process resulted in a new General Plan Introductory Framework, comprehensively updated Land Use and Housing Elements, and a new set of goals

and policies for the remaining elements (Open Space, Parks and Recreation, Historic Resources, Environmental Resources including Noise and Conservation, Circulation, and Safety). The updated plan reorganized the elements and is now consistent with the Introductory Framework for Sustainability (a state law). It also compiled the six previous volumes into one document. The revised Land Use Element includes the following under mobility "One of the tenets of sustainability is to reduce the necessity to drive. Corresponding with that goal, the community has determined that the remaining increment of growth should occur while minimizing congestion."

City of Santa Barbara Circulation Element

A required element of the City's General Plan--the Circulation Element addresses the requirements of state law, which are to evaluate the transportation needs of the community and present a comprehensive plan to meet those needs. The plan complies with the California Complete Streets Act of 2008. The goals, policies and implementation actions were either developed during the *Plan Santa Barbara* General Plan update process in December 2011, or were carried over from the existing Circulation Element or Scenic Highways Elements in effect in 2011. These goals, policies, and implementation actions are intended to further integrate circulation policies with the sustainability focus of new or revised policies in other elements. This is accomplished by emphasizing alternative modes of transportation, maintaining traffic flow for all, and reassessing parking requirements to complement a people-oriented community. The City's Bikeway Master Plan "encourages the safe use of the bicycle as a healthful, non-polluting form of transportation." The master plan proposes approximately 40 miles of bikeways utilizing existing road shoulder areas, and 20 miles of bikeways that are to be located off-street.

City of Santa Barbara Bicycle Master Plan

The update of the City of Santa Barbara's Bicycle Master Plan was directed by the adoption of the City's Circulation Element, Policy 4.1, in 1997. The Bicycle Master Plan was written by City staff in cooperation with the Bicycle Leadership Team. It involved gathering of community input and field research. The plan was adopted by the City Council by resolution 98-133 on October 13, 1998. The plan was re-adopted by Council in 2003 and 2008

City of Santa Barbara Pedestrian Master Plan

This Plan is designed to take Santa Barbara's pedestrian system to the next level: to develop a comprehensive pedestrian system that enhances and increases the city's walkability to the extent that all people will feel safe walking, to increase connections to destinations throughout the city, to enhance the Paseo network, and to increase the number of children who walk and bike to school. Additionally, a major goal of the enhanced pedestrian system is to increase the overall health of Santa Barbara's residents by promoting walking as a viable means of transportation

The goals, policies, and strategies outlined in this Plan are provided to turn this vision into a reality. The Plan includes phased recommendations that will entice people to walk more for short trips, enhance the environment for people with disabilities and

children walking to school, and lead to an overall increase in the number of pedestrian trips. It focuses on enhancing pedestrian safety in crosswalks and along streets. The Plan also represents a blueprint for improving residents' quality of life by creating a more sustainable environment and reducing traffic, noise, and energy consumption. It includes innovative and exciting options for safe and convenient pedestrian passage, and will link local bus routes and an emerging network of bicycle routes.

City of Santa Barbara Local Coastal Plan

In November 2004, the City Council amended the updated Santa Barbara Local Coastal Plan. This process resulted in a comprehensively updated Local Coastal Plan. The City of Santa Barbara Local Coastal Program is the local government's land use plans, zoning ordinances, zoning district maps, and implementing actions which, when taken together, meet the requirements of and implement the provisions of the Coastal Act at the local level. The precise content of each program is to be determined by the local jurisdiction in full consultation with the California Coastal Commission and with full public participation. Local coastal programs determine future development on the coast, where public access and urbanization will occur, where industrial facilities will be placed, and how wildlife, open spaces, and recreational areas will be protected are among the determinations local coastal programs must make.

Certified coastal programs become legally binding on local jurisdictions and provide permanent systems of guidelines and strategies for protecting and managing the coastal environment.

Environmental Consequences

Implementation and construction the build alternative would occur within the existing City of Santa Barbara right-of-way. Acquisition of residential or non-residential properties would not be required. No changes to existing land uses and/or density would occur as a result of the project. No areas in the project area identified for future development would be made directly more accessible with implementation of the project. The proposed project is consistent with City of Santa Barbara policies. Although the project does not add a bike trail, the project as proposed will not preclude constructing a bike trail consistent with the City of Santa Barbara Bicycle Master Plan. The project is in compliance with all applicable Local Coastal Plan policies as shown in Table 2-1.

Table 2.1 Consistency with City of Santa Barbara Local Coastal Plan

Policy	Build Alternative	No-Project Alternative
City of Santa Barbara Local Coastal Plan		
<p><i>Policy 3.9: The land surrounding and including Arroyo Burro Creek shall be considered protective open space. Existing recreational parking shall be allowed to continue.</i></p>	<p>Consistent. The Build Alternative would not expand the roadway and there is no parking on this area of the facility. The existing roadway will continue to function as is. The project would not change the existing use, designation, or zoning of the parcel.</p>	<p>Consistent. The No-Project Alternative would not result in conversion of any existing recreational parking.</p>
<p><i>Policy 6.1: The city, through ordinance, resolutions, and development controls, shall protect, preserve, and, where feasible, restore the biotic communities designated in the City's Conservation Element of the General Plan and any future annexations to the City, consistent with PRC Section 30240.</i></p>	<p>Consistent. Implementation of the Build Alternative would have temporary impacts to coastal wetlands and riparian forest. An approved revegetation plan will be implemented to restore the Arroyo Burro Creek biotic community to previous conditions.</p>	<p>Consistent. The No-Project Alternative would not result in permanent conversion of any existing biotic community.</p>
<p><i>Policy 6.8: The riparian resources, biological productivity, and water quality of the City's coastal zone creeks shall be maintained, preserved, enhanced, and, where feasible, restored</i></p>	<p>Consistent. Implementation of the Build Alternative would have temporary impacts to coastal wetlands and riparian forest. An approved revegetation plan will be implemented for Arroyo Burro Creek to restore riparian resources, biological productivity and water quality to previous conditions.</p>	<p>Consistent. The No-Project Alternative would not result in changing the project site</p>
<p><i>Policy 6.9: The City shall support the programs, plans, and policies of all governmental agencies, including those of the Regional Water Quality Control Board with respect to best management practices for Santa Barbara's watersheds and urban areas</i></p>	<p>Consistent. Implementation of the Build Alternative would support the programs, plans, and policies of all governmental agencies for best management programs and practices</p>	<p>Consistent. The No-Project Alternative would not result in changing the project site</p>
<p><i>Policy 6.10: The City shall require a setback buffer for native vegetation between the top of the bank and any proposed project. This setback will vary depending upon the conditions of the site and the environmental impact of the proposed project</i></p>	<p>Consistent. Implementation of the Build Alternative would have temporary impacts and will incorporate any set back requirement for the project site</p>	<p>Consistent. The No-Project Alternative would not alter the native vegetation of the project site</p>
<p><i>Policy 6.11-B: New highway structures shall be designed to protect stream and creek environments from non-point pollutants (such as oil and rubber residues from the road surface) and from accidental spills of toxic materials</i></p>	<p>Consistent. Implementation of the Build Alternative would not contribute any new pollutants to the stream and creek environments</p>	<p>Consistent. The No-Project Alternative would not result in adding non-point pollutants to the stream and creek environments</p>
<p><i>Policy 6.11-C: When highway bridges or other structures are replaced or renovated in the vicinity of streams or creeks, an emergency response and cleanup plan shall be prepared by the applicant to address accidental releases of toxic materials</i></p>	<p>Consistent. Implementation of the Build Alternative would support the programs, plans, and policies of all governmental agencies for best management programs and practices</p>	<p>Consistent. The No-Project Alternative would not result in the accidental release of toxic materials</p>

Avoidance, Minimization, and/or Mitigation Measures

Implementation and construction of the Build Alternative or No-Build Alternative would not have long-term effects on land uses in the project area; therefore, no mitigation is required.

2.1.3 Coastal Zone

Regulatory Setting

This project has the potential to affect resources protected by the Coastal Zone Management Act of 1972 (CZMA). The CZMA is the primary federal law enacted to preserve and protect coastal resources. The CZMA sets up a program under which coastal states are encouraged to develop coastal management programs. States with an approved coastal management plan are able to review federal permits and activities to determine if they are consistent with the state's management plan.

California has developed a coastal zone management plan and has enacted its own law, the California Coastal Act of 1976, to protect the coastline. The policies established by the California Coastal Act are similar to those for the CZMA: they include the protection and expansion of public access and recreation; the protection, enhancement, and restoration of environmentally sensitive areas; the protection of agricultural lands; the protection of scenic beauty; and the protection of property and life from coastal hazards. The California Coastal Commission is responsible for implementation and oversight under the California Coastal Act

Just as the federal CZMA delegates power to coastal states to develop their own coastal management plans, the California Coastal Act delegates power to local governments to enact their own local coastal programs (LCPs). LCPs determine the short- and long-term use of coastal resources in their jurisdiction consistent with the California Coastal Act goals.

Affected Environment

The City of Santa Barbara Local Coastal Plan is pursuant to Public Resources Code Section §§30500 of the California Coastal Act of 1976. The plan addresses the city's significant coastal issues with a combination of land use designations, resource protection, and development objectives and policies. A Coastal Development Permit is required for projects within the coastal zone to ensure compliance with this plan and the California Coastal Act.

The proposed project would be constructed adjacent to the Arroyo Burro Creek. Arroyo Burro Creek is considered an Environmentally Sensitive Habitat Area which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. Arroyo Burro Creek includes a riparian habitat which traverses the coastal zone to the immediate east and southeast of Arroyo Burro County Beach Park. The creek habitat is considered the last remaining undisturbed riparian area in the City's coastal zone and is largely located

along Las Positas Rd. Arroyo Burro Creek has coastal zone sections which remain in a somewhat natural state and the undisturbed riparian area contains dense undergrowth and trees.

There are California Coastal Commission jurisdictional areas along the riparian corridor of Arroyo Burro Creek. The dominant vegetation found in the project area can be characterized as riparian forest. The edges of SR-225 are vegetated by ruderal/disturbed species. There is stream habitat along this section of Arroyo Burro Creek. California Coastal Commission jurisdictional areas include areas encompassing rivers, streams, and lakes extending from the thalweg (lowest bed elevation) to the top of the surrounding banks and/or outer edge of adjacent riparian vegetation, whichever is greater. California Coastal Commission jurisdiction encompasses coastal ESHA's as it extends to the top of banks along watercourses and/or outer edge of adjacent riparian vegetation.

Environmental Consequences

Approximately 3,920 square feet (0.090 ac) of CDFW/ CCC jurisdictional areas along the riparian corridor of Arroyo Burro Creek would be temporarily impacted and approximately 44 square feet (0.001 ac) would be permanently impacted as a result of the temporary bench constructed to repair the soil nail wall and for the wall itself.

Avoidance, Minimization, and/or Mitigation Measures

Although the project will result in temporary impacts to the riparian corridor along Arroyo Burro Creek, these impacts will be offset by replanting on a 1:1 ratio, eradicating invasive species, revegetating with native species and by implementing all measures listed in 2.2 Biological Environment. Implementation and construction of the build alternative or No-Build Alternative would not have long-term effects on CCC resources in the project, therefore no further mitigation is required.

2.2 Biological Environment

2.2.1 Natural Communities

This section of the document discusses natural communities of concern. The focus of this section is on biological communities, not individual plant or animal species. This section also includes information on wildlife corridors and habitat fragmentation. Wildlife corridors are areas of habitat used by wildlife for seasonal or daily migration. Habitat fragmentation involves the potential for dividing sensitive habitat and thereby lessening its biological value. Habitat areas that have been designated as critical habitat under the Federal Endangered Species Act are discussed below in the Threatened and Endangered Species section and Wetlands and other waters are also discussed below.

Affected Environment

A Natural Environment Study was prepared for this project in September 2015 and revised in December 2015. The proposed work is at PM 1.5 along Las Positas Road and is adjacent to Arroyo Burro Creek.

The dominant vegetation found in the biological study area (BSA) can be characterized as riparian forest. Riparian forests are typically associated with low-gradient stream reaches. The BSA supports approximately 11,450 square feet (0.263 ac) of riparian forest habitat. This vegetative community is dominated by tall arroyo willow trees (*Salix lasiolepis*) with associated species such as native southern California black walnut (*Juglans californica*) and non-native giant reed (*Arundo donax*). Trees along the corridor are thick with English ivy (*Hedera helix*) and occasional Cape ivy (*Delairea odorata*). Groundcover consists of species such as poison oak (*Toxicodendron diversilobum*), California blackberry (*Rubus ursinus*), and mugwort (*Artemisia douglasiana*).

Arroyo Burro Creek is considered an Environmentally Sensitive Habitat Area with plant or animal life, or their habitats that are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. Arroyo Burro Creek includes a riparian habitat which traverses the coastal zone to the immediate east and southeast of Arroyo Burro County Beach Park.

The creek habitat is considered the last remaining undisturbed riparian area in the City's coastal zone and is largely located along Las Positas Road. Arroyo Burro Creek has coastal zone sections which remain in a somewhat natural state and the undisturbed riparian area contains dense undergrowth and trees.

Environmental Consequences

Surveys indicate there will be approximately 11456 square feet (0.263 ac) of ruderal/disturbed habitat temporarily impacted and approximately 174 square feet (0.004 ac) of ruderal/disturbed habitat permanently impacted by the project. Adjacent to Arroyo Burro Creek approximately 1,132 square feet (0.026) of riparian woodland would be temporarily impacted and no riparian woodland would be permanently impacted. Vegetation needing to be removed to construct the temporary bench to build the soil nail wall, will include two arroyo willow (*Salix lasiolepis*) trees of 12 inches diameter-at-breast-height (dbh) as well as two or three other non-native trees. Approximately 3,920 square feet (0.090 ac) of CDFW/California Coastal Commission (CCC) jurisdictional/ESHA areas along the riparian corridor of Arroyo Burro Creek would be temporarily impacted and approximately 44 square feet (0.001 ac) would be permanently impacted as a result of the temporary bench constructed to repair the soil nail wall and for the wall itself.

There will also be a temporary stream diversion of Arroyo Burro to dewater the work area for the retaining wall repair. The retaining wall repair will not impede fish passage through the BSA and stream flow will be maintained by a stream diversion allowing for fish passage. No wildlife connectivity impacts are anticipated.

Avoidance, Minimization, and/or Mitigation Measures

The following avoidance and minimization measures will be implemented to reduce potential impacts to the jurisdictional areas affected by the project:

1. Prior to any ground-disturbing activities, ESA fencing shall be installed around jurisdictional waters, coastal zone ESHAs, and the dripline of trees to be protected within project limits. Caltrans-defined ESAs shall be noted on design plans and delineated in the field prior to the start of construction activities.
2. The temporary stream diversion shall be timed to occur between June 15 and October 30 in any given year, or as otherwise directed by the regulatory agencies, when the surface water is likely to be dry or at seasonal minimum. Deviations from this work window will only be made with permission from the relevant regulatory agencies.
3. During construction, any project-related hazardous materials spills within the project site shall be cleaned up immediately. Readily accessible spill prevention and cleanup materials shall be kept by the contractor on-site at all times during construction.
4. During construction, erosion control measures shall be implemented. Silt fencing, fiber rolls, and barriers shall be installed as needed between the project site and jurisdictional other waters and riparian habitat. At a minimum, erosion controls shall be maintained by the contractor on a daily basis throughout the construction period.
5. During construction, the cleaning and refueling of equipment and vehicles shall occur only within a designated staging area and at least 60 ft from other waters or other aquatic areas. The staging areas shall conform to Best Management Practices (BMPs) applicable to attaining zero discharge of stormwater runoff. At a minimum, all equipment and vehicles shall be checked and maintained by the contractor on a daily basis to ensure proper operation and avoid potential leaks or spills.
6. Stream contours shall be restored as close as possible to their original condition
7. Temporary impacts to native vegetation will be mitigated at a 1:1 ratio. The replacement plantings will be maintained during a 1 year plant establishment period. Replacement plantings will be detailed in the Caltrans mitigation Planting Plans prepared by landscape architecture and the final Mitigation Monitoring Plan (MMP). The MMP will be developed in coordination with a biologist and will include developed planting specifications and grading plans to ensure survival of planted vegetation and re-establishment of functions and values. It is anticipated that restoration plantings will consist mainly of native riparian species such as willow, black walnut, and California blackberry.

2.2.2 Wetlands and Other Waters

Regulatory Setting

Wetlands and other waters are protected under a number of laws and regulations. At the federal level, the Federal Water Pollution Control Act, more commonly referred to as the Clean Water Act (CWA) (33 United States Code [USC] 1344), is the primary law regulating wetlands and surface waters. One purpose of the CWA is to regulate the discharge of dredged or fill material into waters of the U.S., including wetlands. Waters of the U.S. include navigable waters, interstate waters, territorial seas and other waters that may be used in interstate or foreign commerce. To classify wetlands for the purposes of the CWA, a three-parameter approach is used that includes the presence of hydrophytic (water-loving) vegetation, wetland hydrology, and hydric soils (soils formed during saturation/inundation). All three parameters must be present, under normal circumstances, for an area to be designated as a jurisdictional wetland under the CWA.

Section 404 of the CWA establishes a regulatory program that provides that discharge of dredged or fill material cannot be permitted if a practicable alternative exists that is less damaging to the aquatic environment or if the nation's waters would be significantly degraded. The Section 404 permit program is run by the U.S. Army Corps of Engineers (USACE) with oversight by the United States Environmental Protection Agency (U.S. EPA).

The USACE issues two types of 404 permits: General and Standard permits. There are two types of General permits: Regional permits and Nationwide permits. Regional permits are issued for a general category of activities when they are similar in nature and cause minimal environmental effect. Nationwide permits are issued to allow a variety of minor project activities with no more than minimal effects.

Ordinarily, projects that do not meet the criteria for a Nationwide Permit may be permitted under one of USACE's Standard permits. There are two types of Standard permits: Individual permits and Letters of Permission. For Standard permits, the USACE decision to approve is based on compliance with U.S. EPA's Section 404(b)(1) Guidelines (U.S. EPA 40 Code of Federal Regulations [CFR] Part 230), and whether permit approval is in the public interest. The Section 404 (b)(1) Guidelines (Guidelines) were developed by the U.S. EPA in conjunction with the USACE, and allow the discharge of dredged or fill material into the aquatic system (waters of the U.S.) only if there is no practicable alternative which would have less adverse effects. The Guidelines state that the USACE may not issue a permit if there is a least environmentally damaging practicable alternative (LEDPA) to the proposed discharge that would have lesser effects on waters of the U.S., and not have any other significant adverse environmental consequences.

The Executive Order for the Protection of Wetlands (EO 11990) also regulates the activities of federal agencies with regard to wetlands. Essentially, this EO states that a federal agency, such as the FHWA and/or Caltrans, as assigned, cannot undertake or provide assistance for new construction located in wetlands unless the head of the

agency finds: 1) that there is no practicable alternative to the construction and 2) the proposed project includes all practicable measures to minimize harm.

At the state level, wetlands and waters are regulated primarily by the State Water Resources Control Board (SWRCB), the Regional Water Quality Control Boards (RWQCB) and the California Department of Fish and Wildlife (CDFW). In certain circumstances, the Coastal Commission (or Bay Conservation and Development Commission or Tahoe Regional Planning Agency) may also be involved. Sections 1600-1607 of the California Fish and Game Code require any agency that proposes a project that will substantially divert or obstruct the natural flow of or substantially change the bed or bank of a river, stream, or lake to notify CDFW before beginning construction. If CDFW determines that the project may substantially and adversely affect fish or wildlife resources, a Lake or Streambed Alteration Agreement will be required. CDFW jurisdictional limits are usually defined by the tops of the stream or lake banks, or the outer edge of riparian vegetation, whichever is wider. Wetlands under jurisdiction of the USACE may or may not be included in the area covered by a Streambed Alteration Agreement obtained from the CDFW.

The RWQCBs were established under the Porter-Cologne Water Quality Control Act to oversee water quality. Discharges under the Porter-Cologne Act are permitted by Waste Discharge Requirements (WDRs) and may be required even when the discharge is already permitted or exempt under the CWA. In compliance with Section 401 of the CWA, the RWQCBs also issue water quality certifications for activities which may result in a discharge to waters of the U.S. This is most frequently required in tandem with a Section 404 permit request

Affected Environment

A Natural Environment Study was prepared for this project in September 2015 and revised in December 2015. The proposed work is at PM 1.5 Las Positas Rd. and is adjacent to Arroyo Burro Creek.

The Biological Study Area (BSA) is the area that may be directly, indirectly, temporarily, or permanently impacted by construction related activities. The size of the BSA is approximately 33,500 square feet (0.769 ac). The BSA occurs just west of former State Route 225/Las Positas Rd. and Elings Park along a section of Arroyo Burro Creek in the City of Santa Barbara. The edges of SR-225 are vegetated by ruderal/disturbed species, occupying approximately 10,785 square feet (0.248 ac). The dominant vegetation of the BSA at this location can be characterized as riparian forest, most similar to the Central Coast Arroyo Willow Riparian Forest/"Salix lasiolepis" Alliance. Riparian forests are typically associated with low-gradient stream reaches, and the BSA supports approximately 11,450 square feet (0.263 ac) of riparian forest habitat. The channel is deeply incised within this stretch of Arroyo Burro traversing the BSA, with vertical distance from the thalweg (lowest point) of the channel to the tops of the banks of approximately 15 ft. Bank full width varies from approximately 20 to 50 feet and the Ordinary High Water Marks are located approximately 12 to 15 feet apart; approximately 2,396 square feet (0.055 ac) of

stream habitat was mapped within the BSA. This section of Arroyo Burro Creek appears to be perennial.

An assessment and delineation of potentially jurisdictional wetlands and other waters was conducted within the study area on June 27, 2013 (Natural Environment Study, 2015). The assessment was conducted based on the review of pertinent literature and a thorough on-site investigation to determine the presence of three parameters within the study area: hydrophytic vegetation, hydric soil, and wetland hydrology. The wetland determination methodology used was conducted in accordance with the 1987 Army Corps of Engineers Wetlands Delineation.

Jurisdictional wetlands as defined as USACE include areas 1) where all three wetland parameters (i.e., hydrophytic vegetation, hydric soil, and wetland hydrology) are present, and 2) are either confined within the Outside High Water Mark of a drainage feature or exhibit a nexus/connectivity to jurisdictional waters. Areas within the OHWM of drainages with connectivity to jurisdictional waters but lacking one or more of the three wetland parameters are typically delineated as USACE “other waters.” Regional Water Quality Control Board jurisdiction is treated as equivalent to USACE jurisdiction for CWA Section 401/404 permitting purposes. CDFW jurisdiction encompasses rivers, streams, and lakes extending from the thalweg (lowest bed elevation) to the top of the surrounding banks and/or outer edge of adjacent riparian vegetation, whichever is greater. California Coastal Commission jurisdiction encompasses coastal ESHAs, and for the purposes of this discussion is similar to CDFW jurisdiction for the riparian corridor of Arroyo Burro Creek, as it extends to the top of banks along watercourses and/or outer edge of adjacent riparian vegetation

Potential jurisdictional waters and riparian habitat were delineated for the Wetland Assessment (refer to Appendix E in the NES). Approximately 2,396 square feet (0.055 ac) of potential USACE “other waters” were delineated within the Biological Study Area along Arroyo Burro Creek; no jurisdictional USACE wetlands were delineated within the BSA because hydric soils were determined not to be present. Approximately 13,155 square feet (0.302 ac) of CDFW/CCC jurisdictional areas along the riparian corridor of Arroyo Burro Creek were also delineated

Environmental Consequences

Estimates of impacts to potential jurisdictional waters and riparian habitat were determined by overlaying the project Area of Potential Impact with the preliminary jurisdictional determination map prepared for the Wetland Assessment. No permanent riparian impacts are anticipated to occur and no jurisdictional USACE/RWQCB wetlands are present, therefore no impacts to USACE/RWQCB wetlands will occur. Approximately 2,396 square feet (0.055 ac) of potential USACE/RWQCB jurisdictional “other waters” along Arroyo Burro Creek would be temporarily impacted via the temporary stream diversion implemented to construct the project. Approximately 3,920 square feet (0.09 ac) of CDFW/CCC jurisdictional areas along the riparian corridor of Arroyo Burro Creek would be temporarily impacted and approximately (.001 ac) would be permanently impacted by the project as a result of

the temporary bench constructed to conduct the soil nail wall repair and for the wall itself. Minimal permanent riparian impacts are anticipated to occur and are to be offset by eradicating invasive species and revegetating with native species.

Table 2.2 Estimated Impacts to Natural Communities and Jurisdictional Waters

Community/Habitat	Permanent Impact	Temporary Impact
Ruderal/Disturbed	0.004 ac	0.263 ac
Riparian Woodland	0	0.026 ac
Stream	0	0.055 ac
USACE/RWQCB Jurisdictional Other Waters	0	0.055 ac
CDFW/CCC Jurisdictional Areas	0.001 ac	0.090 ac

Avoidance, Minimization, and/or Mitigation Measures

The proposed project will temporarily impact approximately 3,920 square feet (0.09 ac) potential CDFW/CCC riparian habitat/ESHA and approximately 44 square feet (0.001 ac) of permanent impact to potential CDFW/CCC riparian habitat/ESHA. The following avoidance and minimization measures will be implemented to reduce potential impacts to these jurisdictional areas resulting from the project:

1. Prior to any ground-disturbing activities, ESA fencing shall be installed around jurisdictional waters, coastal zone ESHAs, and the dripline of trees to be protected within project limits. Caltrans-defined ESAs shall be noted on design plans and delineated in the field prior to the start of construction activities.
2. The temporary stream diversion shall be timed to occur between June 15 and October 30 in any given year, or as otherwise directed by the regulatory agencies, when the surface water is likely to be dry or at seasonal minimum. Deviations from this work window will only be made with permission from the relevant regulatory agencies.
3. During construction, any project-related hazardous materials spills within the project site shall be cleaned up immediately. Readily accessible spill prevention and cleanup materials shall be kept by the contractor on-site at all times during construction.
4. During construction, erosion control measures shall be implemented. Silt fencing, fiber rolls, and barriers shall be installed as needed between the project site and jurisdictional other waters and riparian habitat. At a minimum,

erosion controls shall be maintained by the contractor on a daily basis throughout the construction period.

5. During construction, the cleaning and refueling of equipment and vehicles shall occur only within a designated staging area and at least 60 ft from other waters or other aquatic areas. The staging areas shall conform to Best Management Practices (BMPs) applicable to attaining zero discharge of stormwater runoff. At a minimum, all equipment and vehicles shall be checked and maintained by the contractor on a daily basis to ensure proper operation and avoid potential leaks or spills.
6. Stream contours shall be restored as close as possible to their original condition.
7. Temporary impacts to native vegetation will be mitigated at a 1:1 ratio. The replacement plantings will be maintained during a 1 year plant establishment period. Replacement plantings will be detailed in the Caltrans mitigation Planting Plans prepared by landscape architecture and the final Mitigation Monitoring Plan (MMP). The MMP will be developed in coordination with a biologist and will include developed planting specifications and grading plans to ensure survival of planted vegetation and re-establishment of functions and values. It is anticipated that restoration plantings will consist mainly of native riparian species such as willow, black walnut, and California blackberry.

2.2.3 Animal Species

Regulatory Setting

Many state and federal laws regulate impacts to wildlife. The U.S. Fish and Wildlife Service (USFWS), the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service) and the California Department of Fish and Wildlife (CDFW) are responsible for implementing these laws. This section discusses potential impacts and permit requirements associated with animals not listed or proposed for listing under the federal or state Endangered Species Act. Species listed or proposed for listing as threatened or endangered are discussed in Section 2.2.4 below. All other special-status animal species are discussed here, including CDFW fully protected species and species of special concern, and USFWS or NOAA Fisheries Service candidate species.

Federal laws and regulations relevant to wildlife include the following:

- Federal Endangered Species Act
- National Environmental Policy Act
- Migratory Bird Treaty Act
- Fish and Wildlife Coordination Act

State laws and regulations relevant to wildlife include the following:

- California Environmental Quality Act
- California Endangered Species Act
- Sections 1600 – 1603 of the California Fish and Game Code
- Sections 4150 and 4152 of the California Fish and Game Code

Affected Environment

A Natural Environment Study was prepared for this project in September 2015 and revised in December 2015. The proposed work is at PM 1.5 along Las Positas Road and is adjacent to Arroyo Burro Creek. The following species listed have suitable habitat within the Area of Potential Impact.

Coast Range Newt (Taricha torosa), Western Pond Turtle (Emys marmorata), and Two-striped Garter Snake (Thamnophis hammondi)

The Natural Environment Study identified the Coast Range newt, western pond turtle, and two-striped garter snake as California Species of Special Concern that have the potential to occur within the Area of Potential Impact. They have been addressed as a group because they have similar habitat requirements, potential project-related impacts, and avoidance and minimization measures.

Suitable aquatic habitat occurs along Arroyo Burro Creek for each of these species, and Coast Range newts and western pond turtles have been observed in various parts of the Arroyo Burro watershed.

Cooper's Hawk (Accipiter cooperii), White-tailed Kite (Elanus leucurus), Yellow-breasted Chat (Icteria virens), Loggerhead Shrike (Lanius ludovicianus), Yellow Warbler (Setophaga petechia), and Other Nesting Birds

Nesting bird species are addressed here as a group because they have similar habitat requirements, project-related impacts, and avoidance and minimization measures.

The Natural Environment Study identified Cooper's Hawk, White-tailed Kite, Yellow-breasted Chat, Loggerhead Shrike, Yellow Warbler and other nesting birds as having the potential to occur within the Area of Potential Impact. They have been addressed as a group because they have similar habitat requirements, potential project-related impacts, and avoidance and minimization measures.

None of the special-status bird species above were observed during reconnaissance surveys of the BSA. Foraging birds species observed in or near the BSA included American crow (*Corvus brachyrhynchos*), house finch (*Haemorhous mexicanus*), black-headed grosbeak (*Pheucticus melanocephalus*), and hooded oriole (*Icterus cucullatus*). No nesting birds or nesting bird behaviors were observed. Suitable nesting habitat for various bird species mentioned above as well as other nesting bird species occurs along Arroyo Burro Creek, although the habitat would be expected to be compromised by its proximity to the SR-225 travel corridor.

Environmental Consequences

Coast Range Newt (Taricha torosa), Western Pond Turtle (Emys marmorata), and Two-striped Garter Snake (Thamnophis hammondi)

Project construction could result in the injury or mortality of Coast Range newt, western pond turtle, and two-striped garter snake (if present) during diversion/dewatering of Arroyo Burro Creek. The potential need to capture and relocate these species could subject these animals to stresses that could result in adverse effects. Injury or mortality could occur via accidental crushing by worker foot-traffic or construction equipment. Erosion and sedimentation could also occur, which could directly or indirectly affect water quality. The potential for these impacts is anticipated to be low due to no observations of the species within the BSA during surveys, but this could change through time, where the species could potentially expand populations or colonize the corridor

Cooper's Hawk (Accipiter cooperii), White-tailed Kite (Elanus leucurus), Yellow-breasted Chat (Icteria virens), Loggerhead Shrike (Lanius ludovicianus), Yellow Warbler (Setophaga petechia), and Other Nesting Birds

Caltrans typically anticipates the bird nesting season to occur from February 15 to September 1. The removal of vegetation could directly impact active bird nests and eggs or young residing in nests. Indirect impacts could also result from noise and disturbance associated with construction, which could alter perching, foraging, and/or nesting behaviors. While temporary loss of vegetation supporting potential nesting habitat could occur, this would be mitigated by habitat restoration. The implementation of the avoidance and minimization measures such as appropriate timing of vegetation removal, preconstruction surveys, and exclusion zones will avoid the potential for adverse effects to nesting bird species.

As no take of these state listed taxa is expected, no CESA compliance is required

Avoidance, Minimization, and/or Mitigation Measures

Coast Range Newt (Taricha torosa), Western Pond Turtle (Emys marmorata), and Two-striped Garter Snake (Thamnophis hammondi)

To minimize potential impacts to Coast Range newt, western pond turtle and two-striped garter snake the following measure will be implemented:

Prior to construction, a biologist determined qualified by Caltrans shall survey the API and, if present, capture and relocate any Coast Range newts, western pond turtles, or two-striped garter snakes to suitable habitat downstream of the API. Observations of Species of Special Concern or other special-status species shall be documented on California Natural Diversity Database forms and submitted to CDFW upon project completion. If these species or other aquatic Species of Special Concern are observed during construction, work will be temporarily stopped and they will likewise be relocated to suitable downstream habitat by a qualified biologist.

Cooper's Hawk (Accipiter cooperii), White-tailed Kite (Elanus leucurus), Yellow-breasted Chat (Icteria virens), Loggerhead Shrike (Lanius ludovicianus), Yellow Warbler (Setophaga petechia), and Other Nesting Birds
Caltrans will implement the following measures to protect nesting birds:

1. Tree removal shall be scheduled to occur from September 2 to February 14, outside of the typical nesting bird season, to avoid potential impacts to nesting birds.
2. If construction activities are proposed to occur within 100 ft of potential habitat during the nesting season (February 15 to September 1), a nesting bird survey shall be conducted by a biologist determined qualified by Caltrans no more than two weeks (14 days) prior to construction. If an active nest is found, Caltrans shall coordinate with CDFW to determine an appropriate buffer based on the habits and needs of the species. The buffer area shall be avoided until a qualified biologist has determined that juveniles have fledged.
3. Trees to be removed shall be noted on design plans. Prior to any ground-disturbing activities, ESA fencing shall be installed around the dripline of trees to be protected within project limits.

2.2.4 Threatened and Endangered Species

Regulatory Setting

The primary federal law protecting threatened and endangered species is the Federal Endangered Species Act (FESA): 16 United States Code (USC) Section 1531, et seq. See also 50 Code of Federal Regulations (CFR) Part 402. This act and later amendments provide for the conservation of endangered and threatened species and the ecosystems upon which they depend. Under Section 7 of this act, federal agencies, such as the Federal Highway Administration (FHWA), are required to consult with the U.S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NOAA Fisheries Service) to ensure that they are not undertaking, funding, permitting, or authorizing actions likely to jeopardize the continued existence of listed species or destroy or adversely modify designated critical habitat. Critical habitat is defined as geographic locations critical to the existence of a threatened or endangered species. The outcome of consultation under Section 7 may include a Biological Opinion with an Incidental Take statement, a Letter of Concurrence and/or documentation of a No Effect finding. Section 3 of FESA defines take as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect or any attempt at such conduct."

California has enacted a similar law at the state level, the California Endangered Species Act (CESA), California Fish and Game Code Section 2050, et seq. CESA emphasizes early consultation to avoid potential impacts to rare, endangered, and threatened species and to develop appropriate planning to offset project-caused losses of listed species populations and their essential habitats. The California Department

of Fish and Wildlife (CDFW) is the agency responsible for implementing CESA. Section 2081 of the Fish and Game Code prohibits "take" of any species determined to be an endangered species or a threatened species. Take is defined in Section 86 of the Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA allows for take incidental to otherwise lawful development projects; for these actions an incidental take permit is issued by the CDFW. For species listed under both the FESA and CESA requiring a Biological Opinion under Section 7 of the FESA, the CDFW may also authorize impacts to CESA species by issuing a Consistency Determination under Section 2080.1 of the California Fish and Game Code.

Another federal law, the Magnuson-Stevens Fishery Conservation and Management Act of 1976, was established to conserve and manage fishery resources found off the coast, as well as anadromous species and Continental Shelf fishery resources of the United States, by exercising (A) sovereign rights for the purposes of exploring, exploiting, conserving, and managing all fish within the exclusive economic zone established by Presidential Proclamation 5030, dated March 10, 1983, and (B) exclusive fishery management authority beyond the exclusive economic zone over such anadromous species, Continental Shelf fishery resources, and fishery resources in special areas.

Affected Environment

A Natural Environment Study was prepared for this project in September 2015 and revised in December 2015. The proposed work is at PM 1.5 along Las Positas Road and is adjacent to Arroyo Burro Creek.

Caltrans has initiated FESA formal Section 7 consultation with USFWS and NMFS. Biological Assessments were submitted December 22, 2015 to USFWS (to facilitate consultation for tidewater goby) and NMFS (to facilitate consultation for steelhead). In the Biological Assessment, Caltrans also requested acknowledgment from USFWS that the Programmatic Biological Opinion for California red-legged frog is applicable for the project. A Biological Opinion (WCR-20 16-4330) for steelhead was received from NMFS on March 23, 2016. A Biological Opinion (08EVEN00-2016-F-0162) for tidewater goby was received from USFWS on April 26, 2016. In the USFWS Biological Opinion, the USFWS also concurred with Caltrans' determination that the project may adversely affect California red-legged frog and is appropriate for inclusion under the Programmatic Biological Opinion.

Arroyo Burro Creek is considered an Environmentally Sensitive Habitat Area with plant or animal life or their habitats that are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments. Arroyo Burro Creek includes a riparian habitat for the species listed and presence has been inferred.

Steelhead – Southern California DPS (*Oncorhynchus mykiss irideus*)

An assessment of potential habitat within the study area was done for this project. (Natural Environment Study, 2015), although no steelhead were observed during

surveys along Arroyo Burro in 2013, no intensive survey methods (e.g., seine-netting or dip-netting) were conducted. Stoecker and Conception Coast Project (2002) assessed approximately 7.21 miles of available habitat along Arroyo Burro, which ranks as the 8th longest quantity of the 24 watersheds assessed in southern Santa Barbara County; the particular reach of Arroyo Burro that includes the BSA was rated as having moderate salmonid habitat quality (Stoecker and Conception Coast Project 2002). NMFS (2011) ranked Arroyo Burro as a Core 3 focus for recovery -- important in promoting connectivity between populations and genetic diversity across the Recovery Planning Area, and therefore an integral part of the overall biological recovery strategy.

Based on the best available information, steelhead presence within the BSA has been inferred, considering: 1) Arroyo Burro occurs within designated critical habitat for steelhead; 2) the available historical and anecdotal information regarding steelhead occurrences; 3) the step pool project implemented in 2006 downstream of Cliff Drive Bridge to allow for at least partial fish passage to upstream habitat; and 4) the presence of potential freshwater rearing sites and a freshwater migration corridor free of obstruction up to the next fish passage barrier located 200 ft upstream of the BSA

Tidewater Goby (Eucyclogobius newberryi)

Although no tidewater goby were observed in Arroyo Burro, no protocol surveys were conducted. Tidewater gobies were present in Arroyo Burro lagoon during surveys conducted by other investigators in 1998 and 2004. Tidewater gobies often migrate upstream into tributaries, as far as 0.5 mile from the estuary (USFWS 2005). In some areas, the tidewater goby can occur 1.6 to 7.3 mile upstream from the ocean environment; data suggest the average distance tidewater goby have been detected upstream from the ocean in medium to large rivers is approximately 3.8 mile (USFWS 2013). Half-grown to adult tidewater gobies have been shown to move upstream in summer and fall (USFWS 2005).

The BSA is located approximately 0.31 mile upstream of Arroyo Burro lagoon and within the distance of tidewater goby migrations reported in the literature (USFWS 2005, 2013). The barrier in Arroyo Burro north of Cliff Drive occurs upstream of the BSA. While no tidewater gobies were observed during a study upstream of the other grade control structure, located immediately downstream of Cliff Drive on Arroyo Burro (Questa Engineering 2005, Johnson 2005), it is conceivable that tidewater gobies could breach this structure (now at least partially passable due to installation of step pools) during exceptionally high flows. Although the likelihood for tidewater goby presence is presumably low, the stretch of Arroyo Burro encompassing the BSA may be periodically occupied by tidewater goby, with increased potential during particularly high flows, and presence is inferred.

Arroyo Burro Creek includes tidewater goby critical habitat unit Santa Barbara (SB)-10 (USFWS 2013) but the geographical boundaries of the critical habitat unit for tidewater goby occur at the Arroyo Burro lagoon, located 0.31 mile south of the proposed project BSA.

California Red-legged Frog (Rana draytonii)

The California red-legged frog is federally threatened and considered a California Species of Special Concern. The species may be present within the Area of Potential Impact. The California red-legged frog historically ranged from Marin County southward to northern Baja California (Stebbins 2003). Presently, Monterey, San Luis Obispo, and Santa Barbara Counties support the largest remaining California red-legged populations within California.

California red-legged frogs use a variety of areas, including aquatic, riparian, and upland habitats. They prefer aquatic habitats with little or no flow, the presence of surface water to at least early June, surface water depths to at least 27.6 inches, and the presence of fairly sturdy underwater supports such as cattails (*Typha* spp.). The largest densities of this species are typically associated with dense stands of overhanging willows and an intermixed fringe of sturdy emergent vegetation (Jennings and Hayes 1994). The California red-legged frog typically breeds from January to July, with peak breeding occurring in February and March. Softball-sized egg masses are attached to subsurface vegetation, and hatched tadpoles require 11 to 20 weeks to metamorphose. Metamorphosis typically occurs from July to September.

The California red-legged frog uses both riparian and upland habitats for foraging, shelter, cover, and nondispersal movement. Upland refugia may be natural, such as the spaces under boulders or rocks and organic debris (e.g., downed trees or logs), or manmade, such as certain industrial debris and agricultural features (e.g., drains, watering troughs, abandoned sheds, or stacks of hay or other vegetation); the California red-legged frog will also use small mammal burrows and moist leaf litter as refugia (USFWS 2010). Adults are predominantly nocturnal, while juveniles can be active at any time of day. Riparian habitat degradation, urbanization, predation by bullfrogs, and historic market harvesting have all reportedly contributed to the decline of the species.

Southwestern Willow Flycatcher (Empidonax traillii extimus)/ Least Bell's Vireo (Vireo bellii pusillus)

As stated in the (NES, 2015), no special-status bird species above were observed during reconnaissance surveys. The federal and state listed southwestern willow flycatcher was determined to have very marginal habitat and is not anticipated to occur. Tree removal will be timed appropriately and nesting bird surveys will be conducted if necessary to protect nesting birds.

Environmental Consequences

Steelhead – Southern California DPS (Oncorhynchus mykiss irideus)

Replacement of the retaining wall along the eastern bank of Arroyo Burro may require stream diversion/dewatering, which could temporarily alter aquatic habitat quality and result in a temporary loss of service for steelhead and other aquatic organisms. Removal of vegetation to allow construction equipment access to replace the retaining wall could somewhat affect shading and microhabitat temperature

regulation characteristics along this section of Arroyo Burro, but these effects would be temporary as removed vegetation consists of younger aged individuals and would be replaced by native riparian re-plantings in a relatively short timeframe.

Diversion/dewatering and construction in aquatic areas inhabited by steelhead could result in direct impacts to the species in the form of injury or mortality as steelhead stranded in residual wetted areas are captured, handled, and relocated. Erosion and sedimentation could also occur, which could directly or indirectly affect water quality for steelhead. While the placement of cofferdams and dewatering within the wetted portions of Arroyo Burro could result in a temporary loss of service for steelhead, the extent and effect of this are estimated to be minor. It is anticipated that an area of temporary impact to steelhead critical habitat of approximately 2,396 square feet (0.055 ac) and 180 linear ft. The act of diversion/dewatering and its eventual dismantling and restoration of normal flows could also produce direct or indirect effects that could impact the structure of the streambed substrate or increase turbidity. These impacts would likely be temporary and rectified once the pre-construction stream flow conditions are restored.

The anticipated FESA Section 7 effects determination will likely be that the proposed project may affect, and is likely to adversely affect, the southern California steelhead DPS. The basis for this determination is that steelhead presence has been inferred (based on the best available information) and there would be a considerable potential for take of the species during diversion/dewatering activities to allow for the retaining wall replacement. The proposed project, may affect, and is likely to adversely affect, steelhead critical habitat. The impacts to critical habitat will be small in scale and may involve temporary loss of service to steelhead resulting from implementation of the temporary stream diversion necessary to repair the retaining wall.

Tidewater Goby (Eucyclogobius newberryi)

Similar to the impacts described previously for steelhead, replacement of the retaining wall along the eastern bank of Arroyo Burro may require stream diversion/dewatering, which could temporarily alter aquatic habitat quality and result in a temporary loss of service for tidewater goby and other aquatic organisms.

Diversion/dewatering and construction in aquatic areas inhabited by tidewater goby could result in direct impacts to the species in the form of injury or mortality as gobies stranded in residual wetted areas are captured, handled, and relocated. Erosion and sedimentation could also occur, which could directly or indirectly affect water quality for gobies. While the placement of cofferdams and dewatering within the wetted portions of Arroyo Burro could result in a temporary loss of service for tidewater goby, the effects of this are estimated to be minor, anticipated to be an area of approximately 2,396 square feet (0.055 ac) and 180 linear ft.

The FESA Section 7 effects determination is that the proposed project may affect, and is likely to adversely affect, tidewater goby. The basis for this determination is that tidewater goby presence has been inferred; however, it is anticipated that there would be a very low potential for take of the species because the API is located upstream of Arroyo Burro lagoon and the partial barrier near Cliff Drive, and stream

diversion/dewatering would occur during the driest time of the year. The proposed project will have no effect on tidewater goby critical habitat, which does not occur within the BSA.

California Red-legged Frog (Rana draytonii)

Project construction could result in the injury or mortality of California red-legged frogs (if present) during diversion/dewatering of Arroyo Burro Creek. The potential need to capture and relocate California red-legged frogs could subject these animals to stresses that could result in adverse effects. Injury or mortality could occur via accidental crushing by worker foot-traffic or construction equipment. Erosion and sedimentation could also occur, which could directly or indirectly affect water quality. The potential for these impacts is anticipated to be low due to no observations of the species within the BSA during surveys, but this could change through time, where the species could potentially expand populations or colonize within the Arroyo Burro Creek corridor.

The FESA Section 7 effects determination is that the proposed project may affect, and is likely to adversely affect, California red-legged frog. The basis for this determination is that California red-legged frog has been inferred and there would be potential for take of the species during construction. The following avoidance and minimization measures are the relevant Programmatic Biological Opinion measures to qualify a project for programmatic concurrence for the purposes of USFWS formal consultation (USFWS 2011). The proposed project will have no effect on California red-legged frog critical habitat, which does not occur within the BSA.

Southwestern Willow Flycatcher (Empidonax traillii extimus and Least Bell's Vireo (Vireo bellii pusillus)

Both species are being addressed together because they have similar habitat requirements, potential project-related impacts, and avoidance and minimization measures.

Caltrans typically anticipates the bird nesting season to occur from February 15 to September 1. The removal of vegetation could directly impact active bird nests and eggs or young residing in nests. Indirect impacts could also result from noise and disturbance associated with construction, which could alter perching, foraging, and/or nesting behaviors. While temporary loss of vegetation supporting potential nesting habitat could occur, this would be mitigated by habitat restoration. The implementation of the avoidance and minimization measures such as appropriate timing of vegetation removal, preconstruction surveys, and exclusion zones will avoid the potential for adverse effects to nesting bird species.

Because avoidance and minimization measures will be employed to protect all nesting bird species protected by the FESA, CESA, the MBTA, and California Fish and Game Code, the FESA Section 7 effects determination is that the proposed project may affect, but is not likely to adversely affect, least Bell's vireo and southwestern willow flycatcher. The proposed project will have no effect on least

Bell's vireo and southwestern willow flycatcher critical habitat, which does not occur within the BSA.

As no take of these state listed taxa is expected, no CESA compliance is required.

Avoidance, Minimization, and/or Mitigation Measures

Steelhead – Southern California DPS (*Oncorhynchus mykiss irideus*)

The following measures will serve to further avoid or minimize impacts to steelhead within the API:

1. Prior to construction, Caltrans shall acquire incidental take authorization for steelhead from NMFS through a FESA Section 7 Biological Opinion and Incidental Take Statement.
2. Prior to initiation of stream diversion/dewatering, Caltrans shall conduct a worker environmental training program including a description of steelhead, its legal/protected status, proximity to the project site, avoidance/minimization measures to be implemented during the project, and the implications of violating FESA and permit conditions.
3. During construction, in-stream work shall take place between June 15 and October 31 in any given year, when the surface water within drainages is likely to be dry or at seasonal minimum. Deviations from this work window will only be made with permission from Caltrans and the relevant regulatory/resource agencies.
4. During in-stream work, a Caltrans-approved biologist shall be retained with experience in steelhead biology and ecology, aquatic habitats, biological monitoring (including diversion/dewatering), and capturing, handling, and relocating fish species. During in-stream work, the biological monitor(s) shall continuously monitor placement and removal of any required stream diversions to capture stranded steelhead and other native fish species and relocate them to suitable habitat as appropriate. The biologist(s) shall capture steelhead stranded as a result of diversion/dewatering and relocate steelhead to suitable instream habitat immediately downstream of the work area, using methods approved by the appropriate regulatory agencies, which may include providing aerated water in buckets for transport and ensuring adequate water temperatures during transport. The biologist shall note the number of steelhead observed in the affected area, the number of steelhead relocated, and the date and time of the collection and relocation.
5. During in-stream work, if pumps are incorporated to assist in temporarily dewatering the site, intakes shall be completely screened with no larger than 3/32-inch (2.38 mm) wire mesh to prevent steelhead and other sensitive aquatic species from entering the pump system. Pumps shall release the additional water to a settling basin allowing the suspended sediment to settle

out prior to re-entering the stream(s) outside of the isolated area. The form and function of all pumps used during the dewatering activities shall be checked daily, at a minimum, by a qualified biological monitor to ensure a dry work environment and minimize adverse effects to aquatic species and habitats.

6. The biological monitor shall monitor erosion and sediment controls to identify and correct any conditions that could adversely affect steelhead or steelhead habitat. The biological monitor shall be granted the authority to halt work activity as necessary and to recommend measures to avoid/minimize adverse effects to steelhead and steelhead habitat.
7. Caltrans shall provide NMFS a written summary of work performed (including biological survey and monitoring results), BMPs implemented (i.e., use of biological monitor, flagging of project areas, erosion and sedimentation controls) and supporting photographs. Furthermore, the documentation describing listed species surveys and re-location efforts (if appropriate) shall include name(s) of the Caltrans-approved biologist(s), location and description of area surveyed, time and date of survey, all survey methods used, a list and tally of all sensitive animal species observed during the survey, a description of the instructions/recommendations given to the applicant during the project, and a detailed discussion of capture and relocation efforts (if appropriate).
8. Caltrans biologist shall identify and evaluate the suitability of downstream steelhead relocation habitat prior to undertaking the dewatering activities that are required to isolate the work area from flowing water. The biologist shall evaluate potential relocation sites based on attributes such as adequate water quality, cover and living space. Multiple relocation habitats may be necessary to prevent overcrowding of a single habitat depending on the number of steelhead captured, current number already occupying the relocation habitat and the size of the receiving habitat.
9. Caltrans' biologist shall provide a written steelhead-relocation report to NMFS within 30 working days following completion of construction each season. The report shall include 1) the number and size of all steelhead relocated during the proposed action; 2) the date and time of the collection and relocation; 3) a description of any problem encountered during the project or when implementing terms and conditions; and 4) any effect of the proposed action on steelhead that was not previously considered. The report shall be sent to Jay Ogawa NMFS, 501 W. Ocean Blvd., Suite 4200, Long Beach, California 90802-4213.
10. Caltrans' biologist shall contact NMFS (Jay Ogawa, 562-980-4061) immediately if one or more steelhead are found dead or injured. The purpose of the contact shall be to review the activities resulting in take and to determine if additional protective measures are required. All steelhead

appropriate-sized sealable bag that is labeled with the date and location of the collection and mortalities shall be retained, frozen as soon as practical, and placed in an appropriate-sized sealable bag that is labeled with the date and location of the collection and fork length and weight of the specimen(s). Frozen samples shall be retained by the biologist until additional instructions are provided by NMFS. Subsequent notification must also be made in writing to Jay Ogawa, NMFS, 501 W. Ocean Blvd., Suite 4200, Long Beach, California 90802-4213 within five days of noting dead or injured steelhead. The written notification shall include 1) the date, time, and location of the carcass or injured specimen; 2) a color photograph of the steelhead; 3) cause of injury or death; and 4) name and affiliation of the person whom found the specimen.

11. Caltrans shall provide a revegetation report that is to include a description of the locations seeded or planted, the area revegetated, proposed methods to monitor and maintain the revegetated area, criteria used to determine the success of the plantings, and pre- and postplanting color photographs of the revegetated area. The revegetation report shall be sent to Jay Ogawa, NMFS, 501 W. Ocean Blvd., Suite 4200, Long Beach, California 90802-4213, within 30 calendar days following completion of the proposed action.
12. Caltrans shall provide the results of the vegetation monitoring within 30 calendar days following completion of each annual site inspection for the five years following completion of the project as described in the BA. The five reports shall include color photographs taken of the project area during each inspection and before implementation of the proposed action. The vegetation monitoring results shall be sent to Jay Ogawa, NMFS, 501 W. Ocean Blvd., Suite 4200, Long Beach, California 90802-4213.

Tidewater Goby (Eucyclogobius newberryi)

The following measures will serve to avoid or minimize impacts to tidewater goby within the API:

1. Prior to construction, Caltrans shall acquire incidental take authorization for tidewater goby from USFWS through a FESA Section 7 Biological Opinion and Incidental Take Statement.
2. Prior to initiation of stream diversion/dewatering, Caltrans shall conduct an informal worker environmental training program including a description of tidewater goby, its legal/protected status, proximity to the project site, avoidance/minimization measures to be implemented during the project, and the implications of violating FESA and permit conditions.
3. Prior to initiation of stream diversion/dewatering, a USFWS-approved biologist(s) shall install 1/8 inch block nets outside the impact areas and across the stream a minimum of 20 ft above and below the locations proposed

for stream diversion/dewatering. If widely separated sites are involved, more than one set of block nets shall be placed to protect the work area. The nets shall be installed on the first day of work and monitored thereafter for the duration of the work.

4. Once the block nets are secured, the USFWS-approved biologist(s) shall remove all tidewater gobies found between the block nets using a 1/8 inch seine and dip nets, and relocate tidewater gobies to suitable habitat downstream of the proposed project site.
5. Should dewatering occur, any pumps used shall be fitted with an anti-entrapment device(s) to prevent tidewater gobies from being drawn into the pump or impinged on intake screening. As dewatering proceeds, the USFWS-approved biologist(s) shall remove by hand or net all tidewater gobies found and relocate them to suitable habitat downstream of the proposed project site.
6. A USFWS-approved biologist shall remain onsite and observe for tidewater gobies and turbidity levels within the work areas during all creek dewatering activities, and shall capture and relocate tidewater gobies to suitable habitat as necessary.
7. Caltrans shall provide USFWS a written summary of work performed (including biological survey and monitoring results), BMPs implemented (i.e., use of biological monitor, flagging of project areas, erosion and sedimentation controls) and supporting photographs. Furthermore, the documentation describing listed species surveys and re-location efforts (if appropriate) shall include name(s) of the USFWS-approved biologist(s), location and description of area surveyed, time and date of survey, all survey methods used, a list and tally of all sensitive animal species observed during the survey, a description of the instructions/recommendations given to the applicant during the project, and a detailed discussion of capture and relocation efforts (if appropriate).
8. Caltrans must develop and implement a monitoring plan to determine the level of incidental take of tidewater gobies that result from the proposed project activities. The monitoring plan must include a standardized mechanism for Caltrans employees, contractors, permittees, and volunteers to report any observations of dead or injured listed animals to the appropriate Caltrans and Service offices. Caltrans must collect information obtained through the monitoring to include in the project completion report to the Service.
9. Service-approved biologist must record all pertinent information when relocating tidewater gobies including the number of individuals captured, site of capture, site of relocation, habitat at capture, and habitat at relocation site.

10. The Service-approved biologist(s) must conduct a training session for all project personnel prior to any project activities. At a minimum, the training will include a description of the tidewater goby and its habitat; the general provisions of the Act; the necessity for adhering to the provisions of the Act; the penalties associated with violating the provisions of the Act; the specific measures that are being implemented to conserve the tidewater goby while this project is being conducted; and the boundaries within which the project may be accomplished. The program must also cover the restrictions and guidelines that will be followed by all construction personnel to reduce or avoid effects on these species during project implementation. The project foreman will be responsible for ensuring that crew members adhere to the guidelines and restrictions.
11. During any in-creek work, the Service-approved biologist(s) must be onsite and continuously monitor project activities, e.g., the placement and removal of any required water diversions, the status of the water diversion. The Service-approved biologist must capture any stranded tidewater gobies or other native fish species and relocate them to suitable habitat within the Arroyo Burro Creek or Arroyo Burro Lagoon, as appropriate. The Service-approved biologist must note the number of all fish (including tidewater gobies, other native species, and non-native species) observed in the affected area, the number of fish relocated, the date and time of the collection and relocation, habitat conditions at the capture and relocation sites, and an estimation of the numbers of tidewater gobies at the relocation site before release of the captured individuals.
12. Only Service-approved biologists may capture, handle, and monitor tidewater gobies. Caltrans must provide the qualifications of individuals that would be conducting these activities to the Service at least 15 days prior to project activities. No project activities will begin in areas that could support tidewater gobies until Caltrans has received approval from the Service that the biologist(s) are approved to conduct the work. Please be advised that possession of a 10(a)(1)(A) permit for tidewater gobies does not substitute for the implementation of this measure. Authorization of Service approved biologist(s) is valid for this project only.
13. Prior to conducting any in-water work or activities (e.g., vegetation removal, installation of the water containment system, dewatering activities, demolition and removal of the current retaining wall or wall parts, construction and installation of the new retaining wall), the Service-approved biologist(s) must survey for tidewater gobies prior to each of those activities and relocate any individuals that could be killed or injured.
14. Caltrans must implement appropriate BMPs conforming with Caltrans' BMP Manual (Caltrans 2003) to minimize and avoid impacts to water quality in Las

Positas Creek and Arroyo Burro Lagoon, which include fueling, maintaining, and storing heavy equipment outside of the project activity areas and checking equipment for leaks and spills prior to implementing project activities.

15. When capturing and removing tidewater gobies from the work area, the Service approved biologist(s) must minimize the amount of time the tidewater gobies are held in captivity. During this time, they must be maintained in a manner that does not expose them to temperatures or any other environmental conditions that could cause injury or undue stress. Tidewater gobies must be captured by seine, minnow trap, or dipnet, transported in buckets, and released elsewhere in Las Positas Creek and Arroyo Burro Lagoon.
16. Intakes for pumps used during dewatering must be fitted with mesh no larger than 1/8 (0.125) inch to prevent entrapment or entrainment of most tidewater gobies.

California Red-legged Frog (Rana draytonii)

The following measures will serve to avoid or minimize impacts to California red-legged frog:

1. Only USFWS-approved biologists shall participate in activities associated with the capture, handling, and monitoring of California red-legged frogs.
2. Ground disturbance shall not begin until written approval is received from the USFWS that the biologist is qualified to conduct the work.
3. A USFWS-approved biologist shall survey the project area no more than 48 hours before the onset of work activities. If any life stage of the California red-legged frog is found and these individuals are likely to be killed or injured by work activities, the approved biologist shall be allowed sufficient time to move them from the site before work begins. The USFWS-approved biologist shall relocate the California red-legged frogs the shortest distance possible to a location that contains suitable habitat and will not be affected by the activities associated with the project. The relocation site shall be in the same drainage to the extent practicable. Caltrans shall coordinate with USFWS on the relocation site prior to the capture of any California red-legged frogs.
4. Before any activities begin on a project, a USFWS-approved biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the California red-legged frog and its habitat, the specific measures that are being implemented to conserve the California red-legged frog for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

5. A USFWS-approved biologist shall be present at the work site until all California red-legged frogs have been removed, workers have been instructed, and disturbance of the habitat has been completed. After this time, Caltrans shall designate a person to monitor on-site compliance with all minimization measures. The USFWS-approved biologist shall ensure that this monitor receives the training outlined in measure 4 above and in the identification of California red-legged frogs. If the monitor or the USFWS-approved biologist recommends that work be stopped because California red-legged frogs would be affected in a manner not anticipated by Caltrans and USFWS during review of the proposed action, they shall notify the resident engineer immediately. The resident engineer shall resolve the situation by requiring that all actions that are causing these effects be halted. When work is stopped, the USFWS shall be notified as soon as possible.
6. During project activities, all trash that may attract predators or scavengers shall be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas.
7. All refueling, maintenance and staging of equipment and vehicles shall occur at least 60 ft from the riparian habitat or water bodies and not in a location from where a spill would drain directly toward aquatic habitat. The monitor shall ensure contamination of habitat does not occur during such operations. Prior to the onset of work, Caltrans shall ensure that a plan is in place for prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.
8. Habitat contours shall be returned to a natural configuration at the end of the project activities. This measure shall be implemented in all areas disturbed by activities associated with the project, unless USFWS and Caltrans determine that it is not feasible or modification of original contours would benefit the California red-legged frog.
9. The number of access routes, size of staging areas, and the total area of activity shall be limited to the minimum necessary to achieve the project. ESAs shall be established to confine access routes and construction areas to the minimum area necessary to complete construction, and minimize the impact to California red-legged frog habitat; this goal includes locating access routes and construction areas outside of wetlands and riparian areas to the maximum extent practicable.
10. Caltrans shall attempt to schedule work for times of the year when impacts to the California red-legged frog would be minimal. For example, work that would affect large pools that may support breeding would be avoided, to the maximum degree practicable, during the breeding season (November through May). Isolated pools that are important to maintain California red-legged

frogs through the driest portions of the year would be avoided, to the maximum degree practicable, during the late summer and early fall. Habitat assessments, surveys, and technical assistance between Caltrans and the USFWS during project planning shall be used to assist in scheduling work activities to avoid sensitive habitats during key times of year.

11. To control sedimentation during and after project completion, Caltrans shall implement all BMPs as required by Caltrans procedures outlined in any authorizations or permits, issued under the authorities of the Clean Water Act received for the project. If BMPs are ineffective, Caltrans shall attempt to remedy the situation immediately, in coordination with USFWS.
12. If a work site is to be temporarily dewatered by pumping, intakes shall be completely screened with wire mesh not larger than 0.2 inch to prevent California red-legged frogs from entering the pump system. Water shall be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any diversions or barriers to flow shall be removed in a manner that would allow flow to resume with the least disturbance to the substrate. Alteration of the streambed shall be minimized to the maximum extent possible; any imported material shall be removed from the streambed upon completion of the project.
13. Unless approved by USFWS, water shall not be impounded in a manner that may attract California red-legged frogs.
14. A USFWS-approved biologist shall permanently remove any individuals of exotic species, such as bullfrogs (*Rana catesbeiana*), signal and red swamp crayfish (*Pacifastacus leniusculus*; *Procambarus clarkii*), and centrarchid fishes from the project area, to the maximum extent possible. The USFWS-approved biologist shall be responsible for ensuring his or her activities are in compliance with the California Fish and Game Code.
15. If Caltrans demonstrates that disturbed areas have been restored to conditions that allow them to function as habitat for the California red-legged frog, these areas will not be included in the amount of total habitat permanently disturbed.
16. To ensure that diseases are not conveyed between work sites by the USFWS-approved biologist, the fieldwork code of practice developed by the Declining Amphibian Task Force shall be followed at all times.
17. Project sites shall be revegetated with an assemblage of native riparian, wetland, and upland vegetation suitable for the area. Locally collected plant materials shall be used to the extent practicable. Invasive, exotic plants shall be controlled to the maximum extent practicable. This measure shall be

implemented in all areas disturbed by activities associated with the project, unless USFWS and Caltrans determine that it is not feasible or practical.

18. Caltrans shall not use herbicides as the primary method to control invasive, exotic plants. However, if it is determined that the use of herbicides is the only feasible method for controlling invasive plants at a specific project site; it will implement the following additional protective measures for the California red-legged frog:

- Caltrans shall not use herbicides during the breeding season for the California red-legged frog;
- Caltrans shall conduct surveys for the California red-legged frog immediately prior to the start of herbicide use. If found, California red-legged frogs shall be relocated to suitable habitat far enough from the project area that no direct contact with herbicide would occur;
- Giant reed and other invasive plants shall be cut and hauled out by hand and painted with glyphosate-based products, such as Aquamaster® or Rodeo®;
- Licensed and experienced Caltrans staff or a licensed and experienced contractor shall use a hand-held sprayer for foliar application of Aquamaster® or Rodeo® where large monoculture stands occur at an individual project site;
- All precautions shall be taken to ensure that no herbicide is applied to native vegetation;
- Herbicides shall not be applied on or near open water surfaces (no closer than 60 ft from open water);
- Foliar applications of herbicide shall not occur when wind speeds are in excess of 3 miles per hour;
- No herbicides shall be applied within 24 hours of forecasted rain;
- Application of all herbicides shall be done by qualified Caltrans staff or contractors to ensure that overspray is minimized, that all applications is made in accordance with the label recommendations, and with implementation of all required and reasonable safety measures. A safe dye shall be added to the mixture to visually denote treated sites. Application of herbicides shall be consistent with the U.S Environmental Protection Agency's Office of Pesticide Programs, Endangered Species Protection Program county bulletins;

- All herbicides, fuels, lubricants, and equipment shall be stored, poured, or refilled at least 60 ft from riparian habitat or water bodies in a location where a spill would not drain directly toward aquatic habitat. Prior to the onset of work, Caltrans shall ensure that a plan is in place for a prompt and effective response to accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

Southwestern Willow Flycatcher (Empidonax traillii extimus) and Least Bell's Vireo (Vireo bellii pusillus)

Caltrans will implement the following measures to protect nesting birds:

1. Tree removal shall be scheduled to occur from September 2 to February 14, outside of the typical nesting bird season, to avoid potential impacts to nesting birds. If construction activities are proposed to occur within 100 ft of potential habitat during the nesting season (February 15 to September 1), a nesting bird survey shall be conducted by a biologist determined qualified by Caltrans no more than two weeks (14 days) prior to construction. If an active nest is found, Caltrans shall coordinate with CDFW to determine an appropriate buffer based on the habits and needs of the species. The buffer area shall be avoided until a qualified biologist has determined that juveniles have fledged.
2. Trees to be removed shall be noted on design plans. Prior to any ground-disturbing activities, ESA fencing shall be installed around the dripline of trees to be protected within project limits.
3. If least Bell's vireo and/or southwestern willow flycatcher are observed within 100 ft of the API during the course of construction, a qualified biologist shall implement an exclusion zone and work shall be avoided within the exclusion zone until the least Bell's vireo and/or southwestern willow flycatcher is located greater than 100 ft from project-related disturbance. If an active least Bell's vireo and/or southwestern willow flycatcher nest is observed within 100 ft of the API, all project activities shall immediately cease and USFWS and Caltrans shall be contacted within 48 hours. Caltrans shall then reinstate FESA Section 7 formal consultation with USFWS for least Bell's vireo and/or southwestern willow flycatcher and implement additional measures as necessary.

2.2.5 Invasive Species

Regulatory Setting

On February 3, 1999, President William J. Clinton signed Executive Order (EO) 13112 requiring federal agencies to combat the introduction or spread of invasive species in the United States. The order defines invasive species as "any species, including its seeds, eggs, spores, or other biological material capable of propagating

that species, that is not native to that ecosystem whose introduction does or is likely to cause economic or environmental harm or harm to human health.” Federal Highway Administration (FHWA) guidance issued August 10, 1999 directs the use of the State’s invasive species list maintained by the California Invasive Species Council to define the invasive species that must be considered as part of the National Environmental Policy Act (NEPA) analysis for a proposed project.

Affected Environment

An assessment of potential invasive species within the study area was done for this project. (Natural Environment Study, 2015).

A total of 25 invasive plant species as identified by the online California Invasive Plant Council (Cal-IPC) Database (2015) were observed within the BSA. Three exotic plant species with an invasiveness rating of “High” were observed: giant reed (*Arundo donax*), Cape ivy (*Delairea odorata*), and sweet fennel (*Foeniculum vulgare*); only giant reed and Cape ivy, observed with moderate or greater density within the Arroyo Burro riparian corridor, were determined to be invasive. A total of 12 plant species were observed with a Cal-IPC invasiveness rating of “Moderate” and 10 species were observed with an invasiveness rating of “Limited.” Table 2.3 lists the species observed within the BSA.

Table 2.3 Plants listed on the California Invasive Plant Council’s Invasive Plant Inventory

Common Name	Scientific Name	Cal-IPC Invasiveness Rating	Relative Density within the BSA
sticky snakeroot	<i>Ageratina adenophora</i>	Moderate	Low/Sparse
giant reed	<i>Arundo donax</i>	High	Moderate/high
slender wild oat	<i>Avena barbata</i>	Moderate	Low/Sparse
black mustard	<i>Brassica nigra</i>	Moderate	Low/Sparse
ripgut brome	<i>Bromus diandrus</i>	Moderate	Low/Sparse
soft chess brome	<i>Bromus hordeaceus</i>	Limited	Low/Sparse
bull thistle	<i>Cirsium vulgare</i>	Moderate	Low/Sparse
poison hemlock	<i>Conium maculatum</i>	Moderate	Low/Sparse
Cape ivy	<i>Delairea odorata</i>	High	Low/Sparse
blue gum	<i>Eucalyptus globulus</i>	Moderate	Moderate
sweet fennel	<i>Foeniculum vulgare</i>	High	Low/Sparse
English ivy	<i>Hedera helix</i>	Limited	High
bristly ox-tongue	<i>Helminthotheca echioides</i>	Limited	Low/Sparse
perennial mustard	<i>Hirschfeldia incana</i>	Moderate	Low/Sparse
foxtail barley	<i>Hordeum murinum</i>	Moderate	Low/Sparse
burclover	<i>Medicago polymorpha</i>	Limited	Low/Sparse
tree tobacco	<i>Nicotiana glauca</i>	Moderate	Low/Sparse
Bermuda buttercup	<i>Oxalis pes-caprae</i>	Moderate	Low/Sparse
Canary Island date palm	<i>Phoenix canariensis</i>	Limited	Low/Sparse
wild radish	<i>Raphanus sativus</i>	Limited	Low/Sparse
castor bean	<i>Ricinus communis</i>	Limited	Low/Sparse

Common Name	Scientific Name	Cal-IPC Invasiveness Rating	Relative Density within the BSA
Russian thistle	<i>Salsola tragus</i>	Limited	Low/Sparse
milk thistle	<i>Silybum marianum</i>	Limited	Low/Sparse
Smilo grass	<i>Stipa miliacea</i>	Limited	Low/Sparse
Mexican fan palm	<i>Washingtonia robusta</i>	Moderate	Low/Sparse

Environmental Consequences

None of the species on the California list of invasive species is used by the Department for erosion control or landscaping in the project. All equipment and materials will be inspected for the presence of invasive species.

Avoidance, Minimization, and/or Mitigation Measures

In compliance with the Executive Order on Invasive Species, EO 13112, and guidance from the Federal Highway Administration (FHWA), the landscaping and erosion control included in the project will not use species listed as invasive. In areas of particular sensitivity, extra precautions will be taken if invasive species are found in or next to the construction areas. These include the inspection and cleaning of construction equipment and eradication strategies to be implemented should an invasion occur.

1. Construction equipment shall be certified as “weed-free” by Caltrans before entering the construction site. If necessary, wash stations onsite shall be established for construction equipment under the guidance of Caltrans in order to avoid/minimize the spread of invasive plants and/or seed within the construction area.
2. Invasive exotic plants in the project site removed during construction shall be properly disposed at a certified landfill to prevent the spread of invasive species. Inclusion of any species that occurs on the Cal-IPC Invasive Plant Inventory in the Caltrans erosion control seed mix or landscaping plans for the project shall be avoided.
3. During construction, Caltrans will ensure that the spread or introduction of invasive exotic plant species will be avoided to the maximum extent possible.

2.3 Construction Impacts

Refer to Section 2.2 for potential impacts to biological resources during construction.

Affected Environment

The project is in the city of Santa Barbara in a predominately residential area with residences within the project limits.

Traffic and Transportation/Pedestrian and Bicycle Facilities

Las Positas Road is located entirely within the City of Santa Barbara. It begins at the north junction at US 101, traveling south through rolling terrain as a 2 lane highway to Cliff Dr.

Water Quality

The proposed work is at PM 1.5 Las Positas Rd. and is adjacent to Arroyo Burro Creek.

Air Quality

Certain construction activities can be the source of temporary impacts to air quality. These potential impacts include dust-producing activities that occur during grading and paving. Standard provisions included on all Caltrans projects would address potential emissions generated by construction equipment, grading activities, and use of various construction materials.

Noise

The highway corridor is a residential areas mixed with Park/Recreational. Traffic on Las Positas Road is the main source of noise through the corridor.

Environmental Consequences

Traffic and Transportation/Pedestrian and Bicycle Facilities

Motorists, bicyclists, and pedestrians would experience temporary traffic delays during construction, but delays would be minimized. Construction of the project may also result in some temporary, short-term disruptions in the project vicinity when construction equipment is being stored. However, both lanes of traffic would remain open during construction.

Water Quality

Temporary impacts to water quality could result from construction-related activities such as equipment access, temporary water diversions and de-watering, temporary fill placement, construction debris from the demolished structure, and dust generated during excavation.

Air Quality

During construction, the proposed project would generate air pollutants. The exhaust from construction equipment contains hydrocarbons, oxides of nitrogen, carbon monoxide, suspended particulate matter, and odors. Use of asphalt, concrete, and other chemicals during construction activities would emit organic gases and other potentially harmful compounds. However, the largest percentage of pollutants would be windblown dust generated during excavation, grading, hauling, demolition, and various other activities. The impacts of these activities would vary each day as construction progresses. Dust and odors occurring very close to the right-of-way could potentially cause occasional annoyance and complaints from nearby residences.

Noise

Two types of short-term noise impacts would occur during project construction. First, construction crew commutes and the transport of construction equipment and materials to the project site would incrementally raise noise levels leading to the site. The pieces of heavy equipment for construction activities would be moved onsite, remain for the duration of the construction phase, and not add to the daily traffic volume in the project vicinity. Therefore, short-term construction-related worker commutes and equipment transport noise impacts would not be substantial.

The second type of short-term noise impact is related to noise generated during excavation and retaining wall construction. Construction is performed in steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated and, therefore, the noise levels at the project site as construction progresses. During construction, activities may intermittently dominate the noise environment in the immediate area of construction.

Avoidance, Minimization, and/or Mitigation Measures

Traffic and Transportation/Pedestrian and Bicycle Facilities

A Traffic Management Plan would be developed before building the project. Measures would be taken to avoid impacts to emergency services during construction.

The Traffic Management Plan for this project may include the following items:

- Public awareness campaign—Flyers, brochures, press releases, website, and advertising, as required, would inform travelers of the project.
- Maintenance schedule—The maintenance of traffic and sequencing of construction would be planned and scheduled to minimize traffic delays.

Water Quality

Standard Caltrans temporary construction site and permanent design pollution prevention and permanent storm water treatment best management practices would be used during and after construction of the project to control potential discharges of pollutants to surface water. Best management practices would be designed with the goal of controlling general gross pollutants or sedimentation and siltation, depending on location. The required Storm Water Pollution Prevention Plan would address all the best management plans necessary to prevent water quality impacts during construction of the project. In addition, buffers from sensitive resources such as wetlands and riparian corridors would be established throughout the project area.

Air Quality

Caltrans Standard Specification sections pertaining to dust control and dust palliative applications are required for all construction contracts and would effectively reduce and control construction-emission impacts. The provisions of Caltrans Standard

Specifications, Section 14 “Air Pollution Control” and Section 10 “Dust Control,” require the contractor to comply with all California Air Resources Board and Santa Barbara County Air Pollution Control District rules, ordinances, and regulations.

Noise

No adverse noise impacts from construction are anticipated because construction noise would be minimized by the following measures:

- **Advanced Notice:** The resident engineer shall notify the District 5 Public Information officer to place notice of the proposed project in local news media in advance of construction. The notice will give estimated dates of construction and mention potential noise impacts.
- Construction activities would be minimized near any residential areas during evening, nighttime, weekend, and holiday periods. Noise impacts are typically minimized when construction activities are performed during daytime hours. When possible, noisier construction tasks exceeding 87dBA within 50 feet of residential areas would be limited to weekdays from 7:00 a.m. to 5:00 p.m.
- In the case of construction noise complaints by the public, the construction manager would be notified and the specific noise-producing activity may be changed, altered, or temporarily suspended. District noise staff would be consulted if specific noise-producing activities cannot be adequately reduced in the field.
- All equipment would have sound-control devices no less effective than those provided on the original equipment. All equipment shall operate with muffled exhaust.
- When feasible, the use of loud sound signals such as back-up warning buzzers or alarms would be avoided in favor of light warnings. The exception would be those cases required by safety laws for the protection of personnel.
- As directed by the Caltrans resident engineer, the contractor will implement appropriate additional noise mitigation measures such as notifying adjacent residents in advance of construction work, and installing acoustic barriers around stationary construction noise sources.

2.4 Cumulative Impacts

Regulatory Setting

Cumulative impacts are those that result from past, present, and reasonably foreseeable future actions, combined with the potential impacts of this proposed project. A cumulative effect assessment looks at the collective impacts posed by individual land use plans and projects. Cumulative impacts can result from individually minor but collectively substantial impacts taking place over a period of time.

Cumulative impacts to resources in the project area may result from residential, commercial, industrial, and highway development, as well as from agricultural development and the conversion to more intensive agricultural cultivation. These land use activities can degrade habitat and species diversity through consequences such as displacement and fragmentation of habitats and populations, alteration of hydrology, contamination, erosion, sedimentation, disruption of migration corridors, changes in water quality, and introduction or promotion of predators. They can also contribute to potential community impacts identified for the project, such as changes in community character, traffic patterns, housing availability, and employment.

California Environmental Quality Act (CEQA) Guidelines Section 15130 describes when a cumulative impact analysis is necessary and what elements are necessary for an adequate discussion of cumulative impacts. The definition of cumulative impacts under CEQA can be found in Section 15355 of the CEQA Guidelines.

Affected Environment

Identification of the resources to consider is the first step in preparing a cumulative impact analysis. The proposed project would result in impacts to Southern California steelhead, California red-legged frog, tidewater Goby and their associated riparian and/or aquatic habitats. All of these species are dependent on riparian and aquatic habitat therefore, consideration of the effects of past, present and reasonably foreseeable activities on these habitats and hence these species provided the basis for selection of these resources in this cumulative impact analysis.

The Resource Study Area was identified by considering the effects that past, current and reasonably foreseeable future projects have had or could have on local populations of southern California steelhead, California red-legged frog, Tidewater Gobi, and their associated riparian and aquatic habitat. The boundaries of the Resource Study Area were defined by analyzing topographic maps and determining the flow pattern of waterways leading into Arroyo Burro Creek. The Resource Study Area covers approximately 8,497 acres of land (13.2 square miles) adjacent to and surrounding the project site, encompassing the San Roque Canyon watershed from its headwaters to its confluence with the Pacific Ocean and from the headwaters of San Roque and Arroyo Creeks to their confluences with the project location (Figure 1-3).

Steelhead Trout

Steelhead trout (*Oncorhynchus mykiss irideus*) historically ranged from Alaska southward to the California-Mexico border and were the only abundant salmonid species that occurred naturally within the coast ranges of southern California. With the rise of the human population in southern California in the 20th century and the associated land and water development, steelhead numbers quickly declined, leading to extirpated populations in many watersheds and sporadic and remnant populations in the remaining watersheds.

The decline of steelhead populations can be contributed to several compounding factors including, loss of fresh water and estuarine habitat, restricted access to riverines, introduction of invasive species, and a variety of land use practices that have impacted watershed processes. Much of the steelhead population have declined substantially from their historic numbers and are now at a fraction of their historic population.

In 1996 it was estimated that the total statewide population was 250,000 adults, less than half the population estimate in 1966.

Steelhead in southern California comprise a “distinct population segment” (DPS) that is ecologically discrete from the other populations of *O. mykiss* along the West Coast of North America. In 1997 the Southern California Steelhead DPS was listed as an endangered species. All populations of steelhead occurring within the Southern California Steelhead DPS, which is defined as the geographic region including the Santa Maria River (north of Point Sal) in Santa Barbara County south to the Tijuana River at the U.S.-Mexico border, are protected under Federal Endangered Species Act. Southern California steelhead is also considered a California Species of Special Concern (SSC) by CDFW.

Following the listing of the southern California steelhead as endangered in 1997, the National Marine Fisheries Service (NMFS) organized a Technical Recovery Team, to develop the scientific information necessary to issue a Recovery Plan. The team released a series of technical memoranda, followed by a Final Recovery Plan, which identified a number of measures designed to assist in the recovery of southern California steelhead. Over the years, researchers from the National Marine Fisheries Service as well as other agencies, organizations, and academic institutions have compiled an increasing amount of research on southern steelhead history, biography, ecology, demographics, behavior, genetics and other topics.

The NMFS has reported that Arroyo Burro has been historically occupied by southern California steelhead. Rainbow trout and anadromous steelhead may have utilized Arroyo Burro extensively in the past when adequate migratory access occurred between the ocean and suitable spawning and rearing habitat in the upper watershed.

It is likely that adult steelhead have attempted to recolonize Arroyo Burro in recent times, but the species may have been blocked at the Cliff Drive barrier or the next upstream grade control structure.

The number of juvenile steelhead present in the BSA is unknown to NMFS; however, based on similar watershed characteristics and habitat characteristics within the BSA, potential steelhead numbers in Arroyo Burro Creek may be estimated by considering juvenile steelhead abundance data from nearby San Ysidro Creek, located approximately 6 miles east of Arroyo Burro Creek. In 2001, juvenile steelhead abundance was assessed in lower San Ysidro Creek, where over 300 juvenile steelhead were observed along a 3.5-mile stretch of pool and glide. NMFS estimates that up to 10 juvenile steelhead may be present in the work area along Arroyo Burro Creek to be dewatered; adult steelhead are not expected to be present within the BSA during the time of construction activities (June 15 to October 31).

Within a historical context, population levels and habitat quality for this DPS began trending substantially downward in the early 20th century, eventually leading to the original listing of the southern California steelhead evolutionarily significant unit (ESU) (the predecessor to the DPS) as federally endangered under FESA in 1997, designation of critical habitat in 2005, and a final listing determination for the DPS in 2006 (NMFS 2006). The extensive loss and degradation of habitat is one of the leading causes for the decline of steelhead abundance in southern California and listing of the species as endangered. There are few data to suggest that the status of the southern California coast steelhead DPS has changed appreciably (either positively or negatively) since publication of the most recent collections of status reviews.

Arroyo Burro Creek has been subjected to disturbances typical of the various drainages within the southern California coast DPS, including water quality degradation, habitat degradation and/or loss, and passage barriers. While construction and ongoing impassable presence of highway projects have rendered habitats inaccessible to adult steelhead, there are reasons to believe that recent actions and the proposed project may result in beneficial impacts for steelhead and steelhead habitat.

Tidewater Goby

The tidewater goby was listed as a federally endangered species in March of 1994 and is considered a California Species of Special Concern.

The tidewater goby is typically found within the estuarine habitat of lower reaches of coastal streams. Common features of tidewater goby habitat include shallow water with little to no flow and fine sediment such as sand, mud, or muddy gravel. The species tends to avoid currents and concentrate in slack-water areas. The tidewater goby is most commonly found in waters with relatively low salinities (less than 10 to 12 parts per thousand [ppt]), but can tolerate a wide range of salinities, and is frequently found in coastal habitats with higher salinity levels up to 42 ppt. The

tidewater goby also occurs in freshwater streams up-gradient and tributary to brackish habitats with salinities less than 0.5 ppt.

Tidewater goby historically occurred in at least 87 California coastal lagoons from San Diego County to Humboldt County, but has disappeared from most of these sites due to habitat loss and various anthropogenic factors. Many populations are isolated along the California coast by open ocean and are subject to intermittent extirpations.

Considering all of the known historical and currently occupied sites, tidewater gobies have been documented at 135 localities. Of these localities, gobies have been extirpated from 21 (16 percent), for a total of 114 localities that are known to be currently occupied; however, these localities are not regularly monitored, so the status of tidewater goby in many of these places may have changed since they were last surveyed.

While no tidewater gobies were observed during recent reconnaissance surveys of the BSA, the species was reported from Arroyo Burro lagoon during surveys conducted in 2004 and is inferred to still occur within the lagoon and make occasional migrations upstream. Little data is available from USFWS regarding the presence and health of tidewater goby in Arroyo Burro Creek in recent years. The species' status in Arroyo Burro Creek was not addressed in the most recent 5-year review but USFWS indicated that Arroyo Burro Creek was currently occupied by tidewater goby in 2013. Because of the lack of site specific data, and because goby populations fluctuate dramatically over time, it is difficult to accurately quantify the number of individuals that may be present within the BSA. Regardless, tidewater goby presence along Arroyo Burro Creek is anticipated to be very low upstream of the lagoon where the BSA occurs

California Red-Legged Frog

The California red-legged frog was listed as a federally threatened species in May of 1996 and is considered a California Species of Special Concern.

The California red-legged frog historically ranged from Marin County southward to northern Baja California. It is estimated that this species has been eliminated from approximately 70% of its historic range due to habitat loss and destruction and possibly due to the introduction of predatory species such as the American bullfrog.

Presently, Monterey, San Luis Obispo, and Santa Barbara Counties support the largest remaining California red-legged populations within California. California red-legged frogs use a variety of areas, including aquatic, riparian, and upland habitats. They prefer aquatic habitats with little or no flow and the presence of fairly sturdy underwater supports such as cattails (*Typha spp.*). The largest densities of this species are typically associated with dense stands of overhanging willows and an intermixed fringe of sturdy emergent vegetation.

USFWS approved a Final Recovery Plan for this species on September 12, 2002. In areas that have been designated critical habitat, some form of management will need to take place to address current and future threats to the species and maintain the physical and biological features necessary for conservation of the species. According to the Recovery Plan for the California Red-legged Frog, delisting of the species could occur by 2025 if recovery criteria are met.

No California red-legged frogs were observed during reconnaissance surveys of the BSA. There are no CNDDDB records for California red-legged frog along Arroyo Burro Creek and the nearest CNDDDB record for the species is approximately 5.8 miles to the northwest near Montecito. Other than anecdotal information from other investigators regarding, the data are sparse regarding the presence and health of California red-legged frogs along Arroyo Burro Creek in recent years. If California red-legged frogs are present along Arroyo Burro Creek, their numbers are anticipated to be low.

Environmental Consequences

Information on past, current and reasonably foreseeable future projects was gathered from the City of Santa Barbara Public Works Department, National Oceanic and Atmospheric Administration, California Department of Fish and Wildlife, the Regional Water Quality Control Board, the United States Army Corps of Engineers, the U.S. Fish and Wildlife Service as well as from Caltrans' Encroachment Permits Branch and Transportation Planning Department.

The following current and reasonably foreseeable projects within the resource study area have been identified and include:

- City of Santa Barbara Braemar Forcemain No. 2 is currently extending 3,300 feet of sewer pipeline from Alan Road to the Corner of Cliff Drive. A Biological Assessment was prepared for this project.
- City of Santa Barbara is proposing a stream restoration project in Arroyo Burro Creek north of State Route 192/Foothill Road. An Army Corps of Engineers and State Water Resource Control Board permit application has been submitted.
- City of Santa Barbara is proposing a multi-use pedestrian path along Las Positas Road. The project is currently in development and studies are still being completed.
- Santa Barbara County Weed Management Area (SBCWMA) and the City of Santa Barbara implemented an *Arundo donax* Removal Project along 0.5-1.0 mile of Arroyo Burro Creek between January 2002 and July 2004.
- City of Santa Barbara (City) conducted restoration activities at Arroyo Burro County Beach Park. Work began in July of 2004 and construction lasted five

months. Water quality and biological monitoring (tidewater goby) occurred for 3 years. A Biological Opinion was prepared for this project.

Steelhead Trout

Temporary impacts to steelhead trout habitat and individuals may result during construction of the proposed Las Positas Retaining Wall Project. Temporary impacts would occur due to the need to dewater the creek channel and to relocate any individuals found before and potentially during the dewatering process. There will also be temporary impacts through removal of existing riparian vegetation for construction of the temporary bench. Potential impacts related to concrete, oil/gas, or other chemical spills from construction activities could have the greatest impact to aquatic species if the spill entered Arroyo Burro Creek. After repairing the existing retaining wall invasive species will be eradicated within the project limits and revegetated with native species and will result in long term benefits to steelhead trout habitat. There will be no loss of acreage to aquatic habitat as a result of implementation of the retaining wall. By incorporating measures listed in Section 2.2 the project is not expected to contribute to adverse cumulative impacts to steelhead trout or their habitat.

The City of Santa Barbara Braemar Foremain No. 2 project has one component that will span under and across the Cliff Drive bridge temporarily impacting approximately 22 linear feet or 144 square feet of existing arroyo willow riparian and aquatic habitat. Potential impacts related to concrete, oil/gas, or other chemical spills from construction activities could have the greatest impact to aquatic species if the spill entered Arroyo Burro Creek. Temporary, indirect impacts are expected to affect wildlife species within Arroyo Burro Creek and its riparian habitat. By incorporating measures listed in the Biological Assessment the project is not expected to contribute to an adverse cumulative impacts to steelhead trout and its habitat.

The City of Santa Barbara's proposed Arroyo Burro Creek stream restoration just north of State Route 192/Foothill Road will temporarily affect 1,008 linear feet (0.4 acres) of jurisdictional waters of Arroyo Burro Creek by removing approximately 870 cubic yards of sediment and soil, removing existing degraded structures, widening the stream and modifying the slopes of the stream bank. Approximately 180 cubic yards of ungrouted rock would be placed to create seven grade control weirs with five woody debris piles to increase habitat complexity. The proposed project also will establish a seasonal wetland with the removed sediment and soil east of the stream, remove invasive vegetation and revegetate disturbed areas with native species. The restoration site will be monitored for 5 years. The restoration project will have temporary impacts during removal of the dirt and sediment, modifying the stream and slopes and installation of the weirs and debris piles; however, this project would ultimately provide a beneficial cumulative contribution to steelhead trout habitat within the resource area.

The City of Santa Barbara's multi-use path is currently in development and is scheduled to be completed with design in spring 2017. The proposed project will be

approximately 2.6 miles and include construction of a multi-use path, sidewalk/curbs/gutters, ADA bike/ped crossings, retaining walls, tree/vegetation removal, culvert modifications and a potential creek crossing. The city is currently preparing an environmental document to disclose potential environmental impacts that could result from the project. The proposed project as stated in the 2040 Santa Barbara County Regional Transportation Plan and Sustainable Communities Strategy Final Impact Report is expected to mitigate impacts to a level of insignificance. Temporary, indirect impacts are expected to affect wildlife species within Arroyo Burro Creek and its riparian habitat. By incorporating measures to reduce potential impacts to a level of insignificance the project is not expected to contribute to adverse cumulative impacts to steelhead trout and its habitat.

The Santa Barbara County Weed Management Area (SBCWMA) and the City of Santa Barbara *Arundo donax* Removal Project, enhanced and restored native habitat in the Arroyo Burro Creek watershed by eradicating invasive non-native vegetation. The primary removal method was to use foliar spray, mow/mulch, allow resprouting and spray the resprouts. Larger stands in accessible areas were mowed and mulched in place with a hammer flail mower. Potential impacts related to oil/gas, or other chemical spills from eradication activities could have had the greatest impact to aquatic species if the spill entered Arroyo Burro Creek. Removing invasive species and enhancing Arroyo Burro Creek by revegetating with native species ultimately provided a beneficial cumulative contribution to steelhead trout habitat within the resource area.

The City of Santa Barbara conducted restoration activities at Arroyo Burro Beach Park by removing a 300 foot long storm drain and creating a new earthen channel, grading the estuary bank to expand wetlands, removing non-native plant species and planting native species, installing a ultraviolet disinfection system to treat low flows, temporary dewatering of Arroyo Burro Estuary and Mesa Creek, stabilizing creek banks and modifying an existing concrete apron to improve fish passage under Cliff Drive. The total area affected by restoration activities encompassed approximately 1.2 acres. There were temporary impacts that could have occurred such as the noise due to construction, trash left during or after project activities, predators, removal of a culvert, channelizing, grading, stabilization of eroding creek banks, dewatering activities involving pump intakes, handling and relocating Steelhead Trout, and modification of the concrete apron to improve fish passage. The restoration project had potential temporary impacts during construction activities; however, this project ultimately provided a beneficial cumulative contribution to steelhead trout habitat within the resource area.

Based on the analysis of cumulative impacts to steelhead trout in the Resource Study Area, although there appears to have been a historically significant cumulative impact to steelhead trout and their habitat, this analysis has found that the negative impacts have stabilized and with the trend towards improved habitat, that there is not a significant cumulative impact on steelhead trout or their habitat within the Resource Study Area. The proposed Las Positas Retaining Wall Project would not contribute to a significant adverse cumulative impact to steelhead trout. The proposed project is

expected to result in a cumulative benefit to steelhead habitat by eradicating invasive species and vegetating with native species.

Tidewater Goby

Temporary impacts to tidewater goby habitat and individuals may result during construction of the proposed Las Positas Retaining Wall Project. Temporary impacts would occur due to the need to dewater the creek channel and to relocate any individuals found before and potentially during the dewatering process. There will also be temporary impacts through removal of existing riparian vegetation for construction of the temporary bench. Potential impacts related to concrete, oil/gas, or other chemical spills from construction activities could have the greatest impact to aquatic species if the spill entered Arroyo Burro Creek. After repairing the existing retaining wall invasive species will be eradicated within the project limits and revegetated with native species and will result in long term benefits to tidewater goby habitat. There will be no loss of acreage to aquatic habitat as a result of implementation of the retaining wall. By incorporating measures listed in Section 2.2 the project is not expected to contribute to adverse cumulative impacts to tidewater goby or their habitat.

The City of Santa Barbara Braemar Forcemain No. 2 project has one component that will span under and across the Cliff Drive bridge temporarily impacting approximately 22 linear feet or 144 square feet of existing arroyo willow riparian and aquatic habitat. Potential impacts related to concrete, oil/gas, or other chemical spills from construction activities could have the greatest impact to aquatic species if the spill entered Arroyo Burro Creek. Temporary, indirect impacts are expected to affect wildlife species within Arroyo Burro Creek and its riparian habitat. By incorporating measures listed in the Biological Assessment the project is not expected to contribute to an adverse cumulative impacts to tidewater goby and its habitat.

The City of Santa Barbara's proposed stream restoration just north of State Route 192/Foothill Road will temporarily affect 1,008 linear feet (0.4 acres) of jurisdictional waters of Arroyo Burro Creek by removing approximately 870 cubic yards of sediment and soil, removing existing degraded structures, widening the stream and modifying the slopes of the stream bank. Approximately 180 cubic yards of ungrouted rock would be placed to create seven grade control weirs with five woody debris piles to increase habitat complexity. The proposed project also will establish a seasonal wetland with the removed sediment and soil east of the stream, remove invasive vegetation and revegetate disturbed areas with native species. The restoration site will be monitored for 5 years. The restoration project will have temporary impacts during removal of the dirt and sediment, modifying the stream and slopes and installation of the weirs and debris piles; however, this project would ultimately provide a beneficial cumulative contribution to tidewater goby habitat within the resource area.

The City of Santa Barbara's multi-use path is currently in development and is scheduled to be completed with design in spring 2017. The proposed project will be

approximately 2.6 miles and include construction of a multi-use path, sidewalk/curbs/gutters, ADA bike/ped crossings, retaining walls, tree/vegetation removal, culvert modifications and a potential creek crossing. The city is currently preparing an environmental document to disclose potential environmental impacts that could result from the project. The proposed project as stated in the 2040 Santa Barbara County Regional Transportation Plan and Sustainable Communities Strategy Final Impact Report is expected to mitigate impacts to a level of insignificance. Temporary, indirect impacts are expected to affect wildlife species within Arroyo Burro Creek and its riparian habitat. By incorporating measures to reduce potential impacts to a level of insignificance the project is not expected to contribute to an adverse cumulative impact to tidewater goby and its habitat.

The Santa Barbara County Weed Management Area (SBCWMA) and the City of Santa Barbara *Arundo donax* Removal Project, enhanced and restored native habitat in the Arroyo Burro Creek watershed by eradicating invasive non-native vegetation. The primary removal method was to use foliar spray, mow/mulch, allow resprouting and spray the resprouts. Larger stands in accessible areas were mowed and mulched in place with a hammer flail mower. Potential impacts related to oil/gas, or other chemical spills from eradication activities could have had the greatest impact to aquatic species if the spill entered Arroyo Burro Creek. Removing invasive species and enhancing Arroyo Burro Creek by revegetating with native species ultimately provided a beneficial cumulative contribution to tidewater goby habitat within the resource area.

The City of Santa Barbara conducted restoration activities at Arroyo Burro Beach Park by removing a 300 foot long storm drain and creating a new earthen channel, grading the estuary bank to expand wetlands, removing non-native plant species and planting native species, installing a ultraviolet disinfection system to treat low flows, temporary dewatering of Arroyo Burro Estuary and Mesa Creek, stabilizing creek banks, and modifying an existing concrete apron to improve fish passage under Cliff Drive. The total area affected by restoration activities encompassed approximately 1.2 acres. There were temporary impacts that could have occurred such as the noise due to construction, trash left during or after project activities, predators, removal of a culvert, channelizing, grading, stabilization of eroding creek banks, dewatering activities involving pump intakes, handling and relocating tidewater gobies, and modification of the concrete apron to improve fish passage. The restoration project had potential temporary impacts during construction activities; however, this project ultimately provided a beneficial cumulative contribution to tidewater goby habitat within the resource area.

Based on the analysis of cumulative impacts to tidewater goby in the Resource Study Area, although there appears to have been a historically significant cumulative impact to tidewater goby and their habitat, this analysis has found that the negative impacts have stabilized and with the trend towards improved habitat, that there is not a significant cumulative impact on tidewater goby or their habitat within the Resource Study Area. The proposed Las Positas Retaining Wall Project would not contribute to a significant adverse cumulative impact to tidewater goby. The proposed project is

expected to result in a cumulative benefit to tidewater goby habitat by eradicating invasive species and vegetating with native species.

California Red-Legged Frog

Temporary impacts to California red-legged frog habitat and individuals may result during construction of the proposed Las Positas Retaining Wall Project. Temporary impacts would occur due to the need to dewater the creek channel and to relocate any individuals found before and potentially during the dewatering process. There will also be temporary impacts through removal of existing riparian vegetation for construction of the temporary bench. Potential impacts related to concrete, oil/gas, or other chemical spills from construction activities could have the greatest impact to aquatic species if the spill entered Arroyo Burro Creek. After repairing the existing retaining wall invasive species will be eradicated within the project limits and revegetated with native species and will result in long term benefits to California Red-Legged Frog habitat. There will be no loss of acreage to aquatic habitat as a result of implementation of the retaining wall. By incorporating measures listed in Section 2.2 the project is not expected to contribute to adverse cumulative impacts to California red-legged frog or their habitat.

The City of Santa Barbara Braemar Forcemain No. 2 project has one component that will span under and across the Cliff Drive bridge temporarily impacting approximately 22 linear feet or 144 square feet of existing arroyo willow riparian and aquatic habitat. Potential impacts related to concrete, oil/gas, or other chemical spills from construction activities could have the greatest impact to aquatic species if the spill entered Arroyo Burro Creek. Temporary, indirect impacts are expected to affect wildlife species within Arroyo Burro Creek and its riparian habitat. By incorporating measures listed in the Biological Assessment the project is not expected to contribute to an adverse cumulative impact to California red-legged frog and its habitat.

The City of Santa Barbara's proposed stream just north of State Route 192/Foothill Road restoration will temporarily affect 1,008 linear feet (0.4 acres) jurisdictional waters of Arroyo Burro Creek by removing approximately 870 cubic yards of sediment and soil, removing existing degraded structures, widening the stream and modifying the slopes of the stream bank. Approximately 180 cubic yards of ungrouted rock would be placed to create seven grade control weirs with five woody debris piles to increase habitat complexity. The proposed project also will establish a seasonal wetland with the removed sediment and soil east of the stream, remove invasive vegetation and revegetate disturbed areas with native species. The restoration site will be monitored for 5 years. The restoration project will have temporary impacts during removal of the dirt and sediment, modifying the stream and slopes and installation of the weirs and debris piles; however, this project would ultimately provide a beneficial cumulative contribution to California red-legged frog habitat within the resource area

The City of Santa Barbara's multi-use path is currently in development and is scheduled to be completed with design in spring 2017. The proposed project will be

approximately 2.6 miles include and construction of a multi-use path, sidewalk/curbs/gutters, ADA bike/ped crossings, retaining walls, tree/vegetation removal, culvert modifications and a potential creek crossing. The city is currently preparing an environmental document to disclose potential environmental impacts that could result from the project. The proposed project as stated in the 2040 Santa Barbara County Regional Transportation Plan and Sustainable Communities Strategy Final Impact Report is expected to mitigate impacts to a level of insignificance. Temporary, indirect impacts are expected to affect wildlife species within Arroyo Burro Creek and its riparian habitat. By incorporating measures to reduce potential impacts to a level of insignificance the project is not expected to contribute to an adverse cumulative impact to California red-legged frog and its habitat.

The Santa Barbara County Weed Management Area (SBCWMA) and the City of Santa Barbara *Arundo donax* Removal Project, enhanced and restored native habitat in the Arroyo Burro Creek watershed by eradicating invasive non-native vegetation. The primary removal method was to use foliar spray, mow/mulch, allow resprouting and spray the resprouts. Larger stands in accessible areas were mowed and mulched in place with a hammer flail mower. Potential impacts related to oil/gas, or other chemical spills from eradication activities could have had the greatest impact to aquatic species if the spill entered Arroyo Burro Creek. Removing invasive species and enhancing Arroyo Burro Creek by revegetating with native species ultimately provided a beneficial cumulative contribution to California red-legged frog habitat within the resource area.

The City of Santa Barbara conducted restoration activities at Arroyo Burro Beach Park by removing a 300 foot long storm drain and creating a new earthen channel, grading the estuary bank to expand wetlands, removing non-native plant species and planting native species, installing a ultraviolet disinfection system to treat low flows, temporary dewatering of Arroyo Burro Estuary and Mesa Creek, stabilizing creek banks and modifying an existing concrete apron to improve fish passage under Cliff Drive. The total area affected by restoration activities encompassed approximately 1.2 acres. There were temporary impacts that could have occurred such as the noise due to construction, trash left during or after project activities, predators, removal of a culvert, channelizing, grading, stabilization of eroding creek banks, dewatering activities involving pump intakes, handling and relocating California red-legged frog, and modification of the concrete apron to improve fish passage. The restoration project had potential temporary impacts during construction activities; however, this project ultimately provided a beneficial cumulative contribution to California red-legged frog habitat within the resource area.

Based on the analysis of cumulative impacts to California red-legged frog in the Resource Study Area, although there appears to have been a historically significant cumulative impact to California red-legged frog and their habitat, this analysis has found that the negative impacts have stabilized and with the trend towards improved habitat, that there is not a significant cumulative impact on California red-legged frog or their habitat within the Resource Study Area. The proposed Las Positas Retaining Wall Project would not contribute to a significant adverse cumulative impact to

California red-legged frog. The proposed project is expected to result in a cumulative benefit to California red-legged frog habitat by eradicating invasive species and revegetating with native species.

Avoidance, Minimization, and/or Mitigation Measures

Although the project will result in temporary impacts to the riparian corridor along Arroyo Burro Creek, these impacts will be offset by replanting on a 1:1 ratio, eradicating invasive species, revegetating with native species and by implementing all measures listed in 2.2 Biological Environment. Implementation and construction of the build alternative or No-Build Alternative would not have a long-term cumulative impact on protected resources within the resource study area, therefore no further mitigation is required.

2.5 Climate Change

Regulatory Setting

Climate change refers to long-term changes in temperature, precipitation, wind patterns, and other elements of the earth's climate system. An ever-increasing body of scientific research attributes these climatological changes to greenhouse gas (GHG) emissions, particularly those generated from the production and use of fossil fuels. Research from such establishments as the Intergovernmental Panel on Climate Change (IPCC) are primarily concerned with the emissions of GHGs generated by human activity including carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), tetrafluoromethane, hexafluoroethane, sulfur hexafluoride (SF₆), HFC-23 (fluoroform), HFC-134a (s, s, s, 2-tetrafluoroethane), and HFC-152a (difluoroethane).

In the U.S., the main source of GHG emissions is electricity generation, followed by transportation. In California, however, transportation sources (including passenger cars, light duty trucks, other trucks, buses, and motorcycles make up the largest source (second to electricity generation) of GHG emitting sources. The dominant GHG emitted is CO₂, mostly from fossil fuel combustion.

There are four primary strategies for reducing GHG emissions from transportation sources: 1) improving the transportation system and operational efficiencies, 2) reducing growth of vehicle miles traveled (VMT), 3) transitioning to lower GHG emitting fuels, and 4) improving vehicle technologies. To be most effective all four strategies should be pursued collectively. The following Regulatory Setting section outlines state and federal efforts to comprehensively reduce GHG emissions from transportation sources.

Regulatory Setting

State

With the passage of several pieces of legislation including State Senate and Assembly bills and Executive Orders, California launched an innovative and pro-active

approach to dealing with GHG emissions and climate change. Relevant legislation include the following policies:

- Assembly Bill 1493 (AB 1493), Pavley.
- Executive Order (EO) S-3-05: (signed on June 1, 2005, by former Governor Arnold Schwarzenegger)
- AB 32, the Global Warming Solutions Act of 2006, Núñez and Pavley
- Executive Order S-20-06: (signed on October 18, 2006 by former Governor Arnold Schwarzenegger)
- Executive Order S-01-07: (signed on January 18, 2007 by former Governor Arnold Schwarzenegger)
- Senate Bill 97 (SB 97) Chapter 185, 2007
- Caltrans Director's Policy 30 (DP-30) Climate Change (approved June 22, 2012): is intended to establish a Department policy that will ensure coordinated efforts to incorporate climate change into Departmental decisions and activities. This policy contributes to the Department's stewardship goal to preserve and enhance California's resources and assets.

Federal

Although climate change and GHG reduction is a concern at the federal level; currently there are no regulations or legislation that have been enacted specifically addressing GHG emissions reductions and climate change at the project level. Neither the United States Environmental Protection Agency (U.S. EPA) nor the Federal Highway Administration (FHWA) has promulgated explicit guidance or methodology to conduct project-level GHG analysis. As stated on FHWA's climate change website (<http://www.fhwa.dot.gov/hep/climate/index.htm>), climate change considerations should be integrated throughout the transportation decision-making process—from planning through project development and delivery. Despite the lack of Federal GHG regulations and legislation, FHWA as well as the National Highway Traffic Safety Administration (NHTSA) and U.S. EPA are taking steps to lessen climate change impacts by improving transportation system efficiency, creating cleaner fuels, reducing the growth of vehicle hours travelled, and enabling the production of a new generation of clean vehicles with reduced GHG emissions and improved fuel efficiency from on-road vehicles and engines.

Project Analysis

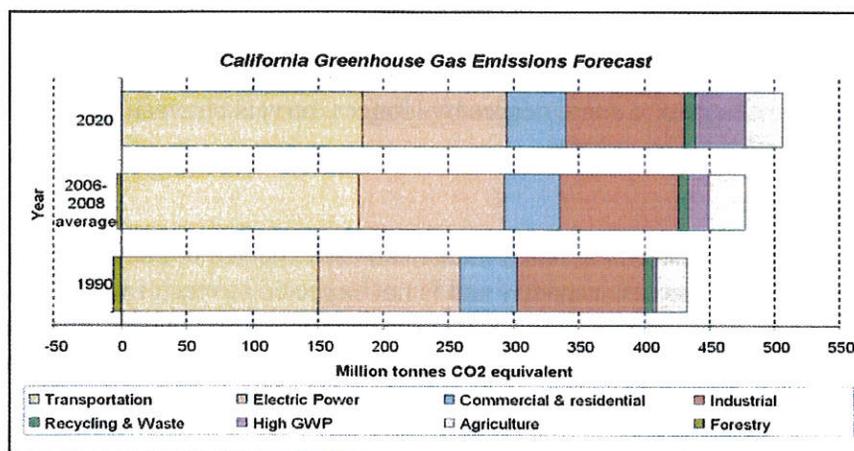
An individual project does not generate enough GHG emissions to significantly influence global climate change. Rather, global climate change is a cumulative impact. This means that a project may contribute to a potential impact through its *incremental* change in emissions when combined with the contributions of all other sources of GHG.¹ In assessing cumulative impacts, it must be determined if a

¹ This approach is supported by the AEP: *Recommendations by the Association of Environmental Professionals on How to Analyze GHG Emissions and Global Climate Change*

project's incremental effect is "cumulatively considerable" (CEQA Guidelines sections 15064(h)(1) and 15130). To make this determination the incremental impacts of the project must be compared with the effects of past, current, and probable future projects. To gather sufficient information on a global scale of all past, current, and future projects in order to make this determination is a difficult, if not impossible, task.

The [AB 32](#) Scoping Plan mandated by AB 32 contains the main strategies California will use to reduce GHG emissions. As part of its supporting documentation for the Draft Scoping Plan, ARB released the GHG inventory for California (forecast last updated: October 28, 2010). The forecast is an estimate of the emissions expected to occur in the year 2020 if none of [the foreseeable measures included in the Scoping Plan](#) were implemented. The base year used for forecasting emissions is the average of statewide emissions in the GHG inventory for 2006, 2007, and 2008.

California Greenhouse Gas Forecast



Source: <http://www.arb.ca.gov/cc/inventory/data/forecast.htm>

The Department and its parent agency, the Business, Transportation, and Housing Agency, have taken an active role in addressing GHG emission reduction and climate change. Recognizing that 98 percent of California's GHG emissions are from the burning of fossil fuels and 40 percent of all human made GHG emissions are from

in CEQA Documents (March 5, 2007), as well as the South Coast Air Quality Management District (Chapter 6: The CEQA Guide, April 2011) and the US Forest Service (Climate Change Considerations in Project Level NEPA Analysis, July 13, 2009).

transportation, the Department has created and is implementing the [Climate Action Program at Caltrans](#) that was published in December 2006.²

The purpose of the project is to remove the existing retaining wall and construct a new soil nail wall in the same alignment. No additional lanes are planned to be constructed. The capacity of the roadway will not increase with this project, therefore the operation of this project is not expected to generate an increase in GHG emissions.

Construction Emissions

Greenhouse gas emissions for transportation projects can be divided into those produced during construction and those produced during operations. Construction GHG emissions include emissions produced as a result of material processing, emissions produced by onsite construction equipment, and emissions arising from traffic delays due to construction. These emissions will be produced at different levels throughout the construction phase; their frequency and occurrence can be reduced through innovations in plans and specifications and by implementing better traffic management during construction phases.

In addition, with innovations such as longer pavement lives, improved traffic management plans, and changes in materials, the GHG emissions produced during construction can be mitigated to some degree by longer intervals between maintenance and rehabilitation events.

CEQA Conclusion

Although construction emissions are unavoidable and are expected to be minimal, the proposed project will not increase capacity and is not expected to result in additional operational CO₂ emissions. However, it is Caltrans determination that in the absence of further regulatory or scientific information related to greenhouse gas emissions and CEQA significance, it is too speculative to make a determination regarding significance of the project's direct impact and its contribution on the cumulative scale to climate change. However, Caltrans is firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the following section.

Greenhouse Gas Reduction Strategies

There are typically two terms used when discussing the impacts of climate change. "Greenhouse Gas Mitigation" is a term for reducing GHG emissions in order to reduce or "mitigate" the impacts of climate change. "Adaptation," refers to the effort of planning for and adapting to impacts resulting from climate change (such as

² Caltrans Climate Action Program is located at the following web address:
http://www.dot.ca.gov/hq/tpp/offices/ogm/key_reports_files/State_Wide_Strategy/Caltrans_Climate_Action_Program.pdf

adjusting transportation design standards to withstand more intense storms and higher sea levels)³.

Greenhouse Gas Mitigation

AB 32 Compliance

The Department continues to be actively involved on the Governor's Climate Action Team as ARB works to implement Executive Orders S-3-05 and S-01-07 and help achieve the targets set forth in AB 32. Many of the strategies the Department is using to help meet the targets in AB 32 come from the California Strategic Growth Plan, which is updated each year.

The following measures will be included in the project to reduce the GHG emissions and potential climate change impacts from the project:

1. According to the Department's Standard Specifications, the contractor must comply with all of the Santa Barbara County Air Pollution Control District rules, ordinances, and regulations regarding to air quality restrictions.
2. Caltrans Standard Specifications, a required part of all construction contracts, should effectively reduce and control emission impacts during construction under the provisions of Section 7-1.02C "Emission Reduction" and Section 14-9.03 "Dust Control". Provision 14-9.02 "Air Pollution Control" requires the contractor to comply with all pertinent rules, regulations, ordinances, and statutes of the local air district.
3. Compliance with Title 13, California Code of Regulations §2449(d)(3)— Adopted by the Air Resources Board on June 15, 2008, this regulation would restrict idling of construction vehicles to no longer than 5 consecutive minutes. The Contractor must comply with this regulation in order to reduce harmful emissions from diesel-powered construction vehicles.
4. The Project will involve removal of trees and vegetation. Caltrans is committed to replanting the removed vegetation.

Adaptation Strategies

"Adaptation strategies" refer to how the Department and others can plan for the effects of climate change on the state's transportation infrastructure and strengthen or protect the facilities from damage. Climate change is expected to produce increased variability in precipitation, rising temperatures, rising sea levels, variability in storm surges and intensity, and the frequency and intensity of wildfires. These changes may affect the transportation infrastructure in various ways, such as damage to roadbeds from longer periods of intense heat; increasing storm damage from flooding and erosion; and inundation from rising sea levels. These effects will vary by location and may, in the most extreme cases, require that a facility be relocated or redesigned.

³ http://climatechange.transportation.org/ghg_mitigation/

There may also be economic and strategic ramifications as a result of these types of impacts to the transportation infrastructure.

Interim guidance has been released by The Coastal Ocean Climate Action Team (CO-CAT) as well as the Department as a method to initiate action and discussion of potential risks to the states infrastructure due to projected sea level rise.

All projects that have filed a Notice of Preparation as of the date of EO S-13-08, and/or are programmed for construction funding from 2008 through 2013, or are routine maintenance projects may, but are not required to, consider these planning guidelines.

In order to determine the potential for sea level rise impacts within the proposed project area, given the proposed project location is within the coastal zone, maps were reviewed and it was determined that that proposed project is not expected to be within an area directly affected by sea level rise.

Executive Order S-13-08 also directed the Business, Transportation, and Housing Agency to prepare a report to assess vulnerability of transportation systems to sea level rise affecting safety, maintenance and operational improvements of the system, and economy of the state. The Department continues to work on assessing the transportation system vulnerability to climate change, including the effect of sea level rise

Chapter 3 **Comments and Coordination**

Early and continuing coordination with the general public and public agencies is an essential part of the environmental process. It helps planners determine the necessary scope of environmental documentation and the level of analysis required, and to identify potential impacts and avoidance, minimization and/or mitigation measures and related environmental requirements. Agency consultation and public participation for this project have been accomplished through a variety of formal and informal methods, including Project Development Team (PDT) meetings, interagency coordination meetings. This chapter summarizes the results of the Department's efforts to fully identify, address, and resolve project-related issues through early and continuing coordination.

Coordination History

November 20, 2012: Geoff Hoetker (consultant biologist representing Caltrans District 5) submitted an online request through the USFWS IPaC website for an official USFWS species list for the project area.

December 10, 2012: Geoff Hoetker received an official USFWS species list for the project area via letter (USFWS 2012).

February 13, 2013: Geoff Hoetker contacted Rick Farris (USFWS Fish and Wildlife Biologist and Caltrans Liaison) via phone call to discuss federally listed species that could potentially be affected by the project. Mr. Hoetker described to Mr. Farris the site conditions along Arroyo Burro Creek adjacent to SR-225 in Santa Barbara County. Mr. Hoetker explained that since Arroyo Burro Creek supported potential habitat for California red-legged frog and that in-stream work would be required, Caltrans District 5 intended to use the Programmatic Biological Opinion for California red-legged (USFWS 2011) with a "may affect, likely to adversely affect" determination. Mr. Farris agreed that use of the Programmatic Biological Opinion and the effects determination for California red-legged frog were appropriate.

Mr. Hoetker explained to Mr. Farris that Arroyo Burro Creek lagoon was known to support a population of tidewater goby and that the proposed project would occur approximately 0.31 mile upstream from the lagoon. Mr. Farris indicated that the location of the project was close enough to the lagoon to warrant a "may affect, likely to adversely affect" determination for tidewater goby. No surveys would be required because the drainage is considered occupied. Mr. Hoetker inquired about avoidance and minimization measures for tidewater goby, and Mr. Farris responded that during stream diversion/dewatering tidewater gobies should be rescued (e.g., with nets) and relocated to suitable habitat downstream. Mr. Farris also stated that at least one biologist involved with the tidewater goby rescue and relocation effort would need past experience with the species to get formally approved by USFWS in a Biological Opinion for the relocation effort. Mr. Hoetker explained that standard Caltrans District 5 avoidance and minimization measures used for steelhead trout would likely also be applied to tidewater goby, and Mr. Farris agreed with this strategy.

Finally, Mr. Hoetker stated that least Bell's vireo appeared on the official USFWS species list for the project and whether protocol surveys for the species would be advised. Mr. Hoetker explained that the riparian corridor of Arroyo Burro Creek is heavily degraded with an abundance of blue gum eucalyptus trees (*Eucalyptus globulus*) and giant reed (*Arundo donax*). Mr. Hoetker's opinion was that Arroyo Burro Creek is not suitable least Bell's vireo habitat, based on his observations of occupied least Bell's vireo habitat in San Diego County, and that protocol surveys were not warranted along Arroyo Burro Creek. Mr. Farris responded that although least Bell's vireo had been known to occasionally nest in giant reed and other marginal habitats in Santa Barbara County, the description of Arroyo Burro Creek provided by Mr. Hoetker suggested that it was not likely to be suitable occupied habitat and that protocol surveys would not be necessary. Mr. Farris recommended a "may affect, not likely to adversely affect" determination for least Bell's vireo. In addition, Mr. Hoetker stated that Caltrans District 5 would employ standard nesting bird protection measures to comply with the federal MBTA and California Fish and Game Code, such as removal of vegetation outside of the nesting season (if feasible), pre-construction nesting surveys to confirm absence of nesting birds (if vegetation removal must occur during the nesting bird season), and implementation of construction exclusion zones if active bird nests are observed. Mr. Farris agreed with this strategy, particularly avoidance/minimization of vegetation removal during the nesting bird season.

Mr. Farris followed up the phone call with Mr. Hoetker with an email containing recommended avoidance and minimization measures for tidewater goby, which Caltrans has agreed to implement for the project.

June 7, 2013: Geoff Hoetker contacted Jay Ogawa (NMFS Fisheries Biologist and Caltrans Liaison) via phone call for an informal consultation regarding potential effects of the proposed project on steelhead. Mr. Hoetker proceeded to describe the project and the drainage involved. Mr. Hoetker indicated that based on his background research, Arroyo Burro Creek is known to have historically supported steelhead and currently is within steelhead critical habitat. Mr. Hoetker informed Mr. Ogawa that Caltrans would likely make a "may effect, likely to adversely affect" determination for steelhead.

Mr. Hoetker explained that he had a Biological Assessment Project Description Checklist and briefly went through the list of checklist items with Mr. Ogawa. Mr. Ogawa stated that it would be important to provide the slope of the stream reach, substrate, and general habitat conditions. Mr. Ogawa inquired whether there were any fish passage barriers associated with the project and Mr. Hoetker replied that according to the CDFW Fish Passage Assessment Database (2015), there is a partial barrier downstream of the project site and a total barrier upstream of the project site. Mr. Hoetker explained that there would be no pile driving required for the project and a temporary stream diversion would be implemented to protect Arroyo Burro Creek from debris and work activities associated with the retaining wall repair. Mr. Hoetker inquired about whether any supporting studies would be required and Mr. Ogawa indicated that no in-depth fish passage analysis or hydraulics analysis would be

required as far as NMFS was concerned. Mr. Ogawa indicated that in-stream work would need to be restricted to the dry season from June 15 to October 31. Mr. Ogawa stated that NMFS would like to receive a diversion and dewatering plan to review proposals as to how diversion, dewatering, and fish relocation would be accomplished. Mr. Ogawa mentioned that if stream flow is present, it would need to be maintained to allow for fish passage during diversion/dewatering. Mr. Hoetker inquired about turbidity testing/monitoring and Mr. Ogawa indicated that NMFS would not require turbidity testing/monitoring for a project of this scope as long as there were appropriate measures in place to control sedimentation during construction.

Finally, Mr. Ogawa asked Mr. Hoetker when the project Biological Assessment would be ready for submittal to NMFS. Mr. Hoetker responded that submittal was anticipated to be in late-summer/early-fall 2013, but that could change based on delays in selecting a project design. Mr. Ogawa requested that Mr. Hoetker contact Mr. Ogawa shortly before Biological Assessment submittal so that Mr. Ogawa could schedule his review of the document for processing of a NMFS Biological Opinion for the project.

July 16, 2014: Caltrans submitted a formal request via letter to Jay Ogawa for a NMFS-approved species list for the proposed project.

July 17, 2014: Caltrans submitted a formal request via email to Jeff Phillips (USFWS) to determine whether updates to the USFWS species list was required. Mr. Phillips responded the same day that he was not aware of any new federally listed species occurrences or other information that would require updating the list, and that the list could be considered current and valid.

August 14, 2014: An official species list letter from NMFS was received on August 14, 2014 (NMFS 2014; Appendix C). The letter indicated that no EFH for federally managed species occurs at the proposed project location.

August 13, 2015: Geoff Hoetker requested a USFWS official species list update through IPac, which was received online the same day (IPac 2015; Appendix C).

September 11, 2015: Geoff Hoetker received confirmation from Jay Ogawa (NMFS) that the original NMFS species list remained valid.

December 22, 2015: Caltrans submitted Biological Assessments to USFWS (to facilitate consultation for tidewater goby) and NMFS (to facilitate consultation for steelhead). In the Biological Assessment, Caltrans also requested acknowledgment from USFWS that the Programmatic Biological Opinion for California red-legged frog is applicable for the project.

March 23, 2016: A Biological Opinion (WCR-20 16-4330) for steelhead was received from NMFS on March 23, 2016.

AB 52

In December 2014, a new project alternative identifying a soil nail wall as the preferred alternative prompted a new environmental request be sent out. The new start date then required compliance with AB 52. On March 25, 2015, a letter was sent to the Native American Heritage Commission requesting a search of the Sacred Lands files for the project area. In April 9, 2015, a response was received indicating that the search had failed to indicate the presence of any cultural resources and a contact list was provided of tribal members who may have knowledge of the project area. On April 16, 2015, letters were sent out to folks on the contact list to initiate consultation under Section 106 and AB 52 and to seek information on the project area. Two responses were received and one other contact person was suggested (Table 3.1). No specific concerns were identified and individuals agreed that there are no cultural resources in the project area

Table 3.1 Native American Consultation: Responses

Respondent	Date	Result
Freddie Romero	5/5/15	Mr. Romero deferred to Ms. Janet Garcia for his project area.
Janet Garcia	5/6/15; 5/27/15; 5/29/15	Two messages were left for Ms. Garcia explaining the Mr. Romero suggested she be contacted. No responses from Ms. Garcia to date.
Patrick Tumamait	5/6/15; 6/12/15; 9/28/15; 11/30/15	Mr. Tumamait initially expressed concerns with the tree removal for the project. Project biologist provided a list of all trees to be removed. Terry Joslin, Caltrans D5 Native American Coordinator, called to confirm that Mr. Tumamait has no further concerns.

Chapter 4 **List of Preparers**

This document was prepared by the following Caltrans Central Region staff:

Geoff Hoetker, Consultant Associate Environmental Planner/Biologist. M.S., Biological Sciences, California Polytechnic State University, San Luis Obispo; B.S., Biology, California State University, Bakersfield; 16 years of environmental planning and biological sciences experience. Contribution: Field studies, documentation, regulatory permitting, monitoring, and reporting.

Christina MacDonald, Associate Environmental Planner (Arch). M.A., Cultural Resources Management, Sonoma State University; B.A., Anthropology, University of California, Los Angeles; 17 years of experience in California prehistoric and historical archaeology. Contribution: Screened Undertaking Memo.

Thompson, Wesley, Project Engineer. B.S., Civil Engineering, California Polytechnic State University, San Luis Obispo; 8 years of Design experience, 1 year of Construction experience, and 6 months of Field surveys experience. Contribution: District Project Design.

Schefter, Ed. Senior Transportation Surveyor. B.S., Surveying; 20 years of GPS/GIS (Global Position System/Geographical Information System) experience. Contribution: Prepared mapping for Environmental Assessment/Initial Study and Natural Environment Study.

Leyva, Isaac. Engineering Geologist. B.S., Geology, California State University, Bakersfield; A.S., Cuesta College, San Luis Obispo; 20 years of experience in petroleum geology, environmental, geotechnical engineering. Contribution: Paleontology technical report, Water Quality and Hazardous Waste and Initial Site Assessment.

Fouche, John. Senior Transportation Engineer. Registered Professional Engineer. B.S., Civil Engineering; more than 22 years of experience as a design engineer. Contribution: Design Manager.

Erchul, Benedict, P.E., Civil/Transportation Engineer. B.S., Civil Engineering, California Polytechnic State University, San Luis Obispo; 14 years of experience performing Highway Design, Hydraulic, Hydrologic and Fish Passage Analysis. Contribution: Location Hydraulic Study and Fish Passage Analysis.

Matt Fowler, Senior Environmental Planner. B.S., Geographic Analysis, San Diego State University; 14 years of environmental planning experience. Contribution: Environmental Manager.

Chapter 4 List of Preparers

Mike Thomas, Associate Environmental Planner. B.S., Environmental Horticulture, California Polytechnic State University, San Luis Obispo; Certificate in Project Management, California State University, Sacramento; 15 years of environmental and transportation planning experience. Contribution: Prepared Initial Study.

Joel Kloth, Engineering Geologist. B.S., Geology, California Lutheran University. Thousand Oaks, California; 30 years of environmental hazardous waste experience. Contribution: Initial Site Investigation.

Robert Carr, Landscape Architect Associate. B.S., Landscape Architecture, California Polytechnic State University, San Luis Obispo; over 21 years of experience preparing Visual Impact Assessments. Contribution: Prepared Scenic Resource Evaluation.

Abdulrahim N. Chafi, Ph.D., P.E. Civil/Environmental Engineer. Registered Civil Engineer in the State of California. Ph.D., Environmental Engineering, California Coast University, Santa Ana; B.S., M.S., Chemistry and M.S. Civil/Environmental Engineering, California State University, Fresno; more than 15 years of environmental technical studies experience. Contribution: Air and Noise Assessment.

Vladimir Timofei, Transportation Engineer. M.S., Civil Engineering, California State University, Fullerton; 14 years of environmental technical studies experience. Contribution: Water Quality Assessment.

Appendix A California Environmental Quality Act Checklist

CEQA Environmental Checklist

05-SB-225

1.5

05-1C190

Dist.-Co.-Rte.

P.M/P.M.

E.A.

This checklist identifies physical, biological, social and economic factors that might be affected by the proposed project. In many cases, background studies performed in connection with the projects indicate no impacts. A NO IMPACT answer in the last column reflects this determination. Where there is a need for clarifying discussion, the discussion is included either following the applicable section of the checklist or is within the body of the environmental document itself. The words "significant" and "significance" used throughout the following checklist are related to CEQA, not NEPA, impacts. The questions in this form are intended to encourage the thoughtful assessment of impacts and do not represent thresholds of significance.

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
I. AESTHETICS: Would the project:				
a) Have a substantial adverse effect on a scenic vista	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
 II. AGRICULTURE AND FOREST 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. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. 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?	<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"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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"/>
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 or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

III. 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:

a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

IV. BIOLOGICAL RESOURCES: 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?	<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"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	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 checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>

V. CULTURAL RESOURCES: Would the project:

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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

VI. GEOLOGY AND SOILS: Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>

VII. GREENHOUSE GAS EMISSIONS: Would the project:

- a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
- b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

An assessment of the greenhouse gas emissions and climate change is included in the body of environmental document. While Caltrans has included this good faith effort in order to provide the public and decision-makers as much information as possible about the project, it is Caltrans determination that in the absence of further regulatory or scientific information related to GHG emissions and CEQA significance, it is too speculative to make a significance determination regarding the project's direct and indirect impact with respect to climate change. Caltrans does remain firmly committed to implementing measures to help reduce the potential effects of the project. These measures are outlined in the body of the environmental document.

VIII. HAZARDS AND HAZARDOUS MATERIALS: Would the project:

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- 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?
- 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"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	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 type="checkbox"/>	<input checked="" type="checkbox"/>

IX. HYDROLOGY AND WATER QUALITY: Would the project:

a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

X. LAND USE AND PLANNING: Would the project:

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 type="checkbox"/>	<input checked="" type="checkbox"/>

XI. 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"/>

XII. 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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 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 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"/>
) 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"/>

XIII. POPULATION AND HOUSING: 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"/>

XIV. PUBLIC SERVICES:

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:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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XV. 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 type="checkbox"/> | <input checked="" 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 type="checkbox"/> | <input checked="" type="checkbox"/> |

XVI. TRANSPORTATION/TRAFFIC: 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 type="checkbox"/> | <input checked="" 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 or highways? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" 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"/> |
| f) Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

XVII. UTILITIES AND SERVICE SYSTEMS: Would the project:

- | | | | | |
|--|--------------------------|--------------------------|--------------------------|-------------------------------------|
| a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 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"/> |

	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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 type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XVIII. MANDATORY FINDINGS OF SIGNIFICANCE

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, substantially 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Appendix B Title VI Policy Statement

DEPARTMENT OF TRANSPORTATION

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March 2013

**NON-DISCRIMINATION
POLICY STATEMENT**

The California Department of Transportation, under Title VI of the Civil Rights Act of 1964 and related statutes, ensures that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

For information or guidance on how to file a complaint based on the grounds of race, color, national origin, sex, disability, religion, sexual orientation, or age, please visit the following web page: http://www.dot.ca.gov/hq/bep/tit6_vl/t6_violated.htm.

Additionally, if you need this information in an alternate format, such as in Braille or in a language other than English, please contact the California Department of Transportation, Office of Business and Economic Opportunity, 1823 14th Street, MS-79, Sacramento, CA 95811 Telephone: (916) 324-0449, TTY: 711, or via Fax: (916) 324-1949.

MALCOLM DOUGHERTY
Director

"Caltrans improves mobility across California"

Appendix C Minimization and/or Mitigation Summary

All measures listed are to mitigate all potentially significant CEQA impacts to less than significant.

A. Measures for Potential Jurisdictional Waters and Riparian Habitat

1. Prior to construction, Caltrans shall obtain a Section 404 Nationwide Permit from USACE, a Section 401 Water Quality Certification from RWQCB, a Section 1602 Streambed Alteration Agreement from CDFW, and a Coastal Development Permit (or Waiver) from the CCC.
2. Prior to construction, Caltrans shall prepare a Mitigation and Monitoring Plan (MMP) to mitigate impacts to vegetation and natural habitats. The MMP shall be consistent with federal and state regulatory requirements and will be amended with any regulatory permit conditions, as required. Caltrans shall implement the MMP as necessary during construction and immediately following project completion.
3. Prior to any ground-disturbing activities, ESA fencing shall be installed around jurisdictional waters, coastal zone ESHAs, and the dripline of trees to be protected within project limits. Caltrans-defined ESAs shall be noted on design plans and delineated in the field prior to the start of construction activities.
4. The temporary stream diversion shall be timed to occur between June 15 and October 30 in any given year, or as otherwise directed by the regulatory agencies, when the surface water is likely to be dry or at seasonal minimum. Deviations from this work window will only be made with permission from the relevant regulatory agencies.
5. During construction, all project-related hazardous materials spills within the project site shall be cleaned up immediately. Readily accessible spill prevention and cleanup materials shall be kept by the contractor on-site at all times during construction.
6. During construction, erosion control measures shall be implemented. Silt fencing, fiber rolls, and barriers shall be installed as needed between the project site and jurisdictional other waters and riparian habitat. At a minimum, erosion controls shall be maintained by the contractor on a daily basis throughout the construction period.
7. During construction, the cleaning and refueling of equipment and vehicles shall occur only within a designated staging area and at least 65 ft from other waters or other aquatic areas. The staging areas shall conform to Best

Management Practices (BMPs) applicable to attaining zero discharge of stormwater runoff. At a minimum, all equipment and vehicles shall be checked and maintained by the contractor on a daily basis to ensure proper operation and avoid potential leaks or spills.

8. Stream contours shall be restored as close as possible to their original condition

B. Measures for Steelhead - Southern California DPS

1. Prior to construction, Caltrans shall acquire incidental take authorization for steelhead from NMFS through a FESA Section 7 Biological Opinion and Incidental Take Statement.
2. Prior to initiation of stream diversion/dewatering, Caltrans shall conduct an informal worker environmental training program including a description of steelhead, its legal/protected status, proximity to the project site, avoidance/minimization measures to be implemented during the project, and the implications of violating FESA and permit conditions.
3. During construction, in-stream work shall take place between June 15 and October 31 in any given year, when the surface water within drainages is likely to be dry or at seasonal minimum. Deviations from this work window will only be made with permission from Caltrans and the relevant regulatory/resource agencies.
4. During in-stream work, a Caltrans-approved biologist shall be retained with experience in steelhead biology and ecology, aquatic habitats, biological monitoring (including diversion/dewatering), and capturing, handling, and relocating fish species. During in-stream work, the biological monitor(s) shall continuously monitor placement and removal of any required stream diversions to capture stranded steelhead and other native fish species and relocate them to suitable habitat as appropriate. The biologist(s) shall capture steelhead stranded as a result of diversion/dewatering and relocate steelhead to suitable instream habitat immediately downstream of the work area. The biologist shall note the number of steelhead observed in the affected area, the number of steelhead relocated, and the date and time of the collection and relocation.
5. During in-stream work, if pumps are incorporated to assist in temporarily dewatering the site, intakes shall be completely screened with no larger than 0.2 inch (five mm) wire mesh to prevent steelhead and other sensitive aquatic species from entering the pump system. Pumps shall release the additional water to a settling basin allowing the suspended sediment to settle out prior to re-entering the stream(s) outside of the isolated area. The form and function of all pumps used during the dewatering activities shall be checked daily, at a minimum, by a qualified biological monitor to ensure a dry work environment and minimize adverse effects to aquatic species and habitats.

6. The biological monitor shall monitor erosion and sediment controls to identify and correct any conditions that could adversely affect steelhead or steelhead habitat. The biological monitor shall be granted the authority to halt work activity as necessary and to recommend measures to avoid/minimize adverse effects to steelhead and steelhead habitat.

7. Caltrans shall provide NMFS a written summary of work performed (including biological survey and monitoring results), BMPs implemented (i.e., use of biological monitor, flagging of project areas, erosion and sedimentation controls) and supporting photographs. Furthermore, the documentation describing listed species surveys and re-location efforts (if appropriate) shall include name(s) of the Caltrans-approved biologist(s), location and description of area surveyed, time and date of survey, all survey methods used, a list and tally of all sensitive animal species observed during the survey, a description of the instructions/recommendations given to the applicant during the project, and a detailed discussion of capture and relocation efforts (if appropriate)

8. Caltrans biologist shall identify and evaluate the suitability of downstream steelhead relocation habitat prior to undertaking the dewatering activities that are required to isolate the work area from flowing water. The biologist shall evaluate potential relocation sites based on attributes such as adequate water quality, cover and living space. Multiple relocation habitats may be necessary to prevent overcrowding of a single habitat depending on the number of steelhead captured, current number already occupying the relocation habitat and the size of the receiving habitat.

9. Caltrans' biologist shall provide a written steelhead-relocation report to NMFS within 30 working days following completion of construction each season. The report shall include 1) the number and size of all steelhead relocated during the proposed action; 2) the date and time of the collection and relocation; 3) a description of any problem encountered during the project or when implementing terms and conditions; and 4) any effect of the proposed action on steelhead that was not previously considered. The report shall be sent to Jay Ogawa NMFS, 501 W. Ocean Blvd., Suite 4200, Long Beach, California 90802-4213.

10. Caltrans' biologist shall contact NMFS (Jay Ogawa, 562-980-4061) immediately if one or more steelhead are found dead or injured. The purpose of the contact shall be to review the activities resulting in take and to determine if additional protective measures are required. All steelhead appropriate-sized sealable bag that is labeled with the date and location of the collection and mortalities shall be retained, frozen as soon as practical, and placed in an appropriate-sized sealable bag that is labeled with the date and location of the collection and fork length and weight of the specimen(s). Frozen samples shall be retained by the biologist until additional instructions are provided by NMFS. Subsequent notification must also be made in writing to Jay Ogawa, NMFS, 501 W. Ocean Blvd., Suite 4200, Long Beach, California 90802-4213 within five days of noting dead or injured steelhead. The written notification shall include 1) the

date, time, and location of the carcass or injured specimen; 2) a color photograph of the steelhead; 3) cause of injury or death; and 4) name and affiliation of the person whom found the specimen.

11. Caltrans shall provide a revegetation report that is to include a description of the locations seeded or planted, the area revegetated, proposed methods to monitor and maintain the revegetated area, criteria used to determine the success of the plantings, and pre- and postplanting color photographs of the revegetated area. The revegetation report shall be sent to Jay Ogawa, NMFS, 501 W. Ocean Blvd., Suite 4200, Long Beach, California 90802-4213, within 30 calendar days following completion of the proposed action.

12. Caltrans shall provide the results of the vegetation monitoring within 30 calendar days following completion of each annual site inspection for the five years following completion of the project as described in the BA. The five reports shall include color photographs taken of the project area during each inspection and before implementation of the proposed action. The vegetation monitoring results shall be sent to Jay Ogawa, NMFS, 501 W. Ocean Blvd., Suite 4200, Long Beach, California 90802-4213

C. Measures for Tidewater Goby

1. Prior to construction, Caltrans shall acquire incidental take authorization for tidewater goby from USFWS through a FESA Section 7 Biological Opinion and Incidental Take Statement.
2. Prior to initiation of stream diversion/dewatering, Caltrans shall conduct an informal worker environmental training program including a description of tidewater goby, its legal/protected status, proximity to the project site, avoidance/minimization measures to be implemented during the project, and the implications of violating FESA and permit conditions.
3. Prior to initiation of stream diversion/dewatering, a USFWS-approved biologist(s) shall install 1/8 inch block nets outside the impact areas and across the stream a minimum of 20 ft above and below the locations proposed for stream diversion/dewatering. If widely separated sites are involved, more than one set of block nets shall be placed to protect the work area. The nets shall be installed on the first day of work and monitored thereafter for the duration of the work.
4. Once the block nets are secured, the USFWS-approved biologist(s) shall remove all tidewater gobies found between the block nets using a 1/8 inch seine and dip nets, and relocate tidewater gobies to suitable habitat downstream of the proposed project site.
5. Should dewatering occur, any pumps used shall be fitted with an anti-entrapment device(s) to prevent tidewater gobies from being drawn into the pump or impinged on intake screening. As dewatering proceeds, the USFWS-

approved biologist(s) shall remove by hand or net all tidewater gobies found and relocate them to suitable habitat downstream of the proposed project site.

6. A USFWS-approved biologist shall remain onsite and observe for tidewater gobies and turbidity levels within the work areas during all creek dewatering activities, and shall capture and relocate tidewater gobies to suitable habitat as necessary.
7. Caltrans shall provide USFWS a written summary of work performed (including biological survey and monitoring results), BMPs implemented (i.e., use of biological monitor, flagging of project areas, erosion and sedimentation controls) and supporting photographs. Furthermore, the documentation describing listed species surveys and re-location efforts (if appropriate) shall include name(s) of the USFWS-approved biologist(s), location and description of area surveyed, time and date of survey, all survey methods used, a list and tally of all sensitive animal species observed during the survey, a description of the instructions/recommendations given to the applicant during the project, and a detailed discussion of capture and relocation efforts (if appropriate)
8. Caltrans must develop and implement a monitoring plan to determine the level of incidental take of tidewater gobies that result from the proposed project activities. The monitoring plan must include a standardized mechanism for Caltrans employees, contractors, permittees, and volunteers to report any observations of dead or injured listed animals to the appropriate Caltrans and Service offices. Caltrans must collect information obtained through the monitoring to include in the project completion report to the Service.
9. Service-approved biologist must record all pertinent information when relocating tidewater gobies including the number of individuals captured, site of capture, site of relocation, habitat at capture, and habitat at relocation site.
10. The Service-approved biologist(s) must conduct a training session for all project personnel prior to any project activities. At a minimum, the training will include a description of the tidewater goby and its habitat; the general provisions of the Act; the necessity for adhering to the provisions of the Act; the penalties associated with violating the provisions of the Act; the specific measures that are being implemented to conserve the tidewater goby while this project is being conducted; and the boundaries within which the project may be accomplished. The program must also cover the restrictions and guidelines that will be followed by all construction personnel to reduce or avoid effects on these species during project implementation. The project foreman will be responsible for ensuring that crew members adhere to the guidelines and restrictions.

11. During any in-creek work, the Service-approved biologist(s) must be onsite and continuously monitor project activities, e.g., the placement and removal of any required water diversions, the status of the water diversion. The Service-approved biologist must capture any stranded tidewater gobies or other native fish species and relocate them to suitable habitat within the Arroyo Burro Creek or Arroyo Burro Lagoon, as appropriate. The Service-approved biologist must note the number of all fish (including tidewater gobies, other native species, and non-native species) observed in the affected area, the number of fish relocated, the date and time of the collection and relocation, habitat conditions at the capture and relocation sites, and an estimation of the numbers of tidewater gobies at the relocation site before release of the captured individuals.
12. Only Service-approved biologists may capture, handle, and monitor tidewater gobies. Caltrans must provide the qualifications of individuals that would be conducting these activities to the Service at least 15 days prior to project activities. No project activities will begin in areas that could support tidewater gobies until Caltrans has received approval from the Service that the biologist(s) are approved to conduct the work. Please be advised that possession of a 10(a)(1)(A) permit for tidewater gobies does not substitute for the implementation of this measure. Authorization of Service approved biologist(s) is valid for this project only.
13. Prior to conducting any in-water work or activities (e.g., vegetation removal, installation of the water containment system, dewatering activities, demolition and removal of the current retaining wall or wall parts, construction and installation of the new retaining wall), the Service-approved biologist(s) must survey for tidewater gobies prior to each of those activities and relocate any individuals that could be killed or injured.
14. Caltrans must implement appropriate BMPs conforming with Caltrans' BMP Manual (Caltrans 2003) to minimize and avoid impacts to water quality in Las Positas Creek and Arroyo Burro Lagoon, which include fueling, maintaining, and storing heavy equipment outside of the project activity areas and checking equipment for leaks and spills prior to implementing project activities.
15. When capturing and removing tidewater gobies from the work area, the Service approved biologist(s) must minimize the amount of time the tidewater gobies are held in captivity. During this time, they must be maintained in a manner that does not expose them to temperatures or any other environmental conditions that could cause injury or undue stress. Tidewater gobies must be captured by seine, minnow trap, or dipnet, transported in buckets, and released elsewhere in Las Positas Creek and Arroyo Burro Lagoon.

16. Intakes for pumps used during dewatering must be fitted with mesh no larger than 1/8 (0.125) inch to prevent entrapment or entrainment of most tidewater gobies

D. Measures for California Red-legged Frog

1. Only USFWS-approved biologists shall participate in activities associated with the capture, handling, and monitoring of California red-legged frogs.
2. Ground disturbance shall not begin until written approval is received from the USFWS that the biologist is qualified to conduct the work.
 1. A USFWS-approved biologist shall survey the project area no more than 48 hours before the onset of work activities. If any life stage of the California red-legged frog is found and these individuals are likely to be killed or injured by work activities, the approved biologist shall be allowed sufficient time to move them from the site before work begins. The USFWS-approved biologist shall relocate the California red-legged frogs the shortest distance possible to a location that contains suitable habitat and will not be affected by the activities associated with the project. The relocation site shall be in the same drainage to the extent practicable. Caltrans shall coordinate with USFWS on the relocation site prior to the capture of any California red-legged frogs.
 2. Before any activities begin on a project, a USFWS-approved biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the California red-legged frog and its habitat, the specific measures that are being implemented to conserve the California red-legged frog for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.
 3. A USFWS-approved biologist shall be present at the work site until all California red-legged frogs have been removed, workers have been instructed, and disturbance of the habitat has been completed. After this time, Caltrans shall designate a person to monitor on-site compliance with all minimization measures. The USFWS-approved biologist shall ensure that this monitor receives the training outlined in measure 4 above and in the identification of California red-legged frogs. If the monitor or the USFWS-approved biologist recommends that work be stopped because California red-legged frogs would be affected in a manner not anticipated by Caltrans and USFWS during review of the proposed action, they shall notify the resident engineer immediately. The resident engineer shall resolve the situation by requiring that all actions that are causing these effects be halted. When work is stopped, the USFWS shall be notified as soon as possible.

4. Before any activities begin on a project, a USFWS-approved biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the California red-legged frog and its habitat, the specific measures that are being implemented to conserve the California red-legged frog for the current project, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions
5. A USFWS-approved biologist shall be present at the work site until all California red-legged frogs have been removed, workers have been instructed, and disturbance of the habitat has been completed. After this time, Caltrans shall designate a person to monitor on-site compliance with all minimization measures. The USFWS-approved biologist shall ensure that this monitor receives the training outlined in measure 4 above and in the identification of California red-legged frogs. If the monitor or the USFWS-approved biologist recommends that work be stopped because California red-legged frogs would be affected in a manner not anticipated by Caltrans and USFWS during review of the proposed action, they shall notify the resident engineer immediately. The resident engineer shall resolve the situation by requiring that all actions that are causing these effects be halted. When work is stopped, the USFWS shall be notified as soon as possible
6. During project activities, all trash that may attract predators or scavengers shall be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas.
7. All refueling, maintenance and staging of equipment and vehicles shall occur at least 60 ft from the riparian habitat or water bodies and not in a location from where a spill would drain directly toward aquatic habitat. The monitor shall ensure contamination of habitat does not occur during such operations. Prior to the onset of work, Caltrans shall ensure that a plan is in place for prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.
8. Habitat contours shall be returned to a natural configuration at the end of the project activities. This measure shall be implemented in all areas disturbed by activities associated with the project, unless USFWS and Caltrans determine that it is not feasible or modification of original contours would benefit the California red-legged frog.
9. The number of access routes, size of staging areas, and the total area of activity shall be limited to the minimum necessary to achieve the project. ESAs shall be established to confine access routes and construction areas to the minimum area necessary to complete construction, and minimize the

impact to California red-legged frog habitat; this goal includes locating access routes and construction areas outside of wetlands and riparian areas to the maximum extent practicable.

10. Caltrans shall attempt to schedule work for times of the year when impacts to the California red-legged frog would be minimal. For example, work that would affect large pools that may support breeding would be avoided, to the maximum degree practicable, during the breeding season (November through May). Isolated pools that are important to maintain California red-legged frogs through the driest portions of the year would be avoided, to the maximum degree practicable, during the late summer and early fall. Habitat assessments, surveys, and technical assistance between Caltrans and the USFWS during project planning shall be used to assist in scheduling work activities to avoid sensitive habitats during key times of year.
11. To control sedimentation during and after project completion, Caltrans shall implement BMPs shall be implemented outlined in any authorizations or permits, issued under the authorities of the Clean Water Act received for the project. If BMPs are ineffective, Caltrans shall attempt to remedy the situation immediately, in coordination with USFWS.
12. If a work site is to be temporarily dewatered by pumping, intakes shall be completely screened with wire mesh not larger than 0.2 inch to prevent California red-legged frogs from entering the pump system. Water shall be released or pumped downstream at an appropriate rate to maintain downstream flows during construction. Upon completion of construction activities, any diversions or barriers to flow shall be removed in a manner that would allow flow to resume with the least disturbance to the substrate. Alteration of the streambed shall be minimized to the maximum extent possible; any imported material shall be removed from the streambed upon completion of the project.
13. Unless approved by USFWS, water shall not be impounded in a manner that may attract California red-legged frogs.
14. A USFWS-approved biologist shall permanently remove any individuals of exotic species, such as bullfrogs (*Rana catesbeiana*), signal and red swamp crayfish (*Pacifasticus leniusculus*; *Procambarus clarkia*), and centrarchid fishes from the project area, to the maximum extent possible. The USFWS-approved biologist shall be responsible for ensuring his or her activities are in compliance with the California Fish and Game Code.
15. If Caltrans demonstrates that disturbed areas have been restored to conditions that allow them to function as habitat for the California red-legged frog, these areas will not be included in the amount of total habitat permanently disturbed.

16. To ensure that diseases are not conveyed between work sites by the USFWS-approved biologist, the fieldwork code of practice developed by the Declining Amphibian Task Force shall be followed at all times.
17. Project sites shall be revegetated with an assemblage of native riparian, wetland, and upland vegetation suitable for the area. Locally collected plant materials shall be used to the extent practicable. Invasive, exotic plants shall be controlled to the maximum extent practicable. This measure shall be implemented in all areas disturbed by activities associated with the project, unless USFWS and Caltrans determine that it is not feasible or practical.
18. Caltrans shall not use herbicides as the primary method to control invasive, exotic plants. However, if it is determined that the use of herbicides is the only feasible method for controlling invasive plants at a specific project site; it will implement the following additional protective measures for the California red-legged frog:
 - a. Caltrans shall not use herbicides during the breeding season for the California red-legged frog;
 - b. Caltrans shall conduct surveys for the California red-legged frog immediately prior to the start of herbicide use. If found, California red-legged frogs shall be relocated to suitable habitat far enough from the project area that no direct contact with herbicide would occur;
 - c. Giant reed and other invasive plants shall be cut and hauled out by hand and painted with glyphosate-based products, such as Aquamaster® or Rodeo®;
 - d. Licensed and experienced Caltrans staff or a licensed and experienced contractor shall use a hand-held sprayer for foliar application of Aquamaster® or Rodeo® where large monoculture stands occur at an individual project site;
 - e. All precautions shall be taken to ensure that no herbicide is applied to native vegetation;
 - f. Herbicides shall not be applied on or near open water surfaces (no closer than 60 ft from open water);
 - g. Foliar applications of herbicide shall not occur when wind speeds are in excess of 3 miles per hour;
 - h. No herbicides shall be applied within 24 hours of forecasted rain;
 - i. Application of all herbicides shall be done by qualified Caltrans staff or contractors to ensure that overspray is minimized, that all applications is made in accordance with the label recommendations,

and with implementation of all required and reasonable safety measures. A safe dye shall be added to the mixture to visually denote treated sites. Application of herbicides shall be consistent with the U.S. Environmental Protection Agency's Office of Pesticide Programs, Endangered Species Protection Program county bulletins;

- j. All herbicides, fuels, lubricants, and equipment shall be stored, poured, or refilled at least 60 ft from riparian habitat or water bodies in a location where a spill would not drain directly toward aquatic habitat. Prior to the onset of work, Caltrans shall ensure that a plan is in place for a prompt and effective response to accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur

E. Measures for Coast Range Newt, Western Pond Turtle, and Two-striped Garter Snake

1. Prior to construction, a biologist determined qualified by Caltrans shall survey the API and, if present, capture and relocate any Coast Range newts, western pond turtles, or two-striped garter snakes to suitable habitat downstream of the API. Observations of SSCs or other special-status species shall be documented on CNDDDB forms and submitted to CDFW upon project completion. If these species or other SSC aquatic species are observed during construction, they will likewise be relocated to suitable downstream habitat by a qualified biologist

F. Measures for Cooper's Hawk, White-tailed Kite, Southwestern Willow Flycatcher, Yellow-breasted Chat, Loggerhead Shrike, Yellow Warbler, Least Bell's Vireo, and Other Nesting Birds

1. Tree removal shall be scheduled to occur from September 2 to February 14, outside of the typical nesting bird season, to avoid potential impacts to nesting birds. If construction activities are proposed to occur within 100 ft of potential habitat during the nesting season (February 15 to September 1), a nesting bird survey shall be conducted by a biologist determined qualified by Caltrans no more than two weeks (14 days) prior to construction. If an active nest is found, Caltrans shall coordinate with CDFW to determine an appropriate buffer based on the habits and needs of the species. The buffer area shall be avoided until a qualified biologist has determined that juveniles have fledged.
2. Trees to be removed shall be noted on design plans. Prior to any ground-disturbing activities, ESA fencing shall be installed around the dripline of trees to be protected within project limits.
3. If least Bell's vireo and/or southwestern willow flycatcher is observed within 100 ft of the API during the course of construction, a qualified biologist shall implement an exclusion zone and work shall be avoided within the exclusion

zone until the least Bell's vireo and/or southwestern willow flycatcher is located greater than 100 ft from project-related disturbance. If an active least Bell's vireo and/or southwestern willow flycatcher nest is observed within 100 ft of the API, all project activities shall immediately cease and USFWS and Caltrans shall be contacted within 48 hours. Caltrans shall then reinstate FESA Section 7 formal consultation with USFWS for least Bell's vireo and/or southwestern willow flycatcher and implement additional measures as necessary

G. Measures for Invasive Species

1. During construction, Caltrans will ensure that the spread or introduction of invasive exotic plant species will be avoided to the maximum extent possible.
2. Construction equipment shall be certified as "weed-free" by Caltrans before entering the construction site. If necessary, wash stations onsite shall be established for construction equipment under the guidance of Caltrans in order to avoid/minimize the spread of invasive plants and/or seed within the construction area.
3. Invasive exotic plants in the project site removed during construction shall be properly disposed at a certified landfill to prevent the spread of invasive species. Inclusion of any species that occurs on the Cal-IPC Invasive Plant Inventory in the Caltrans erosion control seed mix or landscaping plans for the project shall be avoided

Appendix D USFWS Species List



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Ventura Fish and Wildlife Office
2493 PORTOLA ROAD, SUITE B
VENTURA, CA 93003
PHONE: (805)644-1766 FAX: (805)644-3958

Consultation Code: 08EVEN00-2013-SLI-0046

August 03, 2016

Event Code: 08EVEN00-2016-E-01115

Project Name: Hwy 225 - Las Positas Retaining Wall -- created on November 20, 2012 04:09

Subject: Updated list of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project.

To Whom It May Concern:

The enclosed list identifies species listed as threatened and endangered, species proposed for listing as threatened or endangered, designated and proposed critical habitat, and species that are candidates for listing that may occur within the boundary of the area you have indicated using the U.S. Fish and Wildlife Service's (Service) Information Planning and Conservation System (IPaC). The species list fulfills the requirements under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.). Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the species list should be verified after 90 days. We recommend that verification be completed by visiting the IPaC website at regular intervals during project planning and implementation for updates to species lists following the same process you used to receive the enclosed list. Please include the Consultation Tracking Number in the header of this letter with any correspondence about the species list.

Due to staff shortages and excessive workload, we are unable to provide an official list more specific to your area. Numerous other sources of information are available for you to narrow the list to the habitats and conditions of the site in which you are interested. For example, we recommend conducting a biological site assessment or surveys for plants and animals that could help refine the list.

If a Federal agency is involved in the project, that agency has the responsibility to review its proposed activities and determine whether any listed species may be affected. If the project is a major construction project*, the Federal agency has the responsibility to prepare a biological assessment to make a determination of the effects of the action on the listed species or critical habitat. If the Federal agency determines that a listed species or critical habitat is likely to be adversely affected, it should request, in writing through our office, formal consultation pursuant to section 7 of the Act. Informal consultation may be used to exchange information and resolve

conflicts with respect to threatened or endangered species or their critical habitat prior to a written request for formal consultation. During this review process, the Federal agency may engage in planning efforts but may not make any irreversible commitment of resources. Such a commitment could constitute a violation of section 7(d) of the Act.

Federal agencies are required to confer with the Service, pursuant to section 7(a)(4) of the Act, when an agency action is likely to jeopardize the continued existence of any proposed species or result in the destruction or adverse modification of proposed critical habitat (50 CFR 402.10(a)). A request for formal conference must be in writing and should include the same information that would be provided for a request for formal consultation. Conferences can also include discussions between the Service and the Federal agency to identify and resolve potential conflicts between an action and proposed species or proposed critical habitat early in the decision-making process. The Service recommends ways to minimize or avoid adverse effects of the action. These recommendations are advisory because the jeopardy prohibition of section 7(a)(2) of the Act does not apply until the species is listed or the proposed critical habitat is designated. The conference process fulfills the need to inform Federal agencies of possible steps that an agency might take at an early stage to adjust its actions to avoid jeopardizing a proposed species.

When a proposed species or proposed critical habitat may be affected by an action, the lead Federal agency may elect to enter into formal conference with the Service even if the action is not likely to jeopardize or result in the destruction or adverse modification of proposed critical habitat. If the proposed species is listed or the proposed critical habitat is designated after completion of the conference, the Federal agency may ask the Service, in writing, to confirm the conference as a formal consultation. If the Service reviews the proposed action and finds that no significant changes in the action as planned or in the information used during the conference have occurred, the Service will confirm the conference as a formal consultation on the project and no further section 7 consultation will be necessary. Use of the formal conference process in this manner can prevent delays in the event the proposed species is listed or the proposed critical habitat is designated during project development or implementation.

Candidate species are those species presently under review by the Service for consideration for Federal listing. Candidate species should be considered in the planning process because they may become listed or proposed for listing prior to project completion. Preparation of a biological assessment, as described in section 7(c) of the Act, is not required for candidate species. If early evaluation of your project indicates that it is likely to affect a candidate species, you may wish to request technical assistance from this office.

Only listed species receive protection under the Act. However, sensitive species should be considered in the planning process in the event they become listed or proposed for listing prior to project completion. We recommend that you review information in the California Department of Fish and Wildlife's Natural Diversity Data Base. You can contact the California Department of Fish and Wildlife at (916) 324-3812 for information on other sensitive species that may occur in this area.

[*A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2))

(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.]

Attachment



United States Department of Interior
Fish and Wildlife Service

Project name: Hwy 225 - Las Positas Retaining Wall -- created on November 20, 2012 04:09

Official Species List

Provided by:

Ventura Fish and Wildlife Office
2493 PORTOLA ROAD, SUITE B
VENTURA, CA 93003
(805) 644-1766

Consultation Code: 08EVEN00-2013-SLI-0046

Event Code: 08EVEN00-2016-E-01115

Project Type: TRANSPORTATION

Project Name: Hwy 225 - Las Positas Retaining Wall -- created on November 20, 2012 04:09

Project Description: Replace a retaining wall along an approximately 200-ft stretch of Arroyo Burro Creek, between the creek and south-bound Hwy 225.

Please Note: The FWS office may have modified the Project Name and/or Project Description, so it may be different from what was submitted in your previous request. If the Consultation Code matches, the FWS considers this to be the same project. Contact the office in the 'Provided by' section of your previous Official Species list if you have any questions or concerns.

<http://ecos.fws.gov/ipac>, 08/03/2016 10:12 AM

1



United States Department of Interior
Fish and Wildlife Service

Project name: Hwy 225 - Las Positas Retaining Wall -- created on November 20, 2012 04:09

Project Location Map:



Project Coordinates: MULTIPOLYGON (((-119.7408124 34.4096074, -119.7401257 34.4095719, -119.739997 34.4083327, -119.7406836 34.4083327, -119.7408124 34.4096074)))

Project Counties: Santa Barbara, CA

<http://ecos.fws.gov/ipac>, 08/03/2016 10:12 AM



United States Department of Interior
Fish and Wildlife Service

Project name: Hwy 225 - Las Positas Retaining Wall -- created on November 20, 2012 04:09

Endangered Species Act Species List

There are a total of 12 threatened or endangered species on your species list. Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species. Critical habitats listed under the Has Critical Habitat column may or may not lie within your project area. See the Critical habitats within your project area section further below for critical habitat that lies within your project. Please contact the designated FWS office if you have questions.

Amphibians	Status	Has Critical Habitat	Condition(s)
California red-legged frog (<i>Rana draytonii</i>) Population: Entire	Threatened	Final designated	
Birds			
California Least tern (<i>Sterna antillarum brownii</i>)	Endangered		
California condor (<i>Gymnogyps californianus</i>) Population: Entire, except where listed as an experimental population	Endangered	Final designated	
Least Bell's vireo (<i>Vireo bellii pusillus</i>) Population: Entire	Endangered	Final designated	
Marbled murrelet (<i>Brachyramphus marmoratus</i>) Population: CA, OR, WA	Threatened	Final designated	
Southwestern Willow flycatcher (<i>Empidonax traillii extimus</i>) Population: Entire	Endangered	Final designated	

<http://ecos.fws.gov/ipac>, 08/03/2016 10:12 AM



United States Department of Interior
Fish and Wildlife Service

Project name: Hwy 225 - Las Positas Retaining Wall -- created on November 20, 2012 04:09

western snowy plover (<i>Charadrius nivosus</i> ssp. <i>nivosus</i>) Population: Pacific coastal pop.	Threatened	Final designated	
Crustaceans			
Vernal Pool fairy shrimp (<i>Branchinecta lynchi</i>) Population: Entire	Threatened	Final designated	
Fishes			
Tidewater goby (<i>Eucyclogobius newberryi</i>) Population: Entire	Endangered	Final designated	
Flowering Plants			
Gambel's watercress (<i>Rorippa gambelii</i>)	Endangered		
Marsh Sandwort (<i>Arenaria paludicola</i>)	Endangered		
Salt Marsh bird's-beak (<i>Cordylanthus maritimus</i> ssp. <i>maritimus</i>)	Endangered		

<http://ecos.fws.gov/ipac>, 08/03/2016 10:12 AM



United States Department of Interior
Fish and Wildlife Service

Project name: Hwy 225 - Las Positas Retaining Wall -- created on November 20, 2012 04:09

Critical habitats that lie within your project area

There are no critical habitats within your project area.

<http://ecos.fws.gov/ipac>, 08/03/2016 10:12 AM

5

From: [Jay Ogawa - NOAA Federal](#)
To: [Hoetker, Geoff@DOT](#)
Cc: [Thomas, Michael HRDOT](#)
Subject: Re: FW: updated species list request for Arroyo Burro Creek along SR-225 (34.408560, -119.740070) in Santa Barbara County
Date: Tuesday, August 02, 2016 2:49:07 PM

Hi Geoff,

NMFS' species list dated August 14, 2014, for the subject project remains valid.

On Tue, Aug 2, 2016 at 2:25 PM, Hoetker, Geoff@DOT <geoff.hoetker@dot.ca.gov> wrote:

Hi Jay – afraid I have to contact you again regarding the Hwy 225/Las Positas Retaining Wall project along Arroyo Burro Creek. We obtained the USFWS and NMFS Biological Opinions before the NEPA environmental document for the project was finalized, and per Caltrans guidance we are supposed to request an update to the official species list every 6 months until the environmental document is finally approved. Can you again verify that the attached NMFS species list is still valid? Thank you.

Geoff Hoetker

Associate Environmental Planner/Biologist

SWCA Environmental Consultants

Representing Department of Transportation District 5

Central Coast Environmental Management Branch

50 Higuera Street

San Luis Obispo, CA 93401

[\(805\) 542-4670](tel:8055424670) office

[\(805\) 458-4508](tel:8054584508) mobile

From: Jay Ogawa - NOAA Federal [<mailto:jay.ogawa@noaa.gov>]
Sent: Friday, September 11, 2015 11:25 AM
To: Hoetker, Geoff@DOT <geoff.hoetker@dot.ca.gov>
Subject: Re: updated species list request for Arroyo Burro Creek along SR-225 (34.408560, -119.740070) in Santa Barbara County



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
West Coast Region
501 West Ocean Boulevard, Suite 4200
Long Beach, California 90802-4213

AUG 14 2014

Larry Bonner
California Department of Transportation, District 5
50 Higuera Street
San Luis Obispo, CA 93401

Dear Mr. Bonner:

This letter responds to the California Department of Transportation's (Caltrans) July 16, 2014, request for a list of threatened or endangered species under jurisdiction of NOAA's National Marine Fisheries Service (NMFS) that are present within Trout Creek along State Route (SR) 58 (35.388820, -120.5818220), Old Creek along SR-1 (35.436750, -120.887000), and Toro Creek along SR-1 (35.412540, -120.872880) in San Luis Obispo County; and Arroyo Burro Creek along SR-225 (34.408560, -119.740070) in Santa Barbara County. As requested NMFS provides the following species lists for each location:

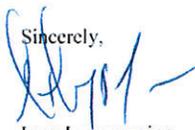
1. Trout Creek at SR-58- The action area is within the federally threatened South-Central California Coast Distinct Population Segment (DPS) of steelhead (*Oncorhynchus mykiss*), however NMFS does not expect this species to be present in the action area because an artificial barrier blocks upstream passage to this area. Additionally, Trout Creek is designated critical habitat for this species.
2. Old Creek and Toro Creek at SR-1- The action areas are within the federally threatened South-Central California Coast DPS of steelhead. Steelhead are known to be present in these creeks. Additionally, Old Creek and Toro Creek are designated critical habitat for this species.
3. Arroyo Burro Creek at SR-225- The action area is within the federally endangered Southern California Coast DPS of steelhead. There is no recent documentation of steelhead in this area. Based on the current marginal habitat at the project site and impediment to steelhead passage downstream of the project site, the likelihood for steelhead to be present in the project area is low. Additionally, Arroyo Burro Creek is designated critical habitat for endangered steelhead.

With regard to essential fish habitat (EFH) consultations, there is no EFH for federally managed species at the proposed project locations.



NMFS appreciates the opportunity to provide technical assistance to Caltrans. Please contact Jay Ogawa at (562) 980-4061 or via email at jay.ogawa@noaa.gov if you have a question concerning this letter or if you require additional information.

Sincerely,



for Irma Lagomarsino
Assistant Regional Administrator
California Coastal Area Office

cc: Mary Larson, CDFW, Los Alamitos
Administrative File: 151422WCR2014CC00192

List of Technical Studies

Air Quality Report (December 2015)

Noise Study Report (December 2015)

Water Quality Report (January 2016)

Natural Environment Study (September 2015)

Location Hydraulic Study (September 2015)

Initial Site Assessment (October 2015)

Screened Undertaking Cultural Resources Memo (March 2013)

Scenic Resource Evaluation/Visual Assessment (July 2015)

Initial Paleontology Study (October 2015)

