ATTACHMENT A

COUNTY OF SANTA BARBARA

Department of Public Works, Transportation

Proposed Final Mitigated Negative Declaration

Fernald Point Lane Bridge (51C-137) Replacement Project

15NGD-00000-00005

SCH No. 2016031037

May 5, 2016

PROJECT PROPONENT:

Santa Barbara County Public Works Department
123 E. Anapamu Street
Santa Barbara, California 93101
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ATTACHMENTS

A	U.S. Fish & Wildlife Service species list dated July 12, 2012
B	National Marine Fisheries Service letter dated September 17, 2012
C	National Marine Fisheries Service Biological Opinion (undated)
D	Telephone Log (Regional Water Quality Control Board)

1.0 INTRODUCTION

1.1 PURPOSE AND LEGAL AUTHORITY

The California Environmental Quality Act (CEQA) requires that local, regional, and state agencies and special purpose districts prepare an Initial Study to identify potential environmental impacts associated with discretionary actions. An Initial Study is generally used to determine if significant impacts would occur, and to determine the need for preparation of either a Negative Declaration or further analysis in an EIR. The Santa Barbara County Public Works Department has prepared this Initial Study for the proposed replacement of the Fernald Point Lane bridge (51C-137) at Romero Creek to comply with the provisions of CEQA.

1.2 PROJECT PROPONENT

Santa Barbara County Public Works Department
123 E. Anapamu Street
Santa Barbara, California 93101
Contact: Mr. Morgan Jones - 805/568-3059

1.3 PROJECT BACKGROUND

Fernald Point Lane is a short (~1,500 feet-long) east-west oriented residential street located south of and parallel to the Union Pacific Railroad tracks and U.S. Highway 101. It extends east from Posilipo Lane and terminates just past Romero Creek. Bridge 51C-137 forms the Fernald Point Lane crossing of Romero Creek. Bridge 51C-137 has been determined to be structurally deficient by Caltrans, and temporary supports have been placed under the west end of the bridge as a safety measure.

1.4 PROJECT LOCATION

The subject bridge (51C-137) is located approximately 3,300 feet east-southeast of the San Ysidro Road/U.S. 101 interchange in the community of Montecito, California (N34^{o} 25' 14"/W119^{o} 37' 15") (see Figure 1). Bridge 51C-137 is located on Fernald Point Lane and crosses Romero Creek approximately 1,400 feet east of the Fernald Point Lane/Posilipo Lane intersection. Romero Creek is an intermittent stream that drains the Santa Ynez Mountains (see site photographs in Figure 5).

1.5 PROJECT OBJECTIVES

The objective of the project is to improve the safety and reliability of the Fernald Point Lane crossing of Romero Creek. The Fernald Point Lane bridge (51C-137) was completed in 1959 and must be replaced due to structural deficiencies associated with extensive cracking of the bridge deck caused by alkali-silica reactivity as documented in Caltrans' February 9, 2012 Bridge Inspection Report. Santa Barbara County installed shoring under the bridge composed of steel pipe supports and timbers in summer 2012 as a temporary safety measure. The replacement of this bridge has been approved for funding through the Federal Highway Bridge Program and has been assigned Federal project number BRLO-5951(139).

Site Information Table

Comprehensive Plan Designation	Coastal, Montecito Community Plan Area, Comprehensive Plan designation SRR-1.0; First Supervisorial District	
Zoning District, Ordinance	Santa Barbara County Coastal Zoning Ordinance, Article II; Appeals Jurisdiction; zoned 1-E-1; Environmentally Sensitive Habitat, Flood Hazard and Wetland overlays	
Site Size	Approximately 0.3 acres, including the replacement bridge, temporary bridge, construction access and fish passage improvements	
Present Use & Development	Santa Barbara County public road right-of-way, flood control channel	
Surrounding Uses/Zoning	North: Union Pacific Railroad and U.S. 101 right-of-way, zoned TC South: single-family residential, zoned 1-E-1 East: single-family residential, zoned 1-E-1 West: single-family residential, zoned 1-E-1	
Access	Fernald Point Lane	
Public Services	Water Supply	*N/A*
	Sewage:	*N/A*
	Fire:	Montecito Fire Protection District
	Police:	Santa Barbara County Sheriff

1.6 PROJECT APPROVALS AND PERMITS

Project implementation may require the County to obtain permits and/or other forms of approval from Federal and State agencies. These agencies may include, but are not limited to, the following:

1.6.1 Federal Agencies

The project would be funded by the Federal Highway Administration, administered through Caltrans.

- U.S. Army Corps of Engineers - Clean Water Act Section 404 permit required for work within Romero Creek.
- National Marine Fisheries Service - Section 7 Consultation under the Endangered Species Act for potential impacts to designated critical habitat and steelhead migration.

1.6.2 State Agencies

- Department of Fish and Wildlife - Streambed Alteration Agreement for work within Romero Creek.
- Regional Water Quality Control Board - 401 Water Quality Certification (associated with Corps permit).
- Regional Water Quality Control Board – coverage under the construction storm water discharge general permit.

- Regional Water Quality Control Board – coverage under the General Permit for Discharges with Low Threat to Water Quality (discharge of groundwater to Romero Creek).

1.6.3 Local Agencies

- Santa Barbara County Public Works, Transportation – roadway encroachment permit.

1.7 PUBLIC COMMENTS

In compliance with Section 15073 of the State Guidelines for the Implementation of the California Environmental Quality Act, the Santa Barbara County Public Works Department accepted written comments on the adequacy of the information contained in the Draft MND during the public review period ending April 15, 2016.

No comment letters were received during the public comment period. However, the project manager (Mr. Morgan Jones) received two telephone calls from Ms. Paula Richter with the Central Coast Regional Water Quality Control Board, one Thursday April 21 and one Monday April 25, 2016. Ms. Richter stated that there would be no official comment from the RWQCB on the adequacy of the MND, but wanted to know why the County was replacing the existing concrete in the creek bottom as part of proposed bridge replacement. She stated that a natural creek bottom would be the regulatory agency preferred option.

Mr. Jones indicated that concrete in the streambed under the bridge is needed to protect existing sewer lines, which cannot be feasibly relocated. In addition, the stream channel downstream of the bridge is on private property and made of concrete. The interface of the bridge and creek bed at this location causes hydraulic flow problems relating to the requirements of fish passage design. The constraints of the project site dictated the design elements of the bridge and the channel. A complete record of these telephone conversations is provided as Attachment D.

2.0 PROJECT DESCRIPTION

2.1 PROJECT CHARACTERISTICS

The existing Fernald Point Lane bridge (51C-137) would be removed and replaced with a new bridge (51C-0362) at the same location. The new bridge would provide the same number of travel lanes (two), but would be approximately 4 feet narrower (approximately 23 feet-wide). Metal tube bridge railings with tubular hand railings would be provided on both sides of the bridge. On the north side of the new bridge, the metal tube bridge railing would be extended to the west and curve to the north along the east side of an existing driveway. The Romero Creek channel walls would be re-constructed upstream of the bridge, and new wing-walls constructed in the channel at all four corners of the bridge (see Figure 2). The bridge deck would consist of a cast-in-place pre-stressed concrete slab founded on concrete abutments with spread footings located below the elevation of the Romero Creek channel bottom.

The project also includes the construction of a new storm drain system southeast of the new bridge (see Figure 2). This system would be approximately 63 feet-long and consist of 12 inch diameter reinforced concrete pipe and two drainage inlets. The storm drain system would empty into the Romero Creek channel just downstream of the new bridge. Storage and staging of construction equipment and materials would occur within the roadway right-of-way along Fernald Point Lane west of the bridge.

Fish passage improvements have been incorporated into the project (see Figure 4) and include:

- A concrete low flow channel set into the existing concrete channel under the bridge to increase flow depth;
- A series of two fish resting pools (approximately 15 feet long, 10 feet wide, 2 feet deep) constructed in the channel bottom upstream of the bridge, with one draining to the other which would drain to the proposed low flow channel; and
- A notched rock weir immediately upstream of the pipeline encasement across Romero Creek to facilitate fish passage.

2.2 CONSTRUCTION METHODS AND PHASING

A temporary bridge would be constructed immediately north of the existing bridge to provide access during the construction period (see Figure 3). The temporary bridge would be approximately 20 feet wide and provide two 8 foot-wide travel lanes. Concrete K-rail would be placed along both sides of the temporary bridge as a safety feature. Construction would occur in two stages, with Stage 1 consisting of removal of the channel walls upstream (north) of the existing bridge, construction of the temporary bridge, removal of the existing bridge and construction of the new bridge. Stage 2 construction consists of removal of the temporary bridge, re-construction of the channel walls, construction of fish passage improvements and construction of roadway improvements.

The up to 7 month construction period would be scheduled during the dry season to avoid work in surface water, and storm water run-off from the site into Romero Creek. However, if the schedule is delayed or above-average stream flow occurs, stream diversion may be required. In this case, surface flow would be diverted into a pipe and discharged to the streambed downstream of the work area. Alternatively, low flows may be diverted to the toe of the bank by a sand bag berm to allow installation of fish passage improvements. Excavation for the abutment footings may encounter groundwater, which would be filtered and discharged to Romero Creek under the authority of a Low Threat Discharge permit issued by the Regional Water Quality Control Board.

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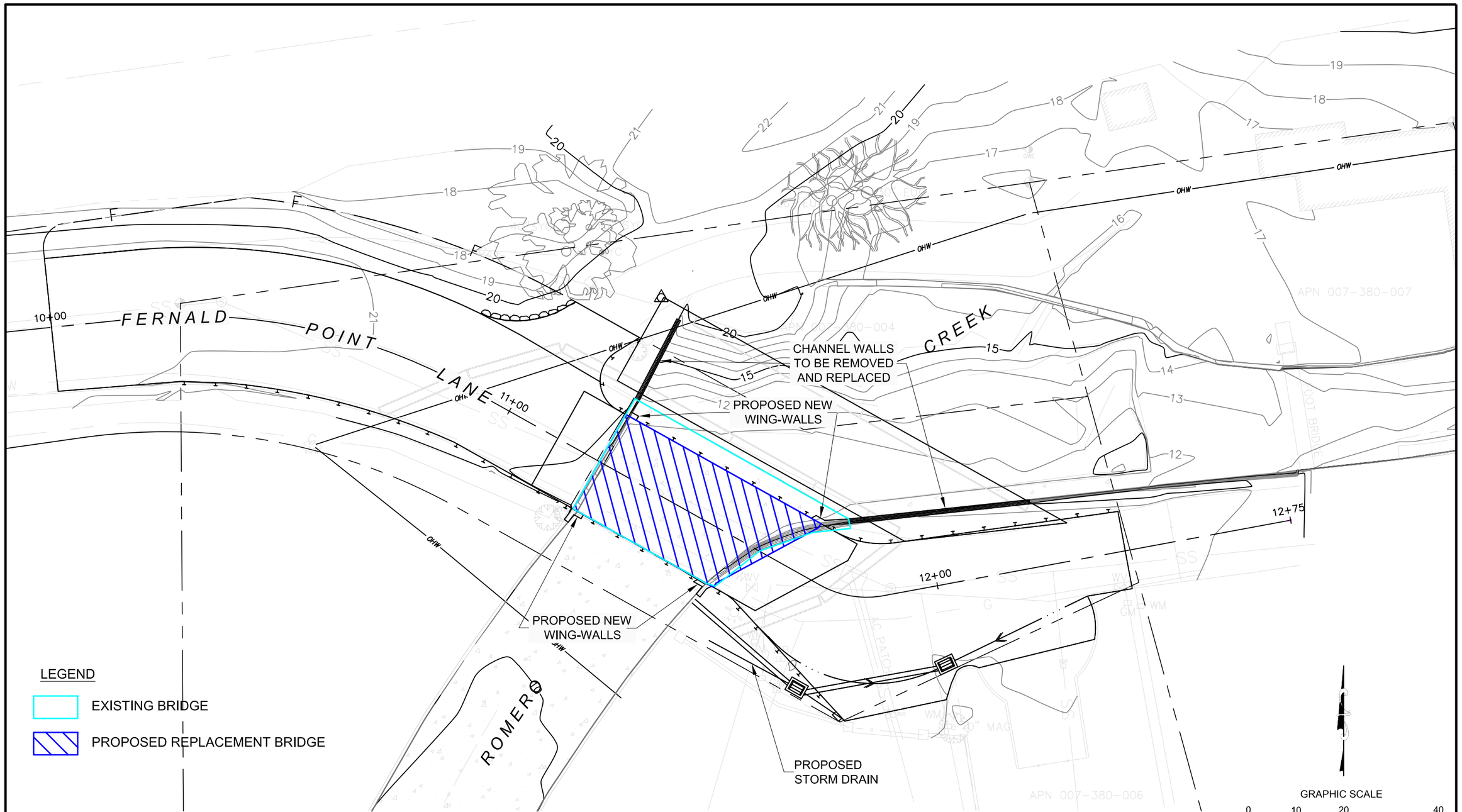
February 2015
Project No. 1502-0791

padre associates, inc.
ENGINEERS, GEOLOGISTS & ENVIRONMENTAL SCIENTISTS
Santa Barbara County Public Works

PROJECT LOCATION MAP
FIGURE 1

BACK OF COLOR FIGURE

February 2015
Project No. 1502-0791



Source: Santa Barbara County Public Works

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Santa Barbara County Public Works

PROPOSED BRIDGE PLAN
FIGURE 2

BACK OF COLOR FIGURE

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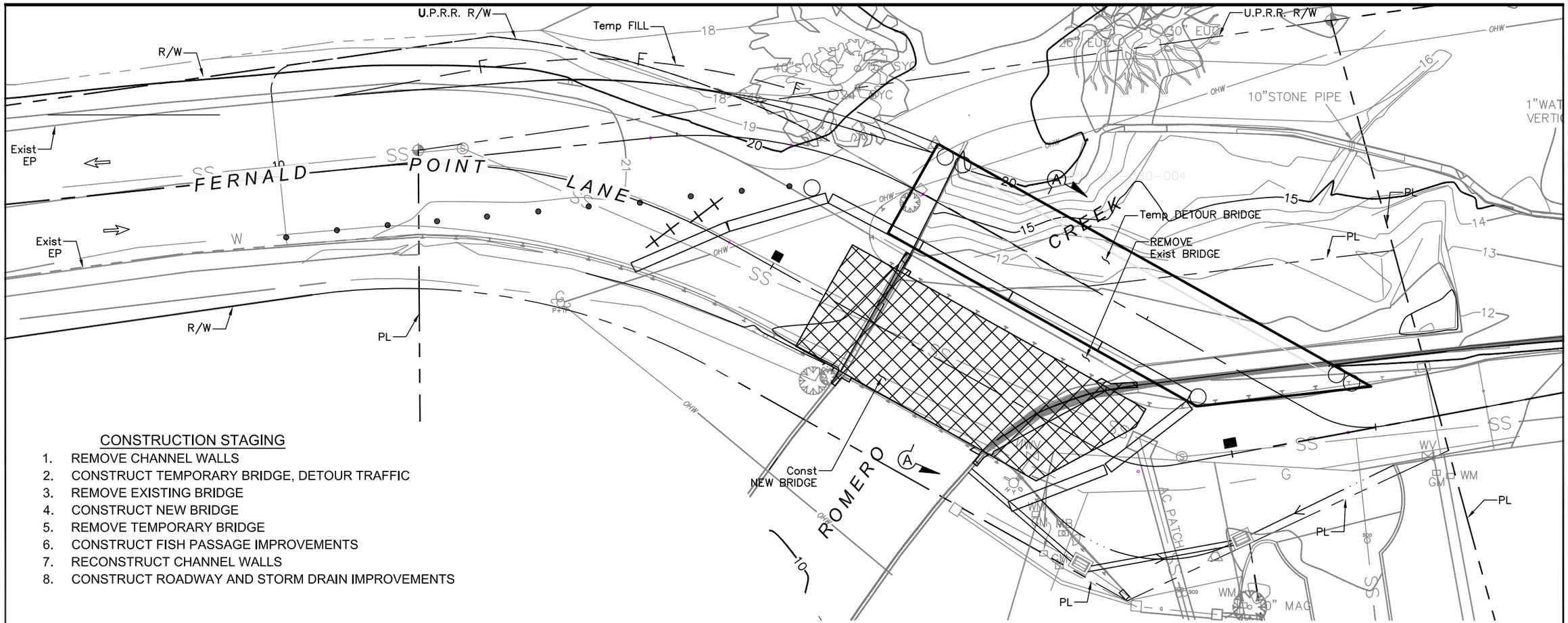
Project No. 1502-0791

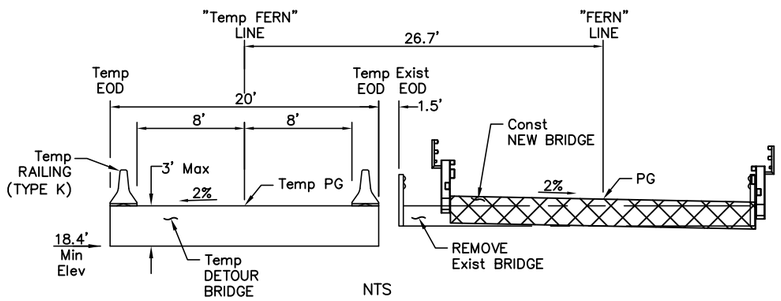


CONSTRUCTION STAGING

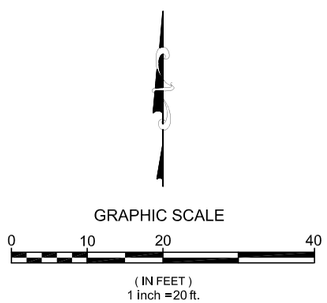
1. REMOVE CHANNEL WALLS
2. CONSTRUCT TEMPORARY BRIDGE, DETOUR TRAFFIC
3. REMOVE EXISTING BRIDGE
4. CONSTRUCT NEW BRIDGE
5. REMOVE TEMPORARY BRIDGE
6. CONSTRUCT FISH PASSAGE IMPROVEMENTS
7. RECONSTRUCT CHANNEL WALLS
8. CONSTRUCT ROADWAY AND STORM DRAIN IMPROVEMENTS

LEGEND

- NEW STRUCTURE WORK
- CHANNELIZERS (SURFACE MOUNTED)
- DIRECTION OF TRAFFIC
- TEMPORARY PAVEMENT MARKING "STOP" AND LIMIT LINE
- TEMPORARY RAILING (TYPE K)
- TEMPORARY BARRICADE (TYPE III)
- CRASH CUSHION (SAND FILLED)



SECTION A-A



Source: Santa Barbara County Public Works

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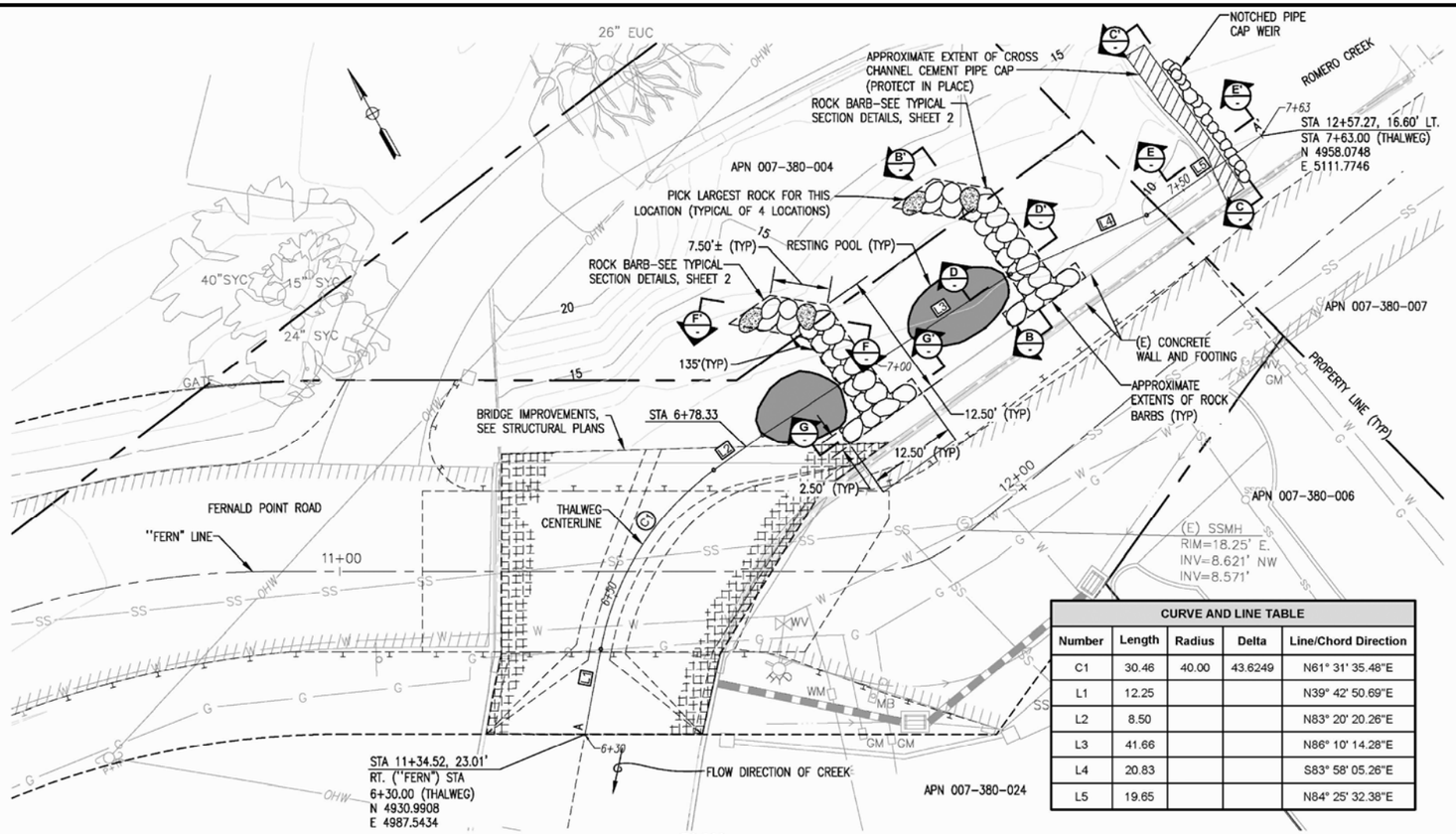
Santa Barbara County Public Works

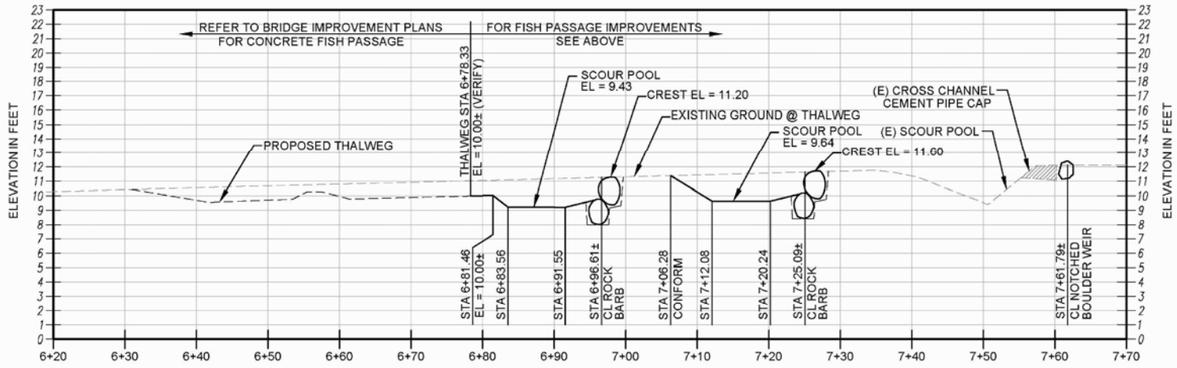
CONSTRUCTION STAGING PLAN
FIGURE 3

BACK OF COLOR FIGURE



CURVE AND LINE TABLE				
Number	Length	Radius	Delta	Line/Chord Direction
C1	30.46	40.00	43.6249	N61° 31' 35.48"E
L1	12.25			N39° 42' 50.69"E
L2	8.50			N83° 20' 20.26"E
L3	41.66			N86° 10' 14.28"E
L4	20.83			S83° 58' 05.26"E
L5	19.65			N84° 25' 32.38"E

PLAN
SCALE: 1" = 10'



THALWEG A-A' PROFILE

100% SUBMITTAL, NOT FOR CONSTRUCTION

Source: Santa Barbara County Public Works

BACK OF FIGURE

a. Existing Fernald Point Lane bridge, note temporary shoring

b. Rectangular concrete channel downstream of the bridge

c. Channel upstream of bridge, note exposed pipe encasement

d. Fernald Point Lane west of the bridge

SITE PHOTOGRAPHS
FIGURE 5

BACK OF COLOR FIGURE

3.0 ENVIRONMENTAL SETTING

3.1 AFFECTED PARCELS

The proposed replacement bridge, roadway and drainage improvements and fish passage improvements would be located entirely within the existing County roadway right-of-way (minimum 40 feet wide) along Fernald Point Lane. However, the temporary bridge would be located on APN 007-380-004. Parcels south of Fernald Point Lane are zoned 1-E-1 (One-Family Residential) and subject to the County's Montecito Community Plan and the Montecito Land Use & Development Code. The Union Pacific Railroad right-of-way is located immediately north of Fernald Point Lane.

3.2 EXISTING LAND USE

Land uses around the project site are single-family residential (estate homes) to the south, with the Union Pacific Railroad and U.S. Highway 101 located immediately to the north. Romero Creek is channelized at the project site with a concrete channel extending from the bridge site about 700 feet south to the Pacific Ocean.

3.3 SITE CHARACTERISTICS

The project site is located on the coastal terrace adjacent to the foothills of the Santa Ynez Mountains. The Carpinteria quadrangle geologic map developed by Dibblee (1986) indicates the area is underlain by floodplain deposits of unconsolidated silt, sand and gravel.

The Romero Creek watershed is approximately 5.1 square miles and drains the Santa Ynez Mountains. Primary drainages in the watershed include Romero Creek, one major tributary (Picay Creek) and one minor tributary (Buena Vista Creek). Approximately one-half of the watershed is developed, and the estimated peak flow associated with a 25-year storm event at the project site is 2,600 cubic feet per second and 4,900 cfs for the 100-year event (Moffat & Nichol, 2014). The reach of Romero Creek within the project site is typically intermittent, but can be perennial during above-average rainfall periods.

A portion of Romero Creek is maintained by the County Flood Control and Water Conservation District, beginning approximately 0.5 miles upstream of the project site and extending about 0.6 miles upstream. A debris basin is located on Romero Creek about 2.7 miles upstream of the project site.

The project site is located in the Coastal Zone. The Romero Creek corridor at the project site has been designated as an Environmentally Sensitive Habitat Area under the County's Local Coastal Plan.

3.4 OTHER PENDING AND APPROVED DEVELOPMENT

Section 15355 of the State CEQA Guidelines states that "cumulative impacts refers to two or more individual effects which when considered together are considerable or which compound or increase other environmental impacts." Further, "the individual effects may be changes resulting from a single project or a number of separate projects", and "the cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects." "Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time."

3.4.1 Santa Barbara County

The following is a list of projects under review by the Planning and Development Department located within the planning areas of the Montecito Community Plan and Summerland Community Plan:

- Montecito YMCA Master Plan: re-development of existing facilities and addition of a 19,954 square foot gym;
- Casa Dorinda Master Plan Update: 20 retirement residential units, 45,000 square feet of commercial land uses;
- O'Neil Coastal Plan Amendment: zoning change to allow construction of one single-family residence;
- Beach Club Lot Split: parcel map revisions to allow construction of one single-family residence;
- Perkins Lot Split (2420 Lillie Avenue, Summerland): spilt existing building into two condominium lots;
- Van Hiel single-family dwelling (805 Park Lane West, Montecito);
- Kane water well (1055 Fairway Road, Montecito);
- Bochino single-family dwelling (1510 San Leandro Lane, Montecito);
- HFHC LLC major single-family dwelling addition (901 Cima del Mundo Road, Montecito);
- Rokacz single-family dwelling (800 Oak Grove Drive, Montecito);
- Alessa single-family dwelling (2264 Varley Street, Summerland); and
- Pulice mixed use project (120 Hollister Street, Summerland).

3.4.2 City of Santa Barbara

The following is a list of City-proposed bridge replacement projects that may result in similar impacts as the proposed project:

- Anapamu Street Bridge over Old Lower Mission Creek;
- De La Guerra Street Bridge over Mission Creek
- Gutierrez Street Bridge over Mission Creek; and
- Quinientos Street Bridge over Sycamore Creek.

3.4.3 City of Carpinteria

The City of Carpinteria is proposing to replace the Carpinteria Avenue Bridge over Carpinteria Creek in 2017.

4.0 POTENTIALLY SIGNIFICANT EFFECTS CHECKLIST

The following checklist indicates the potential level of impact and is abbreviated as follows:

Potentially Significant Impact: A fair argument can be made, based on the substantial evidence in the file, that an effect may be significant.

Less than Significant Impact with Mitigation: Incorporation of mitigation measures has reduced an effect from a Potentially Significant Impact to a Less Than Significant Impact.

Less than Significant Impact: An impact is considered adverse but does not exceed a significance threshold.

No Impact: There is adequate supporting documentation that the impact does not apply to the subject project.

Reviewed Under Previous Document: The analysis contained in a previously adopted/certified environmental document adequately addresses this issue and is summarized in the discussion below. The discussion should include reference to the previous documents, a citation of the page or pages where the information is found, and identification of mitigation measures incorporated from those previous documents.

4.1 AESTHETICS/VISUAL RESOURCES

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
a. The obstruction of any scenic vista or view open to the public or the creation of an aesthetically offensive site open to public view?				X	
b. Change to the visual character of an area?			X		
c. Glare or night lighting which may affect adjoining areas?			X		
d. Visually incompatible structures?				X	

Setting:

The project site is located in an area designated as “moderate” scenic value by the Open Space Element of the Santa Barbara County Comprehensive Plan. U.S. Highway 101 is located approximately 150 feet north of the bridge site and is considered an eligible State scenic highway, and a scenic corridor. Views of the project site are limited to motorists on Fernald Point Lane. The project site is not visible from U.S. Highway 101 due to intervening vegetation. Although Fernald Point Lane is less than 1,000 feet from the Pacific Ocean, ocean views are obscured by vegetation along the roadway and landscaping on parcels to the south.

The surrounding area supports residential areas with extensive mature landscaping, and Fernald Point Lane is lined with trees and other mature landscaping (see Figure 5.d). However, agricultural lands (orchards) are located approximately 600 feet northwest of the project site. These lands are not visible to motorists or residents along Fernald Point Lane due to intervening vegetation. Overall, the visual character of the project area is semi-rural due to the large parcel size, mostly greater than one acre. However, adjacent major transportation corridors (Union Pacific Railroad tracks, U.S. Highway 101) provide an urban aspect to the visual environment.

The County's Visual Aesthetics Impact Guidelines classify coastal and mountainous areas, the urban fringe, and travel corridors as "especially important" visual resources. A project may have the potential to create a significantly adverse aesthetic impact if (among other potential effects) it would impact important visual resources, obstruct public views, remove significant amounts of vegetation, substantially alter the natural character of the landscape, or involve extensive grading visible from public areas. The Guidelines address public, not private views.

Impact Discussion:

a. No Impact: There are no designated scenic vistas in the project area, and vegetation obscures public views from the Union Pacific Railroad and U.S. Highway 101, such that public views are limited to motorist views from Fernald Point Lane. The proposed replacement bridge would be constructed at the same location, using the same materials (reinforced concrete), but would be approximately 4 feet narrower. Proposed fish passage improvements would be located in the streambed and not visible to motorists on Fernald Point Lane. Therefore, the proposed project would not be considered aesthetically offensive.

b. Less than Significant Impact: As discussed in a. above, the proposed bridge would be a direct replacement constructed of the same materials and the same scale as existing. The only change readily detectable to the public using Fernald Point Lane would be the bridge rails, which would be upgraded from a standard highway metal guard-rail to a metal tube railing. This is considered an aesthetics improvement. However, initial vegetation removal and periodic heavy equipment activity during the construction period may result in short-term degradation of the visual quality (associated with exposed soil, stockpiles, construction materials) of views from Fernald Point Lane. This impact is considered to be less than significant due to the small area affected, temporary nature of these activities and very small number of affected persons.

c. Less than Significant Impact: Project-related construction activities may require occasional night lighting. Such lighting would be located relatively close to the bridge and focused on work activities, and due to intervening vegetation is not anticipated to substantially increase ambient light levels at nearby residences. Therefore, lighting impacts are considered less than significant.

d. No Impact: The proposed new bridge would be constructed at the same location using the same materials and general configuration as the existing bridge; therefore, the bridge would be compatible with adjacent land uses.

Mitigation and Residual Impact:

No significant impacts were identified; therefore, mitigation is not required. The project would not result in a cumulatively considerable contribution to cumulative aesthetics impacts.

4.2 AGRICULTURAL RESOURCES

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
a. Convert prime agricultural land to non-agricultural use, impair agricultural land productivity (whether prime or non-prime) or conflict with agricultural preserve programs?				X	
b. An effect upon any unique or other farmland of State or Local Importance?				X	

Setting:

An Important Farmland map for the project area was obtained from the California Department of Conservation. Orchards designated as prime farmland are located approximately 600 feet northwest of the project site, north of U.S. Highway 101. No other farmland is located in the project area.

Agricultural lands play a critical economic and environmental role in Santa Barbara County. Agriculture continues to be Santa Barbara County's major producing industry with a gross production value of over $1.4 billion (Santa Barbara County 2013 Agricultural Production Report). In addition to the creation of food, jobs, and economic value, farmland provides valuable open space and maintains the County's rural character.

Impact Discussion:

a. No impact: The project would not involve the conversion of agricultural lands, or conflict with existing agricultural uses or preserve programs.

b. No impact: The proposed project would not affect farmland of State or Local Importance.

Mitigation and Residual Impact:

No impacts were identified; therefore, mitigation is not required. The project would not result in impacts to agricultural resources or contribute to cumulative impacts.

4.3 AIR QUALITY

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
a. The violation of any ambient air quality standard, a substantial contribution to an existing or projected air quality violation including, CO hotspots, or exposure of sensitive receptors to substantial pollutant concentrations (emissions from direct, indirect, mobile and stationary sources)?			X		
b. The creation of objectionable smoke, ash or odors?			X		
c. Extensive dust generation?			X		
Greenhouse Gas Emissions					
d. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X		
e. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X		

Setting:

Background. The project site is located in Santa Barbara County within the South Central Coast Air Basin (SCCAB) which encompasses three counties: San Luis Obispo, Santa Barbara and Ventura. The Santa Barbara County portion of the SCCAB periodically fails to meet air quality standards and has been designated a "non-attainment" area for the State 8-hour ozone standard and State particulate matter (PM_{10}) standard. On April 30, 2012, Santa Barbara County was designated unclassifiable/attainment for the 2008 Federal 8-hour ozone standard (the 1-hour Federal ozone standard was revoked for Santa Barbara County). The County is also considered in attainment for the State 1-hour standard for ozone as of June 2007. Ambient air quality monitoring indicates the County routinely exceeds the California 8-hour ozone standard and the California standard for PM_{10}. The County is unclassifiable/attainment for the Federal $PM_{2.5}$ standard and unclassified for the California $PM_{2.5}$ standard (based on monitored data from 2007 to 2009).

Air pollution control is administered on three governmental levels. The U.S. Environmental Protection Agency (EPA) has jurisdiction under the Clean Air Act, the California Air Resources Board (CARB) has jurisdiction under the California Health and Safety Code and the California Clean Air Act, and the Santa Barbara County Air Quality Pollution District (SBCAPCD) shares responsibility with the CARB for ensuring that all State and Federal ambient air quality standards are attained within the Santa Barbara County portion of the SCCAB.

The Santa Barbara County APCD and Santa Barbara County Association of Governments adopted the 2010 Clean Air Plan in January 2011, which was prepared to address the requirements of the California Clean Air Act. The 2010 Clean Air Plan provides an update to the County's emission inventory, and all feasible measures to reduce emissions of ozone precursors by at least 5 percent per year. A 2013 Clean Air Plan was adopted on March 19, 2015 as a triennial update to the 2010 Clean Air Plan and indicates air quality is improving, and strategies for further air pollutant emissions reductions are focused on mobile sources, particularly marine shipping.

Overall, air quality in Santa Barbara County is improving, as the number of County exceedances of the State 1-hour ozone standard has declined from 37 days in 1990 to three days or less in recent years.

The closest air quality monitoring station and most representative of the project site is the Santa Barbara station, located 4.1 miles west of the project site. A summary of air quality standard exceedances recorded at this air quality monitoring station is provided in Table 1.

Table 1. Summary of Ambient Air Quality Data

Pollutant	2012	2013	2014
Ozone			
Highest 1-Hour concentration (ppm)	0.071	0.072	0.099
Highest 8-Hour concentration (ppm)	0.058	0.062	0.077
Number of State Exceedances (8-Hour>0.070 ppm)	0	0	3
Number of Federal Exceedances (8-Hour>0.075 ppm)	0	0	1
Particulate Matter less than 10 microns (PM_{10})			
Highest Sample (micrograms/cubic meter)	58.7	61.0	55.8
Number of State Exceedances (Samples>50)	1	3	3
Particulate Matter less than 2.5 microns ($PM_{2.5}$)			
Highest Sample (micrograms/cubic meter)	31.0	19.8	24.1
Number of Federal Exceedances (Samples>35)	0	0	0

Greenhouse gases (GHGs) are defined as any gas that absorbs infrared radiation in the atmosphere. GHGs include, but are not limited to, water vapor, carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O). These greenhouse gases lead to the trapping and buildup of heat in the atmosphere near the earth's surface, commonly known as the Greenhouse Effect. There is increasing evidence that the Greenhouse Effect is leading to global warming and climate change.

Following Executive Order S-3-05 in June 2005, which declared California's particular vulnerability to climate change, the California Global Warming Solutions Act of 2006 (AB 32) was signed by Governor Arnold Schwarzenegger on September 27, 2006. In response to global warming, AB 32 requires the CARB to adopt a statewide greenhouse gas emissions limit equivalent to the statewide GHG emissions levels in 1990 to be achieved by 2020 and requires the CARB to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. CARB developed a Draft Scoping Plan for Climate Change in 2008, and proposed a comprehensive set of actions designed to reduce overall carbon emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, and enhance public health while creating new jobs and enhancing the growth in California's economy.

The First Update to the Scoping Plan was approved by the CARB on May 22, 2014, and builds upon the initial Scoping Plan with new strategies and recommendations to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The First Update defines CARB's climate change priorities for the next five years, and also sets the groundwork to reach long-term goals set forth in Executive Orders S-3-05 and B-16-2012. The Update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the initial Scoping Plan. It also evaluates how to align the State's "longer-term" GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use.

Santa Barbara County completed the first phase (Climate Action Study) of its climate action strategy in September 2011. The Climate Action Study provides a County-wide GHG inventory and an evaluation of potential emission reduction measures. The second phase of the County's climate action strategy is an Energy and Climate Action Plan (ECAP), which was adopted by the County Board of Supervisors in May 2015. The ECAP meets the criteria in CEQA Guidelines Section 15183.5(b) for a "plan to reduce GHG emissions." The ECAP commits the County to reduce community-wide GHG emissions by 15 percent below 2007 levels by 2020 consistent with the California Global Warming Solutions Act of 2006 (AB 32) and CARB's Scoping Plan. The ECAP includes specific local measures that will help meet this emission reduction target. Concurrent with the ECAP, the Board of Supervisors also adopted an amendment to the Energy Element of the Comprehensive Plan that requires the County to monitor progress meeting the emission reduction target and, as necessary, update the ECAP.

Air Pollutant Thresholds. The Santa Barbara County Planning and Development Department (2008) has developed the following thresholds to determine the significance of long-term air emissions under the California Environmental Quality Act.

- Project emissions (mobile and stationary sources) greater than the daily trigger for offsets of 55 pounds per day for NO_x and ROC, and 80 pounds per day for PM_{10},
- Emit less than 25 pounds per day of NO_x or ROC from motor vehicle trips;
- Cause or contribute to a violation of any California or National ambient air quality standard (except ozone);

- Exceed the health risk public notification thresholds of the APCD; and
- Be inconsistent with the adopted 2013 Clean Air Plan.

No thresholds have been established for short-term impacts associated with construction activities. However, the County's Grading Ordinance requires standard dust control conditions for all projects involving grading activities. Long-term/operational emissions thresholds have been established to address mobile emissions (i.e., motor vehicle emissions) and stationary source emissions (i.e., stationary boilers, engines, paints, solvents, and chemical or industrial processing operations that release pollutants).

Greenhouse Gas Thresholds. CEQA Guidelines Section 15183.5(a) states:

Lead agencies may analyze and mitigate the significant effects of GHG emissions at a programmatic level, such as in…a separate plan to reduce GHG emissions. Later project-specific environmental documents may tier from…that existing programmatic review…a lead agency may determine that a project's incremental contribution to a cumulative effect is not cumulatively considerable if the project complies with the requirements in a previously adopted plan…

The ECAP includes a GHG emissions inventory and forecast for unincorporated Santa Barbara County to 2020. The growth estimates used in the emissions forecast came from the Santa Barbara County Regional Growth Forecast 2005-2040 and incorporated 2010 U.S. Census data where available. The GHG emissions forecast is based on factors such as population projections, vehicle trends, and planned land uses.

The sources of GHG emissions included various sectors, such as transportation, residential energy, commercial energy, off-road, solid waste, agriculture, water and wastewater, industrial energy, and aircraft. As a result, most residential and commercial projects that are consistent with the County's zoning (in 2007) were included in the forecast. However, certain projects were not included in the emissions forecast, such as stationary source projects (e.g., large boilers, gas stations, auto body shops, dry cleaners, oil and gas production facilities, and water treatment facilities), Comprehensive Plan amendments, and community plans that exceed the County's projected population and job growth.

A proposed project that was included in the ECAP's emissions forecast may tier from the ECAP's EIR for its CEQA analysis of GHG emissions. A project that tiers from the ECAP's EIR is considered to be in compliance with the requirements in the ECAP and, therefore, its incremental contribution to a cumulative effect is not cumulatively considerable (Class III).

Impact Discussion:

a-c. Potential Air Quality Impacts

Short-Term Construction Emissions - Less than Significant Impact: The proposed project would generate air pollutant emissions as a result of construction activities; primarily exhaust emissions from heavy-duty trucks, worker vehicles and heavy equipment. Emissions were estimated for a peak day, focusing on demolition activities. It was assumed that 4 truck trips (8 one-way trips) and 6 worker trips (12 one-way trips) would occur on a peak work day. Estimated project peak day emissions are listed in Table 2. Due to their small magnitude and duration, project emissions are considered a less than significant air quality impact.

Table 2. Construction Air Pollutant Emissions

Source	Pollutant, Pounds per Peak Day			
	ROC	NO_x	CO	PM_{10}
Equipment exhaust	4.1	56.3	28.5	3.0
On-road vehicles	0.1	1.6	1.5	0.1
Fugitive dust	0.0	0.0	0.0	72.1
Total	4.2	57.9	30.0	75.2

Construction-related earthwork at the project site would not have the potential to result in significant project-specific short-term emissions of fugitive dust and $PM_{10,}$ with the implementation of standard dust control measures that are required by the Grading Ordinance for all new development in the County (see below).

Emissions of ozone precursors (NO_x and ROC) during project construction would result primarily from the on-site use of heavy equipment. Due to the limited period of time that heavy equipment operation would occur on the project site, construction-related emissions of NO_x and ROC would not be significant on a project-specific or cumulative basis. However, due to the non-attainment status of the air basin for ozone, the project should implement measures recommended by the SBCAPCD (see below) to reduce construction-related emissions of ozone precursors to the extent feasible. Compliance with these measures is routinely required for all new development in the County.

Dust Control Measures. The Contractor shall comply with the following dust control components at all times including weekends and holidays:

- Dust generated by the development activities shall be kept to a minimum with a goal of retaining dust on the site.
- During clearing, grading, earth moving, excavation, or transportation of cut or fill materials, use water trucks or sprinkler systems to prevent dust from leaving the site and to create a crust after each day's activities cease.

- During construction, use water trucks or sprinkler systems to keep all areas of vehicle movement damp enough to prevent dust from leaving the site. Reclaimed water shall be used if feasible.
- Wet down the construction area after work is completed for the day and whenever wind exceeds 15 mph.
- When wind exceeds 15 mph, have site watered at least once each day including weekends and/or holidays.
- Order increased watering as necessary to prevent transport of dust off-site.
- Cover soil stockpiled for more than two days or treat with soil binders to prevent dust generation. Reapply as needed.
- If the site is graded and left undeveloped for over four weeks, the Contractor shall immediately seed and water to re-vegetate graded areas; and/or spread soil binders; and/or employ any other method(s) deemed appropriate by Public Works or APCD.

Diesel Emissions Control Measures. The Contractor shall comply with the following diesel emission reduction strategies at all times during grading and construction:

- All portable diesel-powered construction equipment shall be registered with the state's portable equipment registration program OR shall obtain an APCD permit.
- Fleet owners of mobile construction equipment are subject to the CARB Regulation for In-use Off-road Diesel Vehicles (Title 13 California Code of Regulations, Chapter 9, § 2449), the purpose of which is to reduce diesel particulate matter and criteria pollutant emissions from in-use (existing) off-road diesel-fueled vehicles.
- All commercial diesel vehicles are subject to Title 13, § 2485 of the California Code of Regulations, limiting engine idling time. Idling of heavy-duty diesel construction equipment and trucks during loading and unloading shall be limited to five minutes; electric auxiliary power units should be used whenever possible.
- Diesel construction equipment meeting the CARB Tier 1 emission standards for off-road heavy-duty diesel engines shall be used. Equipment meeting CARB Tier 2 or higher emission standards should be used to the maximum extent feasible.
- Diesel powered equipment should be replaced by electric equipment whenever feasible.
- If feasible, diesel construction equipment shall be equipped with selective catalytic reduction systems, diesel oxidation catalysts and diesel particulate filters as certified and/or verified by EPA or CARB.
- Catalytic converters shall be installed on gasoline-powered equipment, if feasible.

- All construction equipment shall be maintained in tune per the manufacturer's specifications.
- The engine size of construction equipment shall be the minimum practical size.
- The number of construction equipment operating simultaneously shall be minimized through efficient management practices to ensure that the smallest practical number is operating at any one time.
- Construction worker trips should be minimized by requiring carpooling and by providing for lunch onsite.

Long-Term Operation Emissions. The proposed project is limited to replacement of an existing bridge at the same location and configuration, and would not result in an increase in traffic volumes or resulting air emissions following completion of construction. Therefore, the proposed project would not have any long-term air quality impacts.

Cumulative Impacts. The County's Environmental Thresholds were developed, in part, to define the point at which a project's contribution to a regionally significant impact constitutes a significant effect at the project level. In this instance, the project has been found not to exceed the significance criteria for air quality. Therefore, the project's contribution to regionally significant air pollutant emissions is not cumulatively considerable, and its cumulative effect is less than significant.

d-e. Greenhouse Gas Emissions/Global Climate Change - Less than Significant Impact: Equipment and vehicles used to demolish the existing bridge and construct the new bridge would emit GHGs (primarily carbon dioxide), and may contribute to global climate change. Emissions of heavy equipment to be used to construct the project were included in the Off-road sector of the County's GHG inventory and forecast, and vehicle emissions (materials and worker transportation) were included in the Transportation sector of the forecast. Since the project's GHG emissions were included in the ECAP's GHG emissions forecast, its incremental contribution to a cumulative effect is not cumulatively considerable (Class III).

Mitigation and Residual Impact:

No significant impacts were identified; therefore, mitigation is not required. Residual impacts would be less than significant.

4.4 BIOLOGICAL RESOURCES

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
Flora					
a. A loss or disturbance to a unique, rare or threatened plant community?				X	
b. A reduction in the numbers or restriction in				X	

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
the range of any unique, rare or threatened species of plants?					
c. A reduction in the extent, diversity, or quality of native vegetation (including brush removal for fire prevention and flood control improvements)?				X	
d. An impact on non-native vegetation whether naturalized or horticultural if of habitat value?		X			
e. The loss of healthy native specimen trees?		X			
f. Introduction of herbicides, pesticides, animal life, human habitation, non-native plants or other factors that would change or hamper the existing habitat?				X	
Fauna					
g. A reduction in the numbers, a restriction in the range, or an impact to the critical habitat of any unique, rare, threatened or endangered species of animals?		X			
h. A reduction in the diversity or numbers of animals onsite (including mammals, birds, reptiles, amphibians, fish or invertebrates)?			X		
i. A deterioration of existing fish or wildlife habitat (for foraging, breeding, roosting, nesting, etc.)?			X		
j. Introduction of barriers to movement of any resident or migratory fish or wildlife species?			X		
k. Introduction of any factors (light, fencing, noise, human presence and/or domestic animals) which could hinder the normal activities of wildlife?			X		

Setting:

The following discussion is based on the results of a Natural Environment Study prepared for the project by Garcia and Associates (available for review upon request). Field surveys of the project area (at least 200 feet upstream and downstream of the existing bridge) conducted include:

- Botanical and plant community surveys conducted on July 17, 2012, September 27, 2013, March 25, 2014, April 1, 2014, October 3, 2014 by Kathy Rindlaub and Suzan Kissee;

- Aquatic wildlife surveys conducted on July 26, 2012, October 30, 2012, September 9, 2013, April 1, 2014, July 21, 2014 and October 3, 2014 by Larry Hunt (July 26, 2012 only) and Tom Olson;
- Terrestrial wildlife surveys conducted on October 30, 2012, September 9, 2013, April 1, 2014, July 21, 2014 and October 3, 2014 by Peter Gaede (July 26, 2012 only) and Tom Olson;
- Bat habitat evaluation conducted on July 26, 2012 by Larry Hunt and Tom Olson; and
- Generalized biological survey conducted on February 3, 2015 by Matt Ingamells.

Vegetation. Botanical surveys identified 64 plant species within the Biological Study Area (project site and adjacent portions of the Romero Creek corridor), including 14 native species. The balance (50 species, 78 percent) were non-native, naturalized or cultivated. Plant communities of the project site may be described as weedy riparian, mature ornamental landscaping, and right-of-way landscaping.

Weedy riparian vegetation is located in the channel bottom and western bank of Romero Creek upstream of the bridge, and is dominated by escaped ornamental plants including pride of Madeira (*Echium candicans*), garden nasturtium (*Tropaeolum majus*) and acacia. Native riparian vegetation within the channel near the bridge site is limited to four sapling willow trees (*Salix laevigata, S. lasiolepis*) and a small patch of mugwort (*Artemisia douglasiana*).

Mature ornamental landscaping primarily occurs on residential parcels near the bridge site and includes leadwort (*Plumbago* sp.), magnolia (*Magnolia grandiflora*), hydrangea, star jasmine (*Trachelospermum jasminioides*) and Australian tree fern (*Dickinsonia* sp.).

Right-of-way landscaping occurs along Fernald Point Lane and flood control and utilities easements. Typical species include blackwood acacia (*Acacia melanoxylon*) blue gum (*Eucalyptus globulus*), pride of Madeira, myoporum (*Myoporum laetum*) and pittosporum (*Pittosporum undulatum*).

Environmentally Sensitive Habitat. The Romero Creek corridor has been designated as an Environmentally Sensitive Habitat Area (ESHA) by Santa Barbara County under the California Coastal Act.

Wildlife. The riparian corridor in the project area is only about 250 feet long, as it occurs between the concrete channel under and downstream of the Fernald Point Lane bridge and the Union Pacific Railroad and U.S. Highway 101 bridges. This reach is channelized by vertical concrete or rock walls, but the streambed is mostly composed of natural cobble. The riparian corridor supports little woody vegetation due to the lack of stream banks, relatively high storm flow velocity and shading from trees outside the channel, and is dominated by non-native species. Therefore, the habitat value of the Romero Creek corridor within and upstream of the project site is low. However, dense woody landscaping along the top of the channel extending to the creek mouth provides some habitat value for birds.

Due to a prolonged drought, no surface water was observed at the project site during biological field surveys conducted from 2012 through 2014. However, a pool of surface water (about 100 feet long, up to 2 feet deep) was observed at the creek mouth during a February 3, 2015 site visit, created by a sand berm at the beach. This pool is isolated from the ocean by the sand berm, and no fish species were detected. However, fish sampling (seine or dip-net) was not conducted.

A Baja California treefrog was heard calling at the project site on February 3, 2015. Reptiles observed during field surveys were limited to western fence lizard. However, a number of common species such as gopher snake, terrestrial garter snake, and California kingsnake may occur within the project site.

Birds observed within the project site were mostly disturbance-adapted species including Anna's hummingbird, Allen's hummingbird, western scrub jay, American crow, black phoebe, oak titmouse, bushtit, Bewick's wren, California towhee, spotted towhee, orange-crowned warbler, dark-eyed junco, song sparrow, common yellowthroat, Hutton's vireo, rock pigeon and house finch. A winter migrant, hermit thrush was observed at the project site on February 3, 2015. In addition, double-crested cormorant and great egret were observed flying over the project site. A western grebe carcass was found in the Romero Creek channel downstream of the bridge site.

Mammals observed near the project site during field surveys were limited to coyote (scat), raccoon (tracks), black-tailed deer (skull, bones) and bats (guano at U.S. Highway 101 bridge). Big brown bat and Brazilian free-tailed bat were reported roosting under the Romero Creek/U.S. Highway 101 bridge in 2009 (Caltrans, 2012). Due to the small amount of guano and urine staining observed at the U.S. Highway 101 bridge, bat use of the Romero Creek corridor in the project area is relatively low.

Wildlife Corridors. Highly mobile species such as larger mammals and birds are expected to move between the coastal terrace and the foothills of the Santa Ynez Mountains. Romero Creek provides habitat and cover to traverse developed areas, a major transportation corridor, dense vegetation and steep slopes. Therefore, Romero Creek may be an important wildlife movement corridor in the region. However, the reach of Romero Creek within the project site is highly disturbed and mostly concrete-lined, and does not connect two habitat areas. Therefore, meaningful wildlife movement is not anticipated to occur through the project site.

Invasive Species and Level of Disturbance. The California Invasive Plant Council has developed an Invasive Plant Inventory which rates weedy non-native plant species based on their potential to have severe ecological effects (high, moderate, limited). Six species rated as "high" for invasiveness were found within the project site; iceplant, Cape ivy (*Delairea odorata*), sweet fennel (*Foeniculum vulgare*), Algerian ivy (*Hedera canariensis*), English ivy (*Hedera helix*) and tamarisk (*Tamarix ramossisima*). In addition, 8 plant species rated as "moderate" and 8 species rated as "limited" for invasiveness were found within the project site.

Much of the project site is disturbed due to past roadway and channel construction and maintenance, and surrounding development which as contributed to the invasion and dominance of non-native plant species in the creek channel.

Special-Status Plant Species. Special-status plant species are either listed as endangered or threatened under the Federal or California Endangered Species Acts, or rare under the California Native Plant Protection Act, or considered to be rare or of scientific interest (but not formally listed) by resource agencies, professional organizations (e.g., Audubon Society, California Native Plant Society [CNPS], The Wildlife Society), and the scientific community.

Santa Barbara County considers oak woodlands, oak forests and individual specimen oak trees as important biological resources. In 1998, the County Board of Supervisors established an Oak Protection Collaborative Process, primarily in response to large scale loss of oaks to vineyard development in the late 1990's. In 2003, The County Deciduous Oak Tree Protection and Regeneration Ordinance (no. 4490) was adopted to protect valley and blue oaks. The County's Grading Ordinance was subsequently revised to address native oak tree removal (Ordinance no. 4491), including coast live oak. These regulations limit the number of oak tree removals and require replacement for removal over established thresholds. Coast live oak trees are considered protected if they are at least 8 inches in diameter at breast height.

For the purposes of this project, special-status plant species are defined in Table 3. The literature search conducted for this impact analysis indicates 14 special-status plant species have the potential to occur within the region (e.g., Carpinteria and Santa Barbara 7.5' quadrangle maps). Table 4 lists these species, their current status, and the nearest known location relative to the project site. Based on the results of botanical surveys of the project site conducted on July 17, 2012, September 27, 2013, March 25, April 1 and October 3, 2014, coast live oak was the only special-status plant species observed (Garcia and Associates, 2015).

Table 3. Definitions of Special-Status Plant Species

- Plants listed or proposed for listing as threatened or endangered under the Federal Endangered Species Act (50 CFR 17.12 for listed plants and various notices in the Federal Register for proposed species).
- Plants that are candidates for possible future listing as threatened or endangered under the Federal Endangered Species Act (Federal Register, December 5, 2014).
- Plants that meet the definitions of rare or endangered species under the CEQA (*State CEQA Guidelines,* Section 15380).
- Plants considered by the CNPS to be "rare, threatened, or endangered" in California (Lists 1B and 2).
- Plants listed by CNPS as plants about which we need more information and plants of limited distribution (Lists 3 and 4).
- Plants listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (14 CCR 670.5).
- Plants listed under the California Native Plant Protection Act (California Fish and Game Code 1900 et seq.).
- Plants considered sensitive by other Federal agencies (i.e., U.S. Forest Service, Bureau of Land Management), State and local agencies or jurisdictions.
- Plants considered sensitive or unique by the scientific community or occurring at the limits of its natural range (*State CEQA Guidelines*).
- Trees protected by Santa Barbara County Ordinances.

Table 4. Special-Status Plant Species of the Project Area

Species	Status	Habitat Description	Nearest Known Location relative to the Project Site	Present/ Absent based on Habitat	Rationale for Absence/ Discussion
Coulter's saltbush (*Atriplex coulteri*)	List 1B, LR	Coastal dunes & dune scrub, coastal scrub, grassland	Carpinteria bluffs (historic), 7 miles to the east-southeast (CNDDB, 2015)	A	Habitat absent, not found during botanical surveys
Davidson's salt-scale (*Atriplex serenana* var. *davidsoni*)	List 1B, LR	Coastal bluff scrub, coastal scrub	Arroyo Burro, 7 miles to the west (CNDDB, 2015)	A	Habitat absent, not found during botanical surveys
Late-flowered mariposa lily (*Calochortus fimbriatus*)	List 1B	Chaparral, woodland	Ladera Lane, Montecito, 3.4 miles to the northeast (CNDDB, 2015)	A	Habitat absent, not found during botanical surveys
Saltmarsh birds-beak (*Chloropyron maritimum* ssp. *maritimum*)	FE, SE, List 1B, LR	Coastal saltmarsh, coastal dunes	Carpinteria saltmarsh, 5.0 miles to the east-southeast (CNDDB, 2015)	A	Habitat absent, not found during botanical surveys
Summer holly (*Comarostaphylos diversifolia* ssp. *diversifolia*)	List 1B	Chaparral	San Ysidro Canyon, 3.5 miles to the north (Wiskowski, 1988)	A	Habitat absent, not found during botanical surveys
Umbrella larkspur (*Delphinium umbraculorum*)	List 1B	Woodland	Escondido Canyon, 5.3 miles to the north-northeast (CNDDB, 2015)	A	Habitat absent, not found during botanical surveys
Mesa horkelia (*Horkelia cuneata* var. *puberula*)	List 1B	Chaparral, woodland, coastal scrub	Cold Spring Trail, 3.7 miles to the northwest (CNDDB, 2015)	A	Habitat absent, not found during botanical surveys
Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*)	List 1B, LR	Saltmarsh, seasonal ponds	Carpinteria saltmarsh, 4.5 miles to the east (CNDDB, 2015)	A	Habitat absent, not found during botanical surveys
Santa Barbara honeysuckle (*Lonicera subspicata* var. *subspicata*)	List 1B, LR	Chaparral, woodland, coastal scrub	Mountain Drive, Montecito, 3.2 miles to the northwest (CNDDB, 2015)	A	Habitat absent, not found during botanical surveys
White-veined monardella (*Monardella hypoleuca* ssp. *hypoleuca*)	List 1B	Chaparral, woodland	Rattlesnake Canyon, 4.9 miles to the northwest (CNDDB, 2015)	A	Habitat absent, not found during botanical surveys
Gambel's watercress *(Nasturtium gambelii)*	FE, ST, List 1B, LR	Freshwater & brackish marshes	Santa Barbara (historic), 2 miles to the west (CNDDB, 2015)	A	Habitat absent, not found during botanical surveys
Coast live oak *(Quercus agrifolia)*	CO-4491	Woodland, chaparral	On-site	P	
Nuttall's scrub oak *(Quercus dumosa)*	List 1B, LR	Closed-cone coniferous forest, chaparral, coastal scrub	Toro Canyon Road, 2.9 miles to the east-northeast (CNDDB, 2015)	A	Habitat absent, not found during botanical surveys
Sonoran maiden fern (Thelypteris puberula var. sonorensis)	List 2B, LR	Meadows, seeps	Lower Romero Canyon, 2.8 miles to the northeast (CNDDB, 2015)	A	Habitat absent, not found during botanical surveys

Status Codes:
CO-4491: Protected under County Ordinance no. 4491
FE: Federally Endangered (USFWS)
List 1B: Rare or endangered in California and Elsewhere (California Native Plant Society)
List 2B: Rare in California, but not elsewhere (California Native Plant Society)
LR: Locally rare (Wilken, 2007)
SE: State Endangered (CDFW)
SR: State Rare (CDFW)
ST: State Threatened (CDFW)

Special-Status Wildlife Species. Special-status wildlife species are defined in Table 5. The potential for these species to occur in the vicinity of the project site was determined by habitat characterization within the project site, review of sight records from other environmental documents and range maps described above. Table 6 lists special-status wildlife species that have the potential to occur within the project site for at least a portion of their life cycle. The presence-absence column in Table 6 refers to suitable habitat within the project site, and does not necessarily indicate the presence of the species.

Table 5. Definitions of Special-Status Wildlife Species

Special-Status Wildlife Species
➢ Animals listed or proposed for listing as threatened or endangered under the federal Endangered Species Act (50 CFR 17.11 for listed animals and various notices in the Federal Register for proposed species). ➢ Animals that are candidates for possible future listing as threatened or endangered under the federal Endangered Species Act (Federal Register December 5, 2014). ➢ Animals that meet the definitions of rare or endangered species under CEQA (*State CEQA Guidelines*, Section 15380). ➢ Animals listed or proposed for listing by the State of California as threatened and endangered under the California Endangered Species Act (14 CCR 670.5). ➢ Animal species of special concern to the CDFW (Shuford & Gardali, 2008 for birds; Williams, 1986 for mammals; Moyle et al., 1989 for fish; and Jennings and Hayes, 1994 for amphibians and reptiles). ➢ Animal species that are fully protected in California (California Fish and Game Code, Section 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).

Table 6. Special-Status Wildlife Species of the Project Area

Common Name	Scientific Name	Habitat	Status	Nearest Known Location	Present/ Absent based on Habitat	Rationale for Absence/ Discussion
Invertebrates						
Globose dune beetle	*Coelus globosus*	Coastal dunes	SA	Santa Barbara (historic), 2.6 miles to the west (CNDDB, 2015)	A	No suitable habitat in the vicinity of the project site
Wandering skipper	*Panoquina errans*	Coastal saltmarsh	SA	Carpinteria saltmarsh, 4.6 miles to the east-southeast (CNDDB, 2015)	A	No suitable habitat in the vicinity of the project site
Monarch butterfly	*Danaus plexippus*	Coastal tree groves (wintering)	SA	Crane School (Site 90), 900 feet to the northeast (Meade, 1999)	A	Suitable tree groves lacking near project site
Fish						
Tidewater goby	*Eucyclogobius newnerryi*	Coastal estuaries & streams	FE, CSC	Arroyo Paredon, 3.6 miles to the east (CNDDB, 2015)	A	No suitable habitat in the vicinity of the project site
Southern steelhead	*Oncorhynchus mykiss*	Perennial streams	FE, CSC	Romero Creek near project site (Stoecker, 2002)	P (migration only)	Surface water duration and volume not sufficient for spawning & rearing

Table 6. Continued

Common Name	Scientific Name	Habitat	Status	Nearest Known Location	Present/ Absent based on Habitat	Rationale for Absence/ Discussion
Amphibians						
California newt	*Taricha torosa torosa*	Coastal streams in foothills	CSC	Gobernador Creek, 8.1 miles to the east (Padre Associates, 2005)	A	No suitable habitat in the vicinity of the project site
California red-legged frog	*Rana aurora draytonii*	Instream pools	FT, CSC	Cinquefoil Creek, 2.5 miles to the northwest (CNDDB, 2015)	A	Not found during protocol surveys in 2009 (Caltrans, 2012), no suitable habitat
Reptiles						
Southwestern pond turtle	*Clemmys marmorata pallida*	Vegetated ponds & stream pools	CSC	San Roque Canyon, 7.1 miles to the northwest (CNDDB, 2015)	A	No suitable habitat in the vicinity of the project site
Two-striped garter snake	*Thamnophis hammondi*	Streams, wetlands	CSC	Santa Monica Creek, 5.3 miles to the east (M. Ingamells, pers. obs, 2011)	A	No suitable habitat in the vicinity of the project site
Birds						
White-tailed kite	*Elanus leucurus*	Grasslands, scrub, marsh	FP (nest)	Ortega Ridge, 1.6 miles to the northeast (Santa Barbara County & Envicom, 1992)	A	No suitable habitat in the vicinity of the project site
Light-footed clapper rail	*Rallus longirostris levipes*	Saltmarsh	FE, SE	Carpinteria Saltmarsh (historic), 4.5 miles to the east (CNDDB, 2015)	A	No suitable habitat in the vicinity of the project site
Belding's savannah sparrow	*Passerculus sandwichensis beldingi*	Saltmarsh	SE	Carpinteria Saltmarsh, 5 miles to the east (CNDDB, 2015)	A	No suitable habitat in the vicinity of the project site
Cooper's hawk	*Accipiter cooperi*	Grasslands, scrub, woodland	WL (nest)	Mission Creek, 6.1 miles to the west-northwest (CNDDB, 2015)	A	No suitable habitat in the vicinity of the project site
Yellow warbler	*Dendroica petechia brewsteri*	Riparian woodland, riparian scrub	CSC (nest)	Carpinteria Creek corridor, considered fairly common (Cachuma RCD et al., 2005)	A	No suitable habitat in the vicinity of the project site
Yellow-breasted chat	*Icteria virens*	Riparian woodland, riparian scrub	CSC (nest)	Toro Creek, 2.6 miles to the northeast (Santa Barbara County & Envicom, 1992)	A	No suitable habitat in the vicinity of the project site

Table 6. Continued

Common Name	Scientific Name	Habitat	Status	Nearest Known Location	Present/ Absent based on Habitat	Rationale for Absence/ Discussion
Mammals						
Big free-tailed bat	*Nyctinomops macrotis*	Caves, crevices (roosting)	CSC	Santa Barbara (non-specific, CNDDB, 2015)	A	No suitable roost habitat in the vicinity of the project site
Townsend's big-eared bat	*Corynorhinus townsendii*	Caves, buildings, bridges	CSC	Carpinteria Saltmarsh, 5.1 miles to the east (CNDDB, 2015)	A	No suitable roost habitat in the vicinity of the project site
Yuma myotis	*Myotis yumanensis*	Crevices, bridges	SA	Carpinteria Avenue bridge, 6.5 miles to the east-southeast (Forde, 2013)	P (foraging only)	No suitable roost habitat in the vicinity of the project site

Status Codes:

CSC	California Species of Special Concern (CDFW)	SA	Special Animal (CDFW)
FE	Federal Endangered (USFWS)	SE	State Endangered (CDFW)
FT	Federal Threatened (USFWS)	WL	Watch List (CDFW)
FP	Fully Protected (Fish & Game Code)	ST	State Threatened (CDFW)

Monarch Butterfly. Surveys for Monarch butterfly were not conducted for this project, due to the lack of access to a known roost on private property. This species winters in dense roosts, typically in tree stands in protected coastal areas. These winter roosts begin forming in October and persist into February, while autumnal roosts are abandoned early in November or December by individuals seeking more favorable conditions. A County-wide survey conducted between 1998 and 1999 reported a very small (up to 30 individuals) autumnal roost along Romero Creek (Site 90) in a grove of blue gum trees (Meade, 1999). This site is located approximately 900 feet upstream of the project site.

Tidewater Goby. The affected reach of Romero Creek does not provide suitable habitat for this species due to the lack of an estuary, concrete-lining and insufficient surface water. In a letter from Jeff Phillips to Garcia and Associates dated July 12, 2012, the U.S. Fish & Wildlife Service (USFWS) indicated the project site could not support any Federally-listed species for which the USFWS has regulatory responsibility, including tidewater goby.

Southern Steelhead. Steelhead are an anadromous form of rainbow trout, meaning it reproduces in freshwater, but spends much of its life cycle in the ocean, where improved foraging opportunities provide a greater growth rate. Steelhead are divided into 15 evolutionary significant units (ESU) based on similarity in life history, location, and genetic markers. The southern California ESU extends from the Santa Maria River basin south to the Mexican border. The southern California ESU was listed as endangered by the National Marine Fisheries Service (NMFS) on October 17, 1997. Romero Creek (creek mouth to 0.75 miles upstream of Route 192) was included in the National Marine Fisheries Service (NMFS) critical habitat designation for the South Coast Hydrologic Unit.

An 11-inch trout (presumably steelhead) was reported by Stoecker (2002) from the Romero Creek mouth in 2001. In addition, County Transportation and Flood Control staff has reported trout from the Romero Creek watershed. In a letter from Penny Ruvelas to Garcia and Associates dated September 17, 2012, the NMFS indicated the project site and downstream concrete channel provides little to no habitat for steelhead during base-flow (dry season) conditions. The presence and severity of fish passage barriers has not been studied in the Romero Creek watershed. However, the concrete channel at the creek mouth is very similar to Montecito Creek, which Stoecker (2002) indicated "presents a high degree of difficulty to upstream passage". In addition, storm flows are mostly contained by channel walls from the North Jameson Lane crossing to the creek mouth, which may result in high water velocity during storm flows and represent a velocity barrier to fish passage. Therefore, it is unclear if steelhead have access to potential spawning areas in the Romero Creek watershed.

California Newt, California Red-legged Frog and Western Pond Turtle. Due to the concrete-lined channel, long disturbance history of the site, suburban encroachment and insufficient duration of surface water, suitable habitat does not occur in the vicinity of the project site. Therefore, these species are considered absent.

Two-striped Garter Snake. This species is highly aquatic and typically feeds on fish, amphibians and amphibian larvae, and is considered a species of special concern by CDFW. Two-striped garter snake was not observed within the project site during field surveys. Romero Creek does not provide adequate habitat and surface water to support suitable prey for two-striped garter snake. Therefore, two-striped garter snake is assumed to be absent from the project site.

White-tailed Kite, Light-footed Clapper Rail and Belding's Savannah Sparrow. The project site and vicinity does not provide suitable nesting or foraging habitat for these species. Therefore, white-tailed kite, light-footed clapper rail and Belding's savannah sparrow are considered absent from the project site.

Cooper's hawk, Yellow Warbler and Yellow-Breasted Chat. Riparian habitat along Romero Creek in the project vicinity is not considered suitable for these species due to the limited area, low quality and isolation from other riparian habitat by major transportation corridors (U.S. Highway 101, Union Pacific Railroad tracks). Therefore, Cooper's hawk, yellow warbler and yellow-breasted chat are considered absent from the project site.

Big Free-tailed Bat, Townsend's Big-eared Bat and Yuma Myotis. Bat roosting habitat such as crevices (i.e., expansion joints) and under-deck structures (such as exposed beams) does not occur at the existing bridge. However, Yuma myotis has been observed roosting along creeks in the region (Maria Ygnacio Creek, San Antonio Creek, Carpinteria Creek) and may forage along Romero Creek in the project area.

Wetlands. Definition. The U.S. Army Corps of Engineers (Corps) has jurisdiction over waters of the United States (U.S.) under the authority of the Section 404 of the Clean Water Act. The limit of jurisdiction in non-tidal waters extends to the ordinary high water mark and includes all adjacent wetlands. Waters of the U.S. are defined as:

"All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide; including all interstate waters including interstate wetlands, all other waters such as intrastate lakes, rivers, streams, mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce."

The Corps and U.S. Environmental Protection Agency define wetlands as:

"Those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas."

Corps-defined wetlands are determined to be present if evidence of each of three criterion are observed (prevalence of hydrophytic vegetation, presence of hydric soils, and wetland hydrology).

The project site is located within the Coastal Zone and subject to permit appeal by the California Coastal Commission (CCC), which defines wetlands as:

"Wetlands are lands where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent or drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentrations of salt or other substance in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some time during each year and their location within, or adjacent to, vegetated wetlands or deepwater habitats." (14 CCR § 13577)

The determination of the extent of CCC-defined wetlands is based on a "one parameter definition", meaning areas exhibiting any of the three parameters (hydrophytic vegetation, hydric soils, and wetland hydrology) are considered wetlands. For the purposes of this project, wetland hydrology (streambed area between channel walls) covered the greatest area and was used to determine the extent of CCC-defined wetlands.

Santa Barbara County has adopted the USFWS wetland definition (Santa Barbara County, 2008):

"Wetlands" must have one or more of the following attributes:

- At least periodically, the land support predominantly hydrophytes, that is plants adapted to moist areas;
- The substrate is predominately undrained hydric soil; and
- The substrate is non-soil and is saturated with water or covered by shallow water at some time during the growing season each year.

Preliminary Wetland Delineation. A preliminary wetland delineation was conducted to determine the area of jurisdiction of the Corps under Section 404 of the Clean Water Act. The delineation was performed in accordance with the routine procedures for areas greater than 5 acres detailed in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory, 1987) and *Regional Supplement: Arid West Region* (Corps of Engineers, 2008).

Jurisdictional wetlands were determined to be present if evidence of all three Federal criteria were observed (hydrophytic vegetation, hydric soils, and wetland hydrology). However, the USFWS and California Department of Fish and Game (CDFW) wetland definition requires that only one of the wetland criteria be present to define a wetland. Wetlands data was collected at one location within the project site, upstream of the existing bridge where the streambed is not concrete-lined.

Federal Jurisdictional Determination. Romero Creek is a tributary of the Pacific Ocean (a territorial sea and navigable water) and exhibits a defined streambed, bank and ordinary high water mark. Therefore, Romero Creek is considered waters of the U.S. under the Corps' Clean Water Rule (Federal Register, June 29, 2015), and within the jurisdiction of the Corps of Engineers.

Wetland Delineation Results. A predominance of hydrophytic (water-loving) vegetation was not found, due to the dominance of non-native upland species in the streambed.

Soil pits were not excavated due to the difficulty in penetrating the cobble bottom. However, based on experience with similar creeks, the duration and frequency of inundation is not sufficient to develop hydric soils.

Surface water and saturated soils were absent within Romero Creek at the time of the wetland delineation. However, secondary evidence of wetland hydrology was found, comprised of sediment deposits, drift deposits and drainage patterns.

Due the lack of hydrophytic vegetation, Corps jurisdictional wetlands were not found within the project site. However, the presence of wetland hydrology indicates County-defined wetlands and CCC-defined wetlands are present in Romero Creek within the project site.

Impact Discussion:

a. No Impact: The project site does not support native plant communities, including any unique, rare or threatened plant communities.

b. No Impact: The only special-status plant species found at the project site is coast live oak, and is addressed under e. below.

c. No Impact: The streambed upstream of the bridge supports weedy riparian vegetation dominated by non-native species. The project would not result in the loss of any native vegetation.

d. Less than Significant with Mitigation. Project-related construction including the new bridge, temporary bridge and fish passage improvements would result in the temporary loss of 0.11 acres of non-native vegetation within a designated ESHA. This impact is considered potentially significant. Habitat restoration identified in Mitigation Measure BIO-1 would result in replacement of non-native species with native riparian plant species and improve the habitat value of the ESHA.

e. Less than Significant with Mitigation. Project implementation would require the removal of one native specimen tree, a coast live oak (two trunks, 13 & 14" diameter) located at the southwest corner of the existing bridge. This impact to native specimen trees is considered potentially significant. Tree replacement requirements identified in Mitigation Measure BIO-2 would ensure impacts are reduced to less than significant levels.

f. No Impact: No chemicals, animals, human habitation or invasive plants would be associated with project implementation.

g. Less than Significant with Mitigation. Southern Steelhead. As discussed above, the project site and vicinity does not provide adequate surface water volume and duration to support steelhead spawning and rearing. Therefore, impacts would be limited to temporary effects to migration of spawning adults moving upstream and juveniles (smolts) moving downstream to the ocean. Project-related instream construction would be planned when the subject reach of Romero Creek is dry (generally spring through fall) to avoid impacts to steelhead migration. However, above-average rainfall and project schedule delays could result in project construction occurring when surface water is present. Therefore, the potential exists that steelhead may be adversely affected by project-related stream diversion and water quality impacts. Impacts may include stranding during stream diversion, impingement on pump intake screens, increased turbidity and sedimentation caused by demolition and/or construction work in the streambed. Incidental take of steelhead in the form of harassment, harm or mortality may occur. Avoidance and minimization measures identified in Mitigation Measure BIO-3 would minimize the potential for take of southern steelhead. Caltrans would enter into formal consultation with NMFS, resulting in a biological opinion with an incidental take statement. Conditions of the biological opinion would be incorporated into the proposed mitigation measures listed below.

In the long-term, proposed fish passage improvements would benefit steelhead migrating through the project site by removing a potential barrier (notched weir to facilitate fish passage over a pipe encasement) and providing two stream pools for resting during migration.

Yuma Myotis. This species is found in a variety of habitats, but is highly associated with water and human structures. It is a crevice roosting species, typically found in high numbers within expansion joints (and similar crevices) of bridges over surface water. Suitable crevice habitat was not found at any of the bridges in the project area during field surveys conducted for this project. Based on recent observation of guano piles, bats (presumably including Yuma myotis) use the U.S. Highway 101 bridge as a night roost (rest area between nighttime foraging bouts), clinging to the exposed beams under the bridge. Therefore, this species may forage along the affected reach of Romero Creek. However, foraging occurs at night, when construction work would be very rare. In addition, the affected area (0.11 acres of streambed habitat) would represent a very small portion of the available foraging habitat along Romero Creek. The existing bridge does not provide crevice habitat, and cannot support a day roost or maternity colony. Therefore, bridge replacement would not directly affect Yuma myotis reproduction or result in loss of a breeding site. Overall, impacts to Yuma myotis are considered less than significant.

h. Less than Significant Impact. The project-related loss of wildlife habitat would be minimal (approximately 0.11 acres), comprised of mostly non-native plant species and temporary in nature. Construction-related disturbance (noise, vibration, equipment activity) would be localized and occur in a previously disturbed area (adjacent to a major transportation corridor and concrete-lined channel). Therefore, a reduction in diversity or substantial reduction in numbers of wildlife is not expected.

i. Less than Significant Impact. As discussed in c. and g., a small amount of project-related habitat loss would occur. However, such habitat loss is not anticipated to affect local wildlife populations.

j. Less than Significant Impact. Romero Creek may be used as a corridor by wildlife moving through the area as it provides habitat and cover in a suburban area, and provides passage under a major transportation corridor (U.S. Highway 101, Union Pacific Railroad). However, vertical concrete channel walls downstream of the North Jameson Lane bridge substantially restricts most wildlife from using the streambed as a movement corridor. Therefore, wildlife movements in the project area along Romero Creek are expected to be limited. Vegetation removal and construction-related disturbance may affect local wildlife movements. Since no barriers to wildlife would be involved and little work would occur at night when most wildlife movement occurs, impacts to wildlife movement are considered less than significant.

k. Less than Significant Impact. Project-related construction would involve temporary installation of fencing, but would be located along Fernald Point Lane and would not impede wildlife movement along Romero Creek. The project site is located adjacent to railroad tracks, a major freeway and residential land uses, such that existing sources of lighting, noise and human presence are present. The project would not result in a substantial increase in these factors which may hinder normal activities of wildlife. Impacts are considered less than significant.

Mitigation and Residual Impact:

BIO-1: ESHA Restoration. The limits of construction shall be clearly delineated to avoid inadvertent loss of vegetation within the designated ESHA. Native riparian plants shall be planted within the ESHA disturbed by construction, primarily in the stream channel upstream of the bridge including the County right-of-way and the adjacent parcel (APN 007-380-004).

Plan Requirements and Timing. A draft Restoration Plan has been prepared as part of the Coastal Development Permit application. This Restoration Plan shall be supplemented as needed and approved by regulatory agencies prior to the initiation of construction including the California Department of Fish & Wildlife, Corps of Engineers and Regional Water Quality Control Board. **MONITORING**. A qualified biologist shall monitor the success of riparian habitat restoration as required by regulatory permits. Monitoring reports shall be reviewed by County staff.

BIO-2: Native Specimen Trees. The loss of one protected coast live oak tree would be mitigated by replacement planting at a ratio of 10:1, such that a total of 10 coast live oaks would be planted. The draft Restoration Plan indicates most of these oak trees would be planted southwest of the bridge (see **BIO-1**). Rooted acorns or 1 to 5-gallon container plants would be used and should be propagated from genetic stock originating in the region (Santa Barbara County). Each mitigation tree should be protected against ground disturbance, soil compaction, or over-irrigation. Additionally, the mitigation trees should be fenced or provided with herbivore protection (wire cages, or equivalent) until the trees have attained 8 feet in height.

These mitigation trees would be maintained for five years with the last two years without irrigation. Oak planting and maintenance techniques should be consistent with the most current edition of the How to Grow California Oaks, a University of California Publication. At the end of the five year maintenance period, all 10 coast live oaks should be alive and in good health, or 5 of the oaks should attain a height above the browse line (8 feet). The mitigation ratio and guidelines herein are consistent with Santa Barbara County Thresholds Manual and Santa Barbara County Grading Ordinance for Native Oak Tree Removal.

Plan Requirements and Timing: Tree replacement requirements shall be included in the project's plans and specifications. **MONITORING**: The County project engineer shall ensure compliance with this measure.

BIO-3: Steelhead Avoidance and Minimization Measures: The following measures taken from the Biological Opinion issued by the National Marine Fisheries Service (NMFS) for the project shall be fully implemented to prevent impacts to steelhead should construction work occur within or adjacent to surface water:

1. At least two biologists with expertise in salmonid biology and ecology shall be retained by the County and their credentials shall be provided to NMFS at least 15 days prior to any stream diversion or dewatering.

2. A NMFS-approved biologist shall identify suitable steelhead relocation sites upstream and/or downstream of the bridge site prior to any dewatering activities. Site attributes to be evaluated to determine suitability include minimum dissolved oxygen levels, water temperature, cover and living space.
3. Steelhead capture shall be limited to seine, dip-net, throw net, minnow trap or by hand. Electro-fishing is prohibited.
4. A written steelhead relocation report shall be provided to NMFS within 30 working days of completion of project construction, and include the number and size of steelhead relocated, date and time of collection and relocation, description of any problems implementing mitigation measures, and any effect on steelhead not previously considered.
5. NMFS shall be contacted by telephone immediately if one or more steelhead are found dead or injured. All dead steelhead found shall be collected, frozen and labeled with the date and location of collection. Dead steelhead shall be retained until notified by NMFS. Written notification to NMFS shall follow within 5 days of discovery of dead or injured steelhead, including date, time and location of the carcass or injured specimen, color photograph, cause of injury or death, name and affiliation of the person whom found the specimen.
6. A NMFS-approved biologist shall monitor all instream construction activities and performance of sediment control devices to identify and reconcile any condition that may adversely affect steelhead or their habitat. The monitor shall be empowered to stop construction work that adversely affects steelhead or their habitat. Unforeseen effects which may adversely affect steelhead or aquatic habitat not previously considered shall be reported to NMFS.
7. Any pumps used to dewater Romero Creek shall be fitted with 5 mm (or smaller) wire mesh to prevent entrainment of juvenile steelhead.
8. Erosion control and construction stormwater management measures shall be implemented prior to construction to minimize sediment discharge to surface water. Any collected sediment shall be disposed off-site.
9. Heavy equipment use in the streambed shall be minimized to the extent feasible. Heavy equipment shall be checked for fluid leaks daily and repaired as needed. Heavy equipment shall be removed from the streambed at the end of each work day.
10. NMFS shall be provided the ESHA Restoration Plan and monitoring report prepared as part of mitigation measure BIO-1, including a description of areas restored, restoration methods, success criteria and photographs depicting pre-restoration and post-restoration conditions. Monitoring reports shall be submitted annually for 5 years following project completion, within 30 days of each annual site inspection.

11. A post-project hydraulic and geomorphic monitoring and maintenance program shall be developed in coordination with NMFS to ensure the proposed fish passage improvements meet steelhead passage requirements immediately after construction and following significant storm events. The program shall be approved in writing by NMFS prior to implementation. Monitoring shall include:

    - The formation of a low flow fish passage channel through the project site.
    - Steelhead passage conditions (depth, velocity, flow patterns, resting pools) through the two weirs and underneath the bridge.
    - The amount and extent of erosion and sediment deposition within or adjacent to the project site.
    - The stability of the weirs and effectiveness in creating and maintaining a low flow fish passage and resting pools.
    - The condition of the project site over time through the establishment of photo-reference sites.

12. A post-project topographic survey of the Romero Creek channel and thalweg shall be conducted and submitted to NMFS within 30 days of completion of the survey. The survey shall start just downstream of the bridge and extend upstream of the pipe cap weir. The survey shall be conducted in sufficient detail to identify pool depths, hydraulic drops, head-cuts, key rock framework and cross-sections.

Plan Requirements and Timing. The salmonid biologist's credentials shall be submitted to NMFS 15 days prior to stream diversion. The hydraulic and geomorphic monitoring and maintenance program and topographic survey shall be prepared and submitted to NMFS following the completion of construction.

MONITORING. A NMFS-approved biologist shall monitor project construction activities to ensure steelhead protection measures are fully implemented (see measure 6 above). Monitoring reports shall be reviewed by County staff.

Full implementation of the above mitigation measures would reduce project-specific and cumulative impacts to biological resources to a level of less than significant.

4.5 CULTURAL RESOURCES

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
Archaeological Resources					
a. Disruption, alteration, destruction, or adverse effect on a recorded prehistoric or historic archaeological site				X	
b. Disruption or removal of human remains?				X	
c. Increased potential for trespassing, vandalizing, or sabotaging archaeological resources?				X	
d. Ground disturbances in an area with potential cultural resource sensitivity based on the location of known historic or prehistoric sites?		X			
Ethnic Resources					
e. Disruption of or adverse effects upon a prehistoric or historic archaeological site or property of historic or cultural significance to a community or ethnic group?				X	
f. Increased potential for trespassing, vandalizing, or sabotaging ethnic, sacred, or ceremonial places?				X	
g. The potential to conflict with or restrict existing religious, sacred, or educational uses of the area?				X	

Setting:

The following impact analysis is based on an Archeological Survey Report (available on request) prepared for the project by Applied Earthworks (2015).

Regional Prehistoric Overview. Humans were present in the Santa Barbara Channel area by 12,000 years ago, as indicated by human bones from Santa Rosa Island that are at least that old (Erlandson et al., 2007). The earliest human presence on the mainland is reflected by a basal corner of a Clovis point which may indicate a mainland occupation of a comparable age (Glassow et al., 2007). These are some of the oldest archaeological finds from North America.

Two additional sites from the Channel Islands and one other site from the Santa Barbara Channel mainland date prior to 7000 B.C. (Glassow et al., 2007). Sites dating to this period are characterized by an artifact assemblage of primarily flaked stone tools and people appear to have subsisted largely on plants, shellfish, and some vertebrate species (Erlandson et al., 2007). Fishing with gorge and line was practiced by about 7800 B.C.; however, milling implements were not used during this period (Glassow et al., 2007). Overall, this period has been described as a time of low population density, simple technology, and egalitarian social organization (Erlandson, 1994).

After 7000 B.C., the population began expanding and metates and manos become abundant (Glassow et al., 2007). Approximately 40 sites have been dated to the Milling Stone Period (7,000 to 4,500 B.C.). Many sites contain substantial deposits with hundreds of artifacts, implying regular use and longer periods of residence (Glassow et al., 2007). These ground stone implements have been interpreted as evidence for a subsistence focus on seeds and other plant materials, and may imply increased storage of food between seasons (Glassow, 1996).

Hammerstones, fire-altered rocks, and a variety of flaked stone tools are also abundant in sites dating to the Milling Stone Period (Glassow et al., 2007). Estuarine shell species are very common in sites of this age along the channel coast and appear to have been more important than other animal food sources (Erlandson 1991, 1994; Warren, 1968). Additionally, artifacts made from exotic obsidian, imported from at least as far away as the southeastern Sierra Nevada, have been recovered from sites dating to the early phases of this era (Erlandson, 1994). However, sites of this age contain few or no projectile points (Glassow et al., 2007). *Olivella biplicata* shell beads make their first appearance during the Milling Stone Period, but they do not indicate social stratification as in later prehistory (Glassow et al., 2007). The patterned distribution of artifact types interred with burials indicate that social status was determined by an individual's own accomplishments rather than on inherited or ascribed social standing (Erlandson, 1993; Glassow, 1996; King, 1990).

The period of 4,500 to 2,000 B.C. represents a time of technological advances, population growth, and greater social complexity. Metates and manos continued to be used during this period with the addition of mortars and pestles, indicating utilization of a greater variety of plant foods, including acorns. There is also a significant increase in the quantity of projectile points found in sites from this period (Glassow et al., 2007).

Population densities and reliance on marine fish and mammals appears to increase steadily from 3000 to 1000 B.C. (Glassow, 1996). Settlement became more complicated; both large sites and smaller, less dense sites existed at the same time. The larger sites may have served as primary residential bases where a variety of specialized activities took place, while the smaller sites would have been occupied for much shorter periods. There is also an increase in the number of shell beads and ornaments found with burials, indicating greater social complexity (Glassow et al., 2007).

Transitions from the middle to late Holocene (2,000 B.C.–A.D. 1) are characterized by changes in technology, subsistence, and settlement during this period reflect an increasingly maritime orientation with intensified fishing and regional exchange. Contracting stemmed points, notched stone sinkers or net weights, and circular shell fishhooks all make there first appearance during this period; these directly transformed hunting, fishing, and warfare, respectively. There is a broadening of diet to include a diverse array of marine and terrestrial species. There is also evidence for increased sedentism at sites based on their increased size and/or high density of faunal remains and artifacts, floral assemblages indicative of year-round habitation, formal architecture, ceremonial structures, and formal cemeteries (Glassow et al., 2007).

The A.D. 1 to 1,000 era is considered to be a time of steady intensification of resource use to support increasing populations, reflected by increasing diversity of food sources taken from a wider range of habitats (Erlandson, 1993). This was enabled by technological changes that supported fishing and hunting. The most significant technological change is the introduction of the plank canoe, or *tomol.* The *tomol* was important in fishing and commerce between the mainland coast and the Channel Islands. The bow and arrow, also introduced during this period, influenced methods of hunting and warfare. Population growth and increased sedentism is reflected by larger midden deposits and the presence of well-developed cemeteries (Glassow et al., 2007).

Late prehistory (A.D. 1000–1542) represents the height of Chumash population, craft specialization, and social complexity. Island populations manufactured millions of shell beads which would be exchanged for mainland products (Glassow et al., 2007). This was supported by micro-lithic blade technology, linked with production of standardized micro-drills for perforating shell beads, which emerged by circa A.D. 900. During the next 250 years, these island chert micro-drills are found at both island and mainland villages. Beginning circa A.D. 1150, developments include the appearance of a technologically superior microblade form; increases in production scale, labor investment, and product standardization; and decreased failure rates (Arnold, 2001).

Evidence from the archaeological record clearly implicates changing environmental conditions in addition to growing populations and the resulting increased pressure on subsistence and other resources as notable influences on changing Chumash social and cultural practices. Shorter-term periods of environmental perturbation appear to correlate with higher incidence of infectious disease and traumatic injuries indicative of violent conflict (Lambert, 1994; Walker and Lambert, 1989). Unfavorable climate conditions and introduction of the bow and arrow, both beginning circa A.D. 500, are associated with increased signs of interpersonal violence in channel populations (Walker et al., 1989).

Ethnography. The Chumash at the time of European contact inhabited villages and towns in coastal and inland areas extending from the Santa Monica Mountains in the south to Paso Robles in the north as well as the Northern Channel Islands (Grant, 1978; Milliken and Johnson, 2003). The project area was occupied by the Barbareño Chumash, who lived in the narrow coastal plain from Point Conception to Punta Gorda in Ventura County (Grant, 1978). Early Spanish expeditions to the Santa Barbara Channel area encountered heavily populated villages along the coast, some with as many as 800–1,000 residents. These coastal villages include *Shalwaj* just east of the project area and *Swetete* to the west. The interior mainland areas were more sparsely populated, although several larger communities existed in these areas as well (Johnson, 1988). Important differences in subsistence practices, social and political organization, and other cultural features existed among the different zones within Chumash territory.

Record Search. A records search was conducted by the Central Coast Information Center (CCIC) on July 6, 2012. The CCIC records search identified two cultural resources sites within 0.5 mile of the project site, CA-SBA-17 and CA-SBA-2179/H. Immediately east of the Study Area, CA-SBA-17 is the ethnohistoric Chumash village *Shalwaj.* The site was later known as “La Matanza” when used by the Spanish as a place to slaughter cattle. Remnants of the village were documented by David Banks Rogers, who excavated the site in the 1920’s, identifying food remains, various artifacts, and numerous burials (Rogers, 1929). At the time of the most recent site record, archaeologists noted that little apparently remained of the site (Chartkoff and Kona, 1967). CA-SBA-2179/H, located northeast of the project site, contains prehistoric habitation debris (flaked stone and marine shell) possibly from the same village site, along with historical glass and ceramics from the early twentieth century.

The Native American Heritage Commission conducted a file search on July 10, 2012 to identify any sacred lands in the project area. The file search failed to identify any cultural resources within the immediate project area.

Field Investigations. A total of 19 archaeological investigations have been conducted for other projects within a 0.5-mile radius of the project site. Archeological field surveys of the project site were conducted by Applied Earthworks on July 17, 2012 and November 25, 2014, and included the affected portions of Fernald Point Lane and Romero Creek. Due to the limited surface exposure along the road, the survey strategy focused on soil exposed in landscaped areas, in bare areas along the road, in accessible portions of the Union Pacific Railroad right-of-way, and along the creek bed. Overall ground surface visibility was 20 to 30 percent, limited by pavement, landscaping, and leaf litter. No prehistoric or historical materials were observed in the course of these surveys.

Native American Consultation. A total of 20 Native American contacts (provided by the Native American Heritage Commission) were mailed a project description letter by Applied Earthworks on July 19, 2012, and followed up with telephone calls. The only concern expressed was that Charles S. Parra recommended construction monitoring.

Impact Discussion:

a. No Impact: Based on the results of the record search, past field investigations and the archeological field surveys conducted for the project, ground disturbance associated with bridge replacement would not disrupt any archeological sites.

b. No Impact: Impacts to known archeological sites would not occur; therefore, disruption or removal of human remains is not anticipated.

c. No Impact: The proposed project would not result in an increase in population or increased access to archeological sites. Therefore, an increased potential for trespassing, vandalism or sabotage is not anticipated.

d. Less than Significant Impact with Mitigation. No disruption or other adverse effects to known archaeological sites are anticipated. However, due to the presence of a nearby village site and propensity for Native American settlements to occur near drainages (such as Romero Creek), a small potential exists for unknown buried cultural resources to be adversely affected by project-related construction activities.

e. No Impact: No prehistoric or historic archeological sites or properties of historic or cultural significance would be adversely affected by the proposed project.

f. No Impact: No ethnic, sacred or ceremonial places occur in the vicinity of the project; therefore, no adverse effects are expected.

g. No Impact: The proposed project would not result in an increase in population or increased access to ethnic, sacred or ceremonial places. Therefore, increased conflicts with religious, sacred or educational uses are not expected.

Mitigation Measures and Residual Impacts:

AR-1: Evaluation and Avoidance of Discovered Cultural Resources. To minimize potentially significant impacts to unreported archeological resources, the following measures shall be implemented:

- At the commencement of any project-related ground disturbance, an archaeologist shall provide construction workers an orientation on cultural resources and directions as to what steps are to be taken if a find is encountered.
- In the event that archaeological resources are unearthed during project construction, all earth disturbing work within the vicinity of the find must be temporarily suspended or redirected until an archaeologist has evaluated the nature and significance of the find pursuant to Phase 2 investigations of the County Archeological Guidelines. If the find is determined to significant, the site shall be subject to a Phase 3 mitigation program consistent with the County Archeological Guidelines. After the find has been appropriately mitigated, work in the area may resume. A Chumash representative shall be retained to monitor any mitigation work associated with Native American cultural material.

- If human remains are unearthed, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the coroner has 24 hours to notify the Native American Heritage Commission.

Plan Requirements/Timing: These conditions shall be included in the project plans and specifications. **MONITORING**: The County on-site inspector shall ensure the measures are fully implemented.

Full implementation of the above mitigation measures would reduce project-specific and cumulative impacts to cultural resources to a level of less than significant.

4.6 ENERGY

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
a. Substantial increase in demand, especially during peak periods, upon existing sources of energy?				X	
b. Requirement for the development or extension of new sources of energy?				X	

Setting:

Electrical service is provided by Southern California Edison and natural gas is provided by Southern California Gas in the project area. The County has not identified significance thresholds for electrical and/or natural gas service impacts.

Impact Discussion:

a. No Impact: The project consists of bridge replacement and would not consume energy, with the exception of fossil fuels used in construction equipment and vehicles. Overall, no increase in demand for energy would occur.

b. No Impact: The project would not require or induce new development or require extension of existing sources of energy.

Mitigation and Residual Impact:

No mitigation is required. No cumulatively considerable or residual impacts are anticipated.

4.7 FIRE PROTECTION

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
a. Introduction of development into an existing high fire hazard area?				X	
b. Project-caused high fire hazard?			X		
c. Introduction of development into an area without adequate water pressure, fire hydrants or adequate access for fire fighting?				X	
d. Introduction of development that will hamper fire prevention techniques such as controlled burns or backfiring in high fire hazard areas?				X	
e. Development of structures beyond safe Fire Dept. response time?				X	

Setting:

The project site is located in a suburban area with irrigated landscaping and lacking weedy areas or other flammable vegetation. Therefore, the fire hazard is considered moderate. Fire response services for the site would continue to be provided by the Montecito Fire Protection District located at 595 San Ysidro Road in Montecito.

Impact Discussion:

a. No Impact: The proposed project does not involve the construction of habitable or other flammable structures, and would not directly or indirectly lead to any such structures that may increase the exposure of the public to fire hazard.

b. Less than Significant Impact: Construction activities would not occur in areas supporting flammable vegetation and would not have the potential to significantly increase fire hazard to adjacent residential areas.

c. No Impact: The proposed project does not include any new development.

d. No Impact: The proposed project does not include any new development (excluding the proposed bridge), and would not hamper fire prevention activities in adjacent areas.

e. No Impact: The proposed replacement bridge would be constructed of non-flammable materials (primarily Portland cement, steel and asphalt concrete) and would not require fire protection.

Mitigation and Residual Impact:

No mitigation is required. No cumulatively considerable or residual impacts are anticipated.

4.8 GEOLOGIC PROCESSES:

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
a. Exposure to or production of unstable earth conditions such as landslides, earthquakes, liquefaction, soil creep, mudslides, ground failure (including expansive, compressible, collapsible soils), or similar hazards?			X		
b. Disruptions, displacements, compaction or overcovering of the soil by cuts, fills, or extensive grading?			X		
c. Exposure to or production of permanent changes in topography, such as bluff retreat or sea level rise?				X	
d. The destruction, covering or modification of any unique geologic, paleontologic, or physical features?				X	
e. Any increase in wind or water erosion of soils, either on or off the site?			X		
f. Changes in deposition or erosion of beach sands or dunes, or changes in siltation, deposition or erosion which may modify the channel of a river, or stream, or the bed of the ocean, or any bay, inlet or lake?			X		
g. The placement of septic disposal systems in impermeable soils with severe constraints to disposal of liquid effluent?				X	
h. Extraction of mineral or ore?				X	
i. Excessive grading on slopes of over 20%?				X	
j. Sand or gravel removal or loss of topsoil?				X	
k. Vibrations, from short-term construction or long-term operation, which may affect adjoining areas?			X		
l. Excessive spoils, tailings or over-burden?				X	

Setting

Based on the Geologic Map of the Carpinteria 7.5' Quadrangle (Dibblee, 1986), the project site is underlain by floodplain deposits. The nearest mapped fault is the Fernald Point Fault which is located approximately 750 feet southeast of the site. Based on a seismic analysis conducted for the project by Fugro Consultants, the fault with the potential to generate the highest magnitude earthquake at the project site (7.4) is the Red Mountain Fault. There are no Alquist-Priolo fault hazard areas in the project region.

Impact Discussion:

a. Less than Significant Impact. Based on the Seismic Safety and Safety Element of the Santa Barbara County Comprehensive Plan, the project site is located in an area assigned low problem ratings for liquefaction, tsunami, slope stability/landslides, expansive soils, soil creep, and compressible-collapsible soils and moderate problem ratings for seismic-tectonic hazards. The project site does not include any unstable slopes with landslides or slope stability concerns. The immediate project area has been assigned a low-moderate overall geologic problems index. The proposed project would implement recommendations identified in the Foundation Report prepared by Fugro Consultants including earthwork and grading, foundation design, groundwater and drainage measures to address geologic hazards such as seismic groundshaking, surface rupture and liquefaction. The proposed project would not include any habitable structures; therefore, no increase in geologic hazards to the public would occur.

b. Less than Significant Impact: Earthwork associated with the proposed project would be very minor and limited to excavation of footings for the replacement bridge and temporary bridge. No cut or fill slopes would be created.

c. No Impact: The ground surface would be mostly restored following bridge replacement, with only minor, localized changes in topography associated with the new bridge and fish passage improvements. The proposed project would not cause or increase public exposure to bluff retreat or sea level rise.

d. No Impact: Based on the Seismic Safety and Safety Element of the Santa Barbara County Comprehensive Plan, no Areas of Special Geologic Interest occur in the project area. A search of the University of California Museum of Paleontology data base identified a fossil gastropod found at Miramar Beach. Project-related ground disturbance would occur in recent alluvium, such that intact paleontological resources would not be present. No impacts to unique geologic, paleontologic, or physical features would occur.

e. Less than Significant Impact: The project does not involve hillside grading or other earthwork on slopes that would substantially increase soil erosion. Potential erosion associated with storm water flows during the construction period is addressed in Section 4.16.

f. Less than Significant Impact: The proposed project would not result in substantial changes in soil erosion or deposition of sediments that would significantly affect the Romero Creek channel. A Storm Water Pollution Prevention Plan would be implemented during bridge construction to minimize discharge of silt-laden storm water to Romero Creek. Therefore, impacts from increased erosion or siltation would be less than significant. The potential adverse effects of proposed fish passage improvements are addressed under Water Resources, Section 4.16.

g. No Impact: The proposed project would not involve the placement of septic systems.

h. No Impact: The proposed project does not involve the extraction or processing of minerals or ore.

i. No Impact: No grading of existing slopes is proposed.

j. No Impact: Excavation associated with bridge replacement would occur within previously disturbed areas and would not result in the loss of topsoil.

k. Less than Significant Impact: Vibration would be generated by heavy equipment during bridge replacement activities, and may be detected at nearby residences (as close as 80 feet away) during periods of peak heavy equipment activity. However, due to the distance to the nearest residence, relatively small size and amount of heavy equipment, the small number of persons affected, vibration impacts are considered less than significant.

l. No Impact: No spoils would be generated and any material excavated would be used on-site.

Mitigation and Residual Impact:

Mitigation for potentially significant erosion and siltation impacts are addressed under Water Resources (Section 4.16). Residual impacts would be less than significant.

4.9 HAZARDOUS MATERIALS/RISK OF UPSET

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
a. In the known history of this property, have there been any past uses, storage or discharge of hazardous materials (e.g., fuel or oil stored in underground tanks, pesticides, solvents or other chemicals)?				X	
b. The use, storage or distribution of hazardous or toxic materials?			X		
c. A risk of an explosion or the release of hazardous substances (e.g., oil, gas, biocides, bacteria, pesticides, chemicals or radiation) in the event of an accident or upset conditions?		X			
d. Possible interference with an emergency response plan or an emergency evacuation plan?				X	
e. The creation of a potential public health hazard?				X	
f. Public safety hazards (e.g., due to development near chemical or industrial activity, producing oil wells, toxic disposal sites, etc.)?				X	
g. Exposure to hazards from oil or gas pipelines or oil well facilities?				X	

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
h. The contamination of a public water supply?				X	

Setting:

The project area supports residential land uses. No croplands or industrial land uses are located in the immediate area. Based on review of the GeoTracker (State Water Resources Control Board) and ENVIROSTOR (California Department of Toxic Substances Control) data bases, hazardous materials issues in the immediate project area are limited to a diesel fuel spill caused by a truck roll-over approximately 1,200 feet to the northeast. This site has been remediated and closed as of June 13, 2014.

The County's safety threshold addresses involuntary public exposure from projects involving significant quantities of hazardous materials. The threshold addresses the likelihood and severity of potential accidents to determine whether the safety risks of a project exceed significant levels.

Impact Discussion:

a. No Impact: The project site does not have a history of hazardous materials production, use or storage. Therefore, project implementation would not result in exposure of persons or the local environment to hazardous materials.

b. Less than Significant Impact. Excluding fuels and coolant used by construction equipment and vehicles, the project does not involve the use, storage or distribution of hazardous or toxic materials. Equipment and vehicles associated with the project would be fueled from a maintenance vehicle located away from drainages and residences. No storage of fuel or coolant is proposed at or near the project site.

c. Less than Significant Impact with Mitigation: Fernald Point Lane provides access to a small number of residences (~34), and hazardous materials are not transported on this roadway. Proposed bridge replacement would not increase the potential for accidents or upset conditions to result in the exposure of the public to hazardous materials. Three samples of concrete-aggregate materials were collected from the existing bridge and analyzed for asbestos, with negative results (Forbess Consulting Group, 2010). Therefore, bridge demolition would not result in the release of asbestos. Paint from the metal guard-rails on the existing bridge and the roadway center-line were found to contain lead (Oilfield Environmental and Compliance, 2011). Removal of the existing bridge has the potential to expose local residents to lead.

d. No Impact: The proposed project would not interfere with any emergency response plan. A temporary bridge would be provided to maintain access to all land uses during the construction period. Traffic control would be provided on Fernald Point Lane during construction, and would ensure emergency vehicles can safely transit the work area.

e. No Impact: The proposed project does not involve the creation, storage or handling of any hazardous materials, pathogens or disease vectors and would not create any potential public health hazard.

f. No Impact: The proposed project does not include any new development near hazardous materials.

g. No Impact: No oil or gas wells or other oil production facilities, or oil or gas pipelines occur at the project site. Based on the California Department of Conservation Well Finder application, the nearest recorded oil well is a dry hole located 0.5 miles to the northeast. Therefore, project implementation would not result in exposure of persons or property to these hazards.

h. No Impact: The proposed project does not include any activities that would affect public water supplies.

Mitigation Measures and Residual Impacts:

HAZ-1: Lead Abatement. To minimize potentially significant impacts associated with demolition of lead-containing materials, the following measure shall be implemented:

- All bridge guard rail and center-line paint shall be stabilized prior to demolition activities. Loose and flaking paint shall be removed within containment and containerized for subsequent disposal, prior to demolition activities. A lead-based paint encapsulant (L-B-C Industrial Lead Encapsulant by Fiberlock Technologies, or equivalent) shall be applied to all painted surfaces prior to demolition activities. During demolition activities, containment shall be maintained at all times to prohibit the release of lead-based paint to the environment. The demolition and/or abatement contractor shall comply with all components of California Code of Regulations (CCR) Title 8, Section 1532.1, as well as the accreditation, licensing, training and work practices in 17 CCR Division 1, Chapter 8. Additionally, the demolition and/or abatement contractor will comply with Santa Barbara County Air Pollution Control District regulations, including no visible dust emissions.

Plan Requirements/Timing: These conditions shall be included in the project plans and specifications. **MONITORING**: The County on-site inspector shall ensure the measures are fully implemented.

Full implementation of the above mitigation measures would reduce project-specific and cumulative impacts associated with hazardous materials to a level of less than significant.

4.10 HISTORIC RESOURCES

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
a. Adverse physical or aesthetic impacts on a structure or property at least 50 years old and/or of historic or cultural significance to the community, state or nation?				X	
b. Beneficial impacts to a historic resource by providing rehabilitation, protection in a conservation/open easement, etc.?				X	

Setting:

Early Regional History. The Spanish Colonial Period (1769–1822) was initiated by the Gaspar de Portolá expedition through California in 1769. The Spanish established permanent settlements during this period, including the Santa Barbara Presidio and the San Buenaventura Mission in 1782, and Mission Santa Barbara in 1786. The establishment of the missions led to the incorporation of the Chumash into mission settlements and the gradual depopulation of native villages and settlements. The native people at the missions suffered from European diseases and the population declined rapidly. In 1824, Chumash converts revolted at the Santa Barbara, Santa Ynez, and La Purisma missions. Several Indians and Spanish were killed, and many natives fled to the lower San Joaquin Valley (Grant, 1978).

In addition to the missions, the Spanish also established pueblos (towns), some with associated presidios (military forts), and privately held ranchos (cattle ranches) separate from those of the missions. California became a Mexican territory in 1822 after Mexico won its independence from Spain. Over the next 20 years, mission lands were gradually transferred to private ownership via a system of land grants, and sheep and cattle ranching became the primary economic activities. Mexico ceded control of California to the United States under the Treaty of Guadalupe-Hidalgo in 1848; it was admitted to the Union as the thirty-first state in 1850. The cattle ranches continued to prosper until 1863–1864, when drought depleted the cattle herds and sheep became the primary stock. After this time, dairy herds largely replaced beef cattle.

Local History. Montecito, meaning “little woods” in Spanish, was the original area where Father Junipero Serra had planned to build Mission Santa Barbara; however, he died before that could become a reality. His successor, Father Lausen rejected the location, which was known for grizzly bears, wolves, and human renegades; instead he chose its current location, 4 miles west. Montecito soon became part of the pueblo lands of Santa Barbara, granted as compensation to retiring Santa Barbara Presidio soldiers in mostly 50-acre plots. These Spanish soldiers and their families formed the first community in Montecito; some of their descendants still live on these lands today (Tompkins, 2014).

American settlement in Montecito began in the 1850's. Among the first of these settlers was Wilbur Curtis, who developed the hot springs north of town (reputed to have healing properties) into a hotel resort in the early 1860's. Among other immigrants from around the country was B. T. Dinsmore, who arrived in 1867 and planted Montecito's first orange grove. The town got its first U.S. Post Office in 1886 and a depot of the Southern Pacific Railroad in 1887; however, these were soon moved to Santa Barbara. By the 1890's, wealthy people, drawn to Santa Barbara during its heyday as a health resort, began establishing luxury estates in Montecito. By the 1930's, over 200 large estates, ranging in size from 30 to 200 acres, existed in the community. In the present day, Montecito continues to attract captains of industry, Hollywood celebrities, and other members of the wealthy elite (Tompkins, 2014).

A 1914 map of the project area shows the railroad tracks in their current location with a culvert to accommodate Romero Creek. A "County Road" is also shown in the 1914 map and appears to be the forerunner of the State Highway and ultimately U.S. Highway 101. The Fernald Point Lane bridge (51C-137) was constructed in 1959 and was evaluated by Caltrans and found not to be eligible for listing on the National Register of Historic Places.

Record Search. The record search conducted at the CCIC did not identify any historic sites in the project area. The nearest designated County landmark is the Juarez-Hosmer Adobe, located approximately 1.2 miles northwest of the project site.

Impact Discussion:

a. No Impact: No historic structures or properties would be affected by the proposed project.

b. No Impact: No historic resources occur in the project vicinity, such that there are no opportunities for rehabilitation or protection of such resources.

Mitigation and Residual Impact:

No mitigation is required. No cumulatively considerable or residual impacts are anticipated.

4.11 LAND USE

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
a. Structures and/or land use incompatible with existing land use?				X	
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?				X	

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
c. The induction of substantial growth or concentration of population?				X	
d. The extension of sewer trunk lines or access roads with capacity to serve new development beyond this proposed project?				X	
e. Loss of existing affordable dwellings through demolition, conversion or removal?				X	
f. Displacement of substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?				X	
g. Displacement of substantial numbers of people, necessitating the construction of replacement housing elsewhere?				X	
h. The loss of a substantial amount of open space?				X	
i. An economic or social effect that would result in a physical change? (i.e. Closure of a freeway ramp results in isolation of an area, businesses located in the vicinity close, neighborhood degenerates, and buildings deteriorate. Or, if construction of new freeway divides an existing community, the construction would be the physical change, but the economic/social effect on the community would be the basis for determining that the physical change would be significant.)				X	
j. Conflicts with adopted airport safety zones?				X	

Setting:

Land uses around the project site are single-family residential (estate homes), with the Union Pacific Railroad and U.S. Highway 101 located immediately to the north. Romero Creek is channelized at the project site with a concrete channel extending from the bridge site about 700 feet to the Pacific Ocean. Proposed construction would occur within the existing County right-of-way (minimum 40 feet wide) along Fernald Point Lane, and on APN 007-380-004 (0.10 acres along Romero Creek, upstream of the existing bridge). Parcels along Fernald Point Lane are zoned 1-E-1 (One-Family Residential) and subject to the County's Montecito Community Plan and the Montecito Land Use & Development Code.

Impact Discussion:

a. No Impact: The proposed project is a bridge replacement, with the same number of traffic lanes and same basic configuration, and is entirely compatible with surrounding land uses.

b. No Impact: The proposed project is consistent with all applicable plans and policies of the County's Comprehensive Plan, Montecito Community Plan and the Coastal Land Use Plan (see Tables 7, 8 and 9).

c. No Impact: The proposed project is limited to roadway bridge replacement, and would not facilitate or result in population growth or changes in the spatial configuration of the existing population.

d. No Impact: The proposed project does not include the extension of sewer lines or roadways.

e. No Impact: The proposed project would not remove or displace any dwellings.

f. See e.

g. See e.

h. No Impact: No loss of open space would occur as a result of the proposed project.

i. No Impact: No social or economic effect would occur that would result in a physical change in the local community. A temporary bridge would be provided during bridge replacement to avoid isolation of any land uses.

j. No Impact: The project site is located approximately 12.0 miles east of the Santa Barbara Airport. The project would not conflict with any airport safety zones.

Mitigation and Residual Impact:

No mitigation is required. No cumulatively considerable or residual impacts are anticipated.

4.12 NOISE

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
a. Long-term exposure of people to noise levels exceeding County thresholds (e.g. locating noise sensitive uses next to an airport)?				X	
b. Short-term exposure of people to noise levels exceeding County thresholds?		X			
c. Project-generated substantial increase in the ambient noise levels for adjoining areas (either day or night)?		X			

Setting:

The dominant noise source in the project area is traffic on nearby U.S. Highway 101, located approximately 150 feet north of the bridge site. Other noise sources include rail traffic on the Union Pacific Railroad tracks located approximately 80 feet north of the project site. Noise sensitive receptors in the immediate vicinity of the project site include single-family residences located to the southwest through southeast. The nearest residence is located approximately 80 feet south of the bridge site.

A noise measurement taken along Fernald Point Lane at the project site from 10:30 to 10:50 a.m. on February 3, 2015 (170 feet from U.S. Highway 101 center median) yielded a noise level of 65.2 dBA Leq. Traffic noise on nearby U.S. Highway 101 was the dominant noise source. Rail traffic on the adjacent tracks did not occur during the monitoring period.

Impact Discussion:

a. No Impact: The proposed project involves replacement of an existing roadway bridge, at the same location and in the same general configuration. The project would not affect traffic volumes on Fernald Point Lane. The proposed bridge would be about 4 feet narrower than the existing bridge and would not result in an increase in travel speeds. In addition, the roadway surface would be the same as existing. Therefore, no increase in long-term traffic noise is anticipated.

b. Less than Significant Impact with Mitigation: Heavy equipment activity would occur at various times at the site over the anticipated 7 month construction period. Noise modeling was conducted using the Federal Highway Administration Roadway Construction Noise Model to estimate the short term noise levels for the peak construction scenario (bridge demolition). The estimated peak noise level is 79.6 dBA Leq at the nearest residence (80 feet to the south). The County has not developed any short-term noise thresholds. However, construction activities within 1,600 feet of a residence are considered to generally result in a potentially significant impact (County of Santa Barbara, 2008). Implementation of Mitigation Measure **NOISE-1** would ensure short-term noise impacts are reduced to less than significant levels.

c. See b. above.

Mitigation and Residual Impact:

NOISE-1: Construction Noise Limitation. To minimize potentially significant construction-related noise impacts to adjacent residences, the following measure shall be implemented:

- Consistent with Development Standard N-M-1.1.1 of the Montecito Community Plan, construction activities involving heavy equipment or heavy-duty truck traffic shall be limited to 7 a.m. to 4:30 p.m., with no work on weekends or holidays.

Plan Requirements/Timing: This condition shall be included in the project specifications. **MONITORING**: The County-appointed inspector shall ensure the measure is fully implemented.

Full implementation of the above mitigation measure would reduce project-specific and cumulative noise impacts to a level of less than significant.

4.13 PUBLIC FACILITIES

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
a. A need for new or altered police protection and/or health care services?				X	
b. Student generation exceeding school capacity?				X	
c. Significant amounts of solid waste or breach any national, state, or local standards or thresholds relating to solid waste disposal and generation (including recycling facilities and existing landfill capacity)?		X			
d. A need for new or altered sewer system facilities (sewer lines, lift-stations, etc.)?				X	
e. The construction of new storm drainage or water quality control facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?				X	

Impact Discussion:

a. No Impact: The proposed project does not include any new development or any facilities that would require police protection or health care services.

b. No Impact: The project does not include any residential land uses, and would not generate demand for school capacity.

c. Less than Significant Impact with Mitigation: The existing bridge and the upstream channel walls would be demolished and may generate solid waste exceeding the County's 350 ton CEQA threshold for construction and demolition.

d. No Impact: The proposed project does not include any residential or commercial development, and would not generate demand for sewage collection or related facilities.

e. No Impact: The proposed project includes the construction of storm drains to serve the project site and impacts associated with these facilities are fully addressed in this Initial Study.

Mitigation and Residual Impact:

To minimize potentially significant impacts associated with disposal of solid waste generated by bridge demolition and construction, the following measures shall be implemented:

SW-1: Demolition Debris Recycling. Demolition and/or excess construction materials shall be separated on-site for reuse/recycling or proper disposal. During demolition and construction, separate bins for recycling of construction materials and brush shall be provided onsite. **Plan Requirements:** This requirement shall be printed on construction plans. The construction contractor shall provide receipts for recycled materials or for separate bins. **Timing**: Materials shall be recycled as necessary throughout construction. **MONITORING**: The County-appointed inspector shall ensure the measure is fully implemented.

SW-2: Solid Waste Management. To prevent construction and/or employee trash from blowing offsite, covered receptacles shall be provided onsite prior to commencement of grading or construction activities. Waste shall be picked up weekly or more frequently as directed by County staff. **Plan Requirements and Timing:** Prior to start of construction, the contractor shall designate and provide the name and phone number of a contact person(s) to monitor trash/waste and organize a clean-up crew. Additional covered receptacles shall be provided as determined necessary by County staff. This requirement shall be noted on all plans. Trash control shall occur throughout all grading and construction activities. **MONITORING**: The County-appointed inspector shall ensure the measure is fully implemented.

Full implementation of the above mitigation measures would reduce project-specific and cumulative impacts associated with solid waste disposal to a level of less than significant.

4.14 RECREATION

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
a. Conflict with established recreational uses of the area?				X	
b. Conflict with biking, equestrian and hiking trails?				X	
c. Substantial impact on the quality or quantity of existing recreational opportunities (e.g., overuse of an area with constraints on numbers of people, vehicles, animals, etc. which might safely use the area)?				X	

Setting:

Recreational facilities in the vicinity of the project site include Fernald Point beach (public access via Posilipo Lane), Miramar Beach (public access via Eucalyptus Lane), Butterfly Beach, the Valley Club Golf Course (private), Manning Park and Lookout Park (Summerland beach).

Impact Discussion:

a. No Impact: Project-related activity (including temporary traffic control) would extend approximately 400 feet west of the bridge, but would not hamper public access to the beach via Posilipo Lane. The proposed project would not limit access or otherwise conflict with existing recreational uses.

b. No Impact: The project site is not located in the immediate vicinity of any trails; any bike use of Fernald Point Lane would not be impeded as the roadway would remain open during bridge construction and a temporary bridge would be provided.

c. No Impact: The project does not include residential land uses; therefore, it would not generate demand for recreational facilities or result in associated overuse.

Mitigation and Residual Impact:

No mitigation is required. No cumulatively considerable or residual impacts are anticipated.

4.15 TRANSPORTATION/CIRCULATION:

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
a. Generation of substantial additional vehicular movement (daily, peak-hour, etc.) in relation to existing traffic load and capacity of the street system?			X		
b. A need for private or public road maintenance, or need for new road(s)?				X	
c. Effects on existing parking facilities, or demand for new parking?				X	
d. Substantial impact upon existing transit systems (e.g. bus service) or alteration of present patterns of circulation or movement of people and/or goods?				X	
e. Alteration to waterborne, rail or air traffic?				X	
f. Increase in traffic hazards to motor vehicles, bicyclists or pedestrians (including short-term construction and long-term operational)?			X		
g. Inadequate sight distance?				X	
h. Inadequate ingress/egress?				X	
i. Inadequate general road capacity?				X	
j. Inadequate emergency access?				X	
k. Impacts to the Congestion Management Plan system?				X	

Setting:

Fernald Point Lane is considered a minor residential collector roadway, which serves about 34 residences. It is about 1,500 feet long, extends east from Posilipo Lane and terminates just past Romero Creek. Therefore, traffic on Fernald Point Lane is limited to local residents, guests and service vehicles.

Impact Discussion:

a. Less than Significant Impact: Traffic control proposed for the construction period would include temporary closure of a short segment of the westbound lane of Fernald Point Lane to provide a construction staging area. Traffic control would include signage and flagmen as needed to ensure safe traffic flow through the construction area. Employee and materials transportation associated with project construction would generate a maximum of 20 average daily trips (10 round trips per day; 4 heavy-duty truck, 6 light-duty vehicles). Peak hour trips are expected to be less than 5. Based on low trip generation associated with construction activities and proposed traffic control, significant congestion on Fernald Point Lane and its intersection with Posilipo Lane is not anticipated.

b. No Impact: The proposed project involves transportation improvements and would not result in a need for new roads or maintenance of existing roads. It is likely that maintenance activity associated with the new bridge would be less than existing conditions.

c. No Impact: On-street parking is not provided on Fernald Point Lane and no parking signs are posted on both sides of the roadway. The project would not generate long-term parking demand. Project construction-related parking needs would be accommodated on the project site and would not displace any current parking spaces.

d. No Impact: The proposed project would not create a demand for transit or interfere with the existing transit system or circulation of people and goods.

e. No Impact: The proposed project would not affect waterborne or rail traffic, and is not located in either clear zones or approach zones of any airport.

f. Less than Significant Impact: As discussed under item a., a temporary lane closure would be required during bridge construction. Proposed traffic controls (including traffic channelizers, signage, flagmen, temporary bridge railing, temporary barricades, sand-filled crash cushions) would minimize construction-related traffic hazards. Implementation of standard County Public Works practices would ensure that impacts would be less than significant.

g. No Impact: No change in sight distance would occur, the elevation of the proposed replacement bridge and approaches would be virtually the same as existing.

h. No Impact: The proposed project would not affect ingress/egress to and from residential land uses along Fernald Point Lane. Access to all land uses would be maintained during the construction period.

i. No Impact: The proposed project would not affect roadway capacity.

j. No Impact: Emergency access to residences along Fernald Point Lane would not change. Traffic control would be used to maintain access during the construction period.

k. No Impact: Roadways and intersections in the project area operate at acceptable levels of service and are not subject to Congestion Management Plan requirements.

Mitigation and Residual Impact:

No mitigation is required. No cumulatively considerable or residual impacts are anticipated.

4.16 WATER RESOURCES/FLOODING:

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
a. Changes in currents, or the course or direction of water movements, in either marine or fresh waters?			X		
b. Changes in percolation rates, drainage patterns or the rate and amount of surface water runoff?			X		
c. Change in the amount of surface water in any water body?				X	
d. Discharge, directly or through a storm drain system, into surface waters or alteration of surface water quality, including but not limited to temperature, dissolved oxygen, turbidity, or thermal water pollution?		X			
e. Alterations to the course or flow of flood waters, or need for private or public flood control projects?				X	
f. Exposure of people or property to water related hazards such as flooding (placement of project in 100 year flood plain), accelerated runoff or tsunamis, sea level rise or seawater intrusion?				X	
g. Alteration of the direction or rate of flow of groundwater?				X	
h. Change in the quantity of groundwaters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations or recharge interference?				X	
i. Overdraft or over-commitment of any groundwater basin? Or, a significant increase in the existing overdraft or over-commitment of any groundwater basin?				X	

Will the proposal result in:	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
j. The substantial degradation of groundwater quality including saltwater intrusion?				X	
k. Substantial reduction in the amount of water otherwise available for public water supplies?			X		
l. Introduction of storm water pollutants (e.g., oil, grease, pesticides, nutrients, sediments, pathogens, etc.) into groundwater or surface water?			X		

Setting:

Surface Waters. The Romero Creek watershed is approximately 5.1 square miles and drains the Santa Ynez Mountains. Primary drainages in the watershed include Romero Creek, one major tributary (Picay Creek) and one minor tributary (Buena Vista Creek). Approximately one-half of the watershed is developed, and the estimated peak flow associated with a 100-year storm event at the project site is 4,900 cubic feet per second. The reach of Romero Creek within the project site is typically intermittent, but can be perennial following consecutive above-average rainfall years.

San Ysidro Creek also crosses Fernald Point Lane, approximately 1,300 feet west of the project site.

Floodplain. The project site is depicted on the National Flood Insurance Program Flood Insurance Rate Map panel 06083C1411G (revised December 4, 2012), which indicates the bridge site is within the floodway of Romero Creek. Most of Fernald Point Lane and adjacent residences are located with the floodplain (1% annual chance flood) associated with Romero Creek and the adjacent San Ysidro Creek.

Groundwater. The project site lies on the eastern edge of the Santa Barbara Groundwater Basin. The Basin underlies an area of about 9 square miles and includes two hydrologic units separated by the Mesa Fault. Total dissolved solids concentrations of produced groundwater range from about 530 to over 2,000 mg/l. High chloride levels in some wells indicate seawater intrusion has occurred in some areas. From 2009 through 2011, average groundwater usage was 946 acre-feet or about 7 percent of the water demand (Santa Barbara County Public Works Department, 2012).

Water Quality Regulation. The Regional Water Quality Control Board (RWQCB) has developed a Water Quality Control Plan for the Central Coast Region (Basin Plan) (2011) to protect the water quality of surface and groundwaters of the region. The Basin Plan designates beneficial uses, sets narrative and numerical objectives to protect beneficial uses and describes implementation programs. Beneficial uses are processes, habitats, organisms or features that require water and are considered worthy of protection. Identified beneficial uses for Romero Creek include municipal water supply, groundwater recharge, water contact recreation, non-water contact recreation, wildlife habitat, warm freshwater habitat, estuary habitat, freshwater replenishment, and commercial and sport fishing habitat. Romero Creek has been listed as impaired under Section 303(d) of the Clean Water Act for pH.

Impact Discussion:

a. Less than Significant Impact: Both the proposed new bridge and temporary bridge would fully span Romero Creek and would not alter water movement. However, proposed construction activities (channel wall removal and re-construction, bridge demolition and installation of fish passage improvements) would require work within the streambed. These activities would be scheduled when surface flow is absent in Romero Creek. However, stream diversion may be required during the construction period. The proposed fish passage improvements would alter surface flows on a micro-scale, to produce resting pools and a concentrated low flow channel for fish to facilitate movement through the project site. These changes would not significantly affect water movement in Romero Creek.

b. Less than Significant Impact: The proposed project would not result in an increase in impervious surfaces or otherwise affect rainfall percolation or run-off rates. No changes in topography are proposed that could affect drainage patterns. The proposed storm drain system may increase the rate of storm run-off at the project site; however, the affected area would be very small and would contribute to a negligible increase in run-off discharged to Romero Creek.

c. No Impact: As discussed in a. above, temporary stream diversion may be required. However, surface water would be returned to the streambed downstream of the project site. Therefore, no change in the amount of surface water present in any water body would occur as a result of the project.

d. Less than Significant Impact with Mitigation: As discussed in a. above, stream diversion may involve diverting surface flow into a pipe and discharging it to the streambed downstream of the work area. Water quality degradation (increased turbidity and siltation, reduced dissolved oxygen) may occur as a result of surface flow diversion and/or discharge of groundwater associated with construction de-watering. In addition, storm run-off from construction areas may cause increased turbidity and siltation, and discharge of hydrocarbons and other pollutants.

e. **No Impact**: The elevation of the proposed new bridge soffit (bottom of the bridge deck) would be the same as existing (17.7 feet above mean sea level) and would accommodate storm flows generated by a 25-year event. Therefore, the new bridge would not result in a change in storm water flow or floodwater elevation at the project site.

As discussed under a., temporary stream diversion (if required) would be implemented during non-storm periods. Therefore, no changes in the course or flow of flood waters would occur, and no new flood control facilities would be required.

f. **No Impact**: Consistent with the existing bridge, the proposed replacement bridge would provide clearance to pass the water surface elevation associated with a 25-year storm event. Therefore, the new bridge would not impede floodwaters or increase the exposure of persons or property to flooding hazards.

g. **No Impact**: The proposed project would not affect groundwater flow as project-related groundwater pumping would not occur, and recharge from Romero Creek would not be affected.

h. **No Impact**: The project does not involve extraction of groundwater, excavation of aquifers or interference with recharge. A small amount of groundwater may be pumped from excavations during construction of the abutment footings, but would not affect the quantity of groundwater in the basin.

i. **No Impact**: The project would not involve groundwater pumping. A small amount of groundwater may be pumped from excavations during construction of the abutment footings, but would not contribute to overdraft of any groundwater basin.

j. **No Impact**: The proposed project would not contribute to seawater intrusion.

k. **Less than Significant Impact**: The project would not require a long-term source of water and would not affect public water supplies. Water to be used for construction (compaction, dust control) would be obtained from local fire hydrants (or similar potable source) and would represent a short-term negligible use of water supplies.

l. **Less than Significant Impact**: Storm run-off from Fernald Point Lane and adjacent land uses likely contributes pollutants to Romero Creek. Proposed bridge replacement would not affect the type or volume of these pollutants generated, or substantially increase the discharge of these pollutants to Romero Creek.

Mitigation Measures and Residual Impacts:

WR-1: Storm Water Management. The project would require coverage under the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (Water Quality Order 2009-0009-DWQ). As required by the conditions of the General Permit, a Storm Water Quality Pollution Prevention Plan (SWPPP) would be prepared, which would include best management practices to be implemented and a monitoring program. The following Best Management Practices shall be incorporated into the SWPPP to minimize potential water quality impacts. These impacts would be mitigated to a less than significant level with the implementation of these measures.

- All ground disturbance shall be limited to the dry season or periods when rainfall is not predicted, to minimize erosion and sediment transport to surface waters;
- Disturbed areas shall be stabilized or re-vegetated prior to the start of the rainy season;
- Impacts to vegetation within and adjacent to creeks and storm drains shall be minimized. The work area shall be flagged to identify its limits. Vegetation shall not be removed or intentionally damaged beyond these limits.
- Construction materials and soil piles shall be placed in designated areas where they could not enter creeks or storm drains due to spillage or erosion.
- Waste and debris generated during construction shall be stored in designated waste collection areas and containers away from watercourses, and shall be disposed of regularly.
- All fueling of heavy equipment shall occur in a designated area removed from Romero Creek and other drainages, such that any spillage would not enter surface waters. The designated area shall include a drain pan or drop cloth and absorbent materials to clean up spills.
- Vehicles and equipment shall be maintained properly to prevent leakage of hydrocarbons and coolant, and shall be examined for leaks on a daily basis. All maintenance shall occur in a designated offsite area. The designated area shall include a drain pan or drop cloth and absorbent materials to clean up spills.
- Any accidental spill of hydrocarbons or coolant that may occur on the construction site shall be cleaned immediately. Absorbent materials shall be maintained on the construction site for this purpose. The Regional Board shall be notified immediately in the event of an accidental spill to ensure proper clean up and disposal of waste.
- Any groundwater discharged to surface waters shall be clarified or allowed to settle prior to discharge to minimize increases in turbidity and siltation in Romero Creek.

Plan Requirements/Timing: These measures shall be included in the project specifications and SWPPP. **MONITORING**: The County-appointed inspector shall ensure the measures are fully implemented.

Mitigation measures are provided above would reduce construction-related water quality impacts to a level of less than significant.

5.0 INFORMATION SOURCES

5.1 COUNTY DEPARTMENTS CONSULTED

Public Works Department

5.2 COMPREHENSIVE PLAN (CHECK THOSE SOURCES USED):

X	Seismic Safety/Safety Element	X	Conservation Element
X	Open Space Element	X	Noise Element
X	Coastal Plan and Maps	X	Circulation Element
	ERME		Agricultural Element

5.3 OTHER SOURCES (CHECK THOSE SOURCES USED):

X	Field work		Ag Preserve maps
	Calculations	X	Flood Control maps
X	Project plans	X	Other technical references
	Traffic studies		(reports, survey, etc.)
	Records		Planning files, maps, reports
X	Grading plans	X	Zoning maps
	Elevation, architectural renderings	X	Soils maps/reports
	Published geological map/reports		Plant maps
X	Topographical maps	X	Archaeological maps and reports
X	Important Farmland Maps	X	FEMA Floodplain maps
		X	Montecito Community Plan
		X	Hydraulic Report

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6.0 PROJECT SPECIFIC (SHORT- AND LONG-TERM) AND CUMULATIVE IMPACT SUMMARY

6.1 SIGNIFICANT UNAVOIDABLE IMPACTS

None identified.

6.2 SIGNIFICANT BUT MITIGABLE IMPACTS

Biological Resources. The proposed project may result in:

- Temporary construction-related disturbance of 0.11 acres of ESHA;
- Loss of one coast live oak tree protected under the County Grading Ordinance, also considered a native specimen tree; and
- Construction-related disturbance of steelhead migration habitat.

Cultural Resources. The proposed project may result in:

- Potential disturbance of unknown buried cultural resources in an archeologically sensitive area.

Hazardous Materials. The proposed project may result in:

- Potential public exposure to lead associated with demolition of materials coated with lead-based paint.

Noise. The proposed project may result in:

- Exposure of adjacent residences to temporary noise generated by heavy equipment and heavy-duty trucks.

Public Facilities. The proposed project may result in:

- Demolition-related generation of solid waste exceeding the 350 ton threshold.

Water Resources/Flooding. The proposed project may result in:

- Temporary degradation of surface water quality associated with surface water diversion and discharge of storm water from project construction areas.

6.3 CUMULATIVE IMPACTS

Cumulative impacts are defined as two or more individual effects which, when considered together are considerable, or which compound or increase other environmental impacts. Under Section 15064 of the State CEQA Guidelines, the lead agency (Santa Barbara County Public Works Department) must identify cumulative impacts, determine their significance and determine if the effects of the project are cumulatively considerable.

This assessment is focused on potential impacts of the project that may be less than significant on a project-specific basis, but potentially significant when viewed in combination with other projects in the region. Section 3.4 summarizes other projects under review by the County within the project region (Montecito/Summerland area).

6.3.1 Air Quality

Other land development projects would generate both short-term construction emissions and long-term vehicle emissions. The proposed project would not contribute to cumulative long-term vehicle emissions, but may contribute to cumulative construction emissions, should construction of these projects occur at the same time as the proposed project. However, construction emissions of both the proposed project and other projects would be mitigated by standard measures required by the Santa Barbara County APCD. Implementation of these measures is considered to prevent significant project-specific and cumulative air quality impacts from construction. Therefore, the incremental air quality impact associated with project construction would not be cumulatively considerable.

6.3.2 Water Resources

Most other projects would require potable water service and may affect groundwater supplies. The proposed project would not require a water supply and would not contribute to this impact. Cumulative development would increase pollutant concentrations in storm run-off and may adversely affect surface water quality. During the construction period, the proposed project may contribute to cumulative surface water quality impacts. However, mitigation measures are provided to avoid and minimize impacts to surface water quality.

Similar to the proposed project, some of the cumulative projects are located near drainages and inadvertent spills of fuel or lubricants could occur and percolate into groundwater supplies. The proposed project would contribute to this cumulative impact; however, mitigation measures are provided to avoid and minimize impacts to groundwater quality. The project's contribution to groundwater impacts would not be considerable.

6.3.3 Biological Resources

ESHA. Other cumulative projects would be required to avoid impacts to ESHA and provide a buffer. Therefore, cumulative impacts would be the same as project-specific impacts.

Protected Trees. Coast live oak trees are common in the project area, and other projects may result in removal of these trees. Therefore, the proposed project would contribute to a cumulative impact to this species. Implementation of proposed mitigation would avoid a cumulatively considerable incremental effect to coast live oak trees.

Steelhead. Other bridge replacement projects planned for implementation at about the same time as the proposed project (see Sections 3.4.2 and 3.4.3) may adversely steelhead migration habitat. The proposed project may incrementally contribute to cumulative impacts to steelhead. However, implementation of proposed mitigation would avoid a cumulatively considerable incremental effect to steelhead.

Bats. The Carpinteria Avenue Bridge replacement project is planned for implementation at about the same time as the proposed project and would adversely affect known bat populations (daytime bat roosts). Although the proposed project would not adversely affect bat roosts, loss of foraging opportunities during project construction may incrementally contribute to cumulative impacts to bat foraging habitat. However, these incremental impacts would not be cumulatively considerable.

6.3.4 Cultural Resources

Most cumulative projects summarized in Section 3.4 are located in previously developed areas and are unlikely to adversely affect intact archeological resources. However, some projects are located in potentially sensitive areas, that may result in disturbance of known or unknown cultural resources. The proposed project may impact unknown cultural resources along Romero Creek, and could contribute to a cumulative impact. However, mitigation measures are provided to avoid and minimize potential impacts to archeological resources. The project's contribution to cumulative cultural resources impacts would not be considerable.

6.3.5 Noise

Other projects would generate both short-term construction noise and long-term traffic noise. The proposed project would not contribute to cumulative long-term traffic noise, but may contribute to cumulative construction noise. However, the proposed project is not located in close proximity to other projects and/or would not be implemented at the same time, and would not have a considerable contribution to cumulative impacts at noise sensitive receptors affected by these projects.

7.0 MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant	Less than Significant with Mitigation	Less than Significant	No Impact	Reviewed Under Previous Document
1. Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		X			
2. Does the project have the potential to achieve short-term to the disadvantage of long-term environmental goals?				X	
3. 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.)			X		
4. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?		X			
5. Is there disagreement supported by facts, reasonable assumptions predicated upon facts and/or expert opinion supported by facts over the significance of an effect which would warrant investigation in an EIR?				X	

Discussion of Findings:

1. The proposed project has the potential to substantially degrade the quality of the environment. However, implementation of mitigation measures BIO-1 through BIO-3 would ensure impacts to fish and wildlife habitat and specimen trees would be minimized and offset through habitat restoration and enhancement, and prevent fish or wildlife populations from dropping below self-sustaining levels. Due to the small scale of project impacts, it would not threaten to eliminate a plant or animal community, or substantially reduce the number or restrict the range of a rare or endangered plant or animal.

Based on an archeological survey conducted for the project, no impacts to cultural resources are anticipated. However, mitigation measure AR-1 is provided to minimize disturbance of any discovered cultural resources. The proposed project would not eliminate important examples of the major periods of California history or prehistory.

2. The proposed project does not have the potential to achieve short-term to the disadvantage of long-term environmental goals. The proposed project is designed to achieve the long-term goal of the Public Works Department to provide the local community safe passage over Romero Creek.

3. The proposed project may contribute to cumulative impacts, but its incremental contribution would not be substantial or result in cumulatively significant impacts.

4. The proposed project may create environmental effects which would cause substantial adverse effects on human beings, including hazardous materials, noise and water quality. However, mitigation measures have been provided (see HAZ-1, NOISE-1 and WR-1) to reduce these impacts to a level of less than significant.

5. There is no disagreement supported by facts or any reasonable assumptions predicated upon facts and/or expert opinion supported by facts over the significance of an effect which would warrant investigation in an EIR.

8.0 PROJECT ALTERNATIVES

No significant, adverse unmitigable impacts were identified; therefore, no project alternatives were considered.

9.0 INITIAL REVIEW OF PROJECT CONSISTENCY WITH APPLICABLE SUBDIVISION, ZONING AND COMPREHENSIVE PLAN REQUIREMENTS

An analysis of the consistency of the proposed project with applicable policies of the Comprehensive Plan, Montecito Community Plan and Coastal Land Use Plan is provided in Tables 7, 8 and 9. The proposed project, with mitigation, is expected to be consistent with all existing land use and development policies.

Table 7. Policy Consistency Analysis – Comprehensive Plan

Applicable Policy Number	Issue	Consistency
Land Use: Streams & Creeks 1	All permitted construction and grading within stream corridors shall be carried out in such a manner as to minimize impacts from increased run-off, sedimentation, biochemical degradation or thermal pollution	Potentially Consistent: construction work within Romero Creek would be scheduled during the dry season to avoid surface water to the extent feasible. If work is required when surface water is present, surface water diversion would be implemented to avoid work within surface waters and include measures to minimize erosion, sedimentation and water temperature increases. Best management practices would be implemented to minimize run-off of turbid storm water to Romero Creek.
Land Use: Flood Hazard 1	All development, including construction, excavation and grading, except flood control projects shall be prohibited in the floodway.	Potentially Consistent: as bridges span the floodway, bridge replacement work cannot avoid work in the floodway. The replacement bridge would be located at the same elevation as the existing bridge as would not result in an increase in the floodplain area or floodwater elevations.

Table 8. Policy Consistency Analysis – Montecito Community Plan

Applicable Policy Number	Issue	Consistency
LU-M-2.1	New structures shall be designed, sited, graded and landscaped in a manner which minimizes their visibility from public roads.	Potentially Consistent: The proposed replacement bridge and temporary bridge would be constructed at the road grade with only the K-rails (temporary bridge) and bridge rails visible to the public, and would preserve Fernald Point Lane as an aesthetic element.
LUED-M-1.1	All educational, institutional, and other public & quasi-public uses shall be developed and operated in a manner compatible with community's residential character.	Potentially Consistent: the proposed replacement bridge may be considered a public use and would be a direct replacement in terms of scale and structure, and would be consistent with the community's character.
CIRC-M-3.7	Roadway improvements in commercial and multifamily areas, and preservation of existing trees shall be planned to maintain the semi-rural, village-like character of the community.	Potentially Consistent: the project has been designed to minimize tree removal, including preservation of large sycamore and eucalyptus trees northwest of the bridge.
AQ-M-1.3	Air pollution from new development and associated construction activities shall be minimized to the maximum extent feasible.	Potentially Consistent: standard measures to minimize fugitive dust and other emissions during project construction would be implemented.
BIO-M-1.3	Environmentally Sensitive Habitat (ESH) areas shall be protected, and where appropriate, enhanced.	Potentially Consistent: project construction would require temporary disturbance of ESHA along Romero Creek; however, Mitigation Measure BIO-1 has been provided to restore and enhance affected areas by replacing non-native plant species with natives.

Table 8. Continued

Applicable Policy Number	Issue	Consistency
BIO-M-1.4	Monarch butterfly roosting habitats shall be preserved ad protected.	Potentially Consistent: the project site is sufficiently distant from the Crane School autumnal roost site that adverse effects would not occur.
BIO-M-1.6	Riparian vegetation shall be protected as part of a stream or creek buffer.	Potentially Consistent: project construction would require temporary disturbance of non-native vegetation within Romero Creek; however, Mitigation Measure BIO-1 has been provided to restore and enhance affected areas by replacing non-native plant species with natives.
BIO-M-1.7	No structures shall be located within a riparian corridor, except dams for water supply projects and flood control projects. Culverts, fences, pipelines and bridges may be permitted when no alternative route/location is feasible	Potentially Consistent: as a replacement bridge, there is no other feasible location to cross the Romero Creek riparian corridor.
BIO-M-1.10	All development within stream corridors shall be limited to activities necessary for the construction of uses specified in Policy BIO-M-1.7. Revegetation with native species shall be required when these activities require removal of riparian plant species.	Potentially Consistent: construction activities within the Romero Creek corridor would be limited to that necessary to replace the bridge and provide fish passage improvements. Mitigation Measure BIO-1 has been provided to restore and enhance affected areas in Romero Creek by replacing non-native plant species with natives.
BIO-M-1.15	To the maximum extent feasible, specimen trees shall be preserved.	Potentially Consistent: the project has been designed to minimize tree removal, including preservation of large sycamore and eucalyptus trees northwest of the bridge. Only one specimen tree would be removed and would be replaced at a 10:1 ratio.
BIO-M-1.17	Oak trees shall be protected to the maximum extent feasible.	Potentially Consistent: one coast live oak tree would be removed and would be replaced at a 10:1 ratio. This tree is located immediately adjacent to the bridge to be replaced and cannot be avoided.
FD-M-2.1	Development shall be designed to minimize the threat of on-site and downstream flood potential.	Potentially Consistent: the replacement bridge would be located at the same channel elevation as the existing bridge and would not decrease channel capacity or increase existing impediments to flood flows.
GEO-M-1.2	Grading shall be minimized to the extent feasible to prevent unsightly scares in the natural topography and to minimize earth slippage, erosion and other safety risks	Potentially Consistent: grading would be confined to the immediate area surrounding the bridge and would not result in unsightly scars, landslides, erosion or other geologic hazards.

Table 8. Continued

Applicable Policy Number	Issue	Consistency
FD-M-2.1	Development shall be designed to minimize the threat of on-site and downstream flood potential.	Potentially Consistent: the replacement bridge would be located at the same channel elevation as the existing bridge and would not decrease channel capacity or increase existing impediments to flood flows.
N-M-1.1	Noise-sensitive uses shall be protected from significant noise impacts.	Potentially Consistent: the proposed project would comply with construction noise limitations identified in Development Standard N-M-1.1.1 (see NOISE-1).
VIS-M-2.1	Lands which should be preserved in open space for scenic values include road-side turnouts, stream channels, equestrian and hiking trails and mountainous areas.	Potentially Consistent: the proposed project would only replace an existing bridge with no increase in size or area, the stream channel of Romero Creek would remain open space.

Table 9. Policy Consistency Analysis – Coastal Land Use Plan

Applicable Policy Number	Issue	Consistency
2-11	All development adjacent to areas designated as environmentally sensitive habitat areas shall be regulated to avoid adverse impacts on habitat resources.	Potentially Consistent: as a bridge replacement project, avoidance of impacts to Romero Creek (designated ESHA) is not feasible, and short-term impacts to habitat would occur. However, a long-term increase in habitat values would occur as a result of implementation of proposed fish passage improvements and habitat restoration (Mitigation Measure BIO-1).
3-11	All development except flood control projects and non-structural agricultural uses shall be prohibited in the floodway.	Potentially Consistent: as a bridge replacement project avoidance of the floodway is not feasible. The replacement bridge would be located at the same channel elevation as the existing bridge and would not decrease channel capacity or increase existing impediments to flood flows.
3-13	Plans for development shall minimize cut and fill operations.	Potentially Consistent: grading would be confined to the immediate area surrounding the bridge and would not affect slopes or generate cut or fill slopes.
3-14	All development shall be designed to fit the site topography, soils, geology, hydrology, and any other existing conditions and be oriented so that grading and other site preparation is kept to an absolute minimum. Natural features, landforms, and native vegetation, such as trees, shall be preserved to the maximum extent feasible.	Potentially Consistent: the replacement bridge would be a direct replacement with minimal earthwork. Natural features would be preserved to the extent feasible, with no loss of native vegetation and removal of only one native tree.

Table 9. Continued

Applicable Policy Number	Issue	Consistency
3-16	Sediment basins (including debris basins, desilting basins or silt traps) shall be installed on the project site in conjunction with the initial grading operations and maintained throughout the development process.	Potentially Consistent: the use of a sediment basin is not feasible due to the site size and topography. However, silt fence and storm drain inlets fitted with straw wattles (or equivalent) would be used to remove sediment from run-off.
3-17	Temporary vegetation, seeding, mulching or other suitable stabilization method shall be used to protect soils subject to erosion that have been disturbed by grading or development.	Potentially Consistent: disturbed soils within the construction area would be planted and/or hydroseeded to minimize erosion during the rainy season.
3-18	Provisions shall be made to conduct surface water to storm drains or suitable watercourses to prevent erosion.	Potentially Consistent: the proposed project would not alter topography or increase the area of impervious surfaces, such that no increase in storm run-off would occur and additional storm drains are not required. However, the project includes the installation of new storm drains to improve site drainage.
9-9	A buffer strip, a minimum of 100 feet in width, shall be maintained in natural conditions along the periphery of all wetlands. No permanent structures shall be permitted within the wetland or buffer.	Potentially Consistent: the Romero Creek streambed may be considered wetlands under the Coastal Act. The proposed bridge replacement project would span these wetlands; however, short-term construction impacts to wetlands would occur. However, no loss of wetlands would occur and the project would result in a long-term increase in wetland habitat value due to proposed fish passage improvements and habitat restoration (Mitigation Measure BIO-1).
9-35	Oak trees shall be protected.	Potentially Consistent: one coast live oak tree would be removed and would be replaced at a 10:1 ratio. This tree is located immediately adjacent to the bridge to be replaced and cannot be avoided.
9-36	When sites are graded or developed, areas with significant native vegetation shall be preserved.	Potentially Consistent: native vegetation does not occur at the project site and would not be adversely affected.
9-37	The minimum buffer strip for major streams shall be 50 feet in urban areas.	Potentially Consistent: as a bridge replacement project, avoidance of impacts to Romero Creek cannot be avoided such that buffer strips are not feasible.
9-38	Structures shall not be located within the stream corridor except public trails, dams, and flood control projects. Bridges may be permitted when no other route/location is feasible.	Potentially Consistent: as a replacement bridge, there is no other feasible location to cross the Romero Creek corridor.
9-40	All development within stream corridors shall be limited to activities necessary for the construction of uses specified in Policy 9-38. Revegetation with local native plants shall be required when these activities require removal of riparian plant species.	Potentially Consistent: construction activities within the Romero Creek corridor would be limited to that necessary to replace the bridge and provide fish passage improvements. Mitigation Measure BIO-1 has been provided to restore and enhance affected areas in Romero Creek by replacing non-native plant species with natives.

Table 9. Continued

Applicable Policy Number	Issue	Consistency
9-41	All permitted construction and grading within stream corridors shall be carried out in such a manner as to minimize impacts from increased run-off, sedimentation, biochemical degradation or thermal pollution	Potentially Consistent: construction work within Romero Creek would be scheduled during the dry season to avoid surface water to the extent feasible. If work is required when surface water is present, surface water diversion would be implemented to avoid work within surface waters and include measures to minimize erosion, sedimentation and water temperature increases. Best management practices would be implemented to minimize run-off of turbid storm water to Romero Creek.

10.0 RECOMMENDATION BY LEAD AGENCY STAFF

On the basis of the Initial Study, lead agency staff:

_____ Finds that the proposed project WILL NOT have a significant effect on the environment and, therefore, recommends that a Negative Declaration (ND) be prepared.

__X__ Finds that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures incorporated into the REVISED PROJECT DESCRIPTION would successfully mitigate the potentially significant impacts. Staff recommends the preparation of a Mitigated Negative Declaration (MND). The MND finding is based on the assumption that mitigation measures will be acceptable to the applicant; if not acceptable a revised Initial Study finding for the preparation of an EIR may result.

_____ Finds that the proposed project MAY have a significant effect on the environment, and recommends that an EIR be prepared.

_____ Finds that from existing documents (previous EIRs, etc.) that a subsequent document (containing updated and site-specific information, etc.) pursuant to CEQA Sections 15162/15163/15164 should be prepared.

Potentially significant unavoidable adverse impact areas: None

_____ With Public Hearing __X__ Without Public Hearing

PROJECT EVALUATOR: Matt Ingamells, Padre Associates
DATE: January 27, 2016

11.0 DETERMINATION BY ENVIRONMENTAL HEARING OFFICER

__X__ I agree with staff conclusions. Preparation of the appropriate document may proceed.

_____ I DO NOT agree with staff conclusions. The following actions will be taken:

_____ I require consultation and further information prior to making my determination.

SIGNATURE:_____ INITIAL STUDY DATE:_____

SIGNATURE:_____ DRAFT ND DATE: 2/19/16

SIGNATURE:_____ REVISION DATE: _____

SIGNATURE:_____ FINAL MND DATE: 5/12/16

ATTACHMENT A

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ventura Fish and Wildlife Office
2493 Portola Road, Suite B
Ventura, California 93003

IN REPLY REFER TO
08VEN00-2012-SL-0418

July 12, 2012

Suzan Kissée
Garcia and Associates
104 South C Street
Lompoc, California 93436

Subject: Species List for Fernald Point Lane Bridge over Romero Creek, Montecito, Santa Barbara County, California

Dear Ms. Kissée:

We reviewed your request, received in our office via electronic mail on July 3, 2012, for information on endangered and threatened species that may occur at the subject site. Garcia and Associates has been retained to conduct biological surveys in Romero Creek at the Fernald Point Lane Bridge. The Santa Barbara County Department of Public Works proposes to replace the Fernald Point Lane Bridge at this location.

The U.S. Fish and Wildlife Service's (Service) responsibilities include administering the Endangered Species Act of 1973, as amended (Act), including sections 7, 9, and 10. Section 9 of the Act including its implementing regulations prohibits the taking of any federally listed endangered or threatened species. Section 3(19) of the Act defines take to mean to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Service regulations (50 CFR 17.3) define harm to include significant habitat modification or degradation which actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding or sheltering. Harassment is defined by the Service as an intentional or negligent action that creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding, or sheltering. The Act provides for civil and criminal penalties for the unlawful taking of listed species.

Exemptions to the prohibitions against take may be obtained through coordination with the Service through interagency consultation for projects with Federal involvement pursuant to section 7 or through the issuance of an incidental take permit under section 10(a)(1)(B) of the Act. If the subject project is to be funded, authorized, or carried out by a Federal agency and may affect a listed species, the Federal agency must consult with the Service, pursuant to section 7(a)(2) of the Act. If a proposed project does not involve a Federal agency but may result in the take of a listed animal species, the project proponent should apply for an incidental take permit, pursuant to section 10(a)(1)(B) of the Act. Once you have determined if the proposed project

will have a lead Federal agency, we can provide you with more detailed information regarding the section 7 or 10(a)(1)(B) permitting process.

Based upon review of our records and the proposed project location, we do not believe that the site could support any listed, proposed, or candidate species for which the U.S. Fish and Wildlife Service is responsible. However, the federally endangered southern steelhead trout (*Oncorhynchus mykiss*) may use Romero Creek and the National Marine Fisheries Service has regulatory responsibility for this species and we recommend that you call the call the Long Beach Field Office at 562-980-4000 or visit their website at http://swr.nmfs.noaa.gov/

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

Should you have any questions regarding this matter, please contact Chris Dellith of my staff at (805) 644-1766, extension 227.

Sincerely,

Jeff Phillips
Deputy Assistant Field Supervisor

cc:
Anthony Spina, National Marine Fisheries Service
Natasha Lohmus, California Department of Fish and Game

ATTACHMENT B

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

SEP 17 2012

151422SWR2012PR01827: MRM

Suzan Kissee
Garcia and Associates
1025 East Ocean Ave., Suite C
Lompoc, California 93436

Dear Ms. Kissee:

NOAA's National Marine Fisheries Service (NOAA Fisheries) has reviewed your August 17, 2012, letter requesting comment on the potential presence of endangered steelhead (*Oncorhynchus mykiss*) and designated critical habitat for this species at any one of three proposed project sites in Santa Barbara County: involve Padaro Lane Bridge on Toro Canyon Creek, Kinevan Road Bridge on San Jose Creek, and Fernald Point Lane Bridge on Romero Creek. As requested NOAA Fisheries provides the following comments for each site:

1. Padaro Lane Bridge on Toro Canyon Creek – Toro Canyon Creek is not listed as steelhead critical habitat. Therefore no critical habitat is present at this project site. Based on the current marginal habitat in Toro Canyon Creek downstream the project site, impediments to steelhead passage upstream of the project site, little to no habitat immediately underneath this bridge, and no recent documentation of steelhead in this watershed, the likelihood for steelhead to be present in the project area during the proposed bridge work is low. The likelihood for steelhead occurrence at the project site would be even further reduced if work on the proposed bridge is conducted during the late summer and early fall when streamflow is expected to be negligible if present.

2. Kinevan Road Bridge on San Jose Creek – Part of San Jose Creek is listed as critical habitat and steelhead are present in this stream. However, the Kinevan Road Bridge is near the summit of Highway 154 and upstream of the upstream boundary of designated critical habitat. Therefore no critical habitat is present at this project site. Steelhead are not expected within the project site, which is upstream of several barriers or impediments (both natural and non-natural) to steelhead passage including a natural 30-foot waterfall. Your August 17, 2012, letter also reported that no steelhead were observed during recent biological surveys of the project area.

3. Fernald Point Lane Bridge on Romero Creek – This project site is within a portion of Romero Creek that is designated as critical habitat. Steelhead have been observed within lower Romero Creek upstream and downstream (in the lagoon) of this project site. However, immediately under the subject bridge and continuing to the mouth of Romero

Creek, the stream channel has been lined with concrete on the bottom and vertically on the sides. The concrete-lined channel provides little to no habitat for steelhead to reside during base flow conditions. Also, in most years Romero Creek becomes dry at this location during the summer. As a final note, the existing concrete-lined channel is not optimal for steelhead passage and may need to be modified or restored in the future to increase steelhead passage opportunities at this location. NMFS recommends the project proponent develop a project that ensures future fish-passage solutions at this location will not be delayed or hindered as a result of implementing the proposed project.

This concludes NMFS' comments regarding the potential for steelhead or critical habitat to occur at the subject bridge sites. Please contact Matt McGoogan at (562) 980-4026 if you have any questions concerning this letter or if you require additional information.

Sincerely,

Penny Ruvelas
Southern California Office Supervisor
for Protected Resources

cc: Aaron Allen, Corps, Ventura, California
Mary Larson, CDFG, Los Alamitos, California
Roger Root, USFWS, Ventura, California

ATTACHMENT C

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE

West Coast Region
777 Sonoma Avenue, Room 325
Santa Rosa, California 95404

Refer to NMFS No: WCR-2015-3832

Tom Edell
California Department of Transportation, District 5
50 Higuera Street
San Luis Obispo, California 93401-5415

Dear Mr. Edell:

NOAA's National Marine Fisheries Service (NMFS) hereby transmits the enclosed biological opinion pursuant to Section 7 of the Endangered Species Act of 1973 (ESA) (16 U.S.C. 1531 *et seq.*) for the California Department of Transportation's (Caltrans) Fernald Point Lane Bridge Replacement Project in Romero Creek, Santa Barbara County (proposed action). This biological opinion addresses the effects of the proposed action on the federally endangered Southern California Coast (SCC) Distinct Population Segment (DPS) of steelhead (*Oncorhynchus mykiss*) and its designated critical habitat in accordance with Section (7)(a)(2) of the ESA.

The biological opinion concludes that the proposed action is not likely to jeopardize the continued existence of the endangered SCC DPS of steelhead, or destroy or adversely modify designated critical habitat for this species. NMFS believes the proposed action is likely to result in incidental take of endangered steelhead, and therefore the attached incidental take statement includes the amount and extent of anticipated incidental take with reasonable and prudent measures and non-discretionary terms and conditions that are necessary and appropriate to minimize and monitor incidental take of endangered steelhead.

Please contact Jay Ogawa at NMFS' Southern California Branch of the California Coastal Office in Long Beach, 562-980-4061 or at Jay.Ogawa@noaa.gov, if you have a question concerning this Section 7 consultation, or if you require additional information.

Sincerely,

FOR

William W. Stelle, Jr.
Regional Administrator

Enclosure

cc: Administrative File: 151422WCR2015CC00191
Chris Dellith, USFWS, Ventura
Mary Larson, CDFW, Los Alamitos
Eric Shott, NMFS, Santa Rosa

Endangered Species Act (ESA) Section 7(a)(2) Biological Opinion

Fernald Point Lane Bridge Replacement Project

NMFS Consultation Number: 151422-WCR-2015-CC00191//PCTS WCR-2015-3832

Action Agency: California Department of Transportation

Affected Species and NMFS' Determinations:

ESA-Listed Species	Status	Is Action Likely to Adversely Affect Species or Critical Habitat?	Is Action Likely To Jeopardize the Species?	Is Action Likely To Destroy or Adversely Modify Critical Habitat?
Southern California Coast steelhead (*Oncorhynchus mykiss*)	Endangered	Yes	No	No

Consultation Conducted By: National Marine Fisheries Service, West Coast Region

Issued By: Gary Stern
FCR
William W. Stelle, Jr.
Regional Administrator

Date:

1. INTRODUCTION

This introduction provides information relevant to the other sections of this document and is incorporated by reference into Sections 2 and 3 below.

1.1 Background

NOAA's National Marine Fisheries Service (NMFS) prepared the biological opinion (opinion) and incidental take statement portions of this document in accordance with Section 7(b) of the Endangered Species Act (ESA) of 1973 (16 USC 1531 *et seq.*), and implementing regulations at 50 CFR 402.

A pre-dissemination review of this document was completed using standards for utility, integrity, and objectivity in compliance with applicable guidelines issued under the Data Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001, Public Law 106-554). The document will be available through NMFS' Public Consultation Tracking System [https://pcts.nmfs.noaa.gov/pcts-web/homepage.pcts]. A complete record of this consultation is on file at NMFS' California Coastal Area Office, Southern California Branch in Long Beach, California.

1.2 Consultation History

On June 20, 2015, NMFS received from the California Department of Transportation's (Caltrans) office in San Luis Obispo, a written request for formal consultation under Section 7 of the ESA. Caltrans' request concerns the Fernald Point Lane Bridge Replacement Project (proposed action) at Romero Creek, and potential effects of the proposed action on endangered steelhead (*Oncorhynchus mykiss*). After reviewing Caltrans' request and biological assessment (BA), including conceptual fish-passage report, NMFS determined the information was insufficient to initiate consultation. By letter dated July 16, 2015, NMFS requested additional information concerning the alignment of the proposed weirs upstream of the bridge and potential geomorphic and hydraulic response due to the structures. Upon NMFS' receipt and review of the requested supplemental information on October 16, 2015, formal consultation was initiated on the same day.

1.3 Proposed Action

"Action" means all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies (50 CFR §402.02).

Overview of the Proposed Action: The existing Fernald Point Lane Bridge over Romero Creek will be replaced with a new free span bridge (47-feet long x 23-feet wide) and the abutments will be outside of the channel. The area beneath the bridge will be re-poured with concrete and include a low flow fish-passage channel. Two resting pools for adult steelhead will be created upstream of the bridge. Construction of the proposed action is expected to be completed in one season, with all instream work to occur between June 1 and October 31. Best-management practices (BMP) are incorporated into the proposed action and will be implemented when bridge-construction activities are undertaken.

Proposed Activities to Prepare the Work Area for Construction: To prepare for construction in dry conditions, the work area will be isolated from surface water and any steelhead within the affected area will be relocated. A coffer dam will be constructed across the channel immediately upstream of the proposed bridge and remain in place for the duration of the construction season. Surface water will travel through the work area in a polyethylene pipe and return to the creek approximately 180-feet downstream. After the immediate project area is dewatered and all steelhead have been removed and relocated, and the water diversion is functioning as designed, steelhead will be able to volitionally migrate downstream through the action area.

Prior to the actual diversion of surface water, the entire work area will be surveyed for steelhead, which will be captured, then relocated to a pre-determined location with suitable habitat. Additional measures will be undertaken to minimize take of steelhead and adverse effects to aquatic habitat during the dewatering process and subsequent construction activities. All proposed water diversion plans will require an onsite qualified fisheries biologist to monitor installation and removal efforts. Upon completion of the proposed action and construction activities, barriers to surface flow shall be removed.

Proposed Construction Activities: After the work area is dewatered, Caltrans will demolish the existing bridge and sections of channel wall and lining, and then a new cast-in-place concrete bridge will be installed. New bridge abutments will require excavation below channel grade to a depth of about 5-feet. Caltrans proposes to construct a low flow channel underneath the bridge and two weirs upstream of the bridge to improve steelhead passage conditions through the action area. Concrete debris will be removed from the dewatered work area as necessary, and BMPs will be maintained throughout the demolition and construction periods to minimize erosion and sedimentation of the disturbed sections of the work area. These BMPs include, jute-netting, straw-wattles, silt-fencing, and hay bales. All vehicle and equipment maintenance and material storage will be located outside the riparian corridor to the west of the creek.

Proposed Post-Construction Activities: Following construction of the proposed action, Caltrans proposes to implement a revegetation plan that includes native trees and shrubs. The revegetation plan provides Caltrans' approach for the restoration, enhancement, and replacement of riparian habitat temporarily or permanently lost as a result of the proposed action. Planting of trees over 3-inch diameter-at-breast-height will occur at a ratio of 3:1. Species of trees to be planted in 5-gallon containers include California sycamore (*Platanus racemosa*) and coast live oak (*Quercus agrifolia*). White alder (*Alnus rhombifolia*) and arroyo willow (*Salix lasiolepis*) will be planted at the toe-of-slope and sandbar willow (*Salix exigua*) will be planted adjacent to the weirs in the channel. Additionally, non-native species will be removed and riparian understory shrubs and herbs will be planted. Currently, a monitoring plan to ensure biological resources are restored and enhanced has not been proposed by Caltrans.

"Interrelated actions" are those that are part of a larger action and depend on the larger action for their justification. "Interdependent actions" are those that have no independent utility apart from the action under consideration (50 CFR 402.02). There is no interrelated or interdependent action associated with the proposed action based on NMFS' review of the consultation package.

1.4 Action Area

"Action area" means all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action (50 CFR 402.02).

The action area includes the linear extent (upstream and downstream) of the Fernald Point Lane Bridge that crosses the Romero Creek and encompasses the riparian corridor to the top of bank. The action area extends about 90-feet upstream of the existing bridge centerline where the upper extent of the water diversion will be placed, and 350-feet downstream from the end of the diversion, where temporary construction effects such as elevated turbidity are anticipated to cease. The length of the Romero Creek within the action area is about 530-feet.

2. ENDANGERED SPECIES ACT: BIOLOGICAL OPINION AND INCIDENTAL TAKE STATEMENT

The ESA establishes a national program for conserving threatened and endangered species of fish, wildlife, plants, and the habitat upon which they depend. As required by section 7(a)(2) of the ESA, Federal agencies must ensure that their actions are not likely to jeopardize the continued existence of endangered or threatened species, or adversely modify or destroy their designated critical habitat. Per the requirements of the ESA, Federal action agencies consult with NMFS and section 7(b)(3) requires that, at the conclusion of consultation, NMFS provides an opinion stating how the agency's actions would affect listed species and their critical habitat. If incidental take is expected, Section 7(b)(4) requires NMFS to provide an incidental take statement (ITS) that specifies the impact of any incidental taking and includes non-discretionary reasonable and prudent measures and terms and conditions to minimize such impacts.

2.1 Analytical Approach

This biological opinion includes both a jeopardy analysis and an adverse modification analysis. The jeopardy analysis relies upon the regulatory definition of "to jeopardize the continued existence of a listed species," which is "to engage in an action that would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, numbers, or distribution of that species" (50 CFR §402.02). The jeopardy analysis considers both survival and recovery of the species.

The adverse modification analysis considers the impacts of the Federal action on the conservation value of designated critical habitat. This biological opinion does not rely on the regulatory definition of "destruction or adverse modification" of critical habitat at 50 CFR §402.02. Instead, this biological opinion relies upon the statutory provisions of the ESA to complete the following analysis with respect to critical habitat.[1]

The following approach is used to determine whether a proposed action is likely to jeopardize listed species or destroy or adversely modify critical habitat:

[1] Memorandum from William T. Hogarth to Regional Administrators, Office of Protected Resources, NMFS (Application of the "Destruction or Adverse Modification" Standard Under Section 7(a)(2) of the Endangered Species Act) (November 7, 2005).

- Identify the rangewide status of the species and critical habitat likely to be adversely affected by the proposed action.
- Describe the environmental baseline in the action area.
- Analyze the effects of the proposed action on both species and their habitat using an "exposure-response-risk" approach.
- Describe any cumulative effects in the action area.
- Integrate and synthesize the above factors to assess the risk that the proposed action poses to species and critical habitat.
- Reach conclusions regarding the jeopardy and adverse modification standards.
- If necessary, define a reasonable and prudent alternative to the proposed action.

Information submitted by Caltrans and reviewed by NMFS included the following documents: (1) the biological assessment (BA) for the proposed action; (2) bridge plans; (3) conceptual mitigation plan; (4) fish passage design and hydraulic assessment report; and (5) 95% fish-passage improvement plans. NMFS relied on relevant ecological literature, documented in the official record for the proposed action, to inform the assessment of potential effects on endangered steelhead and designated critical habitat.

2.2 Rangewide Status of the Species and Critical Habitat

This opinion examines the status of endangered steelhead, as determined by the level of extinction risk that the listed species faces, based on parameters considered in documents such as recovery plans, status reviews, and listing decisions. This informs the description of the species' likelihood of both survival and recovery. The species status section informs the description of the species' current "reproduction, numbers, or distribution" as described in 50 CFR §402.02.

2.2.1 Status of the Species. – *Oncorhynchus mykiss* is one of six Pacific salmon in the genus *Oncorhynchus* that are native to the North American coast. The natural history of this species dictates the terminology fisheries biologists and resource managers use when discussing *O. mykiss*, its habitat, and distribution. If the species remains in freshwater throughout their entire life cycle (and reside upstream of longstanding migration barriers), they are referred to as resident trout (non-anadromous), or rainbow trout. The anadromous or ocean-going form of *O. mykiss*, and its progeny, are listed under the ESA (NMFS 2006) and is typically referred to as "steelhead." Globally, steelhead are found in the western Pacific through the Kamchatka Peninsula in Asia, east to Alaska, south to southern California, and even reported in Baja California del Norte (Ruiz-Campos and Pister 1995).

The listed unit of anadromous *O. mykiss* is termed a "distinct population segment" or DPS (NMFS 2006), and the listed unit contains several individual or fish-bearing watersheds. The DPS recognizes only the anadromous *O. mykiss*. In accordance with the listing decision, this biological opinion solely uses the DPS terminology and provides NMFS' conclusion as to the likelihood of jeopardy to the species based only on effects to the listed DPS. This biological opinion analyzes the effects of the proposed action on the following listed DPS and designated critical habitat, which occur in the action area:

Salmonid Species	ESU/DPS Name	Original Listing	Revised Listing(s)	Critical Habitat Designations
Steelhead (*O. mykiss*)	Southern California Coast DPS	FR Notice: 62 FR 43937 Date: 08/18/1997	FR Notice: 71 FR 5248 Date:01/05/2006	FR Notice: 70 FR 52488 Date: 09/02/2005

The geographic range of this DPS extends from the Santa Maria River, near Santa Maria, to the California–Mexico border (NMFS 1997, NMFS 2002, NMFS 2006), which represents the known southern geographic extent of the anadromous form of *O. mykiss*. NMFS described historical and recent steelhead abundance and distribution for the southern California coast through a population characterization (Boughton *et al.* 2006). Surveys in Boughton *et al.* (2006) indicate between 58 percent and 65 percent of the historical steelhead basins currently harbor *O. mykiss* populations at sites with connectivity to the ocean. Most of the apparent losses of steelhead were noted in the south, including Orange and San Diego counties (Boughton *et al.* 2005). The majority of losses (68 percent) of steelhead were associated with anthropogenic barriers to steelhead migration (*e.g.*, dams, flood-control structures, culverts, *etc.*). Additionally, the investigators found the barrier exclusions were statistically associated with highly-developed watersheds.

Steelhead in southern California are categorized as "winter run" because they can migrate into natal streams between December and April (Fukushima and Lesh 1998), arriving in reproductive condition and spawning shortly thereafter. Adults may migrate several miles, hundreds of miles in some watersheds, to reach their spawning grounds. Steelhead have evolved to migrate deep into the extreme fringes of a watershed to exploit the environmental conditions that favor production of young (Montgomery *et al.* 1999). Steelhead in southern California streams can be tolerant of warm water, remaining active and feeding at temperatures that are higher than the temperature preferences and heat tolerances reported for the species based on individuals from northern latitudes (Spina 2007). While 46 drainages support this DPS (Boughton *et al.* 2005), only 10 population units possess a high and biologically plausible likelihood of being viable and independent[2] (Boughton *et al.* 2006).

Although the geographic area of the DPS is broad, the individual population units are sparsely distributed throughout the DPS with extensive spatial breadth often existing between nearest-neighbor populations (Boughton *et al.* 2005; NMFS 2005; Boughton *et al.* 2006). Extinction of some population units has been observed as well as contraction of the southern extent of the species' geographic range (Boughton *et al.* 2005; Gustafson *et al.* 2007).

One reason for the extensive spatial gaps between neighboring population units and the range contraction involves man-made barriers to steelhead migration (Boughton *et al.* 2005).

The small number of extant populations that make up this DPS are vulnerable to extirpation due to loss of accessibility to freshwater spawning and rearing habitat, low abundance, degraded estuarine habitats and watershed processes essential to maintain freshwater habitats (NMFS 2011). There is little new evidence to suggest that the status of the SCC DPS has changed appreciably in either direction since publication of the most recent collections of status reviews (Good *et al.* 2005;

[2] Independent population: a collection of one or more local breeding units whose population dynamics or extinction risk over a 100-year time period is not substantially altered by exchanges of individuals with other populations (Boughton *et al.* 2006).

NMFS 2011; Williams *et al.* 2011). New information since the last review concerning the status of anadromous runs in the DPS is limited and does not suggest a change in extinction risk.

Population abundance trends can vary based on yearly rainfall within the range of the SCC DPS. A relatively large number of adult steelhead were observed in 2008, two years after an extended wet spring that presumably gave smolts ample opportunity to migrate to the ocean. Low rainfall appears to have caused many spawners to get trapped in freshwater, where they were observed during the summer. In addition, low rainfall probably improved conditions for viewing fish during snorkel surveys and trapping fish in weirs (Williams *et al.* 2011).

2.2.2 General Life History of Steelhead. – *O. mykiss* possesses an exceedingly complex life history (Behnke 1992). Distinctly different than other Pacific salmon, steelhead adults can survive their first spawning and return to the ocean to reside until the next year to reproduce again. For returning adults, the specific timing of spawning can vary by a month or more among rivers or streams within a region, occurring in winter and early spring. The spawning time frames depend on physical factors such as the magnitude and duration of instream flows and sand-bar breaching. Once they reach their spawning grounds, females will use their caudal fin to excavate a nest (redd) in streambed gravels where they deposit their eggs. Males will then fertilize the eggs and, afterwards, the females cover the redd with a layer of gravel, where the embryos (alevins) incubate within the gravel. Hatching time can vary from approximately three weeks to two months depending on surrounding water temperature. The young fish (fry) emerge from the redd two to six weeks after hatching. As steelhead begin to mature, juveniles or "parr" will rear in freshwater streams anywhere from 1-3 years. Juvenile steelhead can also rear in seasonal coastal lagoons or estuaries of their natal creek, providing over-summering habitat.

Juvenile steelhead emigrate to the ocean (as smolts) usually in late winter and spring and grow to reach maturity at age 2-4, but steelhead can reside in the ocean for an additional 2-3 years before returning to spawn. The timing of emigration is influenced by a variety of parameters such as photoperiod, temperature, breaching of sandbars at the river's mouth and streamflow. Extended droughts can cause juveniles to become landlocked, unable to reach the ocean (Boughton *et al.* 2006).

Through studying the otolith (small ear stone) microchemistry of *O. mykiss*, researchers further understand the complex and intricate life history of steelhead. Specifically, resident rainbow trout can produce steelhead progeny; likewise, steelhead can yield resident rainbow trout progeny (Zimmerman and Reeves 2000). Additionally, evidence indicates that sequestered populations of steelhead (*e.g.*, above introduced migration barriers) can exhibit traits that are the same or similar to anadromous specimens with access to the ocean. Examples include inland resident fish exhibiting smolting characteristics and river systems producing smolts with no regular access for adult steelhead. This evidence suggests the ecological importance of the resident form to the viability of steelhead and the need to reconnect populations upstream and downstream of introduced migration barriers. The loss or reduction in anadromy and migration of juvenile steelhead to the estuary or ocean is expected to reduce gene flow, which strongly influences population diversity (McElhany *et al.* 2000). Evidence indicates genetic diversity in populations of southern California steelhead is low (Girman and Garza 2006).

2.2.3 Steelhead Habitat Requirements. – Habitat requirements of steelhead generally depend on the life history stage. Steelhead encounter several distinct habitats during their life cycle. Water discharge, water temperature, and water chemistry must be appropriate for adult and juvenile migration. Suitable water depth and velocity, and substrate composition are the primary requirements for spawning. Furthermore, dissolved oxygen concentration, pH, and water temperature are factors affecting survival of incubating embryos. The presence of interspatial spaces between large substrate particle types is important for maintaining water-flow through the nest as well as dissolved oxygen levels within the nest. These spaces can become filled with fine sediment, sand, and other small particles. Additionally, juveniles need abundant food sources, including insects, crustaceans, and other small fish. Habitat must also provide places to hide from predators, such as under logs, root wads and boulders in the stream, and beneath overhanging vegetation. Steelhead also need places to seek refuge from periodic high-flow events (side channels and off channel areas), and may occasionally benefit from the availability of cold-water springs or seeps and deep pools during summer. Estuarine habitats can be utilized during the seaward migration of steelhead, as these habitats have been shown to be nurseries for steelhead. Estuarine or lagoon habitats can vary significantly in their physical characteristics from one another, but remain an important habitat requirement as physiology begins to change while juvenile steelhead become acclimated to a saltwater environment.

2.2.4 Status of Designated Critical Habitat. – Within the process of designating critical habitat, NMFS developed a list of Primary Constituent Elements (PCEs) (NMFS 2005) for habitat sites essential to support one or more life stages of the DPS, such as sites for spawning, rearing, and migration (Table 1). These sites in turn contain physical or biological features[3] essential to the conservation of the endangered SCC DPS of steelhead.

Habitat for steelhead has suffered destruction and modification, and anthropogenic activities have reduced the amount of habitat available to steelhead (Nehlsen *et al.* 1991; NMFS 1997; Boughton *et al.* 2005; NMFS 2006). In many watersheds throughout the range of the SCC DPS, the damming of streams has precluded steelhead from hundreds of miles of historical spawning and rearing habitats (*e.g.*, Twitchell Reservoir within the Santa Maria River watershed, Bradbury Dam within the Santa Ynez River watershed, Matilija Dam within the Ventura River watershed, Rindge Dam within the Malibu Creek watershed, Pyramid Dam and Santa Felicia Dam on Piru Creek). These dams create physical barriers and hydrological impediments for adult and juvenile steelhead migrating to and from spawning and rearing habitats. Likewise, construction and ongoing impassable presence of highway projects have rendered habitats inaccessible to adult steelhead (Boughton *et al.* 2005). Within stream reaches that are accessible to this species (but that may currently contain no fish), urbanization (including effects due to water exploitation) has in many watersheds eliminated or dramatically reduced the quality and amount of living space for juvenile steelhead. The number of streams that historically supported steelhead has been dramatically reduced (Good *et al.* 2005). Groundwater pumping and diversion of surface water contribute to the loss of habitat for steelhead, particularly during the dry season (*e.g.*, Spina *et al.* 2006). The extensive loss and degradation of habitat is one of the leading causes for the decline of steelhead abundance in southern California

[3] The essential features include water characteristics, soil type, geological features, sites, prey, vegetation, symbiotic species, single or complex combination of habitat characteristics, and ephemeral or dynamic habitat conditions. Features may also be expressed in terms relating to principles of conservation biology, such as patch size, distribution distances, and connectivity (per proposed rule: Docket No. FWS–HQ–ES–2012–0096; Docket No. 120106025–3256–01; 4500030114 on May 12, 2014; 50 CFR 424 Vol. 79, No. 91. Page 27066-27077).

and listing of the species as endangered (NMFS 1997; NMFS 2006).

Table 1. Physical or biological features critical to the conservation of sites determined essential to support one or more life stages of steelhead (NMFS 2005).

Primary Constituent Elements	Physical Characteristics	Essential to Conservation
Freshwater spawning sites	With water quantity and quality conditions and substrate supporting spawning, incubation and larval development.	Without these features the species cannot successfully spawn and produce offspring.
Freshwater rearing sites	With water quantity and floodplain connectivity to form and maintain physical habitat conditions and support juvenile growth and mobility; water quality and forage supporting juvenile development; and natural cover such as shade, submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, and side channels.	Without these features juveniles cannot access and use the areas needed to forage, grow, and develop behaviors (*e.g.,* predator avoidance, competition) that help ensure their survival.
Freshwater migration corridors	Free of obstruction with water quantity and quality conditions and natural cover such as submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, side channels, and undercut banks supporting juvenile and adult mobility and survival.	Without these features juveniles cannot use the variety of habitats that allow them to avoid high flows, avoid predators, successfully compete, begin the behavioral and physiological changes needed for life in the ocean, and reach the ocean in a timely manner; allow steelhead adults in a non-feeding condition to successfully swim upstream, avoid predators, and reach spawning areas on limited energy stores.
Estuarine areas	Free of obstruction with water quality, water quantity, and salinity conditions supporting juvenile and adult physiological transitions between fresh- and saltwater; natural cover such as submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, and side channels; and juvenile and adult forage, including aquatic invertebrates and fishes, supporting growth and maturation.	Without these features juveniles cannot reach the ocean in a timely manner and use the variety of habitats that allow them to avoid predators, compete successfully, and complete the behavioral and physiological changes needed for life in the ocean; they provide a final source of abundant forage for adult steelhead that will provide the energy stores needed to make the physiological transition to fresh water, migrate upstream, avoid predators, and develop to maturity upon reaching spawning areas.
Near-shore marine areas	Free of obstruction with water quality and quantity conditions and forage, including aquatic invertebrates and fishes, supporting growth and maturation; and natural cover such as submerged and overhanging large wood, aquatic vegetation, large rocks and boulders, and side channels.	Without these features juveniles cannot successfully transition from natal streams to offshore marine areas.
Offshore marine areas	With water quality conditions and forage, including aquatic invertebrates and fishes, supporting growth and maturation.	Without them juveniles cannot forage and grow to adulthood.

A significant amount of estuarine habitat has been lost across the range of the DPS with an average of only 22 percent of the original estuarine habitat remaining (NMFS 2011). The condition of these remaining wetland habitats is largely degraded, with many wetland areas at continued risk of loss or

further degradation. Although many historically harmful practices have been halted, much of the historical damage remains to be addressed and the necessary restoration activities will likely require decades. Many of these threats are associated with the larger river systems such as the Santa Maria, Santa Ynez, Ventura, Santa Clara, Los Angeles, San Gabriel, Santa Ana, San Luis Rey, Santa Margarita, San Dieguito, and San Diego rivers, but they also apply to smaller coastal systems such as Malibu, San Juan, and San Mateo creeks. Overall, these threats have remained essentially unchanged for the DPS as determined by the last status review (Williams *et al.* 2011) though some individual, site specific threats have been reduced or eliminated as a result of conservation actions such as the removal of small fish passage barriers.

2.2.5 Influence of a Changing Climate on the Species. – One factor affecting the rangewide status of endangered steelhead, and aquatic habitat at large, is climate change. For the Southwest region (southern Rocky Mountains to the Pacific Coast), the average temperature has already increased roughly 1.5°F compared to a 1960-1979 baseline period. High temperatures will become more common, indicating that southern California steelhead may experience increased thermal stress even though this species has shown to endure higher than preferable body temperatures (Spina 2007).

Precipitation trends are also important to consider. The Southwest region, including California, showed a 16 percent increase in the number of days with heavy precipitation from 1958 to 2007. Potential impacts to southern California steelhead in freshwater streams include damage to spawning redds and washing away of incubating eggs due to higher winter stream flow (USGCRP 2009), and poor freshwater survival due to longer and warmer periods of drought (Hanak *et al.* 2011; Mastrandrea and Luers 2012), which may lead to lower host resistance of steelhead to more virulent parasitic and bacterial diseases (McCullough 1999; Marcogliese 2001). Snyder and Sloan (2005) projected mean annual precipitation in southwestern California to decrease by 2.0 cm (four percent) by the end of the 21st century.

Wildfires periodically burn large areas of chaparral and adjacent woodlands in autumn and winter in southern California (Westerling *et al.* 2004). Increased wildfire activity over recent decades reflects sub-regional responses to changes in climate, specifically observations of warmer and earlier onset of spring along with longer summer-dry seasons (Westerling *et al.* 2006; Westerling and Bryant 2008).

Estuarine productivity is likely to change based on changes in freshwater flows, nutrient cycling, and sediment amounts (Scavia *et al.* 2002). Additionally, upper ocean temperature is the primary physical factor influencing the distribution of steelhead in the open ocean, and a warming climate may result in a north-ward shift in steelhead distribution, for example (Myers and Mantua 2013).

In summary, observed and predicted climate-change effects are generally detrimental to the species, given the unprecedented rate of change and uncertainty about the ability to adapt, so unless offset by improvements in other factors, status of the species and critical habitat is likely to decline over time. The climate change projections referenced above cover the time period between the present and approximately 2100. In general, climate change projections cannot be distinguished from annual and decadal climate variability for approximately the first 10 years of the projection period (see Cox and Stephenson 2007). While there is uncertainty associated with projections beyond 10 years, which increases over time, the direction of change is relatively certain (McClure *et al.* 2003).

2.3 Environmental Baseline

The "environmental baseline" includes the past and present impacts of all Federal, state, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early Section 7 consultation, and the impact of state or private actions which are contemporaneous with the consultation in process (50 CFR §402.02).

2.3.1 Status of Aquatic Habitat in the Action Area. – Aquatic habitat within the action area of Romero Creek has been highly impacted by past flood control activities. The channel width is about 15 to 18-feet wide with vertical concrete walls. The streambed underneath and downstream of the bridge is concrete lined and upstream of the bridge is cobble and fine-grained sand. During the dry season, surface water within the action area can be limited and the area is often dry by the end of summer. Santa Barbara County Flood Control influences lower Romero Creek as it flows through urbanized areas in the vicinity of the action area. As a result, instream cover such as woody debris, large boulders, and other stream features that create habitat complexity for juvenile steelhead are removed annually from the channel. The west and east banks of the action area are mainly devoid of riparian vegetation due to a combination of channel modification and regular clearing and brushing during flood control maintenance. Overall, the PCEs of critical habitat for juvenile steelhead rearing (*i.e.,* natural cover, shelter, pools, and water quantity/quality) within the action area are limited. Rearing and foraging habitat is limited by the simplified channel. Habitat complexity that provides natural cover (e.g., large woody debris, large substrate, riparian and aquatic vegetation) is lacking. The PCEs for spawning habitat in the action area are degraded based on the poor substrate conditions within the action area. Finally, the PCEs for migration are considered fair through action area because of hydraulic limitations posed by the concrete channelization of the creek.

2.3.2 Status of Steelhead in the Action Area. – Although no estimate of total steelhead abundance in Romero Creek is available, there have been numerous sightings of steelhead within the creek. In August 2009, an 11-inch steelhead was observed in Romero Creek Lagoon approximately 600-feet downstream of the Fernald Point Lane bridge (B. Trautwein, Environmental Defense Center, personal communication). Caltrans and NMFS biologists have observed several juvenile steelhead upstream and downstream of the U.S. Highway 101 bridge, which is immediately upstream of the action area (Caltrans 2013, M. McGoogan, NMFS 2013, pers. obs.). The number of juvenile steelhead present in the action area is unknown to NMFS. Inferences of potential steelhead numbers in Romero Creek may be drawn by examining juvenile steelhead abundance data from San Ysidro Creek, located about 0.75 miles to the west. In 2001, juvenile steelhead abundance was qualitatively assessed by direct observation in lower San Ysidro Creek between the upstream end of the lagoon and the Montecito Water District pipeline (Stoeker 2002). A total of 318 juvenile steelhead were observed within about 3.5-miles of habitat (*i.e.,* pools and glides). Based on similar watershed characteristics, habitat characteristics, and observations of juvenile steelhead in the vicinity of the action area, the abundance of steelhead observed in lower San Ysidro Creek is an informative index of the potential abundance of steelhead in the lower reach of Romero Creek. NMFS estimates that up to 10 juvenile steelhead may be present in the work area to be dewatered. Adult steelhead are not expected to be present within the action area during the time of construction activities (June 1 to October 31).

2.3.3 Factors Affecting Species Environment in the Action Area and Vicinity

Urban Development

Romero Creek within the action area flows through the unincorporated area of Montecito. Urban development of lands often results in an increase of impervious surfaces which can lead to increased runoff of pollutants to surface water. The location of the Fernald Point Lane and U.S. Highway 101 bridges likely results in road surface runoff, which reduces the water quality within the action area to an unknown degree. The effects on water quality from road surface runoff are most likely occurring during the winter when there is runoff during rainstorms. Runoff from road surfaces contains dirt, oils, automotive fluids, and petrochemicals that are harmful to aquatic life, including steelhead (Spence *et. al.* 1996). Increased runoff may not be confined to the wet season, but may extend into the dry season due to the washing of streets, parking lots, vehicles, and other elements of the urban environment. Once in surface water, pollutants of sufficient concentration may impair water quality and alter the characteristics of the channel bed. Long-term urbanization effects have been associated with lower fish species diversity and abundance (Weaver and Garman 1994). Consequently, the proliferation of urban areas within the Romero Creek watershed is of concern.

Channelization and Flood Control Maintenance

Current flood control activities in lower Romero Creek, including the section of stream within the action area, have confined the natural floodplain and limited opportunities for riparian communities to become established (Caltrans 2015). Modification of the stream channel in the lower watershed has affected the amount of available steelhead habitat and the processes that develop and maintain preferred habitat by eliminating floodplain connectivity, limiting instream habitat complexity, and reducing riparian vegetation. Flood control practices in the vicinity of the action area have disrupted stream sinuosity and inhibited the creeks ability to meander. Impacts to aquatic habitat primarily result from annual flood control maintenance which minimizes recruitment of large woody debris, aquatic vegetation, and establishment of a riparian canopy. These impacts result in negative effects to juvenile steelhead growth and survival by reducing new habitat types, limiting recruitment of organic material, and reducing lower food chain production.

Migration Barrier

An impediment to upstream steelhead migration is located downstream of the Fernald Point Lane Bridge. The 650-foot long concrete lined channel downstream of the bridge can limit upstream steelhead passage under certain flow conditions (OEI 2014) and thereby reduce opportunities for steelhead to access additional spawning and rearing areas higher in the watershed. As a result, overall steelhead productivity and rearing capacity has the potential to be reduced in Romero Creek including the action area.

2.4 Effects of the Action

Under the ESA, "effects of the action" means the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline (50 CFR §402.02).

Indirect effects are those that are caused by the proposed action and are later in time, but still are reasonably certain to occur. The expected effects of the action on endangered steelhead and designated critical habitat for this species are described as follows.

2.4.1 Alteration of Aquatic Habitat. – Dewatering the immediate work area is expected to temporarily disrupt steelhead behavior patterns (*i.e.*, rearing, migrating), cause temporary loss of aquatic habitat, as well as loss of invertebrate forage for steelhead within the dewatered work area. About 180-linear feet of Romero Creek will be dewatered for up to five months during the dry season (June 1 through October 31) to allow construction work to proceed in dry conditions.

Dewatering will temporarily preclude the action area from serving as a freshwater rearing site and a freshwater migration corridor for endangered steelhead. The ability of juvenile steelhead to migrate upstream through the action area will be hindered for several months while the diversion is in place. Downstream migration of juvenile steelhead from reaches upstream of the action area is not expected to be significantly affected by the diversion because downstream migrants would be able to access reaches upstream and downstream of the action area through the diversion pipe. Adult steelhead are not expected in the river and, therefore, are not likely to be affected by construction activities.

Aquatic macroinvertebrate forage will be temporarily reduced or eliminated within the action area as a result of isolating the workspace from flowing water. Aquatic insects provide a source of food for instream fish populations, and may represent a substantial portion of food items consumed by juvenile steelhead. Effects to aquatic macroinvertebrates resulting from stream flow diversions and dewatering will be temporary because construction activities will be temporary, and rapid recolonization (about one to two months) of the restored channel area by macroinvertebrates is expected following re-watering (Cushman 1985; Thomas 1985; Harvey 1986). In addition, the effect of macroinvertebrate loss on juvenile steelhead is expected to be negligible because food from upstream sources would be available downstream of the dewatered area via drift. Based on the foregoing, the temporary loss of aquatic macroinvertebrates as a result of dewatering activities is not expected to adversely affect steelhead.

Ultimately, the loss of aquatic habitat associated with dewatering, and the impedance of migration through the action area will be temporary and is not expected to result in lethal effects, as relocated steelhead will be able to use all aquatic habitat downstream of the dewatered portion of the creek, which appears to be of similar quality as the reach subject to dewatering (J.Ogawa, NMFS, 2015, personal observation). Connectivity between the upstream and downstream stream reaches will be restored after the water diversion is removed and river flows are returned to the dewatered area, and no long-term diminishment in the physical capacity of the habitat to serve the intended functional role for steelhead will result from the proposed action. Overall, effects to steelhead and designated critical habitat for this species from water diversion are expected to be non-lethal and temporary.

2.4.2 Capture and Relocation of Steelhead. –Protocols are proposed to reduce the likelihood of harm and mortality to juvenile steelhead within the area to be dewatered. Prior to the actual diversion of surface water, the entire work area will be surveyed for steelhead, which will be captured, then relocated to a pre-determined location with suitable habitat. All proposed water diversion plans will require a qualified fisheries biologist be onsite to monitor installation and removal efforts. Upon completion of the proposed action and construction activities, barriers to

surface flow shall be removed and living space for juvenile will return to the dewatered action area. Ultimately, steelhead relocation efforts are expected to significantly minimize impacts to juvenile steelhead from areas where they would have probably experienced a high rate of injury or mortality.

However, the description of the proposed action does not include Caltrans' criteria for judging suitable habitat and the specific protocol for capturing and relocation steelhead. To ensure the safe capture and timely relocation of steelhead, a minimum of two fisheries biologist should be onsite during relocation activities. Ideally, sites selected for relocating juvenile steelhead should have ample habitat. In addition, Caltrans' proposed action does not identify the number of biologists to be used during dewatering, specific qualifications and expertise of the biologists, and whether the biologists would be empowered to halt construction activities for the benefit of reducing harm or mortality of steelhead. Although pumps may be used during dewatering, Caltrans does not propose measures to preclude steelhead from entering the pump system. Lastly, the proposed action does not include a provision to notify NMFS of the number of steelhead that may be harmed or injured as a result of the construction activities including the dewatering. This effects assessment assumes that Caltrans will implement the necessary precautionary measures to ensure potential effects to juvenile steelhead are minimized during relocation efforts.

Based on steelhead survey results provided by Stoeker (2002), and habitat conditions in the action area, NMFS expects no more than 10 juvenile steelhead will need to be relocated. NMFS expects that 2 juvenile steelhead may be injured or killed as a result of the proposed action. This estimated mortality is based on NMFS' experience and knowledge gained on similar projects in Santa Barbara County during the last several years. Based on NMFS' general familiarity of steelhead abundance in southern California in general, and Santa Barbara County streams in particular, the anticipated number of juvenile steelhead that may be injured or killed as a result of the proposed action is likely to represent a small fraction of the overall watershed-specific populations and the entire SCC DPS of endangered steelhead. Therefore, the effects of the relocation on steelhead are not expected to give rise to population-level effects.

2.4.3 Disturbance to the Streambed. – Although manipulation and disturbance of the streambed can create long-term impediments to steelhead migration or alter juvenile rearing conditions, aspects of the proposed action reduce the likelihood of these conditions. Bridge construction and removal is anticipated to result in only minor changes to the amount of designated critical habitat, as the replacement bridge will be constructed mostly within the existing footprint and alignment. The low-flow channel created underneath the bridge and two weirs upstream of the bridge are expected to improve steelhead passage conditions through the action area, and the pools created by the weirs are expected to improve rearing habitat for juvenile steelhead. Notwithstanding these aspects of the proposed action, the potential exists that the weir pools could partially fill with sediment or the new structures could experience shifts in elevation; some level of aggradation or scour could impact steelhead passage conditions. Overall, while we do not expect the proposed action to cause a reduction in the conservation value of designated critical habitat for threatened steelhead, the proposed action lacks a monitoring component of sufficient duration for validating this expectation.

2.4.4 Alteration of Water Quality. – NMFS does not expect acute or chronic effects on aquatic habitat or steelhead in Romero Creek because increases in sedimentation and turbidity levels resulting from construction activities are expected to be minimal and temporary (*i.e.*, a few hours during dewatering, and a few hours after rewatering to about one day during the first storm). This is because the area where the construction will take place is relatively small. Also, much of the research regarding turbidity and sedimentation effects on fish was carried out in a laboratory setting with turbidity levels significantly higher than those expected to result from project activities. In addition, use of BMPs and sediment control devices (*e.g.*, jute-netting, straw-fiber rolls, silt-fencing, hay bales, and settling basins) would be expected to minimize the effects of sedimentation and turbidity on water quality. The success of these measures has been documented during other similar projects (M. Larson, CDFG, 2012, personal communication), though the efficacy of the proposed measures should be verified in the field at the time of the proposed action. NMFS expects that the disturbance within the stream channel will not result in increased sedimentation within the creek in the long term.

Caltrans proposes precautionary measures to reduce the likelihood that onsite effects would extend downstream; dewatering the work area is expected to greatly advance this objective. However, the operation of heavy equipment is of concern because the proposed action does not appear to include procedures to guard against the minor accidental release of petroleum products into the dewatered channel bed or flowing water, increasing the risk of harm and death for steelhead. Overall, the precautionary measures included in the proposed action are expected to be reasonably effective for ensuring that the value of aquatic habitat for steelhead will not be appreciably reduced in the action area beyond the temporary effects noted here.

2.4.5 Disturbance to Streamside Vegetation. – Riparian vegetation provides numerous functional values to fish that may benefit migrating, rearing, or spawning steelhead. Riparian vegetation enhances stream habitat by providing shade, cover, and shelter for stream fish in the form of overhanging branches, large-woody debris such as rootwads, undercut banks, and scour pools (Wesche *et al.* 1987; Platts 1991; Wang *et al.* 1997; Bilby and Bisson 1998; Naiman *et al.* 2000). Riparian zones enhance water quality by reducing the input of fine sediments and pollutants into streams (Karr and Schlosser 1978; Lowrance *et al.* 1985). Riparian vegetation also provides a source of drift forage for juvenile steelhead (Wesche *et al.* 1987).

The proposed action has the potential to temporarily affect these elements of aquatic habitat within the action area of Romero Creek due to a discrete loss of shade and cover where riparian vegetation is currently present along the active channel. Indirect effects associated with the removal of riparian vegetation can result in increased water temperatures (Mitchell 1999; Opperman and Merenlender 2004) and decreased water quality (Lowrance *et al.* 1985; Welsch 1991) attributable to a loss of shade and cover over the active channel. However, the loss of vegetation as a result of the proposed action is expected to be confined to a small localized area and temporary, because native riparian vegetation will be replanted throughout the disturbed areas to minimize impacts from project construction. This native vegetation will include, coast live oak, western sycamore, red willow, and arroyo willow to minimize impacts from project construction. Based on NMFS' experience observing the response of riparian vegetation to human-made disturbances (J. Ogawa, NMFS 2015, personal observation), the riparian zone is expected to recover from the project one to two years following the completion of construction. Overall, the amount of riparian vegetation affected by the proposed action is not expected to diminish the overall functional value of the

migratory corridor and freshwater rearing sites within the action area. However, Caltrans has not proposed a vegetation monitoring plan to verify the success of the proposed plantings over time.

2.5 Cumulative Effects

"Cumulative effects" are those effects of future state or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation (50 CFR 402.02). Future Federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the ESA.

NMFS is generally familiar with activities occurring in the action area, and at this time is unaware of such actions that would be reasonably certain to occur. Consequently, NMFS believes no cumulative effect, beyond the continuing effects of present land uses as described in the Environmental Baseline (Section 2.3), is likely.

2.6 Integration and Synthesis

The Integration and Synthesis section is the final step in our assessment of the risk posed to species and critical habitat as a result of implementing the proposed action. In this section, we add the effects of the action (Section 2.4) to the environmental baseline (Section 2.3) and the cumulative effects (Section 2.5), taking into account the status of the species and critical habitat (Section 2.2), to formulate the agency's biological opinion as to whether the proposed action is likely to: (1) appreciably reduce the likelihood of both the survival and recovery of a listed species in the wild by reducing its numbers, reproduction, or distribution; or (2) reduce the value of designated or proposed critical habitat for the conservation of the species.

Juvenile steelhead are expected to be present in the action area during the time the proposed action will be implemented and, therefore, subject to direct and indirect effects associated with aspects of the proposed action. The main risk to individual steelhead involves effects due to capture and relocation. The adverse effects include potential injury or mortality during the process of capture and relocation during dewatering activities, but precautions are in place to minimize, if not eliminate, the risk of injury and mortality, and adjacent instream habitats are expected to suitably harbor the relocated steelhead. Because the habitat alteration due to the dewatering is short lived and localized, the proposed action is not expected to result in adverse modification to designated critical habitat.

Based on the steelhead surveys and anecdotal observations described in the environmental baseline section (2.3.2), NMFS concludes non-lethal take of no more than 10 juvenile steelhead that may be captured and relocated as a result of dewatering within the action area, with a potential lethal take of no more than 2 out of the 10, thus the risk of mortality is low. Any juvenile steelhead present in the action area likely make up a small proportion of the SCC DPS of steelhead.

Overall, the impacts to critical habitat are expected to be temporary and not translate into a reduction in the functional value of the habitat in the long term. The replanted areas are expected to create a functional riparian zone that provides cover and shelter for steelhead within the action area of Romero Creek. The impacts from disturbing the streambed are not expected to adversely affect

the quality or quantity of aquatic habitat; rather, the proposed action is expected to improve steelhead passage conditions within the localized area. Improved rearing habitat and steelhead passage conditions within the action area of Romero Creek are expected to favor the viability of the endangered SCC DPS of steelhead and not reduce the value of critical habitat for the species.

2.7 Conclusion

After reviewing and analyzing the current status of the listed species and critical habitat, the environmental baseline within the action area, the effects of the proposed action, any effects of interrelated and interdependent activities, and cumulative effects, it is NMFS' biological opinion that the proposed action is not likely to jeopardize the continued existence of the endangered SCC DPS of steelhead or destroy or adversely modify its designated critical habitat.

2.8 Incidental Take Statement

Section 9 of the ESA and Federal regulations pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively, without a special exemption. "Take" is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. "Harm" is further defined by regulation to include significant habitat modification or degradation that actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns, including breeding, spawning, rearing, migrating, feeding, or sheltering (50 CFR 222.102). "Incidental take" is defined by regulation as takings that result from, but are not the purpose of, carrying out an otherwise lawful activity conducted by the Federal agency or applicant (50 CFR 402.02). Section 7(b)(4) and Section 7(o)(2) provide that a taking that is incidental to an otherwise lawful agency action is not considered to be prohibited taking under the ESA if that action is performed in compliance with the terms and conditions of this incidental take statement.

2.8.1 Amount or Extent of Take

Based on steelhead surveys in a similar watershed and observations in the vicinity of the action area, and the depth, size, and amount of instream cover within the action area, the biological opinion anticipates the following amount of incidental take: All steelhead in the action area, expected to be no more than 10 juveniles that are captured or harassed during project activities. No more than 2 juvenile steelhead are expected to be injured or killed as a result of dewatering the action area and relocating the species. No other incidental take is anticipated as a result of the proposed action. The accompanying biological opinion does not anticipate any form of take that is not incidental to the proposed action.

2.8.2 Effect of the Take

In the biological opinion, NMFS determined that the amount or extent of anticipated take, coupled with other effects of the proposed action, is not likely to result in jeopardy to the species.

2.8.3 Reasonable and Prudent Measures

"Reasonable and prudent measures" are nondiscretionary measures that are necessary or appropriate to minimize the impact of the amount or extent of incidental take (50 CFR 402.02). NMFS believes

following reasonable and prudent measures are necessary and appropriate to minimize and monitor incidental take of steelhead. The results of the effect analysis provide the basis for the following reasonable and prudent measures:

1. Avoid and minimize harm and mortality of steelhead during the relocation activities.

2. Avoid and minimize impacts to steelhead and designated critical habitat from construction activities.

3. Minimize the amount and extent of temporary and permanent changes in the quality and quantity of instream and riparian habitat for steelhead.

2.8.4 Terms and Conditions

The terms and conditions described below are non-discretionary, and Caltrans or any applicant must comply with the terms and conditions, which implement the reasonable and prudent measures (50 CFR §402.14). Caltrans or any applicant has a continuing duty to monitor the impacts of incidental take and must report the progress of the action and its impact on the species as specified in this incidental take statement (50 CFR §402.14). If the entity to whom a term and condition is directed does not comply with the following terms and conditions, protective coverage for the proposed action may lapse.

1. The following terms and conditions implement reasonable and prudent measure 1:

   A. Caltrans shall retain at least two biologists with expertise in the areas of resident or anadromous salmonid biology and ecology, fish/habitat relationships, biological monitoring, and handling, collecting, and retaining salmonid species. The names and credentials of the biologists should be sent to NMFS (Jay Ogawa, NMFS, 501 West Ocean Boulevard., Suite 4200, Long Beach, California 90802-4213) for review and potential approval 15 days prior to the start of dewatering activities.

   B. Caltrans' biologists shall identify and evaluate the suitability of downstream and upstream steelhead relocation habitat(s) prior to undertaking the dewatering activities that are required to isolate the work area from flowing water. The biologists shall evaluate potential relocation sites based on attributes such as adequate water quality (a minimum dissolved oxygen level of 5 mg/L and suitable water temperature), cover (instream and over-hanging vegetation or woody debris), 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 of steelhead already occupying the relocation habitat(s), and the size of the receiving habitat(s).

   C. Caltrans' biologists shall use one or more of the following methods to capture steelhead: seine, dip net, throw net, minnow trap, or by hand. Electrofishing is prohibited.

   D. Caltrans' biologists shall provide a written steelhead-relocation report to NMFS within 30 working days following completion of the proposed action. 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 West Ocean Boulevard., Suite 4200, Long Beach, California 90802-4213.

E. Caltrans' biologists 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 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 West Ocean Boulevard., 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.

2. The following terms and conditions implements reasonable and prudent measure 2:

A. Caltrans' biologists shall monitor all construction activities, instream habitat, and performance of sediment-control devices for the purpose of identifying and reconciling any condition that could adversely affect steelhead or their habitat. The biologists shall be empowered to halt work activity and to recommend measures for avoiding adverse effects to steelhead and their habitat. The biological monitor shall immediately contact NMFS (Jay Ogawa, 562-980-4061) upon making a determination that unforeseen effects have occurred, which could have an adverse effect on steelhead or aquatic habitat not previously considered.

B. Pump intakes shall be screened with wire mesh ≤ 5 millimeters to preclude juvenile steelhead from entering the pump system during dewatering.

C. Erosion control or sediment-detention devices (*e.g.,* settling tank) shall be installed prior to the time of construction activities and incorporated into Caltrans' maintenance activities. These devices shall be in place during construction activities for the purpose of minimizing sediment and sediment-water slurry input to flowing water. Sediment collected in the devices shall be disposed off-site and not allowed to enter the creek channel.

D. Heavy equipment shall be positioned away from the creek channel at the end of each workday. When feasible the use of heavy equipment shall be performed from upland areas or the roadway. Each day prior to being deployed into the creek channel, all heavy equipment shall be checked for leaks of oil, gas, hydraulic fluid and any other pollutant which could impact water quality and instream habitat. Such leaks shall be controlled for the purpose of avoiding introducing contaminates to surface water or the creek channel.

3. The following terms and conditions implements reasonable and prudent measure 3:

   A. Caltrans or designee 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 post-planting 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.

   B. Caltrans or designee 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 West Ocean Boulevard., Suite 4200, Long Beach, California 90802-4213.

   C. Caltrans and/or designee shall collaborate with NMFS to develop and implement a monitoring and maintenance plan that is appropriate for the assessment of post-project hydraulic and geomorphic conditions resulting from the steelhead-passage improvement project for the five years following implementation of the project. This collaboration is necessary to ensure the weir structures meet passage requirements of steelhead immediately after construction as well as after significant high-flow events, which validate the long-term stability of the weirs. Monitoring results would support any potential maintenance efforts required from Caltrans or designee. At a minimum, the monitoring and maintenance plan shall address such items as presented in No. 5B below. Prior to implementing the plan, Caltrans shall submit the plan to Jay Ogawa, NMFS, 501 West Ocean Boulevard., Suite 4200, Long Beach, California 90802 for review and potential approval. Caltrans must receive NMFS written agreement for the plan before the proposed action is implemented.

   D. Following construction of the proposed action, Caltrans or designee shall obtain a topographical survey of the channel thalweg, and then submit the results of the survey to NMFS within 30 calendar days of completion of the survey (Jay Ogawa, NMFS, 501 West Ocean Boulevard., Suite 4200, Long Beach, California, 90802). The survey shall start slightly downstream of the bridge and end slightly upstream of the capped pipeline. The topographic survey shall possess sufficient detail to quantify pool depths, hydraulic drops, headcuts, key rock framework and cross sections, and any other information NMFS believes is necessary to further an understanding of the implications of the project for endangered steelhead and critical habitat for this species. Caltrans or designee shall periodically monitor the project site (particularly after major storm events) at a frequency agreeable to NMFS for the purpose of ensuring NMFS' steelhead-passage guidelines are attained over time and potential maintenance of the project is addressed. Items to be monitored include:

      i. The formation and maintenance of a low-flow fish-passage channel throughout the action area.
      ii. Steelhead-passage conditions through the two weirs and underneath the bridge (*e.g.*, depth, velocity, flow patterns, formation of resting pools, *etc.*).

iii. The amount and extent of erosion and deposition within or immediately upstream or downstream of the action area.
iv. The stability of the weirs and effectiveness for creating and maintaining a low-flow fish passage channel and resting pools.
v. The condition of the project site over time through the establishment of photo-reference sites.

2.9 Conservation Recommendations

Section 7(a)(1) of the ESA directs Federal agencies to use their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of the threatened and endangered species. Specifically, conservation recommendations are suggestions regarding discretionary measures to minimize or avoid adverse effects of a proposed action on listed species or critical habitat or regarding the development of information (50 CFR §402.02).

NMFS has no conservation recommendation related to the proposed action considered in this biological opinion.

2.10 Reinitiation of Consultation

This concludes formal consultation for Caltrans. As 50 CFR §402.16 states, re-initiation of formal consultation is required where discretionary Federal agency involvement or control over the action has been retained or is authorized by law and if: (1) the amount or extent of incidental taking specified in the incidental take statement is exceeded, (2) new information reveals effects of the agency action that may affect listed species or critical habitat in a manner or to an extent not considered in this opinion, (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in this opinion, or (4) a new species is listed or critical habitat designated that may be affected by the action.

5. DATA QUALITY ACT DOCUMENTATION AND PRE-DISSEMINATION REVIEW

The Data Quality Act (DQA) specifies three components contributing to the quality of a document. They are utility, integrity, and objectivity. This section of the opinion addresses these DQA components, documents compliance with the DQA, and certifies that this opinion has undergone pre-dissemination review.

5.1 Utility

Utility principally refers to ensuring that the information contained in this consultation is helpful, serviceable, and beneficial to the intended users. The intended user of this opinion is Caltrans. Other interested users could include the California Department of Fish and Wildlife and U.S. Fish and Wildlife Service. Individual copies of this opinion were provided to Caltrans. This opinion will be posted on the Public Consultation Tracking System web site (https://pcts.nmfs.noaa.gov/pcts-web/homepage.pcts). The format and naming adheres to conventional standards for style.

5.2 Integrity

This consultation was completed on a computer system managed by NMFS in accordance with relevant information technology security policies and standards set out in Appendix III, 'Security of Automated Information Resources,' Office of Management and Budget Circular A-130; the Computer Security Act; and the Government Information Security Reform Act.

5.3 Objectivity

Information Product Category: Natural Resource Plan

Standards: This consultation and supporting documents are clear, concise, complete, and unbiased; and were developed using commonly accepted scientific research methods. They adhere to published standards including the NMFS ESA Consultation Handbook, ESA regulations, 50 CFR 402.01 et seq., and the MSA implementing regulations regarding EFH, 50 CFR 600.

Best Available Information: This consultation and supporting documents use the best available information, as referenced in the References section. The analyses in this opinion contain more background on information sources and quality.

Referencing: All supporting materials, information, data and analyses are properly referenced, consistent with standard scientific referencing style.

Review Process: This consultation was drafted by NMFS staff with training in ESA, and reviewed in accordance with West Coast Region ESA quality control and assurance processes.

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ATTACHMENT D

Memorandum of Notification

Date: April 25, 2016

To: **File**

From: Morgan M. Jones
Engineering Environmental Planner, Senior.
(805) 568-3059
Santa Barbara County Public Works
Department

Subject: **Notification of Responsible Agency Communication telephone conversations outside of the public comment period.**

CC: Project file #86230

This memo serves as official notification of responsible agency comments related to Fernald Point Lane Bridge (51C-0137) replacement project; 15NGD-00000-00005.

I had two phone calls from Paula Richter at Regional Water Quality Control Board (RWQCB), one Thursday April 21 and one Monday April 25. Ms. Richter asked why the County was putting a concrete bottom under the proposed bridge in the creek bottom and how this conclusion was reached.

These conversations occurred after the public comment period had closed for the environmental document. Ms. Richter informed me there would be no official comment from the RWQCB but wanted to know why the County was installing concrete in the bottom of the creek under the bridge when a natural bottom would be the regulatory agency preferred option. The conversations detailed the presence of two existing sewer lines in the creek channel; one sewer line under the bridge that cannot be relocated to a new location (without the use of a pump station) due to the need to use gravity to move effluent. The site is constrained on each side by multi-million dollar properties; there is no physical location for a sewage lift station. The second sewer line upstream also cannot be lowered; it has a concrete cap over it that is an impediment to fish passage. Raising the creek bed to remove the impediment would create a situation where the surface elevation of the water flow in the creek would increase the flood hazard risk in an area that it cannot occur. In addition, the downstream stream channel is on private property and made of concrete. The interface of the bridge and creek bed at this location causes hydraulic flow problems relating to the requirements of fish passage design. The constraints of the project site dictated the design elements of the bridge and in the channel.